

Digital printing

Enabling the supply chain of the future

The packaging supply chain is a complex organism that needs efficient management. John Alston of **Tonejet** explains how it is now time for converters, brand holders and retailers to understand the advantages of digital printing, the improvements it can enable and how to work with all stakeholders to bring about change.

Even a simple supply chain can be difficult to manage, with the chance of wastage and inefficiencies, missed opportunities and lost revenue. The range of multiple products adds pressure as do suppliers of raw materials, distribution networks, and customers, along with climate, regulations and financial conditions. However, improvements in inventory, transportation, facilities, and information management all create a more flexible, agile and efficient company.

A substantial catalyst to supply chain growth is globalisation, where the number of entities involved in buying and selling goods has increased dramatically. To manage this complexity, supply chain management is changing from an independent, parts approach, to one that is integrated.

In the past there were independent and protective links, an uncertainty of demand and supply and long product runs and a long selection process with stock held for sometimes many months, which annoyed customers.

In the future we expect more end-to-end visibility, a quicker response to change, strong collaboration, less suppliers, longer terms and shorter production runs with quick changeovers. Most importantly minimal 'just in time' stockholding, has all been helped by improved communication with the customer.

Put simply, the supply chain is moving from

production push to consumer pull, from 'make then sell', to 'sell then make'. Digital technology and mobility of information has helped change the supply chain to one where the customer triggers the chain – Demand Chain Management.

Now many companies have adopted information management systems and future improvements to the supply chain will be small. So companies need to look to other tools to gain the edge over their competitors and remain profitable.

So how can digital printing of packaging reduce cost and add value?

It can provide a quicker response and customisation. Retailers stock levels can depend on weather predictions, some with just two days lead time. Companies need to be able to respond quickly to competitor activities and unforeseen events and long lead times for artwork and final packaging sign off can mean the peak value point for

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promotional opportunities is missed. Digital printing enables a quicker reaction.



John Alston

Shorter production runs with quick changeovers

Many converters are now required by key customers to supply small and medium volumes, pushing converters to operate at close to zero profit for some jobs. Many converters will print more than the customer requires in a hope they will place the same order again, which leads to millions of euros of stock holding and risk. Digital printing is a solution for cost effective short and medium print runs.

Minimal stock items

Accurate inventory management is becoming the king in supply chain efficiency. Food companies need to be able to decide each day what they will produce for consumption

only a few days later. This is particularly critical in the fresh food and dairy markets where inaccuracies lead to unnecessary food waste.

Digital printing of packaging allows 'just in time' supply of printed packaging

Customers are also demanding more information on where products are sourced and with global sourcing this can change frequently. The packaging regulations, and constantly changing regulations can lead to the printing of more packaging to accommodate these changes and also waste of existing printed stock.

Better communication with the demanding consumer

Retailer shelf space is becoming limited as a

result of massive product proliferation. Retailers need to find innovative ways to communicate with consumers at the shelf. Imagine shelf space where the graphics of individual products work together to display a graphic – this is achievable with digital printing. With online shopping and the consumer information retailers can collect, digitally printed packaging could be tailored to the individual or household. This would work if there is a nut allergy sufferer in the household for instance, or in fact any other food related concern or dietary requirement.

Digital printing can improve both the operational and marketing side but what does this mean to the participants?

The big retailers and supermarkets strongly influence the organisation of the supply chain, increasingly controlling the upstream segments. Some large retailers are even putting up 'purchasing barriers' between their own brand products and conventional brands by placing private label brands more prominently at eye level and using better graphics.

Digitally printed packaging can be tailored to the individual or household

There are now companies working with this new business model and supply chain, so brand owners have to do more.

Brand owners already spend a lot of time, effort and money promoting their brand. Historically, these were pitched on radio and in print, then television. The activities, environment and people in these advertisements defined the brand and product. This is now moving online, with social networks playing a significant role in communicating products and brand values.

Technology in television and online media give the viewer the power to be more selective about what they watch and when, reducing the value and availability of traditional advertisements. The advertising space that is not controlled by the consumer is the space on the pack. So brands have become more vertically integrated, bringing the converting in house, closer to the packaging lines.

Which converters are providing or implementing digital printing?

Today this is primarily label printers, in particular numerous SME label converters.

Which converters are failing to utilise digital printing?

Large flexible film converters, who are very good at printing large volumes of the same image on wide, high capital printing equipment. While in some cases large flexible film converters completely dismiss digital printing, other smaller converters in the same market segment, are embracing it, citing how they are providing digital printing for their customers.

Why it is used for mainly own brand products?

The use of process colours in digital printing is often cited as a limitation, by those

looking for reasons not to adopt it. However, if the supply chain is to become truly adaptive to demand, then these digital printing requirements need to be embraced. If brand owners are serious about reducing costs

then they will move to process colours. Many large global brands have already done this and are transforming their colour management to seize the potential that digital printing will allow them in the future. ■



The Tonejet rig