



ECCH Collection

Kodak:

Betting on Digital Imaging

*This case was written by **Shahida K** and **Senthil Ganesan**, under the direction of **Gopal Saxena**, ICFAI Business School Case Development Centre. It is intended to be used as the basis for class discussion rather than to illustrate either effective or ineffective handling of a management situation.*

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Kodak: Betting on Digital Imaging

We have a goal of becoming a \$20 billion company by 2010, reflecting a healthy mix of businesses that are commercial and consumer, traditional and digital, new and established—and all of them taking advantage of the opportunities available in the \$385 billion infoimaging market.

Daniel Carp, Chairman and CEO, Eastman Kodak¹

Introduction

In September 2003, Daniel Carp (Carp), Chairman and CEO of Kodak, unveiled a strategic plan to invest \$3 billion in the company's consumer, health and commercial digital businesses. This plan seemed essential as many industry experts had predicted an annual drop of 10-12% in Kodak's traditional film sales over the next three years². Carp's plan was to cut dividend by 72% from \$1.80 (in 2002) to \$0.50 a share and invest the \$3 billion thus saved into digital businesses. He predicted that the plan would increase the company's revenues from \$13 billion in 2003 to about \$16 billion in 2006.

To implement his plan, Carp, along with Antonio Perez,³ realigned Kodak's divisions into five business groups. All the consumer businesses were put under the newly formed "Digital & Film Imaging Systems" (D&FIS) group. The new group consisted of seven strategic product and service groups (SPGs):

- The Home Printing group that was responsible for the development of home printing products;
- Consumer Output group that handled retail services, camera phone printing, wholesale printing, the Picture Center Online services and Picture Maker kiosks;
- Professional Output division responsible for the Pro Studio solutions, Pro Lab solutions, the paper and chemical product platform, Event Imaging Solutions, professional digital cameras, etc;
- The Film Capture group that handled professional and consumer films, single-use cameras and film cameras;
- The Digital Capture group that was responsible for consumer digital still cameras, memory and all digital camera accessories;
- Entertainment Imaging group responsible for the motion picture film and digital services for the entertainment industry; and
- The Digital Imaging group that focused on online, mobile imaging and software services.

The other business groups were Commercial Printing, Health, Commercial Imaging, and Display (Exhibit I).

Many viewed Carp's plan with skepticism as the company had undergone repeated restructurings since the 1980s, and yet sales had been on a decline from \$19 billion in 1991 to \$13 billion in 2003 (Annexure I and II). Carp's announcement prompted a 14% drop in the company's stock price⁴ (Annexure III) signaling growing investor doubt

¹ www.kodak.com

² Kodak controlled two-thirds of the film market in the US. Worldwide Kodak's share of the film market was 40%.

³ Antonio Perez, the President and COO of Kodak, served as President and CEO of HP's inkjet imaging business. During the five years in which Perez led the business, the installed base of inkjet printers grew from 17 million to 100 million worldwide.

⁴ Kodak's share price had dwindled from a high of \$94 in early 1997 to \$27 on the eve of this announcement. As of April 2004, Kodak with a market cap of \$7 billion has been delisted from the DJIA.

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about the prospects of the company. Industry analysts too echoed the market sentiments. According to Harbir Singh, a professor of management at the Wharton School of the University of Pennsylvania :

"Kodak must shift from the chemicals industry that has been its mainstay for 123 years into consumer electronics, where profit margins are thinner and competitors such as Hewlett- Packard are entrenched."⁵

One former HP executive commented :

"They know more about the science of imaging, photographs and what people want to do with them than any company in the world. They have great technical capabilities, but they've lacked focus and application."⁵

Exhibit I
Kodak Business Segments

Segment	Business
Digital and Film Imaging Systems Group	Consumer Film products
	Print Film
	Professional Film products
	Traditional and inkjet photo paper
	Chemicals
	Traditional and digital cameras
	Photo processing equipment and services
	Digitization services including online services
Health Imaging Group	Traditional analog products
	Medical Films
	Chemicals
	Processing equipment
	Digital medical imaging products
	Digital print films
	Laser imagers
	Computed and digital radiography systems
	Picture archiving and communications system
Commercial Imaging Group	Radiology Information systems
	Document scanners
	Micrographics
	Microfilm
Commercial Printing Group	Optics and optical systems
	Wide format inkjet printers
	Graphic arts material
	Digital production presses
	Digital production printing systems
Display	Organic light emitting diode (OLED)
	Displays, imaging sensor solutions

Source: www.kodak.com

⁵ Robinson, Peter, "Kodak like IBM and Polaroid before it, faces battle to adapt," www.dnnews.com, September 29th 2003.

⁵ Symonds, William C., "The Kodak revolt is short sighted," www.businessweek.com, November 3rd 2003.

Exhibit: II
Kodak: Segment Wise Revenue Split-Up (in \$ Million)

Segment	2003	2002	2001
Photography			
Inside the US	\$3,812	\$4,034	\$4,482
Outside the US	5,420	4,968	4,921
Total Photography	9,232	9,002	9,403
Health Imaging			
Inside the US	1,061	1,088	1,089
Outside the US	1,370	1,186	1,173
Total Health Imaging	2,431	2,274	2,262
Commercial Imaging			
Inside the US	912	818	820
Outside the US	647	638	634
Total Commercial Imaging	1,559	1,456	1,454
All Other			
Inside the US	44	53	68
Outside the US	51	50	24
Total All Other	95	103	110
Total Net Sales	13,317	12,835	13,229

Source: Kodak 2003 10K Report.

Background Note

Eastman Kodak Company (Kodak) was founded in 1880 by George Eastman when he invented and patented a dry-plate formula⁶ and a machine for preparing large number of plates. In 1888, the company introduced its first snapshot camera with the slogan "You press the button, we do the rest." And, in 1900, The Brownie camera was introduced at a price of \$1. In the decades to follow, Kodak continued introducing new products and, by 1962, had reached sales of \$1 billion. By the mid-1970s, Kodak controlled 90% of the film market and 85% of the camera sales in the US, and by the early 1980s had sales of \$10 billion and income of \$923 million. Soon thereafter, growth began to decelerate due to increased competition from Fuji Photo Film Company (Japan) and the advent of new filmless camera technology. In 1981, Sony Corporation introduced Mavica, a filmless camera that recorded images on a computer chip. The Mavica was not initially successful but slowly increased the presence of filmless technologies.

To counter the new competition, Kodak, in 1982, introduced a disk-film camera, a miniaturized camera that used electronics to make operations automatic. However, the camera was unsuccessful as the prints were grainy and Kodak eventually stopped production in 1988. During the same period, the company, under Chairman and CEO Colby Chandler (Chandler) and President Kay Whitmore (Whitmore, Chairman and CEO from 1990 to 1993), made several non-core acquisitions like Atex (a supplier of word-processing systems to newspaper publishers), Sterling Drug (1988), etc. Not only were these businesses unprofitable over time, but also increased the debt levels of the company (After the Sterling acquisition, the long term debt level of Kodak stood at \$7 billion).

While Kodak focused away from its core business, rival Fuji Film made inroads into the US market and quickly gained a 12% market share. In 1987, Fuji introduced the first disposable camera, thereby making its presence stronger in the market. Competition also intensified from rivals like Sony, Nikon, Canon, etc. that introduced digital cameras. Another challenge Kodak faced was the growing demand for inexpensive store brands. By 1992, store brands accounted for 15% of the US market, reducing Kodak's share to about 70%. Kodak's revenues now stood at \$20 billion and income at about \$994 million.

⁶ Kodak would report revenues based on the new structure from 2004 onwards.

⁷ Before this invention, the wet plates were used in photography. These had to be coated with chemicals, exposed at once and developed while still wet. Dry plates, on the other hand, could be exposed and developed at the photographer's convenience.

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To improve its financial situation, Kodak laid off thousands of workers. This plan, however, did little to cut costs as many workers were given generous severance packages. Many senior and experienced workers opted for these buy-outs, thus leaving the company with relatively inexperienced personnel. Thus, waste levels, inefficiencies and customer complaints increased dramatically. Kodak initiated another round of restructuring in 1993; this time it reduced its management levels from seven to five, eliminated 2000 jobs in administration and R&D and trimmed its \$1.6 billion R&D budget by \$100 million. Kodak's debt had by now increased to \$9.5 billion against shareholder's equity of \$4.5 billion. Dissatisfied with Whitmore's performance, the board fired him in 1993 and appointed George Fisher (Fisher) as the Chairman and CEO.

Fisher's strategy was simple: to sell both film and digital imaging products. He stressed the need for focusing on five links of the imaging chain: image capture, processing, storage, output and delivery of images on a worldwide basis. He also sold off all unrelated businesses acquired under Chandler and Whitmore, thereby reducing the company's long-term debt from \$7.8 billion to \$1.6 billion.

Fisher increased focus on digital products and soon formed the Digital and Applied Imaging division to synergize all the scattered digital imaging projects of the company. He also announced alliances with IBM, Microsoft, Sprint, Kinko and Hewlett Packard (HP)⁸ to further develop the digital imaging portfolio. Fisher reasoned:

"There are many dimensions to imaging—capturing, processing, manipulation, output and communications. In all aspects of these, Kodak has some capability. But consumers want all of them. So we more or less filled in the blanks with these deals, because we didn't have time to do it on our own."⁹

For the traditional film business, Kodak introduced its Funtime film thus entering the low-end film market after years of internal debate. To expand the market of disposable cameras, the fastest growing part of the film business, the company introduced telephoto, panoramic, portrait and underwater versions. Fisher also targeted emerging markets like India and China to increase revenues in the film business and signed a partnership deal with a distributor in China (China, then, was a Fuji stronghold). By the end of 1994, about 45% of Kodak's revenue and 75% of profit came from film business. The digital business accounted for about \$500 million in revenues and no profits.

Continuing with its digital strategy, Kodak, in 1995, introduced its first consumer digital camera (DC-40), priced at \$1,000. In 1996, Kodak introduced its Advantix camera that was based on "advanced photo system,"¹⁰ developed in partnership with Fuji, Minolta, Nikon, and Canon. With \$500 million invested in the product by 1997, Kodak did not make enough cameras to supply dealers and had introduced the line before there were enough processors to develop the pictures. Also, with the large number of digital cameras available in the market, most of the early adopters turned to the digital cameras instead. Kodak's next digital camera, the DC-25, also failed to make an impact. So, after investing millions of dollars on digital imaging, Kodak kept losing money. To make matters worse, Kodak faced increased pressure from Fuji Film that resorted to aggressive price cutting (with film prices about 25% less than that of Kodak). As a result, in 1997, Kodak generated earnings of \$5 million on revenue \$14.7 billion. Immediately, Fisher announced elimination of 20,000 jobs, including 200 executives, in order to cut \$1 billion in costs by 1999.

Till 1997, Fisher had concentrated on two markets for digital photo processing – the home digital darkroom¹¹ and the kiosk-based digital imaging¹² – but now he decided to concentrate only on the kiosks. Kodak had already installed 13,000 kiosks by then and the initiative was to install more while its competitors chose the other alternative.

To focus Kodak on digital product development efforts, Carp (the then President of the company) formed a new operating team in 1998 to study problems in the capture, storage, and application of digital images. To focus the company's efforts on "digitization,"¹³ Kodak also acquired a 51% share in PictureVision (an online photofinishing firm) and integrated PictureVision's PhotoNet Internet-based imaging service with the products and services of the Kodak

⁸ With Microsoft, Kodak developed software that would help computer users to touch up, crop, and otherwise manipulate photos—a digital darkroom. Except for the one with Microsoft, all other alliances fell apart.

⁹ Koprowski, Gene, "George Fisher," *www.forbes.com*, June 5th 1995.

¹⁰ The camera stored pictures on conventional film rather than compact disks and allowed picture takers to switch between three different size photographs on the same roll; it also imprinted digital information about the kind of shot, lighting conditions and the date onto the film, so that photo-finishing machines could process the film correctly.

¹¹ Home digital darkroom enabled the consumer to make prints from digital photos at home. This was made possible by uploading digital photos to the PC, manipulating them with software and printing them through an inkjet printer on a photo paper.

¹² With kiosk-based digital imaging, customers could take their digital media, memory stick or card and insert it in the kiosk, manipulate the required photos and take a print-out through the installed printers.

¹³ Pictures could be taken by digital cameras—or by standard cameras on traditional film and then scanned into computers or onto CDs—for manipulation, storage, retrieval, and printing.

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Picture Network (KPN)¹⁴. Kodak's efforts paid off and by 1998, Kodak's share of the digital camera market stood at 20% with product prices ranging from below \$1,000 to \$15,000. Kodak ended 1998 with earnings of \$1.4 billion on sales of \$13 billion, but with the digital business still making losses.

The year 1999 was a turning point for the digital imaging industry as for the first time the 2 megapixel cameras were introduced¹⁵. Two million digital cameras were sold in 1999 and industry groups estimated that film would grow by only 1% till 2003 and thereafter decline. Kodak, on the other hand forecasted that film would grow by 5% annually and a major part of its revenue would come from it. Kodak ended 1999 with earnings of \$1.4 billion on sales of \$14 billion.

In January 2000, more than a year before his contract was to expire, Fisher stepped down and was replaced by Carp. Carp began focusing Kodak on the digital trinity of image capture, services and image output.

Kodak under Daniel Carp

When Carp took over, the company was under a lot of pressure to improve its digital product portfolio. Having invested more than \$5 billion in digital businesses over the past ten years, Kodak had earned only \$20 million on it in 1999. On the other hand, traditional film business still produced 80% of the revenue but grew at only 2% a year¹⁶. So, Carp wanted Kodak to focus on image capture (cameras), services (online photo manipulation) and image output (digital kiosks, inkjet printers, paper and inks). He was optimistic about the future and commented:

"We happen to be in a business that is going to explode, digital means more picture-taking, whether they are health pictures, professional pictures or consumer pictures. And with that comes more and more output."¹⁷

Carp continued investing in digital cameras even though they were losing \$75 million on \$400 million of sales annually¹⁸. Kodak, in 2001, introduced its "EasyShare" digital cameras in the US. The EasyShare cameras came with a docking station that recharged the camera and docked to the PC, transferring photos to the computer at the click of a button. Kodak counted on more consumers taking print-outs and thus driving sales of its photofinishing paper, with the simplification of the uploading process. The cameras were a big hit with the customers but they accounted for only \$500 million¹⁹ of Kodak's \$13 billion 2001 sales. While digital camera sales increased to 9 million units in 2001, prices of digital cameras fell from an average of \$460 in 2000 to \$300 in 2002²⁰. Kodak also expanded its product portfolio by introducing digital offerings for the professional and entertainment imaging industry.

To capture a significant share of the online photofinishing business, Carp continued to invest in PhotoNet, building a massive repository of images online for customers and retailers. Carp also launched Kodak's own website, Print@Kodak, selling its services to old-line retailers and websites like Ememories, PhotoPoint, MyFamily.com and Snapfish. Buying prints off the web was already a \$425 million business, with Kodak holding a 15% share of the market²¹. Kodak already led in photo-quality paper for inkjets, with a 40% share²². In 2001, Kodak acquired Ofoto Inc. that offered processing of digital media and traditional film, providing private online image storage, sharing and editing of images. Kodak also increased the number of its kiosks to 24,000 in the US and 35,000 worldwide²³.

The company ended 2001 with net earnings of \$75 million dollars on sales of \$13 billion as the world economy became sluggish and the traditional film business in the US declined by 5%. The company announced 7,500 job cuts and reorganized its business around strategic product groups. These groups were

- The Photography group, which included consumer imaging, digital & applied imaging, photography portion of Kodak professional and the entertainment-imaging unit;
- The Health-imaging group;

¹⁴ Through this service, customers for an extra five or six dollars could have their photos digitized and scanned from a negative to be posted at www.kodak.photonet.com—PhotoNet's Website. These images could then be downloaded on the PC, sent to others for viewing via email or used to make electronic greeting cards.

¹⁵ The picture quality or the resolution of a digital camera is measured in pixels. The higher the pixels, the better is the print quality of the photos.

¹⁶ Bruce, Upbin, "Kodak's digital moment," www.forbes.com, August 21st 2000

¹⁷ op.cit. "Kodak's digital moment."

¹⁸ op.cit. "Kodak's digital moment."

¹⁹ Geoffrey, Smith and Faith, Keenan, "Kodak is the picture of digital success," www.businessweek.com, January 4th 2002.

²⁰ ibid

²¹ ibid. By 2001 only 15 to 20% of the digital photos were being printed.

²² ibid

²³ Kiosks were priced at \$15000 a piece and generated \$200 million in sales by 1999.

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- The Commercial imaging group, including document imaging, graphics and commercial printing; and
- The Components group that included the flat-panel display technology used in devices like cell phones.

The regrouping was done to make the groups more autonomous and accountable for their performance.

With the economic growth continuing to be sluggish in 2002 also, Carp continued to invest in the emerging markets with Kodak achieving sales increase of 25% in China, 20% in Russia and 8% in India²⁴. Kodak also offered its premium products like Max HQ or the Max Versatility film to increase revenues from high-end film sales. To increase demand and revenues from print-outs and its photofinishing services, Kodak introduced Perfect Touch Processing service that scanned film negatives and applied special software to provide richer color, more detail and fewer dark shadows in the picture. The new technology increased photofinishing volumes by more than 20%²⁵.

Kodak ended 2003 with revenues of \$13 billion with a \$4 billion digital portfolio. Kodak's digital camera sales grew by 100% in 2003 and the product turned profitable in the second quarter of the year. The EasyShare cameras and the media (printing paper) generated \$75 million in sales in 2003. For the first time in 2003, digital camera sales surpassed film sales in the US. It was forecast that worldwide 53 million digital camera units would be sold in 2004 (Exhibit III and IV) with digital cameras completely replacing reloadable film cameras (excluding one-time use cameras) by 2008 (Annexure IV). Digital camera sales were expected to increase at a CAGR of 15%²⁶. However, film sales were expected to decline 10-12% annually from 2004-2006 (Exhibit V). Kodak, thus, unveiled its new digital strategy in September 2003 to move away from traditional businesses and towards the digital by investing \$3 billion in consumer, commercial and health imaging businesses. Kodak also announced more lay-offs, reducing the number of its employees from 70,000 in 2002 to 62,000 at the end of 2003.

Exhibit III
Worldwide Still Camera Sales (in millions of units)

Millions of units	1999	2000	2001	2002	2003*
Digital-still cameras					
Worldwide	5.5	11.0	18.5	30.5	50.0
The Americas	2.0	4.3	6.5	11.5	17.0
Europe	1.1	2.3	4.6	9.0	18.0
Japan	1.8	3.6	5.9	6.7	9.0
Rest of the World	0.6	0.8	1.5	3.3	6.0
Analog-still cameras					
Worldwide	67.0	71.0	66.0	63.0	57.0
The Americas	16.8	20.6	19.0	19.0	16.0
Europe	20.1	20.6	20.0	19.0	17.0
Japan	6.0	5.7	4.0	3.5	2.0
Rest of the World	24.1	24.1	23.0	21.5	22.0
Notes: *Projections made in November 2003.					

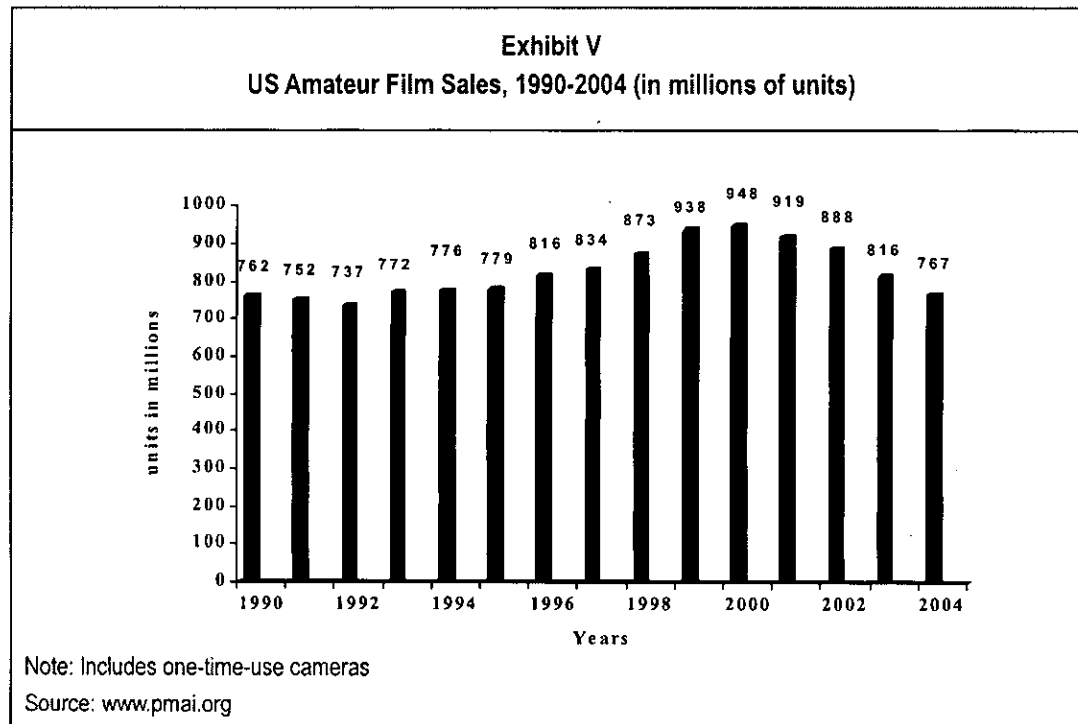
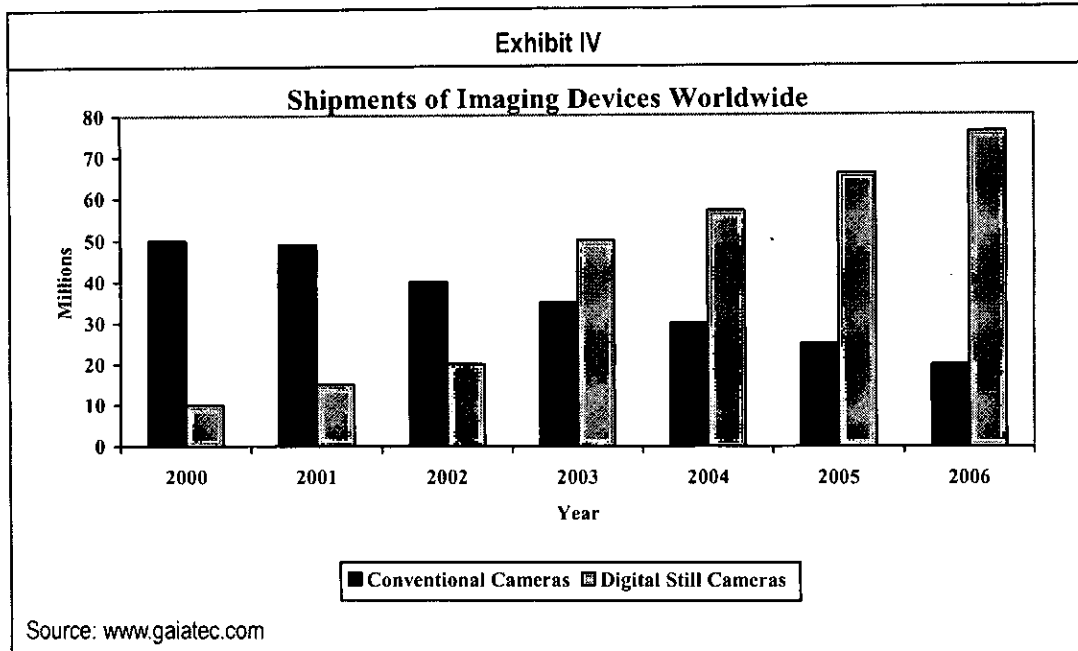
Source: PMA Research

²⁴ 51% of Kodak's revenue came from outside the US.

²⁵ www.kodak.com

²⁶ www.dpreview.com

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Kodak's New Initiatives

To reach the targeted revenue of \$16 billion by 2006, Carp focused on the high growth areas and planned to reinvest the earnings from the traditional business in the digital business. He also intended to develop a new low cost, more efficient business model for the traditional photography business. Working on this strategy, Carp in early 2004 announced reduction of total manufacturing square footage by one-third and of the work force by another 15,000 to 20,000 or 20% over the next three years. These measures were taken to generate savings of \$800 million to \$1 billion by 2007.

Traditional Film Business

In its core photography business, Kodak increased its efforts in the markets of India, China, Russia and Eastern Europe²⁷. While it discontinued reloadable 35mm cameras in the US, Canada and Western Europe and the Advanced Photo System worldwide, it continued to make high performance 35 mm and APS film worldwide. In China, Kodak's strategy was to focus more on the interests of first-time photography users. As a result, Kodak signed a 20-year agreement with Lucky Film Corp., the largest color film manufacturer of China, to acquire 20% of the company. Kodak paid \$100 million for the deal and provided Lucky with technical assistance, equipment upgrades and training over time. Kodak also promised to respect the three principles of cooperation, allowing Lucky to maintain its brand, majority ownership and management control in the joint venture. According to Carp, in the long term, Kodak

"...would rather consumers who come in at the low end have a good experience with photography. Eventually, we'll graduate them to Kodak product. If they come in, and their first experience is not a good one, they'll spend their money on something else."²⁸

In return, Lucky was to pay Kodak for the use of selected technology and give dividends on the share owned by Kodak. Through this deal, Kodak was able to stall Fuji in the Chinese market where it was the second largest player after Kodak. Also, for the high-end film market, Kodak introduced KODAK PLUS Digital Film, the KODAK High Definition One-Time-Use Camera and KODAK MAX Versatility Film, all of which offered increased image clarity, versatility and easy conversion to digital formats.

Digital Business

Image Capture

Growing its digital camera portfolio, Kodak also extended its line of EasyShare cameras by introducing six new models. These cameras were not only compact in size, but they also delivered good picture quality. In addition, they were compatible with the Kodak EasyShare printer dock. Through this feature, the digital camera could be directly connected to the printer and photos could be easily printed at home, with or without the computer. Prices of digital cameras ranged from \$99.95 to \$499.95.

Digital Service and Image Output

To enable customers to click and process pictures anytime and anywhere, Kodak introduced the kmobile service in partnership with Cingular Wireless, Nokia and AT&T Wireless. Kodak's initiative was based on the increasing use of mobile phones for imaging and the forecast by market research firms that more than 97 million camera-enabled mobile phones would be in use by 2004. Through this service, the subscribers could sign up at www.kmobile.com to store, organize, share and view their digital pictures and phone-captured video for a fee of \$2.99 per month. According to Bernard Masson, president (D&FIS) and senior vice president, Kodak,

²⁷ Kodak's worldwide market share for film sales was 40% compared to Fuji's 35%.

²⁸ www.Photomarketing.com

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"As an example of Kodak's aggressive pursuit of the digital imaging market, these new services and agreements place Kodak at the forefront of the mobile imaging industry, with products and services that help people take, view, print and share pictures wherever they are, whenever they want. Whether online or through kiosks at retail locations, Kodak's mobile imaging services now give consumers places to print all their mobile images."²⁹

Kodak, in partnership with Microsoft, introduced the television-friendly version of Ofoto to work with WINDOWS Media Center Edition 2004 PCs. This service enabled Ofoto members to view and share their online photos anytime on the TV set.

Further consolidating its market share in photofinishing paper, Kodak introduced KODAK Ultima Picture Paper with COLORLAST considered to be the world's longest lasting inkjet photo paper. Targeting the minilab (these were \$100,000 photo processing machines that were placed behind store counters and could process 2000 photos an hour) market³⁰, Kodak in collaboration with Noritsu, maker of photofinishing equipments, introduced the QSS 3200 digital minilab portfolio. These minilabs were equally productive whether the input was from traditional film or digital media. The number of digital minilabs worldwide was estimated to increase from 61,900 in 2003 to 88,500 in 2004³¹. Kodak also introduced the KODAK Picture Maker G3 Film Processing Station, expanding its kiosk family to enable digitization of photos from a 35mm film roll (Exhibit VI).

<p align="center">Exhibit VI</p> <p align="center">The Picture Maker Kiosk Family of Kodak</p>
<p>Picture Maker G3 Order Station LS: Allowed consumers to preview and select their film or digital images and print them to the retailer's on-site digital lab system by connecting directly to a digital minilab. One of Kodak's thermal printers could also be added to produce prints in seconds.</p> <p>Picture Maker G3 Digital Station LS: Provided consumers with a quick and easy way to make prints from any digital camera card. This stand-alone kiosk allowed consumers to preview and select the pictures they wanted and enhance, edit and print images in minutes or write to a KODAK Picture CD. A smaller, 17-inch cabinet offered a more compact option for retailers.</p> <p>Picture Maker G3 Print Station: Served as the full-service member of the Picture Maker family bringing all of the functionality of the Order and Digital Stations to the original Picture Maker. This kiosk was available in a 24-inch or 36-inch screen model, accepted original prints, compact disk, floppy and digital media and offered popular editing-enhancement features. The Picture Maker offered print sizes ranging from ID size to 8x10 and could easily print or write images to a KODAK Picture CD.</p> <p>Picture Maker G3 Film Processing Station: Offered the first self-service kiosk system that connected to a KODAK Picture Maker G3 station to enable consumers to quickly print photo quality Kodak pictures in minutes from their 35mm film cameras. The Film Processing Station let consumers preview and select the pictures they wanted, zoom & crop, eliminate red-eye, adjust colors, and print the quantities and size of the pictures they wanted. Consumers received high quality prints and a KODAK Picture CD with an index print of each roll.</p> <p>Source: www.kodak.com</p>

Through all these innovations, Kodak tried to strengthen its position in the highly competitive digital product market and ward off competition not only from traditional competitors like Fuji, but also from the new world competitors like Sony, Hewlett Packard and others (Exhibit VII, VIII and Annexure IV).

²⁹ www.kodak.com

³⁰ Fuji was the market leader in this segment with 5000 labs in place which was equivalent to 60% of the us market in 2003.

³¹ The total number of minilabs operating worldwide was forecasted to increase from 268,800 to 355,700.

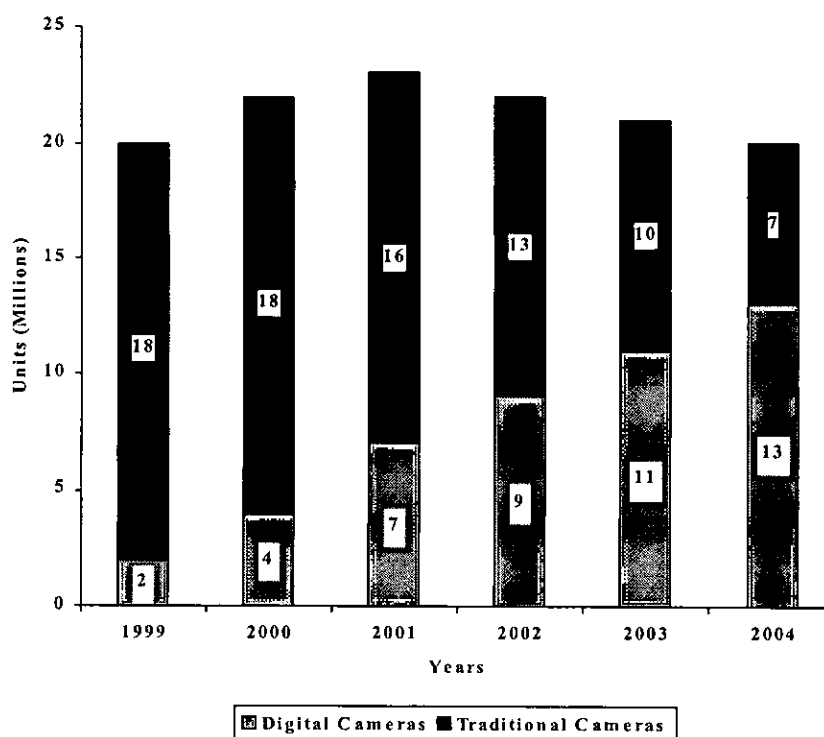
Exhibit VII
US Digital Camera Market, Q3 2003

	<i>Shipments '000</i>	<i>Market Share, %</i>	<i>Growth from Q3 2002, %</i>
Sony	800	22.4	11.1
Kodak	625	17.5	66.7
Canon	550	15.4	83.3
Olympus	414	11.6	13.8
Nikon	340	9.5	58.1
FujiFilm	270	7.5	-3.6
HP	245	6.8	113.0
Other	334	9.3	-85.6
Total	3578	100	39.2

Source: "Has Kodak missed the moment," The Economist, December 30th 2003

Exhibit VIII

Camera Sales in the US



Source: <http://gaiatec.com>

Competitive Scenario

Digital camera sales reached 50 million units worldwide in 2003 and it was forecasted that the sales would increase over the next four years at a CAGR of 15%. Europe was leading North America and Japan in this transition from film to digital. Worldwide, Sony had the largest share of the camera market with 18%, followed by Canon at 16%, Olympus at 13% and Kodak at 12%.

On the other hand, to position itself in the photofinishing market, Kodak acquired the online photofinishing site, Ofoto, and developed Print@Kodak through which digital camera users could upload, store and order print-outs of their pictures online. It was estimated that a total of 31 billion print-outs would be taken by 2006. However, Kodak faced stiff competition from online sites like clubphoto, Imagestation, shutterfly and others.

Sony Corporation

Sony, headquartered in Tokyo, had sales of \$22 billion for the third quarter ended December 31st 2003, up 0.7% from the previous quarter. The electronics segment that sold digital cameras and CCDs (charge coupled devices) recorded sales of \$14 billion, up 0.4% over the previous year, but its operating income dropped 39.7% to \$493 million over the same period. The decline was due to restructuring expenses, a reduction in digital camera prices and strengthening of the Yen against the US dollar. Sony had started a restructuring plan in 1999 to transform the company to have a highly profitable cost structure with an operating income margin of 10% by the year 2007. Sony had a focused strategy to pursue growth in its Audio and Video category (a part of the electronics segment that manufactured imaging products like digital cameras and components like CCDs). The company strategically chose to create a more attractive product line up in high growth markets like digital cameras, Liquid Crystal Display and Plasma Display Panel.

In the US market, Sony's digital cameras included the Mavica and Cyber-shot brands with prices ranging from \$200-\$1000, targeting both the amateur and the professional photographers. To make printing easy for the camera users, Sony along with Canon, Fuji, HP, Olympus and Seiko Epson had developed the PictBridge which enabled a digital camera to directly connect to a printer through a USB port. Sony also introduced the Digital Photo Printer with built-in photo editing for easy photo printing without a PC.

Canon Inc.

Headquartered in Tokyo, Canon ended 2003 with sales of \$29 billion, an increase of 8.8% over the previous year and earnings of \$2.5 billion, an increase of 44%. Canon had a worldwide market share of 17% in digital cameras and it leveraged its expertise in optical and image processing activities to continually introduce new digital cameras. Canon introduced six new digital models in 2003-04. Camera segment as a whole (digital still cameras, camcorders and film cameras) had sales growth of 34.5% totaling \$6 billion. Operating profit from the segment reached \$1 billion, an increase of 79.7%. All the digital cameras manufactured by Canon were compatible with the PictBridge standard. Canon was targeting the home printing market capitalizing on its strong position in both inkjet printer (worldwide share of 25%) and digital cameras.

Olympus

Headquartered in Tokyo, Olympus Optical Co. Ltd. had four major business groups- the imaging systems group which included the digital cameras, film cameras, recorders and magneto-optical disk drives, the medical systems group, the industrial systems group and the life sciences group which was formed in 2003. Olympus ended 2003 with operating income of \$520 million on sales of \$4.7 billion, an increase of 6.8% and 47.4% year-on-year respectively.

Sales of its imaging group increased to \$2 billion with an operating income of \$152 million. Growth in the digital camera market was the main reason behind the company's strong performance with sales of digital cameras increasing 26.8% to \$1.4 billion. The company's digital cameras faced losses till 2002 but by shifting manufacturing facilities from Japan to China, the company capitalized on lower manufacturing costs in China. Olympus' digital camera sales increased to 4.4 million units worldwide in 2003. To make sharing, editing and printing of photos easier for the camera users,

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Olympus introduced the digital photo services by Ofoto (wholly owned Kodak subsidiary). Olympus also offered various printers for the camera users to print their digital images at home along with its Pictorico Paper. All its digital cameras had the PictBridge standard to make prints directly from the camera.

Nikon

Nikon Corporation's business was aligned by three business companies: the Imaging Company (digital cameras and digital imaging equipment business), Precision Equipment Company (IC steppers and LCD steppers), Instruments Company (microscopes, measuring equipment and inspection instrument) and others. Nikon's business strategy for the imaging company was centered on three areas:

- expand dominance in the digital SLR (Single Lens Reflex³²) market;
- boost market share in the medium and popular-class consumer digital cameras; and
- cut costs by expanding overseas manufacturing (China) and promoting in-house production. Nikon had an 11% share of the 24.55 million shipment units of digital camera (sold in the Japanese market and exported by the Japanese manufacturers).

Fuji Film

Fuji Film ended 2003 with an operating income of \$1.3 billion (a decrease of 5% over 2002) on sales of \$20 billion (an increase of 4.4% over 2002) due to strong sales of digital cameras, digital minilabs and other digital related products. To compete in the changing environment, Fuji Film adopted a "Hybrid Imaging" business strategy that integrated the latest electronics technologies with their traditional imaging expertise.

Fuji Film's business was divided into three segments: the Imaging Solutions segment that included film, film cameras, digital cameras, lab equipment, color paper, chemicals and services for photofinishing; the Information Solutions segment that included graphic arts systems products, medical imaging products, LCD materials and recording media; and the Document Solutions segment (which operated as a consolidated subsidiary of Fuji and Xerox, Fuji Xerox Co. Ltd) that comprised of copying machines, printers, fax machines and consumables for document service applications in offices. The above three segments contributed 28.9%, 33.2% and 37.9% respectively to the total revenue.

Fuji introduced new digital camera models that incorporated the PictBridge standard for easy home printing. To complete its home printing portfolio, Fuji also marketed the Premium Plus Inkjet Photo Printer. Through Fuji's website, the camera users were also given an option to upload and store their pictures online.

On the photofinishing side, Fuji was the market leader in the digital minilab segment with its Digital Minilab Frontier series. FujiFilm was also making inroads in the kiosk market (Kodak had the largest market share), as retailers who purchased its Frontier minilabs were also buying its Aladdin and PrintPix kiosks.

Hewlett Packard

The company's products and services were categorized into the following major categories: the imaging and printing group which included the printer hardware, all-in-ones, digital cameras and scanners and associated supplies and accessories; the enterprise systems group which provided the key technology components of the IT infrastructure; the personal systems group that included desktop PCs, notebooks, workstations, smart handheld and personal devices; and the services.

The contribution of the printing and imaging group to the total revenue for 2003 was \$21.2 billion. The corporate strategy of HP was to provide high tech products at low costs by leveraging its size and large product portfolio to

³² SLR cameras are advanced cameras that provide various options to the photographer for precisely controlling the focus and composition of a picture, selecting and changing lenses, choosing film exposures from a selection of automatic and semi-automatic light metering modes and manually adjusting the shutter and lens openings to suit. These cameras are used by most professional photographers, camera hobbyists and photography students. Another type of cameras are the point and shoot cameras. These are compact in size, affordable and easy to use as most of the functions are automated.

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provide the best experience to the customer. HP unlike Kodak, placed bets on the home digital darkroom and introduced products in every category to enable camera users to print pictures at home. The Photosmart line of HP digital cameras featured printers with memory card slots and printer docks that allowed cameras to connect directly to the printer. In addition, HP was the market leader in inkjet printers, laser printers cartridges and printing paper, with margins of 65% on inkjet paper and ink and roughly 30% on laser printing supplies³³.

The Online Photofinishing Sites

Online photofinishing sites were the online counterparts of the brick and mortar retailers, providing another link for consumers to take print-outs of their digital or film photos from the comfort of their home. In addition, these sites also provided free sharing and storage of photos online. They only charged for the prints customers wanted.

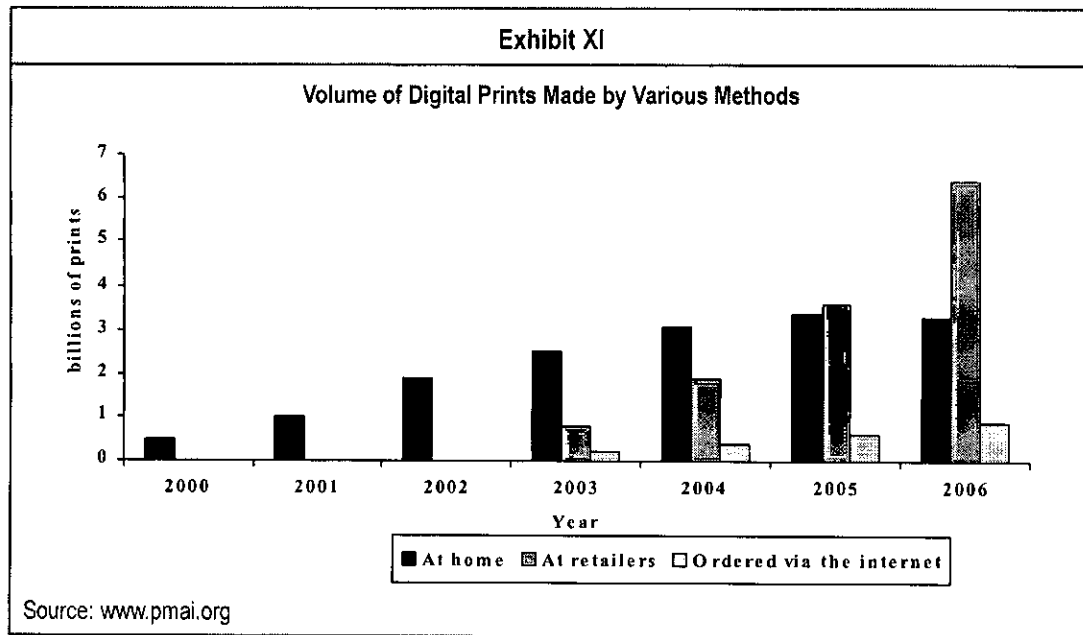
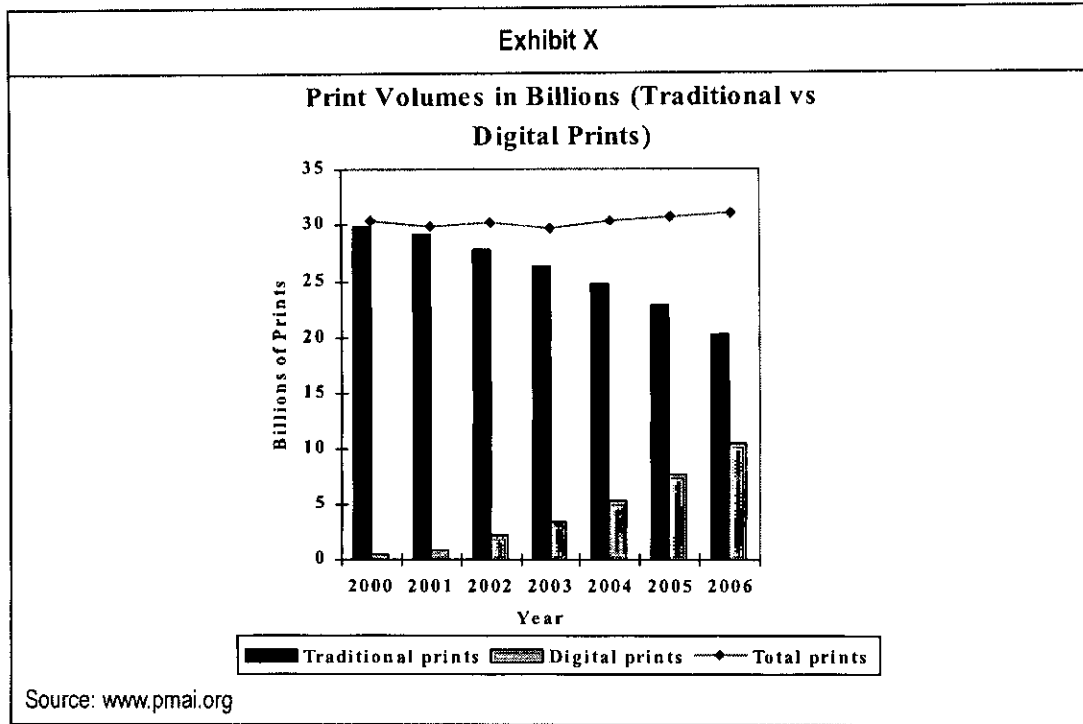
Kodak provided this service through Ofoto and the Kodak Picture Center. Kodak also had collaboration with sites like Snapfish to provide prints on its photo paper. Other online photofinishing sites included Sony's Imagestation, Club Photo, MSN Photos, all providing free uploading, sharing and editing of pictures and charging a fee for the printing and storage (Exhibit IX, X and XI).

Exhibit IX Leading Online Photofinishing Services			
Name	Website	Storage/Sharing	Cost/print-out(4by6) and CD
Ofoto	www.ofoto.com	Free	29 cents for digital print, \$4 for film roll*
Club Photo	www.clubphoto.com	Free for 90 days. Thereafter charges \$24.95/year	25 cents for digital print, \$1 for a film roll. Album CD cost \$7.95
Imagestation	www.imagestation.com	Free	24 cents for digital print
MSN Photos	photos.msn.com	\$10/month for non-subscribers	49 cents for digital print. Uses Print@FujiColor for its photofinishing services
Shutterfly	www.shutterfly.com	Free	25 cents to 39 cents for digital print, \$3.99 for a film roll. Uses Fuji Paper
Snapfish	www.snapfish.com	Free	19 cents for digital print, \$2.99 for a film roll. Uses Kodak paper

* Film roll photos were digitized and loaded to these websites. Both of Kodak's websites had Picture Perfect Picture Processing incorporated.

Source: www.forbes.com and respective websites

³³ Alicia Ferrari, "The Push for more digital photo prints," www.forbes.com, October 30th 2003.



Camera Phones

Another threat facing the entire digital still camera industry came from the introduction of new and trendy mobile camera phones. The sales of camera-enabled phones had increased to 81 million units worldwide by the end of 2003, with half the global market for camera phones in Japan. However, the balance was expected to shift towards China from 2004. The global handset shipments for 2004 were estimated to be in the range of 580-585 million units, whereas the total camera phone shipments were expected to increase to 97 million units over the same period. It was expected that as the memory, battery life and picture resolution of the mobile camera phones became better, these high-end phones could be in direct competition with the digital camera vendors like Kodak and Sony. Nokia had already introduced camera phones with 1 megapixel picture resolution in the market. The major players in 2003 in the camera phone market were NEC of Japan, Nokia, Samsung, Panasonic and Sony Ericsson. (Exhibit XII)

Exhibit XII Worldwide Camera Phone Market Share		
	Shipments (in millions of units)	Market Share %
NEC	13.1	26
Nokia	11	21.5
Samsung	10	19.6
Panasonic	9.2	18
Sony Ericsson	8.2	16

Source: www.msnbc.msn.com

Future Outlook

The photography industry worldwide had witnessed key changes in 2003. It was during this year that for the first time sales of digital cameras outnumbered that of the traditional ones in the US. It was estimated that about 53 million digital cameras would be sold worldwide in 2004 and that annual growth rate for the coming years would be around 15%. On the other hand, the film sales were expected to drop about 10-12% for 2003-2006. This situation posed great challenges for Kodak as it still relied on film products for about 60% of revenues.

Carp's restructuring plan in September 2003 aimed at diverting resources towards the digital businesses, and he hoped that the company's revenue would, as a result, increase to \$16 billion by 2006. As of 2003, Kodak's sales from digital cameras were \$75 million, with volumes increasing by 100%. In the US Kodak with an 18% market share, was behind Sony which had a share of 22%. However, worldwide, Kodak had a share of 12% in digital cameras as compared to Sony's 18%, Canon's 16% and Olympus 13%.

Carp employed various initiatives to build the digital business. He increased Kodak's stake in Chinon Industries (Japan) from 59% to 89% to speed up development of digital cameras and improve manufacturing margins. Kodak expanded its line of "EasyShare" cameras by introducing six new models that combined higher picture quality with compact design. For the professional market, Kodak introduced two high-end SLR cameras.

As for the photofinishing market, Kodak addressed all avenues of growth. It had invested in Ofoto, kiosks and minilabs. To address the mobile camera phone users, Kodak tied up with various cellular service providers to offer picture sharing and printing. For example, it tied up with Cingular Wireless and AT&T Wireless offering in the US, and with NTT DoCoMo in Japan.

In spite of these opportunities, threats did exist. Kodak was competing with consumer electronic majors such as Sony, HP, etc. which were traditionally strong in manufacturing and had learned to survive on extremely slim margins. Operating margins for these companies varied from 5-10% as compared to about 30% that Kodak had got used to in its film business over the years.

Another threat facing Kodak was the patent infringement suit filed by Sony, alleging that Kodak had infringed on 10 of its patents that covered basic technologies related to CCDs. Kodak had earlier filed a suit that Sony had infringed on

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10 of its patents that covered various aspects of capturing, storing and displaying digital images. While the outcome of the lawsuit was uncertain, Kodak stood to gain if it won the battle. Winning the case would help Kodak charge licensing fees from Sony for every unit of camera sold. Kodak already had licensing agreement with about 10 digital camera makers, which included Olympus, Sanyo, etc.

Yet another problem facing Kodak was the increase in demand for mobile camera phones. The sales of camera phones had increased to 57 million units worldwide by the end of 2003 and were expected to reach to 97 million units by 2004. It was estimated that over the period of 2003-2006, camera phones would reduce sales of digital cameras by 7.7% and result in the decrease of the shipment value of more than \$2.7 billion.

In the traditional film segment, Kodak focused on high value films such as the KODAK PLUS Digital Film and the KODAK MAX Versatility film and pinned its hopes on emerging markets such as India, Russia and China to drive film revenue growth. In China, Kodak had a 20% stake in Lucky Film, the largest film manufacturer in the country. However, Kodak faced a setback when Lucky reported a 36% decline in its profits (\$9.67 million) for the year 2003 over the previous year due to a combination of factors like decline in tourism (because of the SARS scare), competition from contraband brands and increasing use of digital cameras.

In addition to these initiatives, Carp also announced further cost cutting measures. He planned to reduce total manufacturing square footage by one-third and of the work force by another 15,000 to 20,000 over the next three years. These measures were expected to generate savings of \$800 million to \$1 billion by 2007.

Even with these strategies in place, there were mixed responses from industry experts. One expert commented:

*".....I'm surprised that they are acting as quickly as they have. If they can get this cash cow film to generate enough profits to sustain the growth that they want to have on the digital side that may work."*³⁴

While another said:

*"I think the long-term trend, that these guys are on the wrong side of the fence, continues, they have legacy issues that a lot of their competitors don't have."*³⁵

³⁴ Rand, Ben, "Kodak's Carp: No time to be timid," www.democratandchronicle.com, January 23rd 2004.

³⁵ Ibid

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Annexure I			
Eastman Kodak: Income Statement 2001-2003 (Amounts in millions of U.S. dollars)			
Income Statement	Dec 03	Dec 02	Dec 01
Revenue	13,317.0	12,835.0	13,234.0
Cost of Goods Sold	8,203.0	7,407.0	7,905.0
Gross Profit	5,114.0	5,428.0	5,329.0
Gross Profit Margin	38.4%	42.3%	40.3%
SG&A Expense	3,429.0	3,292.0	3,406.0
Depreciation & Amortization	830.0	818.0	919.0
Operating Income	855.0	1,318.0	1,004.0
Operating Margin	6.4%	10.3%	7.6%
Nonoperating Income	(51.0)	(84.0)	(18.0)
Nonoperating Expenses	148.0	173.0	219.0
Income Before Taxes	172.0	963.0	108.0
Income Taxes	(66.0)	153.0	32.0
Net Income After Taxes	238.0	810.0	76.0
Continuing Operations	238.0	793.0	76.0
Discontinued Operations	27.0	(23.0)	0.0
Total Operations	265.0	770.0	76.0
Total Net Income	265.0	770.0	76.0
Net Profit Margin	2.0%	6.0%	0.6%
Diluted EPS from Continuing Operations (\$)	0.83	2.72	0.26
Diluted EPS from Discontinued Operations (\$)	0.09	(0.08)	0.00
Diluted EPS from Total Operations (\$)	0.92	2.64	0.26
Diluted EPS from Total Net Income (\$)	0.92	2.64	0.26
Dividends per Share	1.15	1.80	2.21

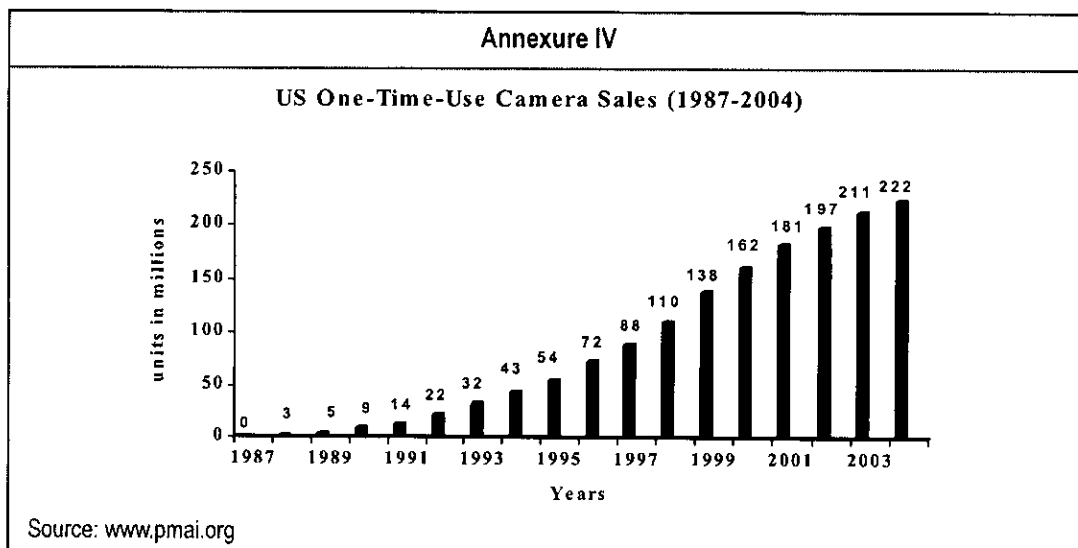
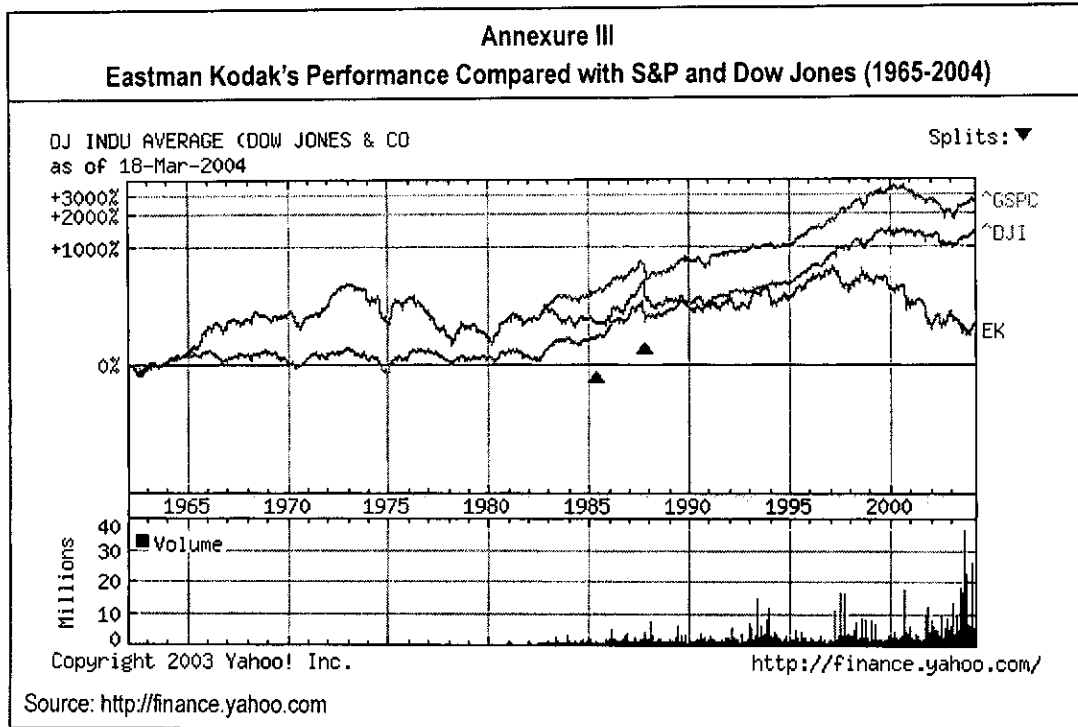
Source www.hoovers.com

Annexure II
Eastman Kodak: Balance Sheet 2001-2003
 (Amounts in millions of U.S. dollars except per share amount)

Balance Sheet	Dec 03	Dec 02	Dec 01
Assets			
Current Assets			
Cash	1,250.0	569.0	448.0
Net Receivables	2,389.0	2,234.0	2,337.0
Inventories	1,075.0	1,062.0	1,137.0
Other Current Assets	741.0	669.0	761.0
Total Current Assets	5,455.0	4,534.0	4,683.0
Net Fixed Assets	5,094.0	5,420.0	5,659.0
Other Noncurrent Assets	4,269.0	3,415.0	3,020.0
Total Assets	14,818.0	13,369.0	13,362.0
Liabilities and Shareholders' Equity			
Current Liabilities			
Accounts Payable	3,707.0	3,351.0	3,276.0
Short-Term Debt	946.0	1,442.0	1,534.0
Other Current Liabilities	654.0	584.0	544.0
Total Current Liabilities	5,307.0	5,377.0	5,354.0
Long-Term Debt	2,302.0	1,164.0	1,666.0
Other Noncurrent Liabilities	3,945.0	4,051.0	3,448.0
Total Liabilities	11,554.0	10,592.0	10,468.0
Shareholders' Equity			
Preferred Stock Equity	0.0	0.0	0.0
Common Stock Equity	3,264.0	2,777.0	2,894.0
Total Equity	3,264.0	2,777.0	2,894.0
Shares Outstanding (mil.)	286.6	285.9	290.9

Source www.hoovers.com

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Annexure V
The Various Camera Models Offered by the Top Seven Companies

Name	Type	Megapixels*	Price
Sony CyberShot DSC-F717	Advanced	5.02	\$629.95
Sony CyberShot DSC-V1	Advanced	5	\$444.00
Sony CyberShot DSC-T1	Ultra Compact	5	\$547.98
Kodak EasyShare DX4530	Point and Shoot	5	\$249.99
Kodak EasyShare CX6300	Point and Shoot	3.1	\$157.99
Kodak EasyShare DX6400	Point and Shoot	4	\$235.00
Canon EOS 10D	SLR	6.3	\$1499.95
Canon Powershot A80	Advanced	4	\$330.00
Canon Powershot A60	Point and Shoot	2	\$159.94
Olympus C-5000 Zoom	Advanced	5	\$269.99
Olympus C-750 Ultra Zoom	Extended Zoom	4	\$437.99
Olympus E-1	SLR	5.5	\$1799.00
Nikon D2H	SLR	4.1	\$3199.95
Nikon D100	SLR	6.1	\$1499.95
Nikon Coolpix 4300	Advanced	4	\$339.95
Fuji FinePix S7000	Advanced	6.3	\$550.00
Fuji FinePix S5000	Extended Zoom	3.1	\$329.95
Fuji FinePix F410	Ultra Compact	3.1	\$439.94
HP Photosmart 945	Extended Zoom	5.1	\$449.00
HP Photosmart 735	Point and Shoot	3.2	\$189.94
HP Photosmart 435	Point and Shoot	3.1	\$121.72

Source: www.digitalcamera-hq.com

*The picture quality or the resolution of a digital picture is measured in pixels. The higher the pixels, the better is the print quality of the photos.

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