SOURCING **QUALITY PRODUCTS** IN CHINA AT THE **RIGHT PRICE**

PAGE 40

R&D: THE **HIDDEN COST** IN DELIVERING NON-INFRINGING **PRODUCTS**

PAGE 24

PAGE 10

FREE TRADE ZONES SUPPORT VALUES CHAIN **PARTICIPANTS**

WHY **QUALITY** WILL ALWAYS WIN OVER **PRICE**

PAGE 50

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WHAT DO PRICE WARS REALLY ACHIEVE?

PAGE 28

— Graham Galliford examines the art of war over print consumables

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COSTS & PRICES

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After showing an improvement in shipment volumes to July 2022, Chinese ports have seen a downward trend as the impact of lockdowns, and in some case typhoons, have intensified. This pressure on supply chains continues to place stress on costs which in turn impacts pricing.


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UNLIMITED INNOVATION:
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1005/1020/2506/2606
CN Invention Patent No.: 202210474297.X
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Let consumers no longer worry about printing costs.
Compatible With:
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BIZHUB 4700i
CN Invention Patent No.:
202010518746.7
TK-6345K/TK-8545/TK8555
KLD-TN-328/626
CN Invention Patent No.: 201911341906.9
DR313/DR316(Drum)
KLD-IMC3500/MPC3503
CN Invention Patent No.: 201911189749.4
KLD-IM350/430
CN Invention Patent No.: 201910875611.3
KLD-NPG-73/GPR-57/C-EXV53
KLD-NPG-71/GPR-55/C-EXV51
CN Invention Patent No.: 2019104118810.1
US Invention Patent No.: US16/442587
EU Invention Patent No.: EP19180456.6
NPG67/74/GPR53/EXV49/54(Drum)
KLD-FK-S1810/S2011 (Fusing unit)
KLD-TNP79/80/81
CN Invention Patent No.: 202010518746.7
KLD-MX310
CN Invention Patent No.: 201910495312.7
US Invention Patent No.: Us16451011
EU Invention Patent No.: EP19182322.8
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David Gibbons

I have been involved in this industry for 32 years. Every one of those years has been a tough year. At first it was the OEMs who developed the "lock out" chips. We all thought it was over for the aftermarket in the 1990s. In those days we had less than 20 SKUs.

Since then the OEMs have released hundreds of different printers using different technologies. Could we keep up? It was tough going.

Then there were lawsuits, IP issues, lockout prebate products. It was tough.

But during all of that time, the margins were immense. You could make good money from remanufacturing a single cartridge.

Then came the Chinese. Firstly with significantly cheaper reman cartridges, and when they couldn't get enough empties they made the cartridge cores as well. A new build was cheaper to buy from China than to collect and reman an empty cartridge locally. But competition kicked in, and prices became more competitive. The advent of shopping on the internet meant more competition and the race was on to the bottom for prices.

COVID has not helped either. Neither has the shortage of supply of microchips. Supply chains and shipping logistics have been a nightmare. Costs have risen and impacted prices. It's never been so tough.

I guess when the going gets tough, that's when the tough get going. If you are reading this, then you are one of the tough ones. And you probably have the scars to prove it.

The topic of costings and pricing impacts every industry player in both the vertical and horizontal chains. To this end I have sought the wisdom and experience from colleagues and experts from the UK, the USA, Latin America, Africa, Australia, India, Russia, Europe and of course, China. A special thanks goes to Graham Galliford for his 50 years of technical and practical expertise in the printer and supplies industry has existed. For this reason he is honoured on our front cover and for the two articles he has prepared for this edition.

Yes. This is one of our largest editions given the topic. I am sure you will find the insights in this edition helpful, as did I.

Keep in touch.

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Sourcing Qual
China at the R

For over 20 years, Dennis Haines has run businesses in Europe, US and Asia Pacific for two multinational companies. In 1999, he started selling inkjets and then toners in the UK and Australia later adding partnerships in other countries. Frequently visiting China for 20+ years, he has witnessed the growing pains of factories large and small.

ity Products in ight Price

Dennis Haines

I have visited more than 100 inkjet and toner factories over the past 22 years.

It has been a fun experience and has included visiting the same factory morning and afternoon, where all the staff changed uniforms.

There are many fantastic factories in China, but also many dreadful ones. It is difficult to judge a factory from afar. If it looks too good to be true, it probably is! Caveat Emptor (let the buyer beware).

True story 1

A UK customer purchased $100k of reman inkjets from me every month, I made a 10% margin and they paid on a credit account 30 days after delivery to them.

One day the customer said I needed to reduce prices by 20%, as they had found a brilliant alternative supplier. I said it was impossible for such a saving on a "like for like product"! To assess the supplier, they purchased $10k, then $30k and then $50k, each time paying up front. To keep freight costs down they placed a big $200k order and paid-up front. Eight weeks later the container arrived in the UK, the boxes were full of newspaper (not cartridges), and they called me to help. Cut a long story short, the factory had disappeared, leaving no details of the people other than John Chan, Michael Wong. The $200k was gone!

True story 2

I personally tested an order in China and paid immediately after inspection. I called our freight forwarder to collect, and at midday went to lunch with the factory owner. When I returned at 3pm the shipment had been collected. When the goods arrived in the UK, we completed incoming QC. The top layer of inkjets in the boxes were good, everything else rubbish. The products had been switched while I was at lunch! The supplier begged forgiveness and promised never to cheat me again.

I have other similar as well as different personal experiences. Cheats are very inventive!

So how should you handle buying from China? What market position does your company want? And how do you ensure that all goes smoothly?

Here are some important questions should consider, and even ask:

1. China factory pricing

For finished product or components, the difference between high and low prices for a given volume may be 30%. Why?

2. What factors determine product quality?

a) Component quality;

b) Design and assembly process;

c) Testing;

d) Rework as needed.

3. Copyright and patents

a) OEMs are increasingly aggressive with lawsuits;

b) Factories say their products are "patent free" but how do we know it is true?

c) Patents are complicated and OEMs are registering new patents all the time even for very old products;

d) Indemnity Agreements are easy to write, but most are worthless. To defend even a simple patent lawsuit can cost $100k+. It will be you, not the factory that will be sued. What are you going

to do if the factory does not honour its commitments? Do you know who you are dealing with, real names, etc?

When I have visited the police, they ask for the China ID cards of the culprits;

e) Tier 1 factories may have 50-100 people in their IP department, small factories may have zero. It is inexpensive for a disreputable supplier to say (lie!) we do not infringe patents.

4.After sales service

a) OEMs are now frequently changing software so that product chips no longer work. How will they support customers who are stuck with finished product that no longer works?

b) What warranty support will you get?

c) How does the supplier handle batch problems?

5. Change control

How do you know what the factory is sending you?

a) For certain remanufactured HP inkjets, we specified the factory used pigment ink. The factory changed to dye ink without telling us, but we soon found out from our customers. The factory said they needed to reduce costs, so made the change and were unrepentant! That was the end of that relationship!

b) Factories change design and components, because of patents, supply shortages, cost reduction or some other reasons. It is very unlikely they will tell you!

c) Traceability. Does the factory record the Bill of Materials for every product they manufacture?

6. Honesty and Integrity

How important and how much is this worth to you?

If buying powdered milk for a child, you would not want the factory to use dangerous ingredients. Sadly, many China factories make unsafe products, but how important is this for inks and toners?

a) I visited a China factory making toners for a very famous brand. They said:

- We produce 200k toners per month;
- Their failure rate was much less than 1%
- They claimed to life cycle test 2% of all toners off the line (4k per month = 200 per day).

I asked to see the printer test area and the print output from the QC testing. It proved to be all lies. I asked the brand owner, and they repeated the lies. Was it a lack of integrity or a lack of knowledge? Both are bad!

b) How to tell if what you are being told is true?

c) I visited a factory who told me they produced inkjets for a very famous UK aftermarket company. The boxes were mine and they were supplying a competitor, who was passing the goods off my product! I complained to the China government who said they would impound the next shipment. Strangely, no more shipments were sent.

7. China Factories

I just want to know how to buy good product at the right price. Is it so difficult?

China factories can be classified into:

Tier 1. <10 factories with long experience/excellent processes but the most expensive. These factories will be around for many years to come. The executives drive top end cars, and they operate to high standards.

Tier 2. <50 factories, do a decent job and may make products for tier 1, under close supervision. A few may go bankrupt each year.

Tier 3. Hundreds of small factories. They may buy raw material rejected by Tier 1. They have low overheads, low prices, and product inconsistency. The product quality is sometimes good, sometimes poor. Most tier 3 factories produce products for only a few models and trade with other tier 3 factories to create a wider range. With low MOQ (minimum order quantities), it's easy to get started. Many will go bankrupt each year and/or restart under a different name. You only get what you pay for.

8. Summary

Is it possible to obtain the Best Quality, Brilliant Service, and the Lowest Price all at the same supplier? As nice as this would be, it is simply NOT possible. You can have anything, but you cannot have everything. What does that mean in practice for you?

Every buyer needs to decide what factors are most important to them.

It is not for me to recommend individual factories, but Ninestar and Print Rite are two giants still prospering after 20+ years. From these companies, you can expect to pay prices 10% higher than tier 2 and 20%-30% higher than tier 3. I only buy from tier 1 factories so I can sleep soundly. They will support me if things go wrong. Smaller factories may be "fair weather friends", they may be very nice people, but do they have the money to support you in a crisis. ■

Ben Chen

Sourcing Products at the Right Quality and the Right Price in China

Not all buyers of a product know exactly what are the characteristics or properties that they need, with the exception of the price.

SCM WORLD, a member of the Gartner group, is an internationally renowned information technology research and consulting company. It interviewed nearly 600 supply chain managers in their 2020 Chief Supply Chain Officer Survey. Most of the respondents believed that an efficient supply chain in business is important to reduce costs. Nearly 70% of the respondents believed that supply chain is very important to business strategy, and less than half of the respondents believed that supply chain is very important to enhance their own competitive advantage and innovation value. It can be seen that supply chain management strategy of any enterprise is focused on controlling cost-effectiveness and improving the efficiency of their supply chain process. This is a "defensive" supply chain strategy. In contrast, a few companies utilize an "offensive" supply chain business strategy to work with partners to build a sustainable ecosystem.

Sourcing quality products in China at the right price, simply understood, is a typical purchasing behavior. The questions to ask when sourcing and purchasing products are what is the right product and for whom is the product suitable? We found that not all buyers of a product know exactly what are the characteristics or properties that they need, with the exception of the price.

Sourcing products at the right quality and the right price.

So, what do these three keywords mean respectively, and what do they mean when connected together?

• Sourcing

This is finding out where a particular product can be obtained. The first question many buyers ask potential suppliers is, "Do you have a factory?" This is of course an important question, but buyers do not ask about the quality of the factory? Just looking for a supplier to have a factory is not enough. In the past, many well-known factories have closed, such as FirstInk, TopPrint, Afealty and Tianma. Did these companies have factories? Yes, they did. Their fate reveal some common characteristics: not meeting commitments to customers, employees and suppliers.

• Quality

Quality may be determined by measurement against similar competitive products. What needs to be understood and specified is what is the standard for a particular product? What standard is most suitable? For example, you can't buy a Ferrari or a Remy Martin Louis XIII at a 711-convenience store. If you expect to purchase a Q2612 cartridge for $2 from Ninestar, this would also be impossible. Of course, those sellers who are offering a Q2612 for $2 don't care about matters such as the infringement of patents, environmental protection, or brand concepts. One can find these offered at $2, $3 dollars and $6. Is there any difference in quality of the products at different prices? I believe everyone knows the answer.

Right Price

The question of how to find a balance between the right price and quality is undoubtedly a problem faced by everyone, whether a buyer or seller. At the 2019 *Remax World* expo, Dennis Haines, of Badger Office Supplies company, said if a product's price is much lower than the OEM product, then it's likely that the product is not equivalent in quality. In my opinion, this is the most rational testimonial, and what a painful realization.

I have communicated with different buyers and sellers countless times over the years and found a very interesting pattern. The source of disputes between buyers and sellers is not "bad quality", but the difference in quality perceptions between the two sides. Understand, for example, when negotiating purchase, sellers only emphasize quality, while buyers seem to only focus on price.

In the face of an increasingly complex market environment, the best supply chain not only needs to be defensive, smooth, and efficient, but also to be offensive, agile, adaptable, and able to maintain synergy with the interests of corporate partners. The best operational principle is to work with partners to build a sustainable ecosystem, maintain a certain sensitivity to changes in the market, and adapt accordingly. ■

Ben Chen

Ben Chen is the owner of Sino Printing Supply Chain Management Co. Ltd., a company with 20 years' experience manufacturing toners and spare parts for the MFP and photocopier devices for buyers across the globe. Chen's experience includes marketing, shipping, supply and manufacturing chains. <info@sinopscm.com>

Free Trade Zones: Func for Value Chain Partici

In recent decades, the world has witnessed a tectonic move towards economic liberalization, modernization, and globalization. Differential endowments of resources have resulted in rising interdependence among nations for sources of raw materials and markets while accelerating technological advances are changing the lifestyles of people and have elevated their aspirations.

No wonder, even traditionally inward-looking countries have gradually moved to embrace globalization as an economic paradigm. Today, in terms of movement of material, men and technology, the world market is much more integrated place than was the case for a substantial part of the last century.

As economic growth picks up, incomes rise and people around the world stay connected with the help of information and communication technologies, enormous demand pressure builds.

Again, traditionally, the governments of countries often imposed policy restrictions on export and import of goods as well as regulated the foreign trade with tariffs or customs duties. However, to meet the burgeoning demand for a host of goods and services, countries now adopt liberal foreign trade policies that encourages less-restrictive export and import trade.

It is in this background and to build even greater flexibility in foreign trade that Free Trade Zones were designed as designated duty-free enclaves to be treated as a territory outside the customs

ctions and Advantages pants

Dr Mohan Guruswamy
Chief Knowledge Officer , World Free Zones Organization

area for the purpose of authorised operations.

Such enclaves are variously known as Free Trade Zone (FTZ), Special Economic Zone (SEZ), Export Zone, Export Processing Zone, Free Port and so on. So, a FTZ can be described as a geographic area where goods may be imported, stored, processed, and re-exported under specific (usually non-interfering) customs regulations and generally not subject to levy of customs duty.

To facilitate expedited movement of raw materials and finished goods, FTZs are generally organised around major seaports, international airports, and national frontiers – areas with many geographic advantages for trade. No license is required for import into or export from FTZs.

Importantly, there will be no routine examination of import/export cargo by Customs authorities. Equally important, FTZ developers and units located therein enjoy tax benefits, both direct tax and indirect tax benefits. The fiscal concessions and duty benefits are incentives for export and are consistent with the principles that guide export promotion initiatives of governments in general. Incentives provided are conscious public policy actions that are intended to lead to economic benefits.

Why are FTZs / SEZs important? They serve multiple objectives including

(a) Generation of additional economic activity

(b) Promotion of export of goods and services to earn foreign exchange

(c) Promotion of investment from domestic and foreign sources

(d) Creation of jobs and incomes for people

(e) Development of infrastructure facilities

Business entities located within a FTZ having business that demands unhindered import and export of goods and services can enjoy several advantages. These include increased global logistics efficiency, reduction in avoidable logistics costs, flexibility in operations, improved cash flow and not the least, greater transparency, and predictability of policy. Simply put, FTZs offer greater 'Ease of doing business' and reduced transaction costs.

No wonder, across continents, FTZs have been established and are performing creditably. Yet, a note of caution. Going forward, it cannot be 'business-as-usual' for FTZs. The pandemic has taught the world many lessons, not the least of which is the dire need to build resilience.

FTZs across the world have got to get 'Future Ready' to be able to meet the challenges including geopolitical instabilities, supply disruptions, sanctions, protectionism, resource nationalism. Not only FTZs, but importantly the businesses operating within FTZs must become 'sustainable.'

The future of businesses will be 'green,' 'natural,' 'eco-friendly' and 'biodegradable.' Global warming / climate change and its perceived adverse consequences on the world and humankind is driving sustainability. There is now renewed consciousness and a call for rational and optimal utilization of scarce resources, protection of environment and advancement of human welfare from a long-term perspective.

To thrive and prosper, FTZs have

Djibouti international Free Trade Zone

to take cognizance of the emerging scenario. Decarbonization is a critical part of this scenario. It is in this context that the World Free Zones Organizations (World FZO) is working towards a series of awareness, education, and capability development programs for free zones around the world to be ready for the future.

One such initiative is called "Free Zone of the Future Program ("FZF Program") – a Global Initiative for Local Prosperity" - that seeks to empower free zones and assist them to build and contribute to a sustainable and prosperous future – one that supports the growth of local economies and communities while simultaneously benefiting from the global market dynamics.

This program helps free zones grow their business, be more aligned to best practices and improve their operational efficiency. Through the FZF Program, World FZO aims to bring together an ecosystem of free zone stakeholders from around the world and help them contribute to building sustainable prosperity.

The Program consists of three main Pillars of Excellence and Nine Components. The FZF Program equips its members with tools and resources through these components to achieve their long-term goals.

The three main Pillars are firstly, "Best in Class" including components of Knowledge-based, Certified and Tech-ready Zones. Then secondly, "Innovation & Entrepreneurship" including components of Entrepreneurial, SME Developer and Innovative zones. Finally, the third is "Sustainability" including components of an Environmentally friendly, a good place to work and socially responsible zones.

Each of these components could lead to a certification as follows:

- Safe Zone – a certification related to Security, Free Zone Regulation and Safety aimed at making free zones a recognized method of promoting sustainable competitiveness.
- Tech-Ready Zone - will offer e-Governance services and smart zone capabilities that will enable free zones to validate their businesses and complete processes online without the need for physical documentation, in accordance with local requirements
- Knowledge-Based Zone - that would include a Free Zone Executive

Government and private sector experts share insights at Free Zone of the Future Program launched at World Free Zones Organization's second annual international conference and exhibition. (Photo credit: ME_NewsWire)

Program which will emphasize knowledge building, innovation, and networking.

- Entrepreneurial Zone - will offer Business Incubation support to free zones to enable them to create regulatory compliance and infrastructure for start-up industrial firms based in those respective jurisdictions.
- Innovative Zone - will examine organization and partnerships, policy and processes, innovation output, and market and industry impact. Depending on the specific needs, the plan may include, strategic programs and high-level operational plans, organization and staffing plans, financing and risk management plans, commercialization strategy, and prioritized R&D areas.
- SME Developer - Small and Medium enterprises are the backbone of most economies including free zones generating a huge part (normally around 66%) of the GDP of a country and they are most important employment generators of 21st century. The program will emphasize the need to nurture small and medium-sized enterprises and increase their efficiency through training, networking, and support.
- Green Zone - will provide support on developing environmental sustainability goals, including air and water pollution and carbon emissions. Efficient use of natural resources such as land and water will be advanced, and biodiversity will be preserved. Recover, recycle, reuse.
- Health, Safety & Welfare - will not only seek to create an environment that ensures health and safety of people in the free zone, but also make skill development and improving the quality of life an integral part of the ecosystem.
- Socially Responsible Zone - Positive and consistent corporate social responsibility initiatives can be critical to market integration and in the development of long-term brand awareness and goodwill, which in turn may become competitive advantages.

Free Trade Zones across the world have been constantly building their capabilities with a view to add value to their key stakeholders, value chain participants including manufacturers/exporters, importers/buyers, and distributors. ■

IN MY VIEW

How do you overcome objections on prices of your products?

Romania

Mihaela Pârlog
Marketing Assistant, Toko

We often do customer surveys to get some idea of how much our customers are prepared to pay. These surveys help us "value add" the pricing. We know they consider the levels of service, guarantees, payment deadlines or brand reputation—not just the price alone. The customers that object are usually those who are cost conscious and want to buy premium products at low prices. For the past year and a half, we also inform customers about the increasing supplier costs to avoid objection.

United Kingdom

Dennis Haines
Badger Office Supplies

Some customers always buy from the lowest price supplier for that day. Do we want to always make low margins or prefer customers who value quality/service as well as competitive prices? Buying cheap low-quality products can be very expensive if things go wrong. Why take the risk for a small discount?

Japan

Iemori Kanetoyo
Sunwise Information Corporation

If the client continues to object to the prices of our products, we will consider some methods to cut down expense or labor cost to meet the client's budget limit. Or we try to make out a novel value-added product plan and present the premium price to seek the client's acceptance. This is the ultimate way to overcome objections on prices of existing products.

Franchises and Pr
The Cartridge Wo
Solution

Mike Hemming

It seems these days everyone is focused on price. Whether it is the global rising cost of everyday items that we take for granted such as energy, fuel for our vehicles or our grocery shopping. The cost of every day living is a growing concern. But is it the key driver for making purchasing decisions? Recent data would suggest, yes, it is, even for printer consumables.

There are so many competitors in our industry, and it is easy to get dragged into price wars. Cartridge World has never worried about being the cheapest. We do not position our product against the cheapest in the market as this is not a sustainable business model.

Every brand will claim they have the best quality at the best price, but these are not messages we use in our marketing. We are a mature brand and one of the most resilient given we have been trading for over 35 years. Instead, our Master Franchisees and Franchisees offer services and solutions that enable customers to reduce their printing wastage and printing costs.

Historically, when positioning the Cartridge World brand, the products had been pitched as a percentage saving versus the OEM. In the early days, our USP was that we could offer savings of up to 60% versus the OEM when customers had their cartridges refilled or remanufactured.

This, along with the environmental aspect was a huge draw for customers, and even resulted in a dawn of competitors in the UK trying to mimic what we did, and how we marketed the business. Our products are still positioned to save compared to the OEM product. However, due to changes in OEM product, such as ink cartridges getting smaller (HP 302 versus the goliath HP 78) resulting in lower OEM prices, the potential saving for end users is no longer 60%, but it is now around 30%.

Printing technology has developed quickly with the introduction of smart chips, faster print speeds, improved print quality and more functionality for end users. As print technology advanced, remanufacturing became more advanced, and the industry changed accordingly. In reaction to this, our business model changed with a shift from in-house remanufacturing to the supply of finished goods, working with globally approved suppliers.

This shift released technicians from the back of the store, a place where they were able to upskill and become salespeople focusing on selling our services and solutions. It coincided with Cartridge World launching operations such as CW Print Services; a multi-tiered MPS program. This was then followed by the Why Buy a Printer Program.

We saw an opportunity to develop new business models where the franchisees would have the ability to have ownership of the printers they serviced and place more printers in their clients through contractual business creating more stability. This was a strategic business move as customers were becoming more focused on the price of the consumables, and not on the bigger picture

Mike Hemming joined Cartridge World in 2002 and has held several positions including technical support, R&D, training, and Quality Assurance. In January 2017, he assumed the role of Operations and Project Manager, successfully rolling out and supporting franchises in the UK. He has achieved STMC certification on two occasions and developing internal QC testing processes. His experience has given him insights into this ever-changing industry.

of their overall printing costs. This is where we were able to come in, conduct a print fleet assessment and show customers how much we could save them monthly with no discussion about the price of the cartridge. We focussed on the solution and service we were offering.

So, we helped our customers save money on their printing costs and reduce their wastage in printing.

For the franchisees, it is important for them to have a profitable business. This is achieved by operating the Cartridge World system correctly, through building a guaranteed annuity by placing printers, and having access to supplies products at the right price.

There is however a balancing act when it comes to price and quality. The product needs to be the right quality at the right price. Over the years we found that product quality from approved suppliers differed, with inconsistency from one batch to the next. It was easy to get caught in a trap where you push the supplier for a lower cost price, and their reaction would be to reduce their costs, normally by using cheaper raw materials which resulted in a reduction in print quality performance.

All of this led to the establishment of the Cartridge World Global Procurement Centre (CW-GPC) in 2015. This gave us the ability to monitor the quality of the products being supplied in Cartridge World branded boxes through a triple stage quality control process. This enabled us to deliver products to our Masters and Franchisees at a competitive price. It enabled them to make a good profit margin on the supply of Cartridge World branded premium products.

Cost pricing of products clearly has an impact on retail pricing, especially at a time where prices are continually increasing. An increase in cost has a negative impact on business with profit margin erosion unless the retail prices are adjusted in line with the cost increase. However, unless the relevant OEM prices are increasing proportionally, the cost saving versus the OEM is harder to maintain. There may be a temptation to look for cheaper suppliers, but this is difficult if all suppliers are impacted by the same increases on raw materials for example. This all comes back to how we position the brand and our products, services, and solutions.

Our contracted business models such as the Why Buy a Printer Program allow us to position Cartridge World against other VARs, not just against a cartridge reseller, as we are offering a service to customers, and not focusing on the sale of a cartridge.

So, through the supply of product from our Global Procurement Centre and approved suppliers, and our brand name, operating system, and business models, we provide a unique opportunity to franchisees to grow a successful business with achievable profit margins. Franchisees joining the brand can expect to start a business with a payback period of 2-3 years, recurring income to support an above average lifestyle, high quality, high margin products, affordable investment, and a turnkey solution. ■

IN MY VIEW

How do you overcome objections on prices of your products?

U.S.A.

Shannon Parrish
Static Control Components

Raising prices is necessary for a company to be sustainable in the long term. We have seen price increases in most industries, which is leading to inflation in most countries. Raw materials, global fuel prices, labor and logistics are the main factors. We have a strong relationship with most of our customers and they understand that raising prices is not our intent, but it is essential for maintaining business continuity. At the same time, whenever we can pass a cost decrease to them, we do it. Reliability, along with being honest with our customers, is how we have earned their loyalty. Happy, repeat customers are priceless!

Singpore

Ricky Lee
EOP21 PTE LTD

Our toner products are attested and known for their consistent print quality and reliability. We offer our customers solutions with our product values/benefits and special multi-price scheme. For new customers, we offer a one-off "Experience Price" so they can experience the quality at a very low price. Satisfied customers continue to enjoy "Entry Price" on the next price-tier for a limited period to help them build confidence in our products.

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5 QUESTIONS

The Impact of Automation on Pricing of Individual Products

—Henry Cheng, Innogetic, talks about the importance of automation

As a designer and manufacturer of production lines, how does automation improve products for your cartridge manufacturing customers?

By introducing automation machines or lines, manufacturers receive many benefits including the reduction of costs with fewer employees and the reduction of environmental dangers. On the other hand there is an increase in product quality with the use of consistent robotic action, and production efficiencies.

What processes are involved, and how long does it take for a company to get an automated production line up and running?

I'd like to answer this question in two parts:

a. For those manufacturers who directly replace with standard machine. These companies who know what processes can be automated they directly look for standard machines in the market and decide if they can be installed in the process. This is a simple buy-sell process but may need added services for support on the initial request or after sales support. For standard machines, the lead time depending on stock level, and to rebuild a simple machine normally takes 4 to 6 weeks. A more complicated implementation may take much longer.

b. Then there are those who replace with a purpose built, non-standard machine. As a supplier of such equipment, I must determine the process requirements needed. In-depth study with my customers' engineers will identify the needs of the application. A DOE (design of experiment) may be needed to evaluate the process complexity. The machine requirement and price will be developed to obtain customer approval and trigger development and fabrication. Two to three months is a standard lead time for a simple machine and more complicated processing machines may take much longer.

In what ways does automation add or reduce the costs of production?

Additions to cost for automation include labor costs for electricians and technicians to maintain the equipment.

Reductions in labor cost on operation include lower rework cost because of quality issues, lower recall costs on finished good from customers, lower operation cost because of increased efficiency and potentially longer available working hours (24x7) and reduced environmental and medical costs for operators.

If the next generation of automated production lines involves some human staff to be part of the process, will this not increase the costs of production? Why?

Including some human operators as part of automated production processes does not necessary increase the cost of production. Sometimes, it may reduce that cost. When we replace human operators with machines, we need to calculate the ROI (return of investment). We need to calculate how many years the machine cost can be recovered by improved costs. For example, a machine might replace operators but take 5 years to recover the machine cost. However, if the product to be made has a life cycle of 3 years and the machine can't be used for the next product, then, the machine will need to be scrapped 3 years later. In this case, employing manual methods are preferred to automation. There can be other issues that mitigate against automation. An example is if there is machine production instability, in which the machine creates quality issues due to machine immaturity.

Does automation, in the longer term, help a company to reduce its costs?

In general, automation, in the longer term will help a company to reduce its costs, particularly labor costs. Automation of all company production processes may not reduce production cost. This is especially true for wide-range, low-volume product production environment, because the range of what items produced have very little commonality in their production process. ■

Henry Cheng, CEO of Innogetic, <henry.cheng@innogetic.com>

Shipping and Logisti
Will They Return to Pr

Ben Chen

cs Costs?

e-pandemic Levels?

Ben Chen is the owner of Sino Printing Supply Chain Management Co. Ltd., a company with 20 years' experience manufacturing toners and spare parts for the MFP and photocopier devices for buyers across the globe. Chen's experience includes marketing, shipping, supply and manufacturing chains. <info@sinopscm.com>

Everyone who is engaged in international business is very concerned about logistics costs, shipping capacity limitations and disruptions to the supply chain caused largely by the pandemic.

Rapid economic growth of the global economy in 2017-18 stimulated rapid investment. At the end of June 2019, the World Bank officially released its statistics and estimates of the global economy for 2018. It said that total global GDP was 85.791 trillion US dollars, an increase of 4.905 trillion US dollars over the previous year's 80.886 trillion US dollars. In the global economy, the United States accounted for about 24.47%, and China accounted for about 16.30%.

Then came the COVID-19 pandemic. It's first blow on the global economy was on December 16, 2019. The domino effect upon the global economy has been horrendous.

The impact first effected the supply chain. Manufacturers supplying the world from countries such as China faced lock downs which hampered production. Logistics were similarly affected. Not only sea freight, but all modes of transportation. Shipping costs consequently skyrocketed, impacting product costs around the world.

While it is highly recognized the pandemic has been the root cause of soaring shipping costs, there are other factors too. Since early 2020, shippers have been experiencing a capacity crunch resulting from container shortages, port congestion, and skyrocketing freight rates.

Shippers actually don't know if rates will return to pre-pandemic levels and experts agree that 2022 will be another year of unreliable, very expensive international ocean transportation. In other words, whatever happens regarding the pandemic, the supply chain is constantly confronted with congestion and high costs as well.

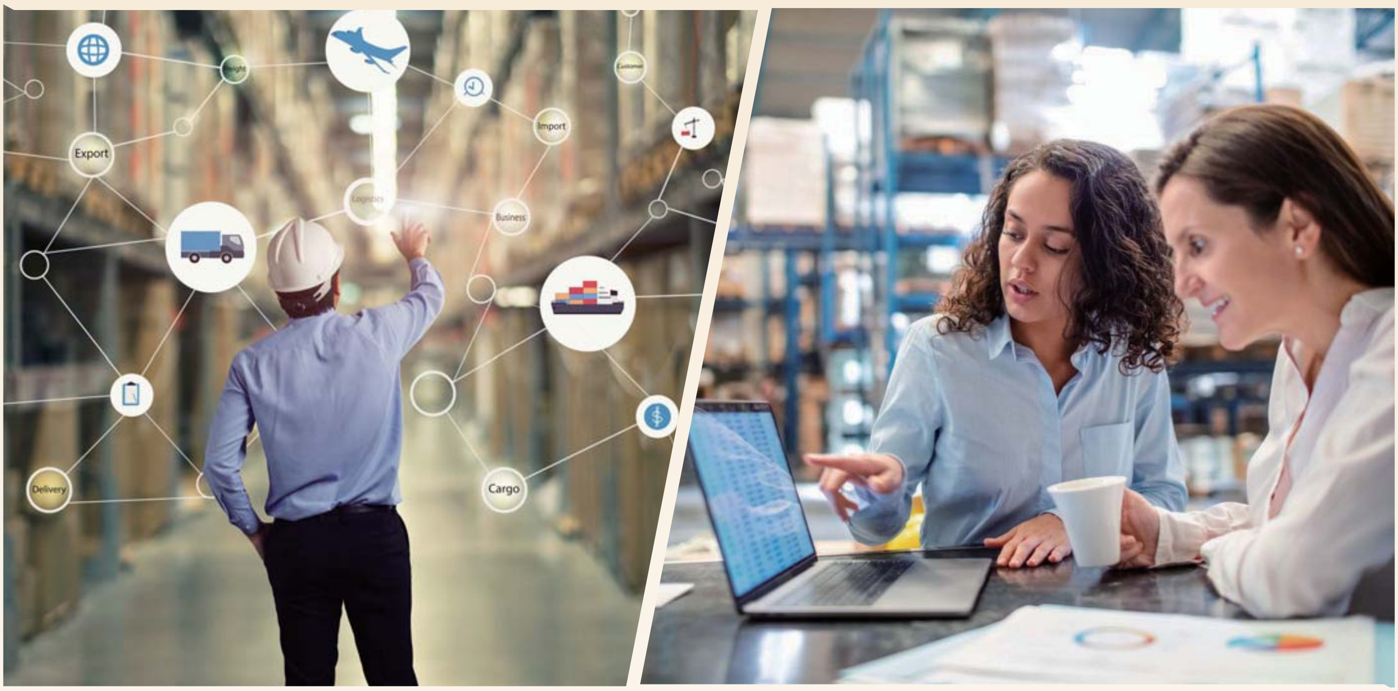
Gold is a hard currency but during special circumstances, confidence is more important than gold. We have seen fear and uncertainty become ferocious weapons impacting businessmen across the globe.

When considering logistic costs, the changes in trade between the United States and China are demonstrative of the effects.

Looking at the events over the last 2 years and the short-term future at least we can see the following:

Likely recession

With the outbreak of the pandemic, the global economy began to contract, industrial production was sluggish with negative growth, business and infrastructure investment stagnated, and the economy entered a stage of hedging. Logistics costs were largely flat as the freight market was going through a period of oversupply and stagnant demand. The first wave of the pandemic



hit the U.S., with many companies preparing for the worst and going into survival mode by canceling orders and furloughing employees as they expected the economy to be disrupted. Attempting to try to reverse this, the US government quickly passed an economic stimulus plan to increase consumer demand.

As a result of the pandemic, the working population changed their lifestyle from commuting to the office to working remotely and from home. Consequently, people didn't have to drive to work, buy new clothes, and eat out. People took advantage of these savings, remodeled their houses and bought electronics and durable goods. The consumer market boomed.

Without resupply because of supply chain disruption, retailers found their inventories exhausted and more items needed to be ordered to meet demand.

Panic ordering

As the pandemic disrupted production and shipping operations, buyers started ordering, not only to replenish inventory, but to buffer their stocks to avoid being out of stock.

Most durable goods, such as electronics and furniture, come from outside the USA, mainly from Asia. A large proportion (77%) of the US population lives in the eastern half of the U.S, and in order to get goods from China to the U.S., it takes several months. As a result of this and to prevent future inventory shortages, retailers, and shippers to this part of the country found they needed to order from China and other parts of Asia months in advance.

Transportation suppliers, whether they be road, rail, or sea, tended to reduce capacity early in the pandemic but quickly found that demand quickly exceeded supply. As the availability of each transportation method tightened up, retailers panicked and ramped up their orders. Some of their orders were wild and beyond all norms.

As a result, the demand for sea freight skyrocketed and the nightmare began.

To make matters worse, the regular construction of new ships was either cancelled or delayed. Equipment lease contracts were put on hold. On top of all of this, which only made matters worse, there has been a global shortage of containers.

Capacity between the China and the US

Shipping companies have come under stress to meet the demand to increase the capacity of goods being shipped between China and the US. The onshore processing equipment at the ports, however, have simply not been able to keep up, causing port delays.

Ships have been forced to weigh anchor outside ports and wait their turn. Consequently, rather than increase the capacity, the reverse has taken place seeing a decrease in efficiencies and the movement of freight. The impact of all this has meant supply could never meet demand.

For cargo owners, such delays and rising logistics costs are an "existential crisis".

Don't be too concerned for the shipping companies themselves. Many of them have seen a positive impact. Their profits have boomed with the lower volumes but higher unit prices.

Reduced capacity infrastructure

Improvements in infrastructure have been much slower and this has led to insufficient capacity at each point in the supply chain.

Let's take the trucking industry as an example. Truck retailers need to buy from truck manufacturers. Because of the limited supply of semiconductor chips, truck orders cannot be produced as quickly as needed, and orders usually take at least 6 months to be delivered. As a result, the flow on means there are fewer trucks in operation which further complicates the whole process.

The lack of trucks picking up containers arriving in the United States has caused a large stockpile being stored at the ports. This further worsens the shortage of available containers.

The outbreak has also created a long term shortage of dockworkers who have to take sick leave when they catch COVID. The shortage of workers has meant ports are unable to efficiently handle the flow of incoming ships.

The surge in demand for containerized cargo in the wake of the pandemic has led to a marked improvement in the outlook for global terminal capacity, but an acceleration in port capacity investment is still not enough to support growth in freight demand.

With more and more ships arriving at U.S. ports, the need to expand the functionality and size of ports has always been necessary but now is becoming urgent. Building bigger and better ports is a lengthy process. It cannot be done overnight. Unfortunately, the motivation to technologically improve ports has been lagging for many years. Port renovation, expansion and improvement is a large-scale project. Each project will take a few years to complete and requires significant investment.

So, the biggest question now is will logistics costs return to pre-pandemic levels and how long will this cycle last? This depends on "consumer behavior." Increased interest rates to tame inflation and to slow consumer demand will lead to a gradual relaxation in the whole supply chain. How long will it take is a good question that no-one can really answer with authority at this point.

For the printing consumables industry, there are other issues that need to be taken into consideration during the pandemic and long-term development, not the least of which is the increase in other costs caused by the rising price of oil, high energy costs and increasing labor costs. ■

Dr Stanislav Malinskiy

Sanctions, Prices and Industry Chain Solutions

Many large Russian buyers making open bids for the procurement of cartridges.

Thanks to the political and economic sanctions introduced by the US, Japan, and several European countries in 2022, the Russian market was officially abandoned by the suppliers of many well-known OEM brands.

The traditional logistics chains stopped working and the Russian market was split into three de facto segments:

1. the traditional open market—

a. previously constituted 75-80% of the whole market;
b. was successfully being researched by foreign OEMs;
c. this segment will gradually diminish and by the end of 2023 will constitute no more than 30-35% of the real Russian market.

2. the parallel (import) supplies—

a. the supply of well-known, branded products through third countries for sale in the Russian market;
b. previously, the supply of “grey” products was prohibited in Russia because it violated the rights of the manufacturing companies. However, the implementation of sanctions violated international laws and the lawful rights of Russian organizations, businesses, and businessmen, so, the government now officially allows these supplies into Russia;
c. this segment is being successfully established and will constitute 15-20% of the market by the end of 2023.

3. alternative and third-party supplies—

a. the supply for large Russian organizations and businesses (those impacted by sanctions in particular) and for those critically important for the functioning of the state;
b. previously these supplies were “unseen” by OEM representatives and foreign marketing agencies;

c. this segment will grow rapidly in the sanctioned environment;
d. If in 2018-2020 the alternative supplying occupied 15-20% of the real Russian market, then by the end of 2023 this segment will constitute no less than 50%.

While price has traditionally been important in the open market, it is not becoming as important in the alternative supplies segment, however. The quality of prints, price of the ownership throughout the printing lifecycle, as well as environmental safety of the products are all key considerations. It is important to note, compliance must be confirmed by the results of the Russian testing. The experience of those purchasing alternative cartridges in 2018-2020 revealed consumers are concerned not only with the quality of prints, but also the safe remanufacturing of the cartridges including the collection and disposal of used remanufactured cartridges. Generally, the alternative market price for cartridges is 20-25% higher than the prices of similar cartridges in the open market. This is no surprise since the quality of alternative segment cartridges is also considerably higher.

There are no issues with the availability of printing consumables in the open market in 2022. The parallel supplies segment saw the gradual growth of prices of 10-15% but such increases are not critical for the Russian buyers. The main reason of the expected growth is the dedollarization of procurement and the switch in payment to national currencies in their dealings with manufacturers. However, taking into consideration, the cancellation in 2022 of several import duties and an expected number of other decisions by the Russian government, this price growth may not take place at all.

Another trend to be noted is that there are many large Russian buyers making open bids for the procurement of cartridges. They are not only demanding the quality of prints but also that of environmental sustainability and the option to collect used cartridges. It is becoming impossible to supply cheap, single-use cartridges so we have seen the bid starting price increasing.

The prices for cartridges within alternative supply segment remain 20-25% higher than the prices for medium-quality cartridges on the open market.

After the exodus of many well-known brands from the Russian market, many organizations who had used OEM supplies previously, have been forced to search for new quality, office printing solutions. There is a genuine interest in quality cartridges and toners, particularly sustainable remanufactured products.

The Russian market is successfully undergoing the transformation and the move to quality, sustainable solutions is a shift in the right direction. ■

Dr. Stanislav Malinskiy

RT Global Partner For Russia

Dr. Stanislav Malinskiy, the general director of BUSINESS INFORM—an information agency based in Moscow—is mainly active in researching and consulting on the Russian office equipment and supplies market and also has over 250 scientific works and articles to his name. He is chief editor of the Russian catalogs of printers, copiers, MFPs, and supplies.

Juan Carlos Bonell

How do Costs Impact Prices, and Prices Impact Costs?

The way you compete is how you differentiate yourself from the competition

Every business owner wants to set effective pricing that can lead to profits. Many things can impact the price of items, especially labor, shipping and logistics, along with other hidden costs, such as research and development of new products.

We've seen a significant change in the pricing of products in our industry over the last five years. Originally, the cost of aftermarket items was priced compared to the OEM price, usually somewhere between 20% to 35% lower than the cost of the brand name cartridge.

The business model has completely changed and now most companies look at the cost of the item, add a mark-up, and then offer the product to consumers. We saw a race to the bottom in pricing in the aftermarket industry, and the result left many companies with razor-thin profit margins.

For many customers, the drop in price also equaled a significant drop in quality. Budget solutions were not made with top quality components and did not undergo the necessary stringent quality control to ensure delivery of premium prints. Customers may have initially loved the price but were quickly turned off by unreliable cartridges that suffered from print defects.

Then the pandemic hit. It caused the cost of raw materials, shipping and logistics to rise. At the same time, chips became scarce – even for the OEMs. The cost of doing business also increased and some price increases were necessary. For the low-quality budget solutions, it has now become even more difficult for them to recover because their margins were already small in the first place.

The cost of raw materials is still high. Logistics are still expensive. But there is the expectation these will decrease—but not to pre-pandemic pricing.

The most successful companies—the ones that can survive and thrive—are those that have continued to provide high quality solutions. This is what we do at Static Control. Suppliers like this can help their customers around the world to compete with the OEMs market share. Further, they also provided value-add services like local support and customer service.

Being able to offer imaging solutions for the latest printers before others is a huge advantage and sets your business in a better position for success. It helps with winning new business from the OEM, along with having a nice profit margin built into the price.

However, there are also the associated costs with providing these first-to-market solutions. Research and development, including staff and facilities, along with the reverse engineering capabilities, are expensive and must be considered when setting the price of new products.

It is necessary though, because providing a new, unique opportunity has numerous payoffs for a business. First, you have consumers who are eager to try an alternative solution to the OEM since that had previously been unavailable. Second, since you did your homework and the product performs at an OEM-comparable level, it is easier to acquire repeat business.

The more a company focuses on the R&D and the ability to become OEM-comparable while bringing new added value services, the more that company will be able to compete with the OEM and not the low cost, budget alternatives.

It's important to note that OEMs are also becoming more aggressive in trying to keep their market share. We see it with strategies like HP's white box program among others, where they go to the high value, dealer channels. This makes the selling price even more difficult because the OEMs are using dealer discounts and rebates to win this audience.

Now, remanufacturers and cartridge customers are in a squeeze. At the top, you have the OEM trying to close in on their business by offering these white box-type of solutions. At the bottom, you have the low priced, but also low quality, cartridge solution trying to chip away at business. Each group is impacted by the rising costs of raw materials, so it will impact on the pricing structure for each one.

I feel strongly that the way you compete is how you differentiate yourself from the competition - by providing more than just a product and setting yourself apart. At Static Control, we put a large emphasis on our local customer service in multiple languages, technical support, training, marketing support and other nuances that make us more than just a supplier. ■

Juan Carlos Bonell

Juan Carlos Bonell holds an MBA in international business, management, marketing and finance. He has been with Static Control for 16 years and is one of four executives that run the global operations of the company, particularly in Europe, the Middle East, Asia, Oceania, North America and South America.

Research and
—The hidden cost in delivering

Philip So has been with Print-Rite for 22 years and is Chief Engineer. He holds a Master's Degree from the University of Hong Kong, is a Member of the Hong Kong Institution of Engineers [MHKIE] and is a High-level Innovative Talent (Level 1) recognized by the Zhuhai, China government. <philipso@print-rite.com.cn>

The aftermarket imaging products industry has passed the 40-year milestone in development. In recent years, we have seen more OEM patent enforcements, including USITC Section 337 investigations, court lawsuits and Amazon takedowns.

This means the aftermarket has to pay more attention to the delivery of non-infringing products. Buying innovative, non-infringing products is the right choice for customers as this avoids any trouble.

However, delivering non-infringing, innovative products does not come cheap. It requires significant investment. Besides the need for experienced engineers, equipment, tooling and testing, there are hidden costs including, the cost of freedom to operate (FTO), the cost of alternative design around solutions, the cost to train/educate customers, the cost to defend against legal actions, the cost for patent monitoring, and the cost of maintaining a patent alert.

Freedom to operate (FTO)

Before the research and development of any new product, a patent search and evaluation are needed. This work needs to be done by experienced engineers and qualified patent attorneys. If the products are for export, the FTO evaluation for the target country or region needs to be conducted by a local attorney. Attorneys often use hourly rates between US$300 and US$1200 per hour. FTO reports for a compatible design around cartridge may cost US$100,000 or more. Many may not recognize this huge hidden cost.

Alternative innovative design solutions

Following a patent search, many relevant patents may be found. For ink and toner cartridges, OEMs

Development
non-infringing products

Philip So

have huge patent portfolios, and many patents may appear to be relevant. Designers and engineers need to design around all relevant, valid patents. Even when you believe you have successfully designed around one OEM patent, you may fall foul of another OEM patent. Additionally, patent claims against a company may not be limited to the patentee's own products. Products with identical or equivalent structures, mean that the design around work may need to be compared with other OEM's patents, and not be limited to one OEM patent. This is time and cost consuming work.

Sometimes, a solution is "safe" from patent point of view, but it is not acceptable from a cost, functionality, or manufacturing point of view. Consequently, you may have to look for another solution to balance IP safety and product performance.

When Print-Rite developed its "86T" compatible ink cartridge, we evaluated various design methodologies and tools and researched thousands of OEM patents. The OEM ink cartridge uses a sponge (foam plastic) to hold and release ink for the print head. Print-Rite developed more than 20 innovative design solutions, including the "Bellow valve", the "Basketball valve" and the "inflatable bag". A very thorough and lengthy solution comparison was conducted for patent safety, technical performance, and the stability of the alternatives.

Finally, the "bellow valve" design was chosen. This innovation additionally overcame the OEM cartridge defect of there being too much residual unused ink in the cartridge at the end of its life. Our bellow valve successfully replaced the OEM sponge ink cartridge design. It not only prevailed but was awarded the Golden Patent Award by the Chinese State Intellectual Property Office (SIPO) and the World Intellectual Property Organization (WIPO).

Customer Education

After successfully developing a non-infringing and well-functioning product, the compatible product may look different from the OEM product. The recommended instructions for using the product may be different from the OEM, for example the way the product is installed in the printer. Customers may not be familiar with this difference. Consequently, you need to educate or train the customer. Even though the products may be IP safe and have advantages over the OEM design, it may not be convenient for customers in the beginning.

It is well known the U.S. International Trade Commission's (US-ITC) Section 337 of the Unfair Methods of Competition and Unfair Act concerns the unlawful importation of goods into the USA.

An OEM brought its first case against several companies concerning the "twisted gear" drive of their laser toner cartridges in 2012 (case No. 337-829). Consequently, the USITC issued a General Exclusion Order (GEO) preventing infringing products from entering the USA.

However, Print-Rite had developed its own innovative design solution known as the "no twist" drive for laser toner cartridges in 2007 and received its own

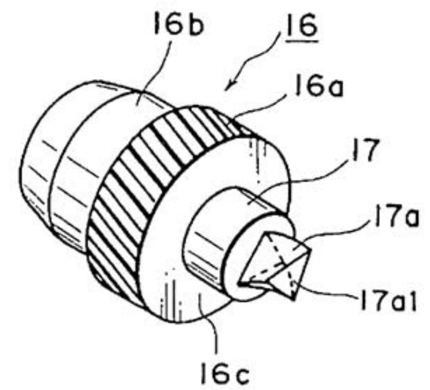


Figure 3. Twisted gear

Figure 4. Photosensitive drum with twisted gears

US patent for the design (US 8275291). The "no twist" drive actually simplified the OEM "twisted" drive design. Lots were invested in the project, including engineering effort, equipment, testing, and tooling, for the "no twist" drive design. In the end, the investment proved worthwhile.

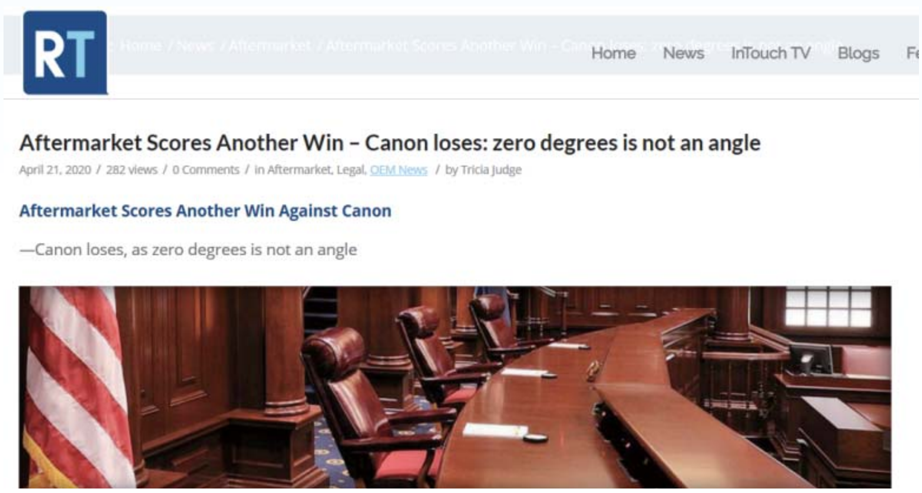
Case Defense

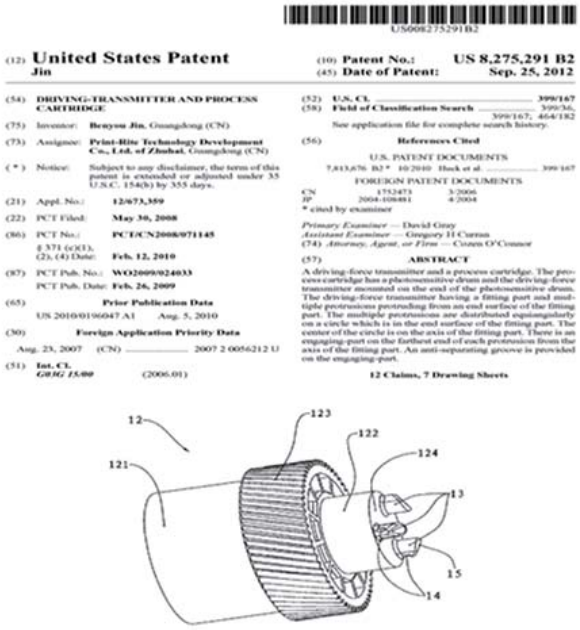
Even if you believe you have a successful design around and a non-infringing product, the patent owner may still claim your design is infringing and bring a case against you.

As you may recall, an OEM brought a Section 337 case against 49 respondents (Case No. 337-1106) in 2018, alleging patent infringement of nine OEM patents regarding "dongle gear" related products. The accused products were design-around solutions versus the OEM.

About two months after issuing a GEO under Case 337-918 for the "dongle gear," the first Seizure and Forfeiture Order was issued on August 31, 2015.

Subsequently, the OEM filed a patent "continuation" application to expand the related claims in Case 337-918 in the related patents. The "continuation" patent applications were granted as patents, and these were broad enough to cover the non-infringing products in the 918 case. Print-Rite heavily defended this Case 337-1106, believing its products to be non-infringing and the new patents to be invalid. After a hard fight, the US-ITC determined that ours and other accused products were non-infringing. The United States Court of Appeals for the Federal Circuit (CAFC)





(12) United States Patent
Jin

(10) Patent No.: US 8,275,291 B2
(45) Date of Patent: Sep. 25, 2012

(54) DRIVING-TRANSMITTER AND PROCESS CARTRIDGE

(75) Inventor: Benyou Jin, Guangdong (CN)

(73) Assignee: Print-Rite Technology Development Co., Ltd. of Zhuhai, Guangdong (CN)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 355 days.

(21) Appl. No.: 12/673,359

(22) PCT Filed: May 30, 2008

(86) PCT No.: PCT/CN2008/071145
§ 371 (c)(1), (2), (4) Date: Feb. 12, 2010

(87) PCT Pub. No.: WO2009/024033
PCT Pub. Date: Feb. 26, 2009

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(52) U.S. Cl. 399/167
(58) Field of Classification Search 399/36, 399/167; 464/182
See application file for complete search history.

(56) References Cited

U.S. PATENT DOCUMENTS
7,813,676 B2 * 10/2010 Huck et al. 399/167

FOREIGN PATENT DOCUMENTS
CN 1752473 3/2006
JP 2004-108481 4/2004
* cited by examiner

Primary Examiner — David Gray
Assistant Examiner — Gregory H Curran
(74) Attorney, Agent, or Firm — Cozen O'Connor

(57) ABSTRACT

A driving-force transmitter and a process cartridge. The process cartridge has a photosensitive drum and the driving-force transmitter mounted on the end of the photosensitive drum. The driving-force transmitter having a fitting part and multiple protrusions protruding from an end surface of the fitting part. The multiple protrusions are distributed equiangularly on a circle which is in the end surface of the fitting part. The center of the circle is on the axis of the fitting part. There is an engaging-part on the farthest end of each protrusion from the axis of the fitting part. An anti-separating groove is provided on the engaging-part.

12 Claims, 7 Drawing Sheets

珠海特區報
ZHUHAI DAILY

珠海特區報 09 财经 2013年9月5日 星期四

专利之利 天威之威

硒鼓在美销售不受佳能普遍排除令影响

Figure 5. Print-Rite "No-Twist" US patent authorization
Figure 6. Report from Zhuhai Special Zone News

also affirmed the non-infringement of the accused products.

Defending the Section 337-1106 case was very expensive and was another hidden cost.

Patent Monitoring

When you believe your products are non-infringing, you still need to keep a close watch to see if the patentee has filed or been granted any "continuation" patents or other new patents. For inkjet or toner cartridges, OEMs have many patents on mechanical structure, driving mechanism, chip contacts and firmware. OEMs will file multiple patents for a single invention so that they can use "continuation" patents against the aftermarket later. There are some key patents that demand close attention to make sure the compatible products are non-infringing, i.e.., US8454116 and US8794749.

Case Alert

As patentees typically have broad patent portfolios, case alert is a quick way to narrow down a search and find the most relevant and risky patents. This is of course another hidden cost in delivering non-infringing products.

Case alert involves conducting daily or weekly case monitoring of potential target owners patent activities. OEM inkjet cartridges are covered by many "chip" related patents. OEM laser toner cartridges are covered by many "gear" related patents. If you closely monitor OEM related cases, you may quickly know what patents they use in actions under Section 337, court cases and the online takedown actions. These would be some of the riskiest patents, and this information would provide quick direction to Research and Development. You need timely case monitoring internally or by professional service providers.

Conclusion

Innovation is the key and foundation stone for the aftermarket industry. Keeping investment into product innovation to provide better and IP safe products is the only way to make any company successful in the long term. Innovation requires heavy investment including experienced engineers, equipment, tooling, and testing. The hidden costs are: FTO, patent search, patent monitoring, customer education and case defense.

It is important to understand that innovation costs money but the investment in IP safe products is very worthwhile. ■

What Do Price Wars

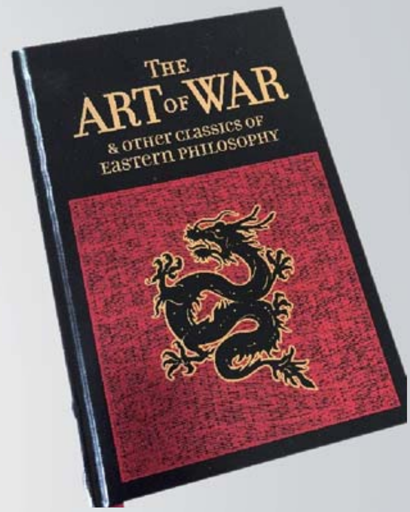
— and why is cartridge manufacturing in China

Graham Galliford

Graham J. Galliford is a world-renowned consultant, researcher, writer and speaker for the global imaging industry. His work has encompassed technologies in a variety of printing components and products but has worked primarily in the field of toner-based printing technology since 1974. He can be contacted at <graham@gallifordconsulting.com>

Really Achieve?

still successful in the face of rising costs?



A price war is something most businesses in the West seek to avoid as it can mean disastrous consequences for those involved. Chinese companies have earned a reputation for starting price wars. Many western companies know all too well that entry by a Chinese company into their market means a price war is coming with prices 30-50% lower than its closest competition.

Many question the rationality for Chinese companies to start price wars. However, such pricing strategies have and still can be part of an aggressive campaign to gain market share and still achieve corporate profit goals.

Indeed, price wars are considered to be a legitimate and effective marketing strategy by executives in China and it is not uncommon for executives to talk about the "business arena" as a "battleground".

In fact, "strategy" in Mandarin, "zhàn lüè (战略)" literally means "battle plans" or "combat strategies."

No one should be surprised that businesses in a country where executives routinely draw strategic inspirations from Sun Tzu's "The Art of War" may have a different perspective on "price wars."

In Chinese domestic markets price wars have been a very effective strategy in gaining market share. In 1995, IBM, Compaq, and HP were the three best-selling PC brands in China, but three years later, the top 5 PC brands in China were all domestic Chinese manufacturers. Similarly, in 1999, China's mobile phone market was dominated by foreign brands including Motorola, and Nokia and all local brands combined had less than 5% market share. Four years later, following intense price wars, the local brands had more than 50% market share. They fought their way to high market share through price wars.

How to Fight a Price War

Luck has nothing to do with being a victor in a price war. Chinese companies do seem to know something about price wars that executives in the West know nothing of. As with any war, the forces unleashed can be very destructive and unpredictable and hence careful planning and execution are necessary to stay in control. Market analysis answers the question if a price war should be started, and what market conditions need to be for success.

In examples from the recent past,

Chinese executives did not start the price wars on impulse but they planned and executed them with great care. They were consciously making rational calculations to ensure their companies benefited from a price war and controlled its outcome. These calculations are not exclusively applicable to Chinese business and can be implemented anywhere in the world by any company.

Analyzing the Benefits of a Price War

A price war always starts with a business initiating a deep price cut. When a business initiates such a price cut it expects to benefit either right away or at some point in the future. Putting aside any long-term benefits for now, the manufacturer can only benefit in the short term if sales increase sufficiently.

To determine the required sales increase for a business to benefit from a price cut, one can conduct an Incremental Breakeven Analysis (IBEA). What this analysis does is to identify the sales change that will make a business's profits after the price change to stay at least as the same as before (the breakeven sales %). In other words, the company gains market volume share without sacrificing profit even though profitability may go down. There is an algebraic formula that describes the sales increase for a given price cut and when a sales increase could lead to a change in a business's marginal costs. The marginal cost is the change in the total cost when the quantity produced is increased by an additional quantity.

[THE IBEA EQUATION]

$$\Delta q = \frac{\Delta p-(1-cm)\Delta c}{cm-\Delta p+(1-cm)\Delta c}$$

In this equation:

Δq is the breakeven sales increase in percentage

Δp is the magnitude of a price cut

cm is the contribution margin in percentage (before the price cut) and

Δc---the reduction in marginal costs in percentage due to the price cut

From the IBEA analysis, it is more tempting for a business to start a price war if it does not take much for the benefit from a deep price cut to be

realised. This means that businesses that have high margins tend to be the ones that initiate price wars, with all else being equal.

Why Did Price Wars Start in the Imaging Supplies Market?

With the growth of the Chinese cartridge manufacturing industry 10 to 15 years ago, it was a high profit margin industry that had supported many manufacturers, despite inefficiencies. This created the environment in which "price wars" were beneficial. Based on this, it is understandable why the Chinese manufacturers thrived in "price wars" when they entered the markets in the West. Chinese companies had advantages of lower facility and manufacturing cost (labor and materials) and a favorable exchange rate.

Referring again to IBEA it shows that, in industries where significant economies of scale are possible, price wars are more likely to break out. That is why Chinese companies have consistently ramped up their sales and stay ahead of the competition by going down the cost curve. Cartridge manufacturing is a business where these economies of scale do exist. The business that is most skillful in taking advantage of economies of scale is more likely to be the one that starts a price war and benefits from it. Interestingly, Chinese entrants to the cartridge market starting with a clean slate, had lots of economies of scale to exploit and used aggressive pricing behavior to carve a slice of market share.

In addition, from the consumers point of view, the cartridge market is not a highly differentiated market. All cartridges of a specific model look and function alike to the uninitiated. Price wars break out in an industry when products in the industry have little differentiation.

Increasing Sales and Market Share

An increase in sales can come from a change in market share, an increase in market demand or both. Therefore, in planning and executing a price war, a business should give itself the maximum chance to increase its market share. There are several things that a business can consider here.

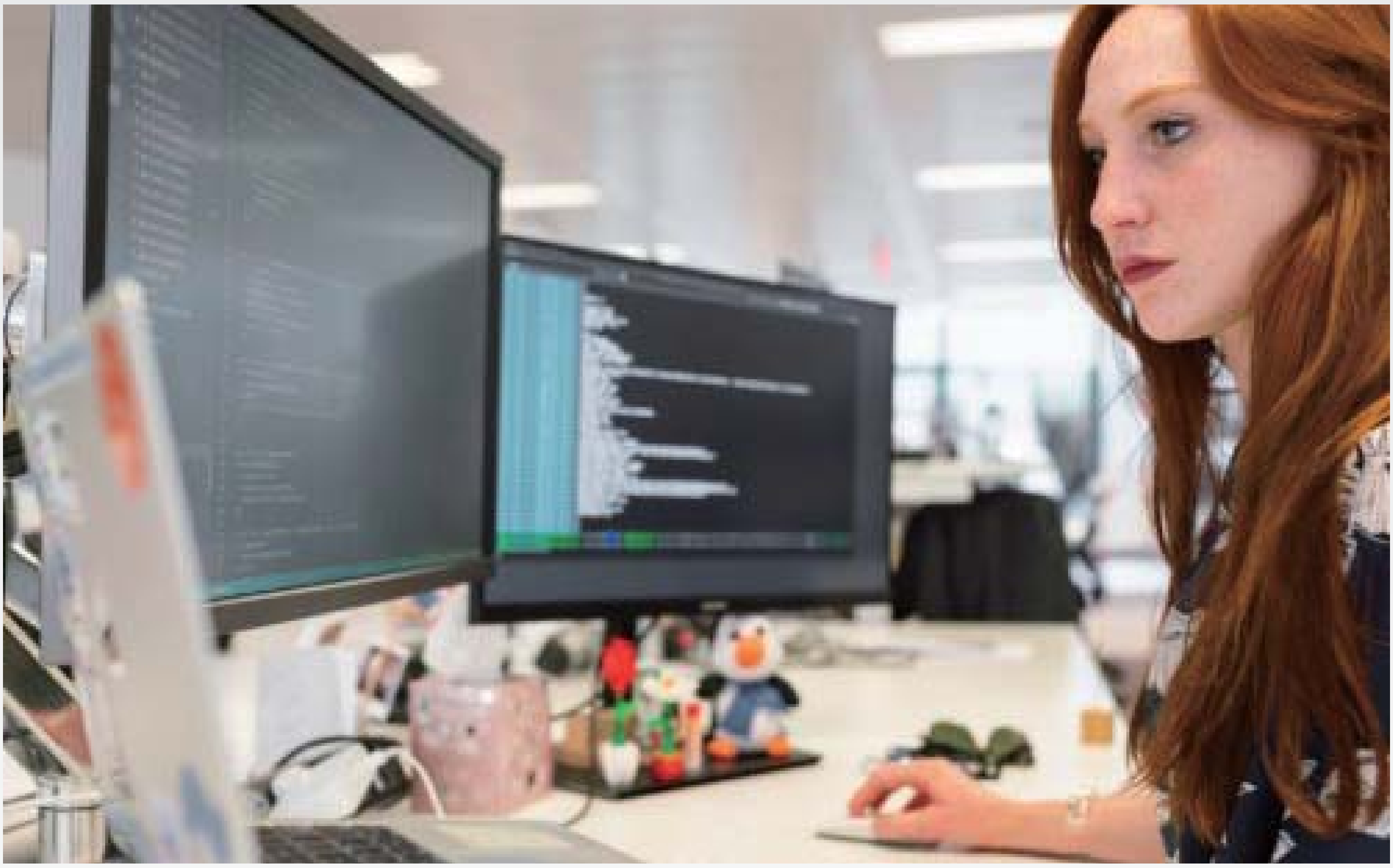
- Smaller market share is an advantage: a business with a small market share is better positioned to use price as a weapon and to start a price war. A business with a large market share may want to think twice about it. For that reason, you rarely see businesses with a dominant market share starting a price war;
- Timing is critical: A business has a better chance to increase its market share if the competition is unable or unwilling to react swiftly. Slow response from competition gives the initiating business the time and space to fill distribution channels or to occupy new geographical markets;
- Product availability: even if the competition reacts swiftly to a competitor's price cut, the business that will gain market share will be the one that has products on hand to sell. A business can prepare to fight a price war by building up its inventories, ramping up production, and boosting production capability;
- Weeding out weaker competitors: A price war will put strains on all businesses in an industry. However, less efficient businesses will buckle first and surviving businesses will increase their market shares.

The cartridge aftermarket was an industry with fertile ground for price wars.

Unlike the West, there have been many high growth industries with high price elasticity in China. This has resulted in many price wars in China not seen in the West. However, in the longer term, as market growth levels off, there should be fewer price wars and more focus on non-price competition.

The "Takeaways"

There is nothing intrinsically Chinese about the planning and execution of price wars. In today's industry Chinese companies that excel have priced aggressively even in the face of increasing costs. What is intrinsically Chinese, however, is that a whole generation of Chinese executives have grown up in a business environment characterized by growing markets, served



by many new companies with a wide distribution of cost-efficiencies, new technologies and significant economies of scale. This environment has provided profitable opportunities to engage in price wars and for executives to hone their skills, while in Western markets, oligopolistic competition among equals in mature markets encouraged more finesse in devising marketing strategies.

Price wars are not a nonstarter as a marketing strategy. The stigma associated with them in the West is not helpful for executives who must deal with them, and the usefulness of price wars depends on the circumstances. Chinese companies seem to have a knack in identifying those beneficial circumstances and seizing upon them. However, one need not look far to discover the "Art of Price War", and IBEA analysis provides a guide for planning and executing a price war. Resolve is needed. If a company expects that a price cut on a product would have a long-term effect, it should be willing to accept a much lower immediate revenue increase, sacrificing short-term profits for the long-term gains.

Defending against a price war depends upon a company's circumstances. IBEA suggests two broad principles for fighting a price war:

- as Sun-Tzu put it best in his "Art of War", "the highest realization of warfare is to attack the enemy's plans" so that one can subjugate "the enemy's army without fighting." In terms of fighting a price war, this means doing things that can prevent any competitors from starting and benefiting from a price war;
- when a price war must be fought, you cannot fight it by merely taking a defensive posture. Once again, Sun-Tzu put it best, "One who cannot be victorious assumes a defensive posture; one who can be, victoriously attacks." Again, from an IBEA analysis, you want to do things that can put your own company in the position to capitalize the competitive landscape and the possible redistribution of market shares in the industry. ■

Why India is Such
Market

Dhruv Mahajan

RT Global Partner for India

Dhruv Mahajan is RT Imaging World's Regional Partner for India. Based in New Delhi, he has been an international business development manager for 11 years responsible for developing the aftermarket imaging supplies business throughout the Gulf and Southeast Asia regions. Mahajan is the International Business Development Manager at Ninestar Image Tech Limited—responsible for developing business in the GCC (Gulf Cooperation Council) and SAARC (South Asian Association for Regional Cooperation). <dhruvm@ggimage.com>

a Price-sensitive

India is expected to be the fastest-growing large economy in the world in next few years. It's a huge market that has always attracted the attention of traders.

Unfortunately, most companies approach the Indian market with a pricing plan they successfully use in their home and other markets. Very few multinational corporations (MNC), especially those in China, do their homework before starting to sell. Consumers refuse to buy their products unless prices are competitive with what other sellers are offering. Almost every market in India is hyper-competitive with hundreds and thousands of sellers for all products. The only way new sellers can gain a foothold in India is by selling at lower prices than those prevailing in the market.

India is still a low-income, developing country, and most people are still very poor—earning on average US$2000 per person per year. Indian customers are more demanding and focused on price, even for food, and often ignore other important factors. Prices in India are typically 10-to-30% lower when compared with other markets, even adjusting for purchasing power parity (PPP).

Take the humble hamburger, for example. The equivalent of a McDonalds hamburger in India is the vegetarian McAloo. The price in Europe and North America ranges between US$5.29 and US$7.30. In India the equivalent price is US1.62.

Apple only has a 5% share of the mobile phone market while Chinese brands have almost a two-thirds share.

In my opinion, India is more a "price driven" market than a "price sensitive" market. Many companies have grown simply by giving customers lower quality but at a cheaper price. Indian buyers are usually "money greedy" people. Whoever offers the cheaper product, buyers tend to buy from them. Buyers usually don't care about the brand, quality, value, or the effort any organisation invest to provide good quality products and services. Unfortunately, buyers tend to buy based on low prices and sales offers.

Only when a product is found to be of too unacceptable quality, do buyers look for better quality, more expensive products. This buying behaviour for office supplies is due to most such purchasing being carried out by lower-level purchasing employees in any organisation. They try to show how much money they have saved for their employers. Widespread corruption in buying influences many purchases and makes everything price driven. Such corruption-driven purchases also allow sellers to retain their customers and sell at much higher prices than prevailing in the market. Such "self-interest first" purchases stop when the purchasing person changes, special offers expire, or prices need to be increased due to market price increases.

Purchasing Power Parity Measurement

Most foreign companies selling in India make their product pricing decisions on the cost plus target profit margins. Imported products are typically priced in US Dollars. The US dollar has appreciated over the Rupee in recent times, and this makes imports overpriced when compared to the same products made in India. No foreign company sells in India with prices based on the PPP.

Purchasing Power Parity (PPP) vs Exchange Rate	Year	PPP LCU to USD	FOREX Rate to USD	Factor	Multiplier for Common Prices at PPP
China	2021	4.19	6.70	1.60	0.63
Canada	2021	1.25	1.30	1.04	0.96
India	2021	23.14	79.29	3.43	0.29
Japan	2021	100.41	136.09	1.36	0.74
Switzerland	2021	1.10	0.98	0.89	1.12
United Kingdom	2021	0.69	0.83	1.20	0.83
United States	2021	1.00	1.00	1.00	1.00

Achieving Volume Sales in India

OEM branded printer consumables are often sold at lower prices than western countries. The HP CE 278A toner cartridge is sold online by HP in the USA at US$91.99 while its sells for only Rs 7130 (US$ 76.16) on the HP India webstore.

To successfully sell large volumes which help companies to reduce costs and boost profits, it is necessary to price products at locally acceptable prices. Even if prices cannot be set at the PPP of 0.29 of the US prices, they must be reduced for India. Most successful large companies should be able to price a products' basic version at prevailing market operating price, significantly boost sales volumes and grow market share without affecting overall corporate financials.

Another successful strategy for a global brand is to first establish its brand locally and then build a brand preference with actual end users. Once brand leadership is established profitability can be gradually increased to a premium over local sellers' brands.

Informal and Formal Markets

The "informal "market for printer supplies is widespread and dominated by thousands of small sellers with no brand. Each has an extremely low market share. This market is far more price-sensitive than the formal market where brands like HP, Canon, Xerox, and Epson can increase prices whenever needed revealing India is not always price sensitive.

Pricing in the Indian Market

New companies continue to enter the market, so prices remain low for the longer term. Foreign companies trying to market in India without local knowledge may try to sell a plain basic product version for US$10, and with brand packing and labelled a premium version at US$12, plus one with more benefits like higher yield or universal toner cartridges and brand packaging at $15.

A more successful plan would be to market the product at $15 first, and then offer without branding at $12 and without extra benefits basic version at $10.

Potential for Local Manufacturing

The government's "Make in India and make for the world", or Atmanirbhar scheme, encourages local manufacturing. Foreign companies that take advantage of the low labour and manufacturing costs can access this large market more easily. In addition, taxes and logistics costs can be minimised while gaining preferential access to the huge government and publicly funded market. Local manufacturing companies are also eligible for production linked incentives

as Indian exports which will also significantly boost profitability.

Online Sales Growth

With online sales now accounting for one-third of all printer consumables sales, Indian consumers are aware of toner and inkjet cartridge products on Amazon and Flipkart. These two marketplaces dominate online sales and the only differentiation is price. So, customers only look for the lowest prices. It does not matter if the product specifications are misleading or false and performance is low-quality.

Consequently, independent established sellers with reputed brands, strong channel partners and superior quality products are being forced to cease local manufacturing, buy from Chinese exporters and switch to sell online. This pushes prices even lower with clearly inferior quality products. Profit margins are reportedly about 10% for fast selling products.

There is a belief that Indians always ask for a discount when buying anything and won't accept the first price quoted. This is true because shopkeepers have historically charged what they thought their customers could pay. Thus, most Indians have learned to negotiate the price every time they buy. They assume sellers are being less than honest with them.

That's why it's difficult to succeed in the huge, fast-growing Indian market which is quite different from any developed or emerging market. However, adopting suggestions in this article may enable foreigners to succeed in and become market leaders in the booming aftermarket printer consumables market. ■

Shiva

PERFORMANCE MATERIALS

We have been manufacturing the "Resins for Toner Industry" under the brand of "SPTR Resin"

SPTR Resins (Toner resins):

Product	Appearance	Acid Value on Solid based	Glass Transiton Temp. Tg(DSC) (°C)	MFIgm/10 mints (150C, 2.16 kg load)	T1/2 (CFT 500EX, 20kg load Die id 1mm/1mm Pre heatng 300 sec)
SPTR ALM	White Crystalline Powder	8 to 10	67-70	4 to 6	138-141
SPTR AHM-5W	White Crystalline Powder	8 to 10	63-66	6.5 to 9.5	137-140
SPTR AHM	White Crystalline Powder	8 to 10	60-63	10 to 15	128-132
SPTR HSP	White Crystalline Powder	8 to 10	58-60	20 to 30	120-124
SPTR NAHM	White Crystalline Powder	NIL	58-61	8 to 15	128-130
SPTR NALM	White Crystalline Powder	NIL	65-67	3 to 6	138-141

SPTR Resins (Toner resins):

GRADE	PREFFERED PRINTER/COPIER
SPTR ALM	SAMSUNG ML 1610|ML 1710|HL 2161|2160 | BROTHER 2140|8822|2880 PRINTERS
SPTR AHM-5W	PREMIUM GRADE FOR HP M 1005|1360|1020|2035|1500 | 4100|4200 PRINTERS | CANON IR 5570|5000|IR 7105 |IR 105 COPIER
SPTR AHM	REGULAR GRADE FOR HP M 1005|1360|1020|2035|1500 | 4100|4200 PRINTERS | CANON IR 5570|5000|IR 7105 |IR 105 COPIER
SPTR HSP	FOR HIGH SPEED PRINTERS AND COPIERS EXAMPLE TOSHIBA STUDIO 450|350
SPTR NAHM	COPIER OF KYCEROMITA 1620|TASK ALFA 180|TASK ALFA 1800|WIDE FORMAT |PRINTERS|BROTHER PRINTER
SPTR NALM	TOSHIBA STUDIO 232|350|KONICA MINOLTA BIZUB 164|KYOCER A MITA |DUAL COMPONENT COPIER

Certified by DQS Inc., USA

-ISO 9001-2015- Quality Management System

-ISO 14001-2015- Environment Management System

-ISO 18001:2007- Occupational Heal and Safety Management System

Manufacturing Site:

Plot # 447, P.O. 2/460, 502, ECP Canal Road,
Village Karkhadi, Taluka Padra,
District Vadodara, Gujarat, India.
T: +91 9574 001 950

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7 QUESTIONS

How are Supply Chain and Inflation Impacting Prices?

—Graham Galliford quizzes Rahul Agrawal of the Indian-based Shiva Group

What is the background to the Shiva group which produces polymers for Inks, toners and other imaging materials?

The Shiva Group has about five decades of experience in manufacturing polymers and chemicals. The group's capabilities serve several industries such as printing, pharmaceutical, agrochemicals, personal case and coatings industries. We have five manufacturing locations in India and Hungary. It is this background, coupled with strong R&D, which enabled Shiva Performance Materials to develop world class products for the toner and coatings industries.

As the only supplier of raw materials for polymers in India, what have been the effects of supply chain issues and how does that compare with other countries?

Yes, this is correct. We are the sole producer of polymers for toner in India. Styrene Monomer, a key raw material for styrene acrylic resin continues to be imported. But other resin producing countries such as Japan are disadvantaged due to high freight costs. While this is true for most polymer producers in India, the larger scale of operations at Shiva does offset some of the higher freight costs by discount for the volume of purchase.

The global toner resin market is crowded with manufacturers in the USA, Japan, Korea, China and Europe. How can Shiva compete in the global market?

Shiva has a strong R&D and application capabilities which allows it to develop customized resins for different applications quickly. We have multiple production lines which allows for greater flexibility to produce lower volume specialized resins as well. Shiva also has considerable buying power in raw materials due to economies of scale, as the group manufactures multiple products using the same raw materials. The higher freight costs are somewhat offset by the higher volume purchasing. For toners, India itself is a growing market and Shiva is the largest supplier in the region.

The global price for crude oil has increased dramatically. How has this affected the cost of styrene and acrylic monomers which are derivatives of the petrochemical industries?

While the global price of crude oil has increased significantly, the price of styrene has not been directly corelated to those price increases. The demand for styrene itself has remained low due to the downstream industries being affected by Covid related lockdowns in countries such as China. This has kept the price of styrene monomer moderate. Prices have remained stable for acrylic monomers, thanks to low downstream demand.

What are the product trends in toner resins that you expect in the future and what effect will they have on toner cost?

In the short term, I expect volatility to continue in raw material pricing, availability and supply chain uncertainty. In the medium term, I expect supply chain to be streamlined and costs to become more streamlined.

How are freight and lockdown issues impacting the supply chain?

There have been supply chain disruptions globally on account of the dependence for supply on a few countries like China. The same does apply to India to some extent as well, but largely lockdowns haven't affected factory output in India. In addition, ports and inland supply chains have remained operational throughout the pandemic and hence countries depending on India have not had a negative impact on their supply chains.

What strategies are competitive manufacturers of toner resins implementing regarding costs and product pricing?

It has become increasingly important to develop the capability to develop and manufacture resins which are required with changing requirements of toners and newer printers, copiers, and MFPs in the marketplace. A larger push in R&D and application development is required to meet the needs of the faster / more efficient machines being introduced. ■

Rahul Agrawal, Managing Director of Shiva, <ragrawal@shivaperformance.com>

Shipping Containe
and why do they c

Sabrina Wang is Senior Partner and Client Director at HiGlobal which has been importing and exporting for more than 10 years. In the last 3 years alone, it has helped more than 2,000 small to medium business owners source quality products from China. Support is provided with sourcing services, purchasing assistance and agency support.
<Yan@higlobal.com.cn>

One of the hottest topics since the Covid-19 pandemic was declared is the sky-high cost of ocean freight and the shortage of containers. Since the outbreak, sea freight costs have increased 10 times.

For more than 10 years before 2019, the shipping cost of a 40-foot container from China to the western United States was only about $2,000. However, in the past two short years, the sea freight cost of the same container has risen to $20,000, and many shippers have to fight for shipping space.

The cost increase can be attributed to numerous factors, but none more so than the impact of Covid-19 on the shipping industry. It's also due

rs: Where are they ost so much?

Sabrina Wang

to a mismatch between the timing of lockdowns around the world. In both the US and the EU, lockdowns resulted in higher demand for consumer goods manufactured in China. While this incentivized Chinese manufacturers, freed from lockdown to pack their wares into shipping containers for export, it has been difficult for US or European companies still affected by

lockdowns to refill these containers for a return journey to China — leaving them effectively stranded.

Other low-cost manufacturing hubs, hoping to ship more goods to the locked-down US and EU, are reportedly now muscling in on the established China-Northern Europe route, meaning that any available ships and containers are being diverted to parts of Africa and South Asia.

With ports in the EU and the US at capacity in terms of the number of containers they can take, ships stuck in ports or lacking a crew, and warehouses either unstaffed because of lockdown measures or, as in China, perennially oversubscribed, companies are electing to store their goods in containers, limiting supply even further.

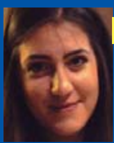
So where are the shipping containers?

The established trade routes of pre-pandemic times have been distorted to reflect the markets that are open for manufacturing and those that are open to taking more cheap consumer goods. As a result, the bulk of the world's shipping containers appear to be in one of three places:

1. Stuck in the EU or the US: China came out of lockdown as the EU and the US entered lockdown. As people resigned themselves to spending more time at home, there was a surge in demand for consumer goods that are often manufactured in China, leading China's shipping companies to send more ships and containers to these markets. However, there has been little or no incentive to return the shipping containers to China; with economic activity in large parts of the EU still limited, many of the containers would likely return empty.
2. Stuck in China: China's warehouse storage is oversubscribed, meaning that companies that are unable to export goods because the US/European ports are at capacity have little choice but to store stock in any available containers, usually portside, until the West comes out of lockdown and this congestion can start to be cleared.
3. Ships diverted to Africa and South Asia to serve the US and EU markets: Low-cost manufacturing hubs across Africa and South Asia

IN MY VIEW

How do you decide prices on your products?



Romania

Mihaela Pârlog
Marketing Assistant, Toko

We study our competitor's prices on products. Our purpose is not to match or beat the competitor's prices on our branded products because we make sure we offer higher quality products in each case. Of course, we also consider our indirect and direct costs too. Fortunately, we invest in premium quality products so we can choose to set higher prices.

United Kingdom

Dennis Haines
Badger Office Supplies

Pricing, distribution, product specification and promotion determine our market position against our competitors. If weak = lower prices.

How to make enough overall margin to cover overheads and leave profit? If the price is 10, our cost is 7.50 that gives us a margin of 2.50. If we discount the price by 10% we ask ourselves can we sell 66% more to make the same overall margin.

Japan

Iemori Kanetoyo
Sunwise Information Corporation

In the present keen competitive Japanese B2B market, we must decide prices of our products according to client's budget limit or the current market price.

It is very difficult to persuade the client to accept the price as being higher than their budget limit.

are reportedly vying to supply high levels of demand for consumer goods in the US, meaning that containers are increasingly stretched across competing supply chains.

All three outcomes result in increased prices of shipping because there is greater demand and less certainty regarding shipping times, costs, and loads.

How is it impacting industry?

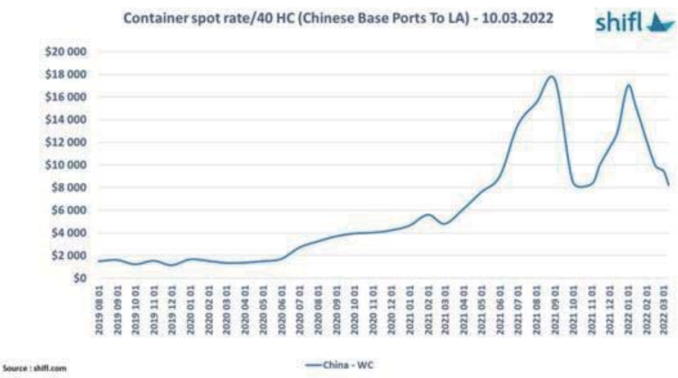
China's export advantage is being squeezed by soaring sea freight and rising raw material costs. Some importers have begun to reduce orders from China due to the rising of the raw material and shipping costs.

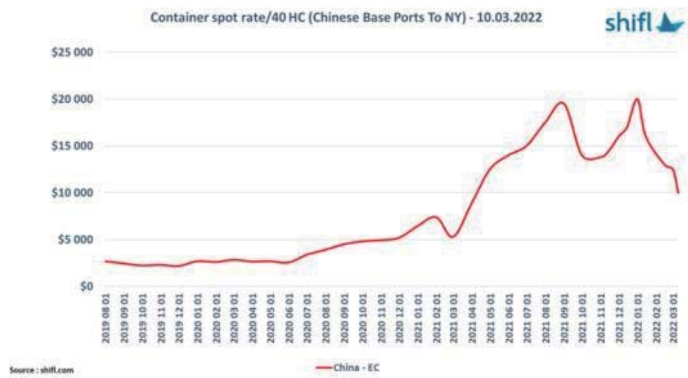
Shipping companies are passing on costs incurred by holding containers at ports for longer through extra fees. Companies must then either absorb the increase in costs or pass it on to consumers, which might make their price points uncompetitive.

On the other hand, rising shipping costs also affect the supply chain domestically in China, as manufacturers say it is becoming too expensive to purchase the materials they need to make the goods they sell. In order to cope with this situation, many manufacturers of low-value goods have begun to reduce production and reject orders to maintain profits.

How is it impacting consumers?

Companies appear unwilling to pass on increased shipping costs to consumers with markets for consumer goods currently so competitive. Shifting costs to consumers is anyway not always possible, especially if the company operates in business-to-business logistics or offers an end-to-end delivery model where contracts are drawn up months in advance, including shipping costs. A particular issue currently is that the backlog caused by the pandemic goes back to 2020, meaning that companies are struggling to honour contracts drawn up when the cost of shipping was a third of what it is now.





Consequently, consumers will only be able to avoid higher prices for so long. Economists predict that supply shortages and higher freight rates will restrict trade growth and contribute to temporarily higher inflation over the course of the year.

When will the costs come down?

According to the analysis of more than 60 major shipping companies by the International Maritime Analysis Agency Sea Intelligence, since the beginning of February 2022, the capacity of the Asian western American route has increased each week. By the end of April, the weekly transport capacity reached 363,900 TEUs, more than three times that before the epidemic.

The one factor driving the rise in cost of sea freight, "the insufficient supply of transport capacity" has passed its peak.

This year's overseas demand will be affected by two aspects, and gradually cool down.

According to the Research Report of CITIC Securities, in March 2022, the capacity utilization rate of U.S. manufacturing industry was 78.7%, the highest level since 2016. In Europe, the capacity utilization rate of manufacturing industry in the first quarter of 2022 was 82.4%, which was basically the same as the pre-epidemic level.

The recovery of domestic supply chains in Europe and the United States also means that they no longer rely on Chinese imports as they did in 2021. This also means that the demand for sea transportation will decline.

To cope with the highest inflation in 40 years, governments are raising interest rates. The U.S. economy is beginning to slow down. Data released by the U.S. Department of Commerce on April 28 showed that the U.S. GDP shrank in Q1 2022, down 1.4% month on month.

Therefore, under the dual impact of the shrinking domestic demand in Europe and the United States and the recovery of domestic supply chain, the import demand of European and American countries for China will only be lower than that in 2021, not higher.

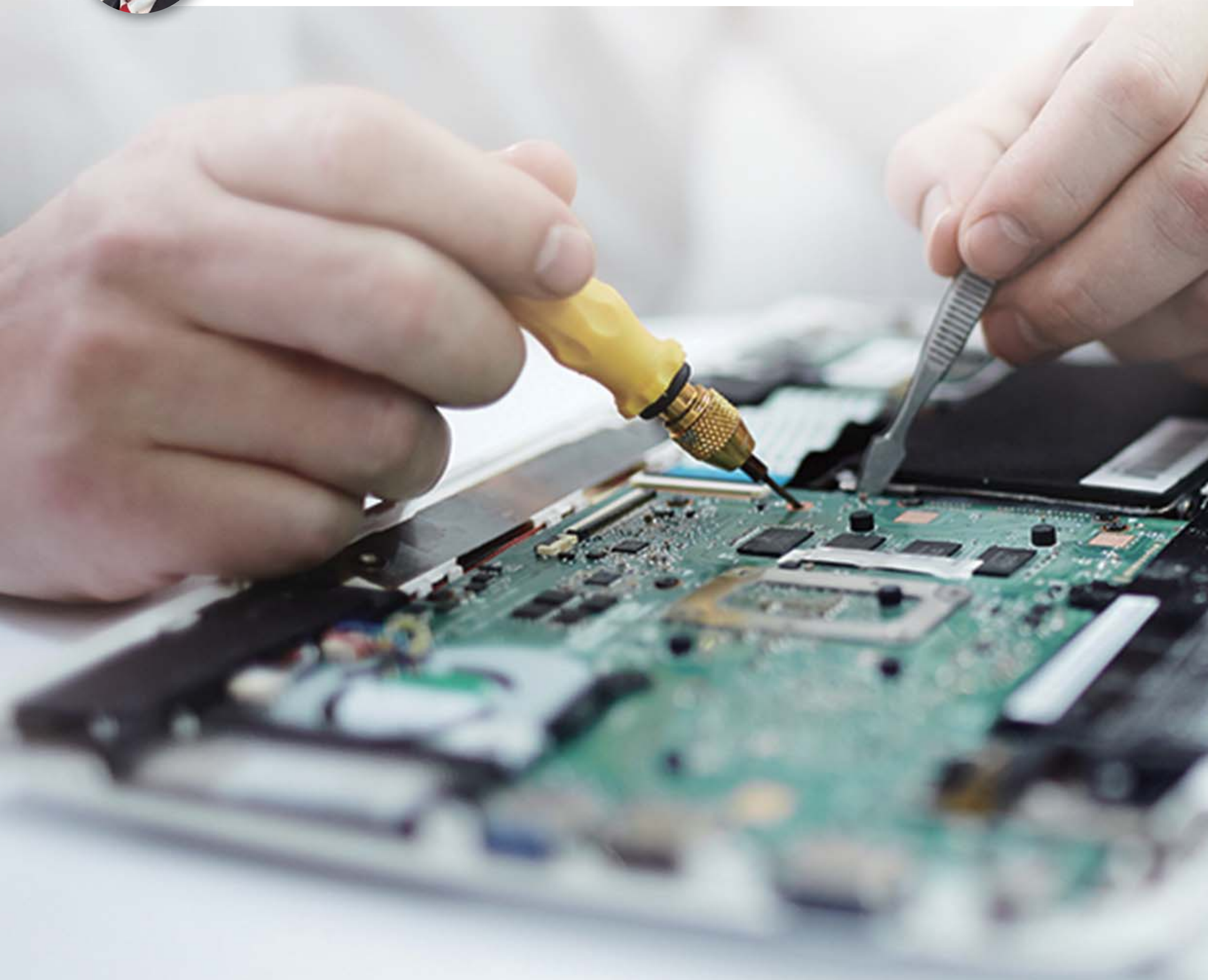
Therefore, the two major factors that led to the historic rise in sea freight have undergone fundamental changes this year. When the global transportation capacity increases rapidly, and the demand of Europe and the United States for Chinese exports is no longer high, it is not surprising that the sea freight will halve and may continue to decline.

The sharp increase in exports since the epidemic, has also benefited China's economy. During the epidemic, exports ushered in the highest growth rate in nearly a decade and became a ballast for China's steady economic growth. China's trade surplus in 2021 reached US $676.4 billion, the highest level of any country in history, and it is estimated that no one will surpass it in the future.

When the noise is calm and the tide settles down, the players who still stand on the beach may be the real hope of Chinese enterprises going to sea.

The Role of a B
in Costings an

Graham J. Galliford is a world-renowned consultant, researcher, writer and speaker for the global imaging industry. His work has encompassed technologies in a variety of printing components and products but has worked primarily in the field of toner-based printing technology since 1974. He can be contacted at <graham@gallifordconsulting.com>



ill of Materials d Pricing

Graham Galliford

A Bill of Materials (BOM) is an extensive list of raw materials, components, and instructions required to manufacture a product. A BOM table usually appears in a hierarchical format, with the highest level displaying the finished product and the bottom level showing individual components and materials.

Apart from the manufacturing operations a BOM assists in the management of other functions including purchasing, accounting/finance, and sales. It helps manufacturing companies to plan the purchase of materials, estimate costs, to control inventory and to minimize production delays and waste.

Accurate and complete BOMs also help identify the cause of a product failure and work quickly to replace the faulty parts, materials, and components. These key documents are at the heart of any manufacturing operation. BOMs can be single- or multi-level dependent upon parts sourcing. The two main types of BOMs are manufacturing bills of materials (MBOMs) and engineering bills of materials (EBOMs). Most companies in the business of manufacturing and assembling print consumables use MBOMs.

Even though the concept of a MBOM is straightforward, creating and managing them can be complicated, especially for products composed of hundreds or thousands of parts. For instance, if it becomes necessary to change one component because a supplier cannot meet its delivery deadlines, this change needs to be replicated throughout the MBOM, wherever that component is used. Some basic parts, like adhesives, may be used in multiple areas.

MBOMs make for efficient and accurate manufacturing. From an MBOM the identification and pricing of all the materials and components needed to make a product before production begins may be conducted. With this an organization can determine whether it has everything it needs to move forward with minimal risk of delays. This reduces the likelihood of both shortages and overages of materials or components by helping ensure the right parts and materials are available at the right time and in the right quantities, MBOMs help manufacturers remain within budget and on schedule. Most MBOMs include the following elements - BOM level, part number, part name, part description, part quantity, part cost, and the unit of measure. However, MBOMs do not include labor costs.

Advantages and Value

Why is a MBOM important? By providing and controlling a single accurate record of the materials, components and assemblies that go into the product, a bill of materials ensures these items are in-house when needed and at the quantities required during production. This minimizes inventory inaccuracies and production delays, both of which cost time and money.

They also ensure product uniformity because when each production run follows the same BOM, the products themselves remain consistent. This helps ensure that the product meets customer expectations, especially when a product is bought multiple times by the same organization. Additionally, MBOMs are critical when products need to meet safety or other performance standards.

The information in a MBOM is also important when it is necessary to track product failures. With this document, it is possible to identify the parts, materials and components used and zero in on potential sources of any failure. Manually preparing and managing BOMs can quickly become unwieldy and error prone. The task of maintenance of a company's MBOMs should be performed by one person or department dependent upon their complexity and volume. This control helps to prevent mistakes being made due to human error.

Correctly controlled and utilized MBOMs interface with other management control functions including:

- planned purchases of materials and components
- tracking and planning material requirements and purchases
- estimation of material costs and inventory management
- enables prediction of materials shortages and planned and unplanned downtime
- budget control
- production scheduling
- record maintenance
- waste reduction
- determining the cause of product failure and prompt replacement of faulty materials
- and improvement of supply chain security

The Development of the BOM Concept

Historically BOMs started being used in the 1930s. Engineers used early versions of BOMs to specify components within technical drawings. In the sixties, advances in production planning emerged, like Toyota's Just-in-Time (JIT) approach which would later evolve into Lean Manufacturing.

In the United States, a similar approach was developed called Material Requirements Planning (MRP). With MRP, companies could plan for needed materials based on a master production and purchasing schedule which was based on the parts included in the MBOM. This reduced inventories, ensured timely deliveries, and better-matched material availability with manufacturing and market requirements.

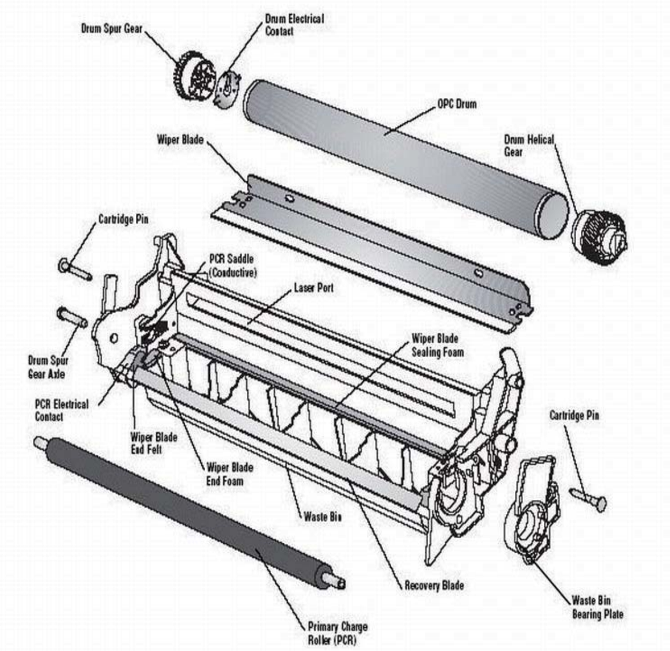
In the eighties, MRP was improved to include financial analysis, marketing, human resources, and accounting aspects. It was renamed MRP II. In the nineties this evolved further into Enterprise Resource Planning (ERP) and is characterized by digital transformation, on-demand manufacturing, globalization, high product complexity and customization, to cope with the emergence of novel high-performance materials and production processes. MRP, MRP II and ERP all rely on accurate and up to date MBOMs for their efficient operation.

Software has been developed to enable fast and accurate manufacturing control based on MRP, MRP II, and ERP helping to control the supply chain and providing inventory management automating many processes.

Who Uses a Bill of Materials?

Manually preparing and managing BOMs can quickly become unwieldy and error prone. As already mentioned, the task of maintenance of a company's MBOMs should be performed by one person or department dependent upon their complexity and volume. This control helps to prevent mistakes being made due to human error. The use of sophisticated software such as Oracles NetSuite ERP, SAP ERP, and Sage X3 help to streamline the broad reach of systems within a manufacturing organization.

Given the range of information within a BOM, creating one often requires input from a company's cross-section of functions. This can include design, engineering, purchasing, materials management, and manufacturing. Different areas within a company are primary users of MBOMs.



MBOM Basics

A typical MBOM will start with the design of an object to be manufactured. There might be engineering diagrams or CAD drawings dependent on the type of manufacturing. The exploded view (see page 46 - opposite) of a toner cartridge drum, charging, cleaning, and waste bin can be seen revealing multiple parts for this cartridge sub assembly.

This product it is one part of a multilevel MBOM. This cartridge comprises two sub-systems the other being the toner hopper and top cover assembly. The MBOM for this part is as follows:

As can be appreciated, from this document flowing into associated documents such as sales orders, production orders, materials requisitions, production materials costing records can all be updated correctly and recorded.

The MBOM is a key tool in the control and at the foundation of any manufacturing operation. The development, maintenance, and use of MBOMs help manufacturing operations to be rum smoothly, cost effectively and efficiently. ■

Product:	**Toner Cartridge**
Approved By:	**GJG**
Date of Approval:	**June 29 2022**
Level:	**2**
Part Count:	**19**
Total Cost:	**$12.60**

BOM Level:	Part #	Sub-assembly	Part Name	Description	Quantity	Units	Unit Cost	Total Part Cost
1.00	P71112	Bottom Section						
1.10	5989		Cartridge Pin	Steel pin	2	Each	$1.00	$2.00
1.11	1719		Drum Spur Gear Axle	Steel shaft	1	Each	$0.65	$0.65
1.12	2224		Waste Bin	Plastic Moulding	1	Each	$1.65	$1.65
1.13	5466		Waste Bin Bearing Plate	Plastic Moulding	1	Each	$0.88	$0.88
1.14	1591		Primary Charge Roller (PCR)	Composite Roller	1	Each	$1.85	$1.85
1.15	3418		PCR Saddle	Plastic Moulding	2	Each	$0.27	$0.54
1.16	7868		PCR Electrical Contact	Metal Fixture	2	Each	$0.30	$0.60
1.17	8952		Drum Wiper Blade	PU and Metal Fixture	1	Each	$1.10	$1.10
1.18	3624		Wiper Blade End Felt	Felt Pad	2	Each	$0.07	$0.14
1.19	2813		Wiper Blade Sealing Foam	Foam Strip	1	Each	$0.05	$0.05
1.20	6972		Recovery Blade	Plastic strip w/self adhesive	1	Each	$0.67	$0.67
1.21	3325		Organic Photoconductor Drum (OPC)	Photocondutor Drum	1	Each	$0.85	$0.85
1.22	1520		OPC Drum Spur Gear	Plastic Gear Wheel	1	Each	$0.55	$0.55
1.23	5593		OPC Drum Helical Gear	Plastic Gear Wheel	1	Each	$0.56	$0.56
1.24	9514		OPC Electrical Contact	Metal plate	1	Each	$0.27	$0.27
1.25	7346		Philips Machine Screw	6mm Machine Screw	2	Each	$0.02	$0.04
1.26	6859		Philips Machine Screw	8mm Machine Screw	4	Each	$0.02	$0.08
1.27	4371		Plastic Clip	Plastic Part	2	Each	$0.03	$0.06
1.28	8848		Plastic Clip	Plastic Part	2	Each	$0.03	$0.06
	Sub Total							$12.60
2.00	P71113	Filled Toner Hopper						
2.10	3919		Hopper	Plastic Moulding	1	Each	$0.75	$0.75
2.11	1042		Toner	Powder 0.25KG	0.25	KG	$3.50	$0.88
2.12	3251		Fill Hole Plug	Platic Part	1	Each	$0.07	$0.07
	Sub Total							$1.70
		Top Section						
3.00	3455		Cartridge Top Cover	Plastic Moulding	1	Each	$2.00	$2.00
	Sub Total							$2.00
		Cartridge						
			Bottom Section	Assembly 1.00	1	Each		$12.60
			Filled Toner Hopper	Assembly 2.00	1	Each		$1.70
			Top Section	Part #3455	1	Each		$2.00
	Total Cost							$16.30


GENUINE
NASHUA®
Worldwide Excellent Quality.
Looking for a brand you can trust?
We need resellers and wholesale partners
• Europe • Middle East • Africa (Except : South Africa, Namibia, Botswana, Zambia, Zimbabwe, Lesotho, eSwatini)
Genuine Nashua
HEALTHY CHANNEL MARGINS
SATISFACTION GUARANTEE
STRICT QUALITY CONTROL
Nashua® has engineered and tested a range of toner cartridges for use in Brother®; Canon®; Dell®; Epson®; Hewlett Packard®; Konica Minolta®; Kyocera®; Lexmark®; Oki®; Ricoh®; Samsung® and Xerox® devices.
The quality of Genuine Nashua® Supplies for use in these other manufacturers' devices is exactly what you would expect from a company with so much experience and pedigree in toner and imaging technology.
We have a colourful history!
Genuine Nashua Supplies for printers, copiers, MFPs and other hardcopy output devices.
Only available from Real Time Communications BV
Contact Mark Dawson: Landbouwweg 27 | 3988 BB Zeewolde The Netherlands Mobile: +31 6 53 45 04 95 | mark@iopbv.com
www.nashua.info

Mark Dawson

How Important is Price when Building a Brand?

The need to defend margins and get closer to the end customer makes vertical integration most attractive.

Every marketing professional will tell you that price positioning is inextricably linked to brand reputation. When we behave as consumers, buying a car or booking a flight/hotel/restaurant, it seems obvious.

Car experts among us will know that an Audi A4 Avant, a VW Passat Estate, and a Skoda Superb Estate are all built on the same platform and all three brands have the same owner. Yet at launch in the UK, the Audi version was priced at £29K, the VW at £23K and the Skoda at £21K. There are variations in features (and benefits). However, according to Car Wow, the main reason for the higher Audi price is the "more desirable badge." £9K on £21K is 43% and that is a lot of money to pay for a logo. Yet, Audi sells well.

According to Concordia University's John Molson School of Business in California, price is a hugely important factor in driving profitability, but it is also a relative figure that relates to brand and company reputation. Consumers typically gauge whether a price is good based on how it compares to a brand's reputation. A high price is not a deterrent to many consumers if it corresponds to a positive reputation. When price and reputation seem misaligned, consumers are turned off.

This reinforces my existing belief that much of the aftermarket toner cartridge industry has never really understood branding. The same old comments resurface when challenging many of our business leaders: "A brand is just another word for a logo – and I've got one of those." "Branding is a bit fluffy, there's no real substance to it." "Brands are only for consumer products, they're not relevant to my cartridge business which sells to trade." "Most of my business is private label so it is my customer's job to invest in branding."

There are some notable exceptions. In my local market of The Netherlands, we have several successful online players with strong reputations. Using the HP CF226X as an example here is a summary (all prices exclude VAT):

For a remanufactured option we see a delta of approximately 35% against the OEM. For a compatible option up to 41%. These brands have reputations which are fundamental to their ability to garner a price premium over the ocean of other options.

A look at Amazon.nl reveals hundreds of other "brands" priced as low as €21.99 including VAT! Some examples: CartridgeX, Kineco, Yellow Yeti, Squiido, Mipuu, Bonink, Tonerversum, Bubprint, Acceprint, Nopanink. All these are priced at less €30.00 including VAT.

We have a market dynamic in which, by value, according to IDC, the OEM owns 87%. The most successful alternative brands have profiled their target markets, developed their brands and reputations. They garner a brand tax for their efforts. This generates profits which sustains continued investment.

Surely names on boxes that are positioned 85% below the OEM are leaving money on the table.

Is this not evidence that low price alone does not drive market share? Brand and reputation building strategies are what sustain businesses in the long-term. As well as generating less profit, low prices can harm how a product is viewed. Low prices raise concerns about quality, IP, and sustainability. The industry continually complains about price compression, yet the highest price solution (OEM) dominates the market, and the OEMs regularly raise prices. Those that understand this and have built brands with reputations are well positioned for the accelerated market consolidation storm that is in the pipe. ■

Supplier	HP Brand Price	Own Brand	Own Brand Price	Own Brand Specification
ecotone.nl	€200.33	Ecotone	€125.00	Remanufactured
printabout.nl	€144.18	PrintAbout	€107.50	Compatible
123inkt.nl	€150.83	123inkt	€88.84	Compatible
vikingdirect.nl	€200.00	Office Depot	€130.00	Remanufactured
jm-bruneau.nl	€239.00	OWA	€155.00	Remanufactured

Mark Dawson

RT Global Partner for EMEA

Mark Dawson is RT Imaging World's Regional Partner for Europe and the Middle East. He joined the imaging supplies industry in 1987 and has held senior positions with both American and European corporations, including MSE and Clover. He is currently building RTC/IOP (Real Time Communication BV) whose mission is to help independent resellers find new revenue streams and optimize margins.
Dawson has partnered with RT to provide consultancy for manufacturers with plans to increase share in Europe and the Middle East. For more information, please contact him at <mark@ iopbv.com>

Stuart Lacey

Why Quality Will Always Win Over Price

'Service' is fundamental to customers for them to be repeat purchasers.

The only way you can differentiate your products (and indeed your company) from those of your competition, is by adding value, perceived or otherwise.

If you want a potential customer to want to work with you and loyally support you for a long time, you need to give them

their "money's worth." Certainly, this must include 'service', good solid 'commercial activity', 'technical support' and above all else, quality product on which you can build reputation.

For obvious reasons 'service' is fundamental to customers for them to be repeat purchasers. Great, consistent service ensures the customers will think of your company before any other competitor since it makes their lives easier.

Good, solid 'commercial activity' is critical. Your commercial team are generally the main point of contact with the customer base, and it is this relationship that can create a unique image of your company. Great salespeople should know more about the product mix and buying patterns of your customers than the customer themselves. This can create an exceptional bond and trust and is a direct reflection of your company's image.

The need for good technical support is obvious. If you cannot support your products with technical back up and support, then it is questionable whether you are in the right business.

But none of the above will get you anywhere if you do not have a quality product to complete the equation.

If you have great service, good commercial people, good technical service, and obviously great products then you are certainly entitled to demand a premium for all the 'extras' you offer. And rightly so. That does not mean to say you can double you pricing since you need to remain competitive. However, if you are a few percentage points higher than a competitors' offering for like for like product, this should be easily obtained.

Easy, right?

Unfortunately, no! Many so called 'salespeople' are only relying on price to sell products. In fact, this cannot be called 'selling' since it is simply order taking, giving away product without trying to differentiate the offering.

This is a huge problem in the aftermarket today. Selling on price will not bring loyalty from your customer base as it opens the door for every competitor to reduce the price, which in turn will force your 'salesperson' to drop the price further. This generates a never-ending downward spiral in prices.

Since lower sales prices will automatically affect your margins, you will be forced to review, eventually, the prod cost. Eventually you may try to reduce the manufacturing costs, which will inevitably reduce the product quality. This would be a fatal mistake.

Even if you have the best service, commercial activity, and technical support, providing inferior product is the beginning of the end.

Product quality must be your number one goal, combined with commercial personnel able to understand and present all the added value your company has to offer. Only after presenting all the benefits of buying from your company and ensuring the customer understands what you are offering to differentiate yourselves should price be discussed.

Failing this, you are simply no different to the majority of other suppliers in the marketplace and without a product that is recognised for its quality, inevitably your business will struggle to find its place. ■

Stuart Lacey

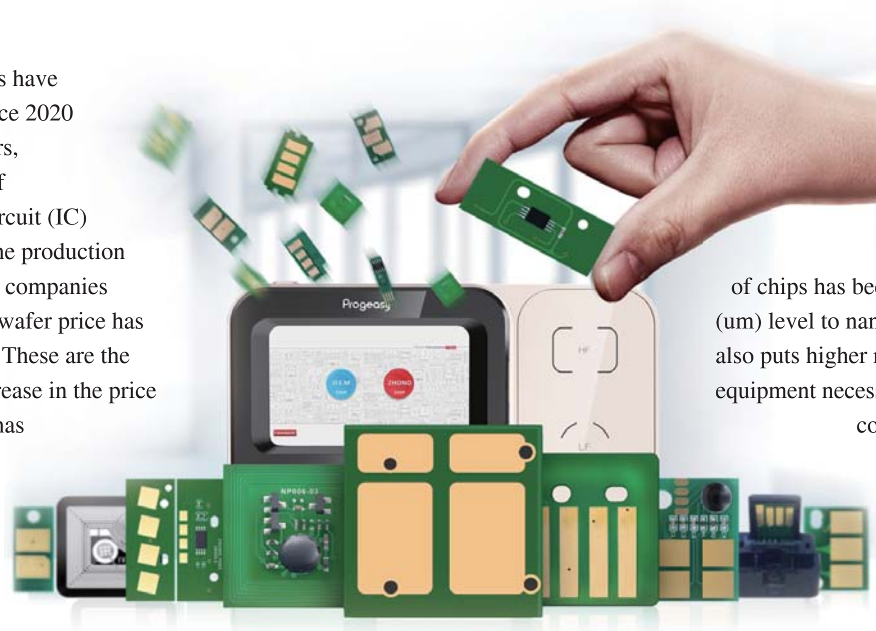
RT Global Partner For Africa

South Africa-based Lacey is a 30-year pioneer of the offi ce equipment and supplies industry and is keen to introduce key global suppliers to the big buyers across the African continent with RT VIP Expo one day intensive events in Nigeria, Tunisia and Ethiopia. Please contact <stuart@delace.co.za>

Jason Doran

Chip Suppliers Support Customers in the Tough Times

Chip companies must invest more money, human resources, and time into R&D to develop chips that customers need.



Global chip companies have been greatly affected since 2020 because of various factors, including the outbreak of Covid-19. Integrated Circuit (IC) prices continue to rise, the production capacity of Chinese chip companies has been full and the IC wafer price has increased exponentially. These are the main reasons for the increase in the price of consumable chips. It has impacted many chip manufacturers as a result.

OEM's have been using chips on cartridges for more than 20 years now. What is new however, is the complexity of modern-day chips. The chip is now a key component necessary for remanufacturing a cartridge. Without the chip, a remanufactured cartridge jut won't work. It is useless without the chip.

The first commercially produced IC was launched in 1961 for military computers. The original IC had just one transistor, three resistors and one capacitor and was the size of your small finger! Today an IC is smaller than your fingernail and can hold more than 125 million transistors.

Let me illustrate it this way… Let's liken the early chips, including cartridge chips, to a simple kitchen "table." The functions are very simple, and it was very easy to understand those functions and replicate them.

As technology progressed with chips we can liken them to a "room." The room has the same kitchen table in it, but also many other items of furniture. Each item has a different function and the chip is more complex that the previous "table" version.

With further development, it did not take long for the chip to become like an entire "floor." Now there are many rooms with each containing multiple pieces of furniture—each with a different job.

The current day chip is like an entire office "building" containing many different companies, each with multiple floors, each with multiple rooms and each with multiple pieces of furniture.

At the same time, the size of the original "table" is significantly larger than the "building" that is now being used. Today's chips much smaller than their predecessors but with exponentially more functions and capacity. It's mind-boggling technology. In order to understand the functionality of chips today, engineers must figure out every office, every floor, every room and every piece of furniture in order to make a compatible chip stable and firmware resistant.

Traditional consumable chips have changed from a simple memory chip to a 32-bit, high performance system-on-chip (SOC) device. The measurement technology of chips has been upgraded from micron (um) level to nano meter (nm) level, which also puts higher requirements on the analysis equipment necessary to analyze chips. As the complexity of chips continues to increase, the general ICs available cannot meet the demand and complexity of the cartridge consumable chip. This means that chip companies have to design the chip from scratch, each time.

As the complexity of chips keep increasing and the costs keep soaring, chip companies must invest more money, human resources, and time into R&D to develop chips that customers need. This requires many attempts and many failures to be successful. It is no wonder that chip development can take many years, just for one chip.

What it has given the manufacturers is the accumulation of a lot of knowledge and experience to avoid failure and to speed up the development of chips. ■

Jason Doran

Jason Doran is a highly accomplished, pragmatic and results-driven manager, sales director and business development professional, with more than 25 years' experience in the UK and Europe. He heads up European business for Chinese-based Zhono, an independent chip manufacturer with fully tested and patented chip solutions for laser, copier and inkjet cartridges. <jasondoran@zhono.com>

Steve Weedon

Who Needs a Brand?

Having a strong brand enables a value-add sale.

According to a 2017 research survey by CBC radio, 80% of companies fold after 18 months, and the ones that survive average a 50-year life span, Then, there are the ones that manage to last 100, 300 and even sometimes 600 years. The market power of a brand can fuel companies to greatness and long- term survival.

In a commodity world it's not easy to stand out from the crowd. Price becomes king and it is a race to the bottom with falling prices and falling margins and falling over, to never get up again. When the value-add sale gives way to the lowest price, to win the business it is usually followed by some "smart Alec" saying, "Don't worry, we'll make it up on volume."

That is when the alarm bells ring and it's time for a re-think. Sales managers, with no skin in the game, focus on revenues rather than margins. They make their money hitting revenue targets. It's not their fault if the company makes a loss, and blame, "it's the way of the industry."

Every business owner will agree with me that this is plain nonsense. You ought to get rid of the sales manager or at least take away his authority to set the lowest price.

In the beginning, cartridge remanufacturers competed with OEM originals and could always be competitive and profitable. Where have all the remanufacturers gone? They are out of business trying to win the sale on price against the compatible new-builds while their costs continued to go up.

Any company that has lasted 40, 50 or 200 years has established itself as a recognizable brand. It also has a history of great products, visionary leadership, and a succession of good leaders through the years. A brand can prevail, through wars, through depressions, through pandemics and live to fight on. It's an intangible thing that carries on generation after generation if nurtured and cherished. Above all, it allows you to stand out from the commodity crowd and gives your customers the "TRUST" they need to buy your products. Quality and service is paramount, and a given, but you must look after the brand.

Stella Artois was a brewery established in Leuven in 1366 brewing its own beer for sale and was only available for sale in good establishments. 630 years later, management decided to sell the beer in supermarkets. The supermarkets began heavily discounting Stella Artois as a cheap product to lure in shoppers hoping they would spend their money on other more profitable items.

Stella Artois found their typical buyer had changed. The price was low, but the alcohol content was high: 5.2% compared with the usual 4.7%. The younger binge drinkers were labelled drunken soccer hooligans by the press and prone to anti-social behaviour, regularly photographed causing vandalism with a can of Stella Artois in one hand. Oops!! Not the image the owners had in mind.

Having a strong brand enables a value-add sale. The last thing to be spoken about is the price, not the first. It has pedigree, trust, dependability, reliability, its own patents and accreditations, and its own story. It is worth more and must not be sold on price to compete with a no-value commodity product. Discerning customers understand brand value. But the sales manager who has only sold on price will never understand the value-add of a brand. It simply cannot work.

Companies who have nurtured and cared for their established brands over the years find it their biggest asset value on the company balance sheet.

Brands don't grow on trees. It takes years, even decades, to build a strong brand with a passionate following, but once you have it, you have something really unique… really special. ■

Steve Weedon

Steve Weedon is an award winning CEO who has held senior management positions at various OEMs as well as Katun Corp, Static Control Components and Cartridge World. He was the original founder of The Recycler Magazine and of trade shows in Europe. He is currently CEO at Print Rite Europe Ltd, Print Rite Pelikan Germany. Contact Weedon at <stevew@printrite-eu.com>

James Douglas

How are Retailers Impacted by Pricing

Retail stores must compete on quality, service and convenience while also being competitive and profitable.

Most retailers use a general price formula. They usually add a set margin to their purchase price, which guarantees a profit margin. However, this can mean they are not as price competitive.

Others work backwards from the OEM retail price, guaranteeing a customer savings but risking profitability.

One popular formula was to price finished goods at 60 – 70 % of the price of OEM. If a cartridge is refilled instore, then the price could be 50% of the OEM price.

Resellers expect to achieve a minimum margin of 65% and in some cases, they can achieve higher margins. Upstream from that, distributors also want a decent margin to not only pay the overheads but to also sponsor events, exhibit at trade shows, pay rebates, and advertise.

The industry used to be a win, win, win, win, win deal for everyone in the chain. The end users enjoyed choice as well as great savings. The retailer enjoyed healthy margins. The distributor margin was comfortable. The factories grew very quickly in size and volume. Yet the OEMs kept at least 80% market share. Those days are long gone.

So, what went wrong with this utopia?

Maybe greed was the core problem. Or maybe the industry was a victim of its own success attracting more and more players to the easy money.

Then the OEMs saw compatibles as a threat and dropped their prices. In so doing, they reduced their profits as well. More compatible cartridge manufacturing companies entered the market and being smaller, newer and/or producing lower quality products, they used price to break into the market. The established compatible companies followed them with lower prices. Some companies dropped quality or service.

Some factories eliminated the middleman costs to grab a greater share of the profits. Distributors and retailers, in turn, cut prices to gain or retain customers. This put downward pressure on compatible quality. At the same time, the range expanded greatly, placing pressure for more space to store inventory, display and support.

Working back from the OEM retail price was usually a simple equation. Then cartridges and chips became more technically sophisticated. The price for quality cartridges went up, and margins went down. Quality went down again to offset falling margins.

When a new cartridge was launched, it was common to start selling competitively at a higher price, with subsequent price drops over the following 3 – 4 months. Distributors would typically take a short term hit on margins so that retailers could maintain their margins. This has been the scenario for over six years.

Not a single quality inkjet or toner product, launched in the last four years, has been able to fit the old pricing formula. Distributors make poor margins, retailer makes far lower margins, and the level of quality, support, and service drops as a result. With costs up, profits down, and problems increasing, many cartridge specialty retailers have been lost to the industry.

Retail store fronts must be competitive but, they must also be differentiated. Retail stores cannot compete head-to-head on price with online retailers. They will lose that fight. They must compete on quality, service and convenience while also being competitive and profitable. That space is now a niche market. The art of remanufacturing is also being lost, and along with it, a customer base that cares about recycling and differentiation between them and the big box movers.

The drop in retail margins, coinciding with a business being sold multiple times, leading to revolving door management with non-industry people parachuted in, has not helped. This situation is not good for the remaining retailers, distributors, and factories.

In Australia there used to be small specialty computer and photo stores in every town. Thousands of these small retailers have been wiped out by large box movers and online stores. Technical knowledge and service has been lost. I fear the cartridge business is heading down the same track. If we don't change, we will become another lost business segment. ■

James Douglas

James Douglas is an award-winning entrepreneur based in Sydney and has become a trusted supplier of imaging components and products and advisor for retail businesses across Australia. He is a recipient of the Excellent Service Award for his tireless efforts in personally driving to visit, train and mentor each and every one of his customers, providing them with dedicated support to remanufacture and sell high quality, non-infringing aftermarket supplies to their customers.

Darren Turner

It's Not About Price Anymore

How could we add value bundled with convenience?

In my 19 years in business, I've learnt a thing or two about the difference between price and value.

When you sell individual products, it is hard to add any perceived value to justify a higher price, especially when there are plenty of other suppliers providing the same product for less.

If you're early to a market offering a new product, or you've made an existing product much easier to use, you have a limited time where price is not an issue, because people want the product.

Once the competition catches up, price becomes a deciding factor again.

Printer cartridges are a good example.

In the UK 20 years ago, there were not many places where you could buy cheap printer cartridges. The market was controlled by the original manufacturers—the OEMs. One bought them from nominated wholesalers at premium prices, and they took days to arrive.

So, we opened a retail business that specialised in refilling empty original cartridges for around half the price. The customer had to wait while we refilled their empties, but business took off like a house on fire.

But things have changed…

As broadband speeds improved, internet shops started selling compatible and refilled cartridges. Massive supermarkets that sell everything, including ink cartridges, appeared in town centres and opened up 24/7.

At first, customer loyalty meant our business was the preferred option. However, as life became faster, these other channels became more convenient. It was not about price, it was about convenience.

How could we add value bundled with convenience?

Our environmental refill message was still important, but it was not valuable enough for our customers. It was much easier for them to buy online and get next day delivery or buy cartridges during their weekly supermarket shop.

We attempted to add value by providing a free local delivery service. We collected our customers' empty cartridges, brought them back to store, refilled and returned them the same day. Our profit margins were reduced, due to the costs associated with providing a collection and delivery service. We could not charge more because online purchases included free delivery. Supermarkets were more convenient.

In the end it was price driven, race to the bottom: a "stack them high and sell them cheap" model, which we could never survive.

A radical change in thinking created an inflection point in time. Our business model had been centred around three individual silos:

1. Refilling original printer cartridges
2. Repairing broken printers
3. Selling replacement printers

Each was a separate element of the business, and we conducted the activities independently of each other. Looking back, we could not see the wood for the trees. The solution to adding value was staring us in the face.

The penny finally dropped. Why not bring all three elements of our business model together to form one overall service. Now we could provide a service that encompasses all three elements in one package for a fixed monthly fee.

Our first step into this new world saw us provide a multi-function inkjet printer with unlimited ink supplies for an affordable monthly subscription. Replacement cartridges were delivered fast and free, and if the printer broke, we would repair or replace it as part the service at no extra charge.

This took us to whole new place and a clear, blue ocean was created. We were still providing the core business services, we just packaged them differently, which made life much more stress free and convenient for our customers. It was not about price anymore; it was about the perceived value. ■

Darren Turner

Darren Turner's story began in 2003 when he opened a retail store in the UK selling printer supplies to home users & small organizations. Since then he has moved into a business unit, grown his team and continued to adapt to match his customers' changing needs.
He has developed a 'fit for purpose' office products and solutions business model that provides certainty of cost and service for small business, charities and schools—thus providing them complete peace of mind.
He has become a trusted advisor for small organizations across the world.

Gustavo Molinatti

Global logistics and its impact in Latin America

The link between logistics, trade and growth forms the basis for global competition.

Latin aftermarket distributors have not only had to professionalize themselves to maintain their leading role in the constantly changing printing market, but have also had to establish themselves as efficient external and internal logistics companies at the same time.

Until a few years ago, global logistics had made significant progress, but the pandemic brought new challenges and challenges. This included the closure of companies, the increase in home deliveries, social distancing and many other changes to consumption trends.

In addition, there were severe large-scale supply chain disruptions along with increased logistics costs worldwide, impacting product availability and end consumer prices.

As if all these factors had not been enough, the military confrontation between Russia and Ukraine added further unexpected consequences, such as an energy crisis and inflationary effects.

Logistics Performance Issues

One of the great problems in Latin America is the cost of logistics, which many estimate is 60% higher than in Asia. The lack of infrastructure is one of the main reasons for this.

A recent study by the World Bank highlighted the logistics performance of the countries of the region and linked it to their economic growth and competitiveness. In the graph we can see how Latin America has been impacted by higher costs compared with the average being experienced by the rest of the world. According to this report, the countries in the region with the highest logistics costs are Bolivia, Central America, Ecuador and Paraguay.

Inefficient logistics increase the cost of doing business and reduce the potential for integration with global value chains. This is because logistics are the backbone of world trade. The link between logistics, trade and growth forms the basis for global competition.

This is the reason why Latin countries with a low logistics quality profile reflect a higher percentage of logistics costs in relation to GDP.

Perspectives for Latin and Global Logistics

Current forecasts are not very encouraging, stating that:

• as long as China's lockdowns continue, sea routes will continue to be altered and delays and cost increases will continue.

• disruptions in the supply chain will continue, which is expected to normalize only by 2023.

• according to experts, the cost of shipping by sea and containers will continue to rise. It should be noted that maritime transport represents 82% of world transport.

• the political and military conflict in Ukraine and Russia puts pressure on the cost of oil and energy, which contribute significantly to the costs of the supply chain.

The impact of all these factors upon the Latin American market continue to be relevant. They are aggravated, to a greater or lesser extent, by the local logistics performance that I mentioned earlier, altering the transfer of costs along the internal value chains of the countries, increasing the prices of products and reducing the competitiveness of national economies.

The great challenge for the region will be to modernize the infrastructure in each country and region to make supply chains more efficient.

For entrepreneurs in the print industry, uncertainty is a challenge that is already part of their new normal. It will be key in these times to invest resources to improve connectivity, technology and tools for supply chain management, connecting demand with purchasing and transport activity.

All this will allow companies to be agile and move faster to face the coming times with better resources. ■

Logistics cost as a percentage of GDP - 2021

Gustavo Molinatti

RT Global Partner for Latam

Molinatti is based in Buenos Aires, Argentina and is publisher of Guía del Reciclador—the Spanish language magazine first published in 2002 for the Latin American printer cartridge aftermarket. He has organized more the 20 technical and MPS training events in several countries and is helping RT bring VIP Expo events to Brazil, Argentina, and Perú. Please contact < info@guiadelreciclador.com>

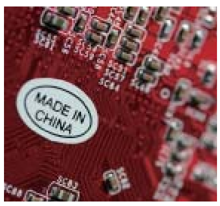
DID YOU KNOW?

Despite being the "world's factory" producing cheap products that sell for low prices around the world, many high-end goods manufactured in China—including iPads and Coach bags—actually cost more there than they do in Europe or the USA.

QUICK FACTS

Shoppers want to get a deal and like to see the original price next to the new one creating the psychological effect of a great deal.

Studies reveal products that are priced with fewer digits outperform more complex pricing. $1299 will sell more quickly than $1,299.00.



Prices can be so cheap in China due to seven factors: economies of scale in manufacturing, tariff differentials, lower cost of capital investment, higher labour productivity, lower transaction, power and transportation costs.

"9" is a magic number and items at $49 or $109 sell significantly better than $50 or $110 respectively. Even when items are offered at $25 or $29, the $29 item will consistently outsell the lower priced item.

BERTO'S LAST LAUGH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ID: Recycling_Times
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8,000+ seguidores
ID: intouchnews
67,000+ video views
ID: Recycling Times Media
22,000+ vistas de videos
Chinese Toutiao App
76,000+ visitas anuales a la página
WeChat ID: i3dpworld
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