

## Part 2 The e-business strategy framework

obvious how the market would develop. Instead of basing the new digital products on home storage and home printing capabilities, which later turned out to be the successful business model, Kodak invested hastily in 10,000 digital kiosks in its partner stores and committed itself to price points and product specifications that were difficult to change later on. In contrast, industry outsiders such as Hewlett Packard, Canon or Sony invested in the home storage capabilities, thereby driving the development of digital photography. (For more detail on how Kodak failed to take the right train in the digital technology innovation, see the FT article: 'Snapshot of a humbled giant'.)

# Snapshot of a humbled giant

When, one sunny weekend in July 2007, Eastman Kodak demolished Buildings 9 and 23 – disused facilities in “Kodak Park” near the US group's headquarters in Rochester, upstate New York – the local newspaper, the *Democrat & Chronicle*, covered the story with a mixture of excitement (“Kaboom!” ran one headline) and nostalgia. “You were only steel, concrete and bricks, but you housed a significant part of Eastman Kodak's intellectual property, its engineers, its skilled trades people, Kodak's manufacturing intellect,” wrote Kenneth Budinski, a metallurgist who had worked in Building 23 for 38 years, in a letter to the paper.

It was an illustration of the change ripping through the traditional photography market the company had dominated for more than a century. As teary-eyed retired employees talked of their sadness at the end of an era, they took pictures and video of the buildings' demolition – with their digital cameras.

Antonio Pérez, Kodak's chief executive, likes to point out the irony of that scene to those who start lamenting the group's missed opportunities, or even accuse him of accelerating its decline. He has heard a lot of laments and accusations. In his quest to give Kodak a future in more promising markets, he has moved it away from retail consumers, exploited its digital-imaging patents and developed its commercial printing business. But in the first phase of restructuring up to 2007, he also had to axe 13 Kodak factories, 47,000 jobs and about 130 processing labs. In January, overburdened with the legacy costs of its industrial past, Kodak filed for Chapter 11 bankruptcy protection. The reaction of US strategy expert Gary Hamel, who in 1992 praised Kodak for creating “stored energy” for the future, is typical. Asked recently how he explained Kodak's decline, he said: “It was denial. It was just denial.”

But current and former Kodak executives and directors interviewed for this article claim such a simplistic interpretation of the group's recent trajectory – that its managers simply did not see digital technology coming and, when they did, turned a blind eye to its importance – is wrong. People in the group predicted the transition of its historical imaging business from analogue to digital, described by one former executive as an “oncoming freight train”, and started preparing for it as early as the mid-1970s.

The bigger question is why Kodak was unable, or unwilling, to jump on to the digital train – or at least dodge out of its path.

## A history of innovation

George Eastman, Kodak's founder and one of the greatest entrepreneurs and inventors in industrial history, understood the value of intellectual property. He developed the emulsion and coating apparatus that underpinned the company's photographic dominance and did everything he could to protect his inventions with patents.

But in the 1890s, having come up with the affordable combination of roll-film and camera that democratised photography, he realised – as business historian Richard Tedlow has written – that to maintain leadership, he needed to “turn his company into a moving target”.

Eastman wrote that he wanted his business to be able to create “a rapid succession of changes and improvements. . . . If we can get out improved goods every year nobody will be able to follow us and compete with us. The only way to compete with us will be to get out original goods the same as we do.”

Kodak innovated successfully on the back of Eastman's original scientific breakthroughs for



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more than 100 years. But as the potential disruption of electronic and digital technologies became clear in the 1980s and 1990s, Kodak's board, top management and investors maintained their focus on the traditional photography business. That was understandable. Kodak had a technological lead, backed by those patents. The competition, from rivals such as Japan's Fujifilm, the German-Belgian group Agfa-Gevaert and Britain's Ilford Photo, was eating into its dominant position. But as Kodak's official regulatory filings continued to emphasise through the 1990s, the group's products and services "competed with similar products and services of others". Crucially, the gross margins on the traditional photography process – from roll-film sales to photographic paper – remained, in the words of one former executive, "luxurious", estimated at 75 per cent or more, and apparently reliable. It was only as late as 1999 that Kodak's roll-film sales peaked.

### **They saw what was coming . . .**

The contrast with the market and technology for digital photography, particularly in the consumer area, was stark. Margins there were lower, competitors more numerous, and the pace of change frenetic and harder to forecast. Frank Sklarsky, who joined Kodak from outside the industry in 2006 and served as chief financial officer under Mr Pérez until moving to Tyco International in 2010, says: "Kodak's core competence was in chemistry-based, continuous flow manufacturing; the digital business is very different: product transitions are much quicker."

According to former employees, however, Kodak had not been shirking its duty to look into the future. In 1975, for instance, Kodak employee Steven Sasson invented a crude, "toaster-sized" digital camera – producing 0.01 megapixel images. In 1979, the company put together a graphic timeline laying out roughly when Kodak's customers would make the transition to digital imaging, starting with government clients, moving through graphic businesses and ending, in about 2010, with retail consumers. In 1991, the group drew up a digital strategy which led it three years later to develop a digital camera – though it kept its brand off the device – with Apple, the company whose mould-breaking products would help accelerate the analogue decline a decade later.

Meanwhile, Kodak also launched "hybrid" products such as the photo CD and the standalone Picture Maker retail photo-printing kiosk. Even the potential threat from camera-enabled mobile phones was "war-gamed" by Kodak executives in the early 2000s.

But while these efforts yielded many of the patents Mr Pérez believes could yet be Kodak's salvation, they sucked in investment for little return. Until the early 2000s, Kodak's leaders judged that digital initiatives would probably continue to complement the hugely cash-generative roll-film business rather than disrupt the whole image-making process.

Bob LaPerle, who led teams assessing the impact of digital technologies in the early 1990s, says the board missed an opportunity when it replaced chief executive Colby Chandler in 1990 with Kay Whitmore, a relatively conservative 33-year veteran of the group. "From the time [the digital strategy] was published, we really had a hard time getting it approved by Kay Whitmore," he says.

The blind spot was not his downfall – indeed, another person close to the company at the time recalls discussing the electronic future with the board under Whitmore. Kodak had suffered a series of restructuring charges, its early diversification into healthcare had faltered, and even the core photographic business appeared to be stagnating. So when the directors decided to oust Whitmore (who died in 2004), they belatedly took the opportunity to appoint a technology expert – George Fisher, who had earned plaudits as chief executive of Motorola, then riding high as one of the most innovative US electronics companies.

### **. . . but not the pace of change**

Rick Braddock, a Kodak director since 1987, whose career spans Wall Street, online retailing and private equity, recalls that "the mindset of the company was ready for the challenge: it was 'Batten down the hatches'. We sold the healthcare business and we started the process of developing a digital response. But the way the market shifted was dramatically faster than we had anticipated or than I'd ever seen".

Willy Shih was president of Kodak's consumer digital unit from 1997 to 2005 and is now a management professor at Harvard Business School. He says that when he joined the company, "people like George Fisher [then chief executive] and Dan Carp [who succeeded Mr Fisher in 1999] absolutely knew that this was coming. They completely had their heads around a lot of the issues that went with that, including the lower gross margin, the different competitive environment, the very high barriers to entry in film, whereas there are no barriers to entry in digital. These guys weren't stupid; they understood that, they understood it very well."



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But the image the company presented in its regular filings to the financial regulator and shareholders from the early 1990s changed only gradually. Apple's QuickTake 100 digital camera – the one developed with Kodak – was no secret, but the first time the company mentioned explicitly in its official filings that it had “developed [consumer] digital camera systems which do not use silver halide film technology” was in the 1997 report – three years after the QuickTake. The company only embarked on a radical rewriting of what it did in its 2000 annual report, when it put itself at the centre of “infoimaging” – a \$225bn industry that included digital hardware, software and online services.

Defenders say the official coyness up to this point reflected two realities of the market in the 1990s. First, Kodak did not want to reveal its hand to competitors. Second, it did not want to bet too publicly against its traditional consumer film business, until it could point to stronger profits from its longer-term investment in digital.

### Burdened by its legacy

Mr Fisher and his successors declined to comment for this series. But one former executive who joined Kodak in the 1990s claims Mr Fisher believed digital products would merely substitute for their analogue counterparts, rather than disrupt the whole image-making process.

Prof Shih points out, however, that Mr Fisher, Mr Carp and their senior executives believed they had a duty to “maximise how much you could earn out of the traditional business”. In addition – a point easily forgotten in a world of eight-megapixel camera-phones and 100Mb download speeds – Kodak could not exploit the full potential for consumer digital photography until high-speed internet access was rolled out more widely round the turn of the century.

Wall Street applied another brake to Kodak's digital evolution. Mary Benner, associate professor at the University of Minnesota's Carlson School of Management, has studied equity analysts' reactions to the strategies of companies facing radical technological change in the newspaper, telecoms and photographic sectors. She concluded they were “more attentive and positive” towards those companies that tried to extend and preserve the old technology. One analyst in 1994 referred to Kodak “squandering” investors' money on “digital nonsense”.

Even five years later, when they were more positive about digital strategies, analysts continued to warn about the potential cannibalisation of the film business. “[Kodak] was stuck on film and Wall Street was doing nothing to discourage it,” says Prof Benner.

Far from being the “moving target” George Eastman had hoped to create, Kodak was in danger of becoming a sitting duck.



Source: Hill, A. (2012) Snapshot of a humbled giant, *Financial Times*, 3 April.  
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A similar development can be observed in the newspaper industry. Initially, most newspapers underestimated the potential of the Internet. In the mid-1990s, only a small number of Internet users were getting their news from online sources. At that time, most readers of physical newspapers did not even have access to the Internet.

Thus, managers who tried to secure funding for Internet initiatives in the early 1990s, before the threat of the Internet to the existing business model became obvious, had a hard time convincing management of the potential of the Internet. As a result, newspaper companies did not enthusiastically embrace the opportunities of online publishing. The report of an online publisher of an established newspaper company sums up this sentiment:

I had trumpeted the new business to everyone and asked for their cooperation with the online group. One day, I asked a staff member of the online business how things were going and if the newspaper staff was helping out. He told me that he had recently asked for some help and the response was, ‘Get the hell out of here; I’ve got a real newspaper to get out!’<sup>10</sup>

Only when it became obvious in the late 1990s that Internet portals such as Yahoo! or job search sites such as Monster.com were threatening the traditional profit pools of classified advertisements and job posts did the newspaper industry wake up to the potential impact of