

A photo of a young couple with their car in 1950, printed during the analogue minilab days.



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Do Minilabs and Processing have a Future?

A look at the Global story and its Development and Growth in India

The origination of the concept of a minilab has been debated for many years. Entering the 1970s, photofinishing, the process of developing photographic film and printing the images on colour photographic paper was either performed automatically in large central labs or manually in small shops. But before the colour and the by gone era, how did the minilab market come to become important and how did the story take shape in India? The chapter takes focus on the global minilab and processing market and how the Indian photographic market WARMED UP to the growing industry in the early 1950-2000.

Early in 50s and 60s, Gretag Imaging, a large well-known Swiss manufacturer of photofinishing equipment for central labs, began "miniaturizing" a photofinishing production line connecting a printer, paper processor and cutter. In another part of the world, Kanichi Nishimoto, a creative photographer in Wakayama, Japan who had invented an automatic print washer in 1951, demonstrated the first real minilab, in which the printer, paper processor and cutter were all contained in the same unit in 1976. His company, Noritsu Koki, exhibited this QSS-1 (Quick Service System) at the Photo Marketing Association international trade show the following year, and the 1-hour photo finishing industry was established. However, these minilabs were expensive and they needed special plumbing as well as silver recovery systems, adding to the installation cost. Also, although Noritsu sold film processors, which developed the film, under its brand, they were manufactured by another Japanese company.

PMA, a US-based organization, was composed primarily of large photofinishers and photo dealers, and the US photofinishing market was by far the largest in the world. Its major spring tradeshow — there was a smaller tradeshow in autumn — attracted visitors from all over the world. The demonstration of the QSS-1 created a sensation, and many entrepreneurs placed orders. However, the arrival of a new on-site technology that might threaten the dominance of large photofinishers, and while there were "groups" within the organization for photofinishers and photo retailers, the organization did not want to recognize a new group of minilab owners. Consequently, a separate organization, the International Minilab Association (IMA), with its own monthly magazine, was established for this group and quickly attracted hundreds of US and international



Kanichi Nishimoto, Founder of Noritsu Koki with Mr. Nalawade at the Wakayama HQ in 1996



Noritsu Koki workshop in the initial years

members. Realizing that the number of minilab owners had grown quite large, PMA subsequently established a group for them and the IMA eventually closed.

In 1984, KIS, a French company based in Grenoble, showed a very simple, manual minilab at the PMA. The price was well under \$10,000 and the company's exhibit attracted hordes of potential buyers and salespeople. A US subsidiary was established and sales skyrocketed. Within a short period, more than 6,000 units were sold, often to be installed in non-traditional locations such as bicycle and pizza shops. KIS created special operating manuals to enable almost anyone to operate their minilabs, with coloured photos indicating what created off-colour prints and how to correct the chemistry or other settings. These units required use of a special patented photographic paper canister, and, at one time KIS claimed to be buying 15% of the total production of Kodak paper. Since the paper canister was expensive, KIS owners in the US developed a replacement that worked and avoided encroaching on the KIS patent.

By the end of 1980s, the companies which manufactured the processing chemicals were all selling minilabs. Fujifilm and Kodak initially had their minilabs manufactured by Noritsu. Both later set up their own production lines – Fujifilm in Japan and Kodak in the



A Noritsu machine promoted by Kodak in an ad in Asian Photography magazine in the early 90s

USA. The Kodak-made machines were designed with special plastic chemical tanks to prevent erosion and cleaning requirements of the metals tanks used by other manufacturers. However, the US-made models were quite expensive and production issues resulted in the operation being closed relatively soon.

Agfa, a German company which made high-speed central lab photofinishing systems, began building minilabs in a facility in Germany. However, to be more competitive it soon moved its production to a factory near Shanghai in China. In 2003, the Agfa photo group was spun off to a private investor group and in 2005 that group declared bankruptcy, closing the Agfa minilab manufacturing operation.

Konica began manufacturing minilabs in Japan, and continued until 2005, when Konica merged with Minolta and the Photo Group was sold in part to DNP. The minilab operation was closed. KIS, which had developed an automatic minilab, began building this model in France, although later, after it was acquired by UK-based Photo-Me it moved production to Eastern Europe and eventually to a facility near Shanghai. As Noritsu's business grew and it sought to remain competitive in some world regions, it opened assembly facilities in Brazil, China and France. Gretag Imaging in Switzerland, which had an entrée with large photofinishers and consequently large drugstore chains, and San Marco Imaging in Italy (in which Gretag invested) were both building minilabs. Due to the high cost of manufacturing in Switzerland, Gretag transferred production to San Marco.



Figure 1

The introduction of Disc film by Kodak in 1982 presented challenges for both minilab owners and makers, since the equipment was never designed for the circular disc of the film. Adapters were developed to enable these film formats to be scanned in the minilabs, which were designed for film strips. Because of this difficulty, which also affected large-scale central labs (ironically, although the Disc film was introduced by Kodak and later by Fujifilm, with the much superior quality of the Fujifilm version elevating that company's reputation), this format never really became widely popular. Kodak, which was manufacturing photofinishing equipment for large-scale labs, did not design any Disc film equipment or supply adapters for minilabs.

The 1990s brought the arrival of digital cameras. Initially, minilab operators could buy a device from third party manufacturers that enabled them to print digital images on their standard analog (film) machines. However, the minilab manufacturers quickly introduced their own digital minilabs. By the year 2000, minilab users in the major photographic regions of the world were rapidly replacing their analog machines with digital ones. By 2003, the worldwide population of digital minilabs had grown to almost 95,000 units, surpassing the number of analog minilabs, which had declined rapidly to 84,000.

The Story of China

Local manufacturers grow rapidly

Many of the "used" analog minilabs were refurbished and sold to "developing" countries in Asia, such as China and India, South America and Africa. This is illustrated in Figure 2. The Chinese market began to evolve as the government opened the way for private photofinishing operations, and sales of the refurbished





units grew rapidly. This encouraged the evolution of Chinese minilab manufacturers such as Shanghai Doli, Shanghai Prismlab, Tiandra, Sophia and Ningxia. While these locally-made models were not as fast and sophisticated as their "Western" competitors, they were considerably less expensive.

Kodak was a well-known photo brand name in China and the company jumped into the exploding minilab market by creating an "on-site photofinishing shop" concept that included a simple Chinese-made minilab, film processor, shop design, and accessories for under



Figure 3

\$2,000. The number of minilabs under the Kodak Express banner quickly swelled to more than 10,000 units, making it the dominant player in that market. Other companies supplying photographic paper and chemistry were Agfa, Fujifilm, Konica and China Lucky ("Lucky"), the latter moving into second spot as it benefitted from tariffs being imposed on imported paper and chemistry. The Kodak program began to falter as many of the "entrepreneurs" who had invested family money to become owners failed to receive proper training on the maintenance and operation of their equipment and were completely naïve in business and marketing. Consequently, the number of minilabs in operation in China peaked in 2004 and began falling quickly. (see Figure 3). Foreign currency restrictions in Russia and other Soviet Republics made it difficult for onsite photofinishers to obtain modern minilabs, film processors, paper and chemicals. Even when the minilabs were purchased, these operators continued to develop the film and have customers look at the negatives on a light table to select which images to print in order to keep their costs down. This was a total contrast to the "double print" marketing programs being eschewed by both central and onsite photofinishers in the USA. Restrictions were lifted in 2000, and the number of minilabs in operation rose from 2,300 that year to a peak of 3,500 in 2004, before beginning to fall as older analog machines were replaced with new, but more expensive, digital minilabs.

Konica introduced its washless chemistry in its own minilabs, which eliminated the wash cycle in paper development, speeding up processing time. This was also adopted by Noritsu. Later, Konica developed this chemistry in tablet form, called the EcoJet, which eliminated the need for minilab operators to handle the photographic chemicals. Although Kodak initially reacted by broadcasting that the washless chemistry would not totally complete the process and prints would fade, two years later it introduced its own washless chemistry as SM (service mark).

Konica licensed the German chemical company Tetenal to manufacture its EcoJet tablets and eventually stopped its own production. With a greatly reduced demand for the EcoJet tablets, Tetenal also ended production, creating a dilemma for those operators worldwide of the unique EcoJet minilabs who will soon see the inventory depleted.

Dry Minilabs and other formats come to the fore

The concern about water pollution from chemical waste in minilabs continued to grow in the 1990s and into the 2000s. Specialized silver recovery units were available from various manufacturers, and the value of the recovered silver somewhat offset the cost. Still, many municipalities enforced strict regulations, making it difficult for minilab operators to obtain the necessary certificates to provide film and paper processing.

International conferences that included representatives of the photofinishing industry, government regulators, silver recovery equipment manufacturers and experts helped ameliorate the strict regulations, but the stage was set for the first "dry" minilab, the Nortisu dDP-411 in 2002 which employed an Epson inkjet print engine in place of the silver halide photo paper exposure system.

Other manufacturers started offering Dry minilabs shortly thereafter. Fujifilm entered into an alliance with Noritsu in 2006 in which Noritsu manufactured Dry minilabs that were sold under the Fujifilm brand. At that time, Fujifilm did not have inkjet technology of its own. Fujifilm later developed its own minilab using an Epson inkjet print engine. At the end of the decade, Epson introduced its own minilab, which was almost identical to the Fujifilm Dry minilab but less expensive. Within a year, Fujifilm had a new Dry minilab based on its own inkjet technology. Epson continues to sell its own minilabs today.

In 1996, Kodak, along with Fujifilm, Nikon, Canon and Minolta, introduced the APS format film as a replacement for the 110 format introduced in the 1970s. This used a smaller, specially designed film cartridge than the standard 35mm film that indicated whether it was undeveloped, partly exposed (it could be removed from the camera and later reinserted to shoot the remaining unexposed frames), fully exposed but not processed, or processed, and came in 40, 25 and 15 exposure lengths. When the film was printed, customers could order one of three different sizes: C for "classic" (25.1 x 16.7 mm; aspect ratio 3:2; 4x6" print or 10x15 cm print); H for "HDTV" (30.2 x 16.7 mm; aspect ratio 16:9; 4x7" print or 10x18 cm print); or P for "panoramic" (30.2 x 9.5 mm; aspect ratio 3:1; 4x12" print or 10x24 cm).

Since no minilab manufacturers other than Fujifilm were privy to the development, for which the information was carefully withheld by the five project participants, this new format presented another challenge. The film

was pulled out of the canister and processed, then rolled back in. Similarly, it had to be pulled out for printing, and then returned. This meant that onsite photofinishers had to acquire a device for processing the film, as well as an accessory and associated software for printing the film images. Although the penetration of this format in the US market reached about 6%, about 8% in West Europe, and 15% in Japan, it was never adopted in other countries, hence it began to decline in 2002 and was discontinued in 2012.

At the end of the 2000-decade, Lucky, which by then was producing colour photo paper of its own design (for many years, it was making paper using Kodak formulae under an agreement between the two companies), showed samples of a double-sided halide colour paper. Kodak was in disbelief that this was possible and we learned that Fujifilm had developed a similar double-sided paper a couple of years earlier, but did not commercialize it because the market potential was insufficient.

Nevertheless, since the paper alone was of no use, it required a special printing and processing system, Lucky teamed up with Prismlab, which developed a special minilab capable of handling the paper with a sensitized coating on both sides. Although sales of this system were restricted because Lucky was barred as a result of a lawsuit from exporting its paper to the USA and Europe, sales grew quickly in China and some South East Asian countries. The paper was a little thicker than regular single-sided photo paper and cost about 1-1/2 more, but thinner in photo albums than two standard prints glued back-to-back. In an effort to penetrate the European market, Prismlab approached Polielettronica in Italy, which ultimately declined to license the





technology. Still, more than 500 double-sided minilabs were sold by Prismlab. Today, although the paper has been significantly improved, the ability to make photobooks on non-photo digital printing equipment, along with improved mail and courier delivery infrastructure, has provided consumers with numerous options for printing their images and interest in doubleside photo paper albums has declined.

This trend has affected minilab sales around the world. Photo paper minilabs (2,500 print/hr.) are much faster than Dry minilabs (600 prints/hr.), and "component" systems consisting of an input terminal/kiosk connected to one or more inkjet or dye sublimation printers, are less expensive, take up less space and can be



Dr. Muller Badroff alongwith the team members with the New India Industries Factory in the backdrop

easily "expanded" with additional printers as volume requirements rise. Fujifilm and Noritsu, along with some Chinese manufacturers, continue to make "original" photo paper minilabs as well as Dry lab models.

The global market as it stands today is focusing more on quick and instant services. Kiosks are being increasingly deployed for downloading images directly from smartphones (even minilabs require a device for downloading these images) and offering onsite printing of limited products along with connections to offsite facilities that will produce other personalized photo products. (see Figure 4). As 3D printing systems evolve further, photo-printing shops will be able to make 2D products and 3D products onsite while-you-wait.



Inside the Agfa plant in Mumbai, Mulund. The Chairman of Agfa Germany speaking to Mr. Patel and Mr. Mathur and looked on by Mr. Damodar Ghia

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The story of Minilabs in India

In India, where inter-state commerce involved additional taxes, the "photo" community was divided into three basic sections according to the strengths of the distribution networks for films, paper and associated chemicals of Fujifilm, Konica and Kodak. This commerce restraint, along with a lack of good delivery networks, also prevented large central labs being established in the country to collect films from other states, print the images, and send back the printed photos. Kodak focused on the professional photo labs, setting up more than 200 Kodak prolabs throughout the country rather than promote minilabs. Fujifilm and Konica did promote minilabs. However, imported minilabs were expensive and most of the printing of films was performed in small shops that developed and printed the film manually.

Small companies in India and the Middle East began selling minilabs, but onsite photofinishers outside of their countries, and even locally inside, realized that these machines had too many limitations to overcome their cheap prices and allow the operators to be competitive. Other companies that produced minilabs, usually for specialized applications, include Colenta (USA), GPE (Italy), Jobo (Germany), LumeJet (UK), Polielettronica (Italy) and ZBE (USA).

India being a very peculiar market had its own characteristics. And the burgeoning interest and the fact that there were only a handful companies making photography and processing popular in the world, as early as the 1913 was when Kodak established its Kodak house in Mumbai which would go on to become an iconic landmark in India for many decades to come. This was the Indian headquarters of the famous American photographic Eastman Kodak Company and the ground floor showrooms held the largest range of photographic materials in India. Both travellers arriving by steamer and local residents would be delighted to use Kodak's easy-to-use personal cameras.

First manufacturing plants are set up in India *First few minilabs reach Indian shores*

The growing popularity of photography meant that at some point of time Kodak needed to set up a plant in India. Apparently, after India's Independence, plans were set for Kodak to open its plant in India but they couldn't secure the necessary permissions from the Indian government. But the popularity of cinefilms and photography prompted the Govt. of Tamil Nadu to open the first sensitising/coating/ manufacturing factory in India at Udagamandalam (Ooty) with about 1500 workers. Infact the government also introduced Indu Paper from this location once the factory was up and running.

Another addition was made to the plant around the 80s with an additional investment of Rs. 186 crore for coating graphic films in partnership with the American manufacturer 3M, known for their polishing and coating products today. Unfortunately the factory and its products never took off and the plant seemed to face some challenge regularly. The plant is believed to be still running even today, but there is still no confirmation on the same.

Around this time the German manufacturer Agfa had also made inroads into the Indian market and was responsible for setting up the first processing plant in India. The plant was opened in Mulund, Mumbai on 18th March 1962 alongwith Bhupendra and Damodar Ghia's, under their banner New India Industries. A few years later they tied up with Spectrum Labs for processing. While this might not necessarily link directly to the minilab industry, it was the foundation for the future to come.

The industry prior to the development of the minilabs was focused towards processing and trading of photographic equipment. Unfortunately India has never been a manufacturer of photographic equipment but when it came to the minilab industry there were a few companies that did manufacturer minilabs for international companies in India, or at least assemble them. For instance for a few years, Photoquip manufactured minilabs for Gretag Imaging in India, the distribution of which was later taken over by Aver International. (Read Indian manufacturers section ahead). The integrated minilabs came into India as late as 1990s, whereas the stand alone printers, processors, film processors, which are to be installed in dark room (either fully or partly in dark/partly in room light) came into being from the mid 1980s. Locally made stand-alone printer processors were first 'Made in India' by Mr. Ramesh Bhat, in his workshop under the brand name, Colorama in Rajkot in the western region. He owned a colour print-processing lab and with his deep knowledge



Gretag launches its Master lab in India, which for a brief period was manufactured by Photoquip India



Noritsu Labs in the 1980s

about the industry and good connections in the UK, he brought the first machine and started making his own machines to suit Indian conditions.

Although the details are murky, it is believed that in the year 1982-83 was when the first Minilab was brought into India. There were a number of players during these few years that contributed to this cause. It is largely believed that Mr. G M Singh, who was an NRI from the Middle-East and also responsible for starting Lazer Color Lab as being the one that sowed the seeds of the minilab/ colour processing lab business in India. He was the first to import the first automatic, high-capacity, integrated complete minilab system from Japan, manufactured by Noritsu and installed at QSS group of labs in Worli.

A little later Mazda Imaging India Pvt Ltd, established by Mr. Edul Hawaldar also brought in their first minilab to Mumbai. In many ways Mazda India revolutionized the industry by setting up collection centres for prints in order to develop and set up a chain of stores in those days. Prior to this, there were no automatic colour lab systems in India. Agfa-Gavaert AG, Germany and Kodak, USA, both were running their authorised colour photofinishing labs in Calcutta and Mumbai respectively. The processing colour films of their respective brands were collected from customers through the authorised dealers in each town/cities of India, processed, and prints made and dispatched back to the dealers for delivery to the customers. In those days, a customer who exposed colour films had to wait minimum of 15 days to a month to see the photos in physical form of prints.

Since Agfa and Kodak had their own separate colour processing formaulae/chemicals, the colour films of one brand could not be processed in the other company's processing chemicals or colour labs. After a number of years and efforts of all companies, a common chemistry was invented with all companies agreeing to manufacture the films, papers and chemicals compatible to this common chemistry.

The more Americanised system of mass production colour labs model of business dawned on the Indian horizon early in 1980s and has to be credited to Mr. Singh and Mr. Havaldar. Similar labs cropped up in Bangalore under name Foto Fast, with the leadership of Mr. Fernandez, followed by some labs in Delhi, Calcutta and Chennai, and other cities gradually. It was a transition time for the photofinishing business from darkroom machines to daylight and quick delivery systems.

Fujifilm was also making quiet strides in the Indian market around this time. But most of the Fuji branded minilabs in India were produced by Noritsu and sold

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Noritsu partipates at an expo in India with machines on display

under the Fujifilm name. Although Noritsu officially entered India in 1998, globally following the invention of the automatic print washer, they were a name to reckon with.

Noritsu Koki was by far the leading manufacturer for minilabs in the world and they would produce minilabs for a number of brands across the globe, including Fujifilm and Kodak. But it would not be until 1998 that the company decided to enter the Indian market as a subsidiary of the Japanese manufacturer. By this time, their Quick Service System (QSS) had already become popular in India and it is believed by industry experts that it was enjoying nearly 51% market share at its peak, followed by Fujifilm who enjoyed a 25% market share with Konica holding 20% market share. The balance share was divided among the (a) Kodak, Agfa Minilabs, (b) Imported and assembled machines and (b) fully Indian machines, standalone printers/processors, etc. This is circa 1985 to 2000.

The minilab market in India was at its peak during the 90s and in 1999 Noritsu introduced digital imaging on normal photographic paper with their first QSS-2611 VFP Printer Processor with Dual Magazine and VF Printer. This model was exhibited in Mumbai PhotoFair on 10th April, 1999 and was purchased by M/s Snap Color Photo Lab from Nashik. In April, 1999 another model, the QSS-2301 HRCRT was installed at Bhalchandra Color Lab, Ahmedabad which was capable of printing sizes up to 12" x 18".

But while Noritsu was most sought after brand, followed by Fujifilm, due to the high cost many small/medium enterprises opted for the Konica brand, which was



JP Acharya, H Suzuki, Abdulla Fazalbhoy, M. Chiga along with Ajay Jadeja at the launch of Konica Centuria film

available from two sources, Nippon Enterprises South and PHIL Corporation Ltd., with support of parts and servicing. It is believed that the first machine that Konica brought in to India was the Konica Nice Print System 808, the compact RA4 chemistry machine along with matching film processor. This was simultaneously marketed by Nippon South (Mr. Acharya/Mr. Pardiwala) and PHIL Corpn. Ltd. (Mr. Abdulla Fazalbhoy) while the former handled the South and the East the latter was responsible for West and North India.

Indian companies push for production

While the bigger international companies like Kodak, Agfa, Fujifilm, and Noritsu dominated the market in India, there was a constant effort to indigenise manufacturing of local machines and equipment for the photographic industry. The minilab segment was no different and there were a number of companies that either entered into a joint-venture with international companies to license produce minilabs or manufacturer their own versions in India.

These included Indian players like Oriental Colour Laboratories (OCL), which was a chain of colour labs in Eastern India. Umesh Sanghvi, a technocrat from this group started using Durst, Italy/UK, printers and processors in their labs and started making minilabs under their own brand 'OCL', which were of similar quality since most of the main parts were imported. Initially, the OCL branded products were marketed by Agfa Gevaert India Ltd (AGIL) on an all India basis through their vast network of branches and field staff.

But following a few years of this arrangement, OCL themselves started selling the machines directly through their own office and marketing network, under the name

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OCL Photo Industries Pvt Ltd, using imported parts from foreign suppliers like Durst Italy, Sitte, Germany, and others.

Photophone industries Pvt. Ltd, which later became PHIL Corporation were also in the business of assembling and marketing Fotomec, Italy (later on San Marco) printer's processors. Mr. Abdullah Fazalbhoy, the Chairman of PHIL Corpn is largely believed to have shaken and revolutionised the Indian minilab market in the year 1985 onwards since the company had a 360-degree portfolio of Hot Shot cameras, minilab equipment, colour paper and own chemicals to offer to customers.

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- The solution for medium sized professional labs
 LED optical fiber based digital photo printer
 Print size: up to 30 in/75 cm in width, practical unlimited length (max. 30 mtr.)
 Workstation NT based with RIP/PS level 2 and software for Pro-labs/Social-Portrait-labs included
 Capacity: up to 90 prints 8 x 10 in. approx. 4.75 sq.mtr/hr.
 RA 4 reflective and backlit media

Lambda 130/76

- The large format Benchmark Laser based photo printer
- Print size: up to 50 in. wide, unlimited length (80 mtr.)
 Workstation UNIX based with RIP/PS level 3 and SW for Pro-labs included · Capacity: 20 sq. mtr./hr All Papers and films

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The High Speed Digital Lab

- Fully daylight laser based lab with integrated high speed paper processor • Print size: up to 20 in. in width, up to 5 mtr./16ft.
- in length Capacity: up to 1000 prints 8 x 10 in./hr.
- BA 4 reflective and backlit media
 UNIX Workstation with RIP/PS level 3 and software for Pro-labs and Minilab/Photofinishing applications
- Dual cassette type for easy change of size and type of paper with min nized paper waste

A Durst machine marketed in Asian Photography magazine in the 90s



The increased demand for photography meant an icrease in photo-stores in all cities. A file photo of Photokina store in Mumbai in 1996 featuring their old logo and the 1-Hour concept of Kodak.

In marketing minilab equipment's in all the companies like Agfa-Gevaert India Ltd., PHIL Corpn, OCL Photo Industries Pvt. Ltd., the main person responsible was Mr. PV.N.Moorthy as the Marketing Head who must have easily sold thousands of equipment and its consumables throughout the Indian subcontinent.

Other prominent players were Aver Photographic Co Ltd and Agile Labs who brought their own printers, processors and mainly concentrated into rural and semiurban market with their inexpensive machines. With this strategy they could penetrate the market from the bottom level.

In 2000, Photoquip entered in a joint venture with Swiss multi-national Gretag Imaging for independently manufacturing of minilabs. These included products like the Master Lab 740, Master Lab Eco and the Master Flex.



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In 2005, the company also introduced the Digital Combo – a complete Digital upgrade kit for the conventional Gretag Master Labs. But with the shifting trend towards digital technology, Gretag filed for bankruptcy which ultimately led to the end of the joint venture with Photoquip.

Photoquip also entered into a JV with Copal and Shinko of Japan to market the printers in India. Further R&D is this field resulted in the development of userfriendly operating software for digital machines such as QuikStation and Snapz, an indigenous upgrade/ modification for Shinko & Copal thermal printers, in order to upgrade them to standalone microlabs.

With the arrival of e-commerce and companies such as Canvera, set up by entrepreneurs who had worked in US e-commerce photo companies, along with the implementation of Internet networks, improvements in both delivery networks and government restrictions has provided consumers with many more photo service options. The impact on minilab population is shown in Figure 3.

Pitfalls of the Global photography meltdown

While the world was still reeling from the shockwaves of Kodak losing its way, the ripple effects in India were felt far later. But with the turn of the century, Kodak seemed to have caught the Y2K bug (not in the literal sense) more than anyone else. For a company that invented a number of things like digital technology, OLEDs and over 2000 patents, things went really North. But what was surprising that it wasn't Kodak alone that faltered and threw away its advantage, practically all companies that failed to adopt the digital wave and move with time sealed their fate. May be, this was a case of follow the leader in the industry (Kodak in this case) or just bad management, but traditionally every company that continued to depend on analog as a technology either traded hands/ owners and/or eventually came to a standstill at some point of time. The famous examples in such cases include Kodak, Agfa, Durst, Gretag in a long list of manufacturers that shut shop over a period of time. Fujifilm which also was nearly running out of steam smartly manoeuvred its digital camera business to recover in its journey for the future.

But while the turn of the century might not have been an exciting time for the analog/film aficionados, it was mighty exciting for imaging manufacturers/users that were looking to embrace change and also possibly break the strangle-hold of Kodak from the market. It's fairly ironic that some of the biggest and most sought after companies and executives were suddenly the outcasts of the industry.

Gradually, digital imaging crept into the market and caught the fancy of consumers and the photo-finishers. But the cost of the digital printing machines were very high and the analogue machines still has had a long innings even till 15-20 years after the advent of digital photofinishing.

By the time digital printing technology came into vogue in India, the whole photofinishing or colour lab business started limping due to falling margins and volumes. This



was largely due to stiff competition in colour printing, cheap plain paper prints, falling margins, and falling volumes of prints.

First to enter the digital printing machines was Aver Software Technologies Ltd, with the collaboration with Sienna Imaging Ltd. (US) which was taken over by Gretag Imaging, Switzerland. They came out with a stand-alone digital printing machine Sienna 300 in 2003, which was one of the best sellers in that period. Similarly, other companies also introduced their own versions of different type of

digital printing machines and it took four to five years for the big companies like Fuji, Konica, Agfa, Durst, Choromira, HP, Epson, and others to introduce different sizes, configuration of digital printing processing machines. From stand-alone printers, traditional photographic companies started introducing an integrated automatic minilab system gradually.

By 2007-08, the fierce war of digital printing processing machines using RA4 paper and the dry chemistry papers using cartridge/toner/dye sublimation technologies was raging and the colour photofinishers were running helter-skelter not only to retain their existing business, but also expanding their client base. With the advent of digital printing, the traditional silverhalide prints also had to take a back seat.

But where one segment seemed to be coming to a grinding halt, others were looking at it as an



opportunity. Companies like Epson, HP, Canon, Xerox and other printing giants lapped up the digital revolution to capitalise the void in the market. We will take a look at this subject in the chapter on 'Overview of the Photographic Industry'. But it was these companies that capitalised the opportunity and developed products that would become important in the industry and move with the trends of time.

For instance HP's Indigo Digital Press which seems to be enjoying a good market share in India today came to the market in 2001 after HP's acquisition of the Israeli company Indigo Digital Press. What was important was not the fact that HP acquired the company, but the timing of acquisition. 2001 was the time when digital technology in photography was in a nascent stage and most photographers and users were contemplating the switch. HP had the vision to capitalise an opportunity knowing that digital albums and books, being printed without plates would be a thing of the future.

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And when you think about it, it isn't like this opportunity or the technology wasn't available to the bigwigs of yester-years, it was just a misguided step in time. HP today, in India especially enjoys a mammoth market share in this segment with newer entrants like Canon with their Canon DreamLabo 3000 and 5000 also entering the market.

The analog minilab industry in India, however, continued to push its boundaries. But by 2012, with Kodak filing for bankruptcy, it was clear that the days of analog were sealed. But what market trends have shown is that it takes one to change the outlook of the industry. While the analog technology, minilabs and its manufacturers have seen a struggling time, global companies like Shutterfly and CeWe have demonstrated that staying in business in this industry is staying ahead of the curve.

This trend is also clearly reminiscent in the Indian industry as well. While the traditional importers of analog minilabs have nearly perished, Photolabs are still in business. In fact, companies like Canvera have really changed the Indian landscape and the manner in which online business is conducted in India.

So this brings us to the original question, all-in-all do minilabs have a future? The real question however is: How do you define a minilab or a processing business? If you define a minilab as a machine then yes it might be struggling, But if you define a 'minilab' as a 'Photo-Shop' that produces photo-products inhouse, in which case, Minilabs will continue to grow.

- Bhavya Desai and Don Franz



Undoubtedly, the invention of the automatic print washer changed the photo developing industry forever. While the development of the technology in the minilab industry wasn't as fast paced as the imaging industry, it was crucial to furthering the growth of the photographic industry. The manual minilab revolution took the US market by storm in the 60s and by the 80s the concept of photoshops was evident across the globe. The market in those days was dominated by Kodak, Fujifilm, Noritsu, Konica and Agfa. With other manufacturers like KIS and Gretag also vying for their share of the pie.

The technology soon caught this side of the Atlantic with China and Asia providing the next impetus and growth to the industry. This also gave rise to a number of local manufacturers in China like Lucky. Coupled by the heavy import duties and restrictions, Chinese companies quickly adopted their own versions of popular minilabs.

Closer to India, the first minilab was imported from Noritsu Japan by Mr. GM Singh, which was shortly followed up by another by Mazda Imaging in Mumbai. But the seeds of manufacturing and processing films were already laid as early as the 1960s. India's first processing and manufacturing plant was put by the Govt. of Tamil Nadu in Ooty in 1960, which was soon followed up by Agfa India putting up a plant in Mulund, Mumbai in 1962 under the banner of New India Industries. This was followed up by a number of Indian manufacturers that made local machines as well like 'Colorama' in those days as well.

But the advent of digital around the year 2000 started sealing the fate of the global juggernauts. Was this a case of being complacent or just plain poor management, one can't be sure. But the industry was up for a rude awakening with most global manufacturers shutting shops with the turn of the century. But with digital technology now opening numerous other doors for the future, do minilabs really have a future? This question actually boils down how the concept of a minilab has changed over the years. The minilab these days is not just a machine that produces prints. It is actually the experience of walking into a shop and getting the desired output that one is looking for.