

# RESEARCH PAPER

# Big data, smart decisions

Why a flexible approach and in-depth understanding of the challenges faced by retailers is vital when it comes to printer selection, maintenance and management in the retail market

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## **Executive summary**

The ability to print documents is increasingly taken for granted, especially in the general office environment where shared multi-function printers with broadly similar capabilities meet the majority of use cases. When it comes to the retail market, however, the sheer range of applications and the diverse environments in which printers are expected to operate necessitate a much more considered and tailored approach.

Printing is also a much a more important activity in the retail sector. In the general office market it tends to be a secondary requirement, whereas for retailers it will often be a key business process, calling for high levels of quality, reliability and manageability which no one printer or printer family can be expected to deliver.

"One size fits all" really doesn't work for the retail print market, either when choosing printers to buy or negotiating a Managed Print Service (MPS) agreement. In this research paper we look at how well this is understood and how best to meet the print needs of companies active in the retail market.

Using data from an online survey of *Computing* subscribers specifically engaged in the retail industry we look at just what retailers rate as important when deciding what printers to buy. We also discuss the unique operational and environmental issues they face and at how MPS services and their providers measure up when it comes to keeping the retail customer satisfied.

#### Retail is different

In many ways the poor relation of the IT world, the ability to print high-quality documents on demand is increasingly taken for granted and routinely addressed using a mix of shared printer products. From all-in-one inkjets, priced to meet small business budgets, through to high-end colour copiers, typically, managed and maintained by specialist vendors through a Managed Print Service (MPS), the market would seem to be mature. Some care is needed, however, when it comes to adapting this kind of office-centric solution to meet the needs of different types of business, particularly those in the retail market, which presents a unique set of challenges both when it comes to the type of hardware required and its management.

An equally important consideration is the value of printing in retail. In the general office world printing tends to be a secondary requirement whereas in retail, it can often be a business-critical process calling for high levels of quality, reliability and manageability which no one printer or printer family can be expected to deliver. Likewise, when it comes to print management and maintenance, a high level of flexibility and an in-depth understanding of the specific print needs of retail customers is vital for a successful outcome yet not always available.

#### A diverse market

One of the first things to appreciate is the sheer diversity of the retail market. As in other industries, retail businesses have a lot in common but they also come in all shapes and sizes, from one-man outfits operating out of a garage to large multinationals with huge supporting warehouse, delivery and service infrastructures.

Retailers operate in shops, markets, exhibition spaces, on TV and from the backs of vans. Equally, the nature of retail itself has changed dramatically in the last 10-15 years with companies these days just as likely to sell online as they are to work out of stores and other physical locations. And just how prevalent this has become is shown by results from the online survey of *Computing* subscribers in the retail sector with 50 or more employees, where the overwhelming majority of respondents (94%) said they now sold online as well as through physical retail outlets (Fig. 1).

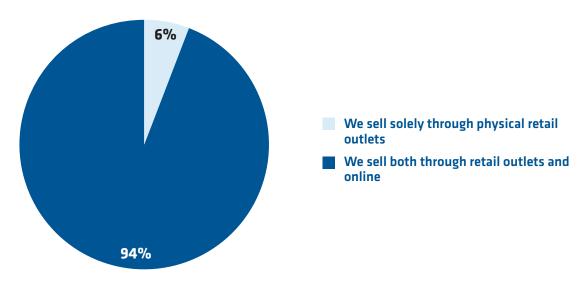


Fig. 1: Which of the following applies to your organisation?

However that statistic should not be interpreted as meaning that the shift towards online allows printing in retail to be met in much the same way as the more general office market.

Businesses outside of retail routinely come up with a basic specification for a printer able to suit a wide variety of needs, then either restrict purchases to a particular vendor or allow line of business managers to source any make that meets those requirements. However, when retail respondents to the survey were asked how they chose printers only a fifth (21%) said they took this kind of standard printer approach (Fig. 2), commenting that it was too inflexible and likely to equip them with features that would never be used.

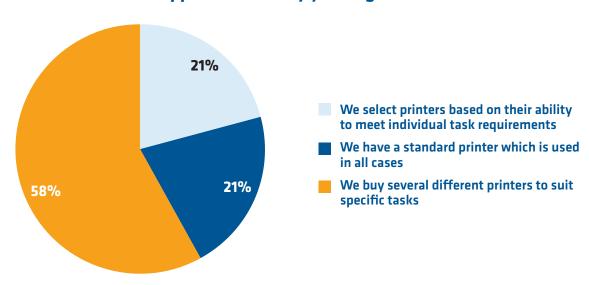


Fig. 2: When it comes to choosing printers to buy which of the following best describes the approach taken by your organisation?

Over half (58%) said they could choose between several differently specified models depending on what the printer was being used for, while a further 21 percent said they selected printers based on a detailed analysis of their ability to meet individual task requirements.

The thinking here is clear. In a general office environment there is little need to differentiate between printers beyond factors such as how much they cost to run, the quality of the output, speed of printing and how many users they can comfortably support. The same may also apply to retail organisation with back office requirements which can be met this way, whereas other parts of the business can be much more demanding.

Customer-facing departments, for example, tend to favour simple, dedicated, printers to enable them to churn out everything from orders, invoices and stock reports to special offers and shelf-edge labels, and do so on-demand with minimal delay. Optional extras like scanning and copying are, understandably, of little value here, where the principal aim is to get hard-copy printouts at the press of button and to be able to do so reliably without having to worry about paper jams, refilling ink or toner, breakdowns and the like.

More than that, in a general office, you can often print a document later or send it to another device down the hall when something goes wrong. In retail printing tends to be a key component of many business transactions. This is illustrated by the retailers in the poll who highlighted the ability to give printed receipts and invoices to customers as a key, business-critical, requirement.

### Printing hot and cold

Then there's the matter of environment with retail outlets sited in all manner of locations from builders' yards, open air markets and public shows to leisure facilities. Likewise, printers are routinely located in warehouses and order fulfilment centres which need rugged equipment, able to work in dirty environments and at temperature extremes without continually breaking down. Locations where the average office printer would struggle to fit the bill, with all manner of unique issues to contend with.

To this end survey respondents were asked to identify some of the print issues experienced in their organisation. "Dust in the works" was a commonly reported ailment with one clothing supplier, in particular, highlighting issues with fibres that clogged cooling fans, causing printers to overheat.

At the other end of the temperature scale, one company reported label printers in a warehouse which would routinely fail in winter months with a confusing "HEAD COLD" error.

Yet another company had to resort to using sticky tape to get paper trays to line up properly on their very well-used printers, and another reported finding "unusual" foreign objects inside their shop printers although didn't say where or what these might be.



#### Top features for retail

The ability to cope with the environment and vandalism aside there are, as in all industries, a number of features which are seen as essential across all retail printers. There were few surprises when the survey asked respondents to list the top three attributes they looked for when buying for their organisations.

The results can be seen in Fig. 3, which shows an effective tie for first place, with print speed only marginally favoured over duty cycle and the reliability of printer hardware - duty cycle figures providing a good indication of the kind of workload a printer can handle.

Print resolution was close behind in third place, although absolute resolution is hardly an issue these days, with 600-1200dpi available across the board even on consumer-grade printers. Indeed this answer is more likely to reflect the importance of overall print "quality" which, although dependent on resolution, is also influenced by other factors. Factors such as the type of print technology involved (mostly either inkjet or laser), the drying time of the ink/toner used, paper quality and the effectiveness of the various print enhancement technologies routinely employed by printer manufacturers.

Quality is also a subjective measure and it's important to understand that high resolution does not, of necessity, lead to good quality documents.

Fig. 3: What are the essential features for a printer to be considered for purchase in your retail organisation?

Print speed
Print resolution
Colour support
Print technology (e.g. laser, inkjet)
Duty cycle and reliability
Energy efficiency
"Green" credentials
Paper handling/capacity
Capacity of consumables (ink, toner etc.)
Copying capabilities
Scan to file
Scan to email
Faxing capabilities
OCR
Document management interfaces
Wireless connectivity
Mobile printing support
Secure printing options
Ability to lock-down features

Colour printing capability was a slightly unexpected fourth common requirement, reflecting just how far technology has advanced, such that we now assume the availability of colour at all times. Moreover it shows that retail printing isn't just about producing barcodes, but eye-catching point of sale and other marketing materials throughout the business.

A lot of companies showed a strong preference for the type of print technology they would consider for particular applications and use cases with consumable capacity a closely related concern followed by paper handling, energy efficiency and green credentials all grouped together in a tight cluster of must-have features.

Of much lesser importance were things like scan and copy capabilities, Optical Character Recognition (OCR) and other document management features often seen as differentiators when it comes to more general office printing. Furthermore another much-hyped option – wireless connectivity - was seen as a far from essential option, although that may be down to the lack of speed and range with WiFi standards to date, limiting the use of wireless in retail environments.

That, however, should change as faster 802.11ac technology operating in the less crowded 5GHz spectrum becomes more common, making it possible to use wireless printers in demanding retail environments without compromising on performance or availability. Added to which retail companies are in the vanguard when it comes to support for mobile printing, many developing their own apps to enable staff to print direct from handheld devices such as smartphones and tablets.

Fig. 4: How likely are you to pay more to get each of the following when buying a printer?

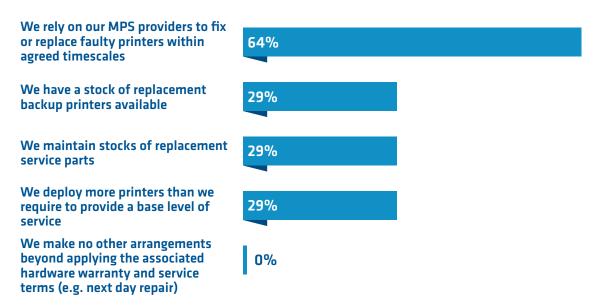
Reliability
Ruggedness
Ease of operation
Ease of maintenance/service
High print speed
Low energy consumption
Wireless connectivity
All-in-one features
Extended warranty

Price, of course, is an ever present consideration when sourcing any printer hardware so the survey included a follow-up question where respondents were asked which features they were most likely to pay extra to get. Print speed was demoted to a mere fifth place when the question was phrased this way (Fig. 4), usurped by reliability which the vast majority of companies said was the feature they most likely to pay extra for, followed by ruggedness, ease of operation and easy maintenance and servicing.

#### **Maintenance matters**

When it comes to maintenance it was interesting to find that many companies took some very simple yet sensible and wise precautions to enable them to keep their printer fleets working. As can be seen from the graph in Fig. 5, almost a third (29%) said they maintained their own stocks of spare printer parts while a similar number kept entire printers on standby ready to swap over when problems occurred.

Fig. 5: Other than choosing printers known for their ruggedness and reliability, how else do you minimise the risk of printer breakdowns in your organisation?



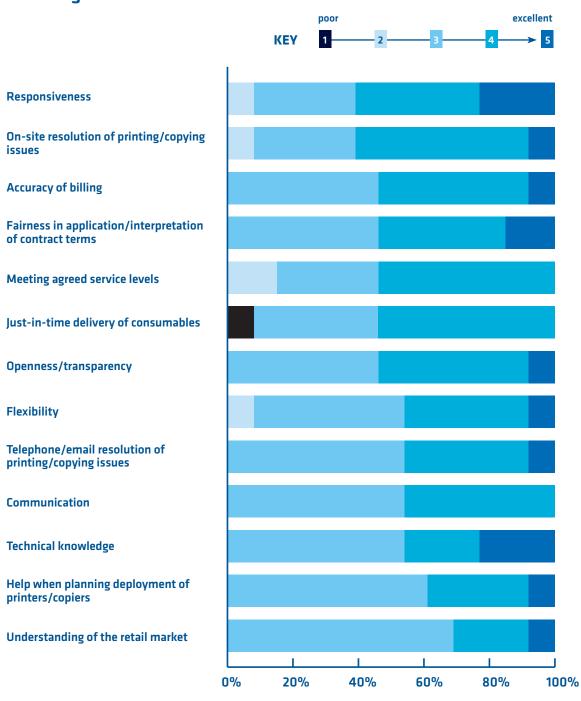
In addition, the same number again (although not necessarily the same set of companies) said they made sure they had more printers than they really needed to enable them to carry on printing while faulty hardware was being repaired or replaced.

The majority of retail companies also opt to outsource some or all of the responsibility for both management and maintenance of their printers to a third party. Almost two thirds (64%) of those taking part in the survey said they had taken this route, relying on a Managed Print Service (MPS) provider to both fix printer problems and keep them supplied with consumables such as ink, toner and developer on a just-in-time delivery basis.

Again, MPS agreements are commonplace across a broad spectrum of industries, but no two suppliers or agreements are alike and retail makes unique and particular demands of both. When asked to rate common characteristics looked for when evaluating managed print services and their providers, for example, the scalability of the provider to handle large print fleets and clear processes for problem resolution came out on top, reflecting the scale and importance of printing in this sector.

Equally, however, respondents said that they valued the flexibility to modify service levels to meet the needs of specific printers and users within their retail environments. Something which, it would seem, is far from routinely delivered based on the responses received when the same companies were asked to rate their current MPS providers and agreements (Fig. 6).

Fig. 6: Rate your current managed print service provider/s against the following criteria



As the chart shows, flexibility came well down the list in terms of satisfaction, clearly indicating the need for providers to better tailor their managed print services to meet the diverse and special needs of retail customers. More than that, MPS providers need to spend more time listening to what retail customers want, not least because respondents placed "understanding of the retail market" at the bottom of the list when it came to rating their existing providers.

#### **Conclusion**

As tempting as it may be to think of printing as a common activity able to be met in much the same manner regardless of industry sector, this is simply not the case. Retail companies, in particular, face a unique and diverse set of printing challenges which simply cannot be satisfied using a simple "one size fits all" model. Moreover, for retail organisations printing is often a business-critical process calling for a careful and tailored approach to printer selection and deployment in order to deliver the high levels of both print quality and availability demanded in, often, hostile and challenging operational environments.

Retail companies themselves mostly understand the need for this considered and flexible approach but providers of Managed Print Services remain a little behind the curve. Overall satisfaction is high, but providers are rated poorly when it comes to the ability to tailor services and their understanding of the retail market in general. Deficiencies they need to address if they are to keep the retail customer satisfied.

#### **About the sponsor**

Brother have a long-standing presence in supporting retail with a variety of print solutions. Helping businesses to work smarter, Brother look beyond simply the hardware and supplies your business needs. Finding solutions to save you valuable time, money and resources are as important to Brother as the printers, scanners and labellers that make up their product portfolio.

It's time to do more than press 'print'. In today's competitive retail environment, IT effectiveness and low cost-to-serve can give you an edge on the high street – and identifying your fleet costs and reducing your overall print bill gives you a unique advantage over your competitors.

Brother understands the critical nature of reliable and effective printing in retail and their Managed Print Service means there is no need to stock additional supplies, or deploy more printers than is necessary. Settling for a one size fits all solution appears to be the current industry standard, but with a tailored MPS solution from Brother you can position your business ahead of the curve.





