The cost of theft

Theft may still be costing UK retailers almost £4 billion a year but steady investment in technology is helping to bring the problem under control. New security innovations could prove even more effective, as Penelope Ody discovers

The UK was once the shop theft leader of Europe with losses hitting 1.77 per cent of retail revenues. Today, it is rather different: in 2006 we were in third place (behind Finland and Portugal) at 1.33 per cent, according to the European Retail Theft Barometer, with investment in security tools reaching almost £1 billion. "Despite a 3.6 per cent reduction from 2005 to 2006, total UK shrink in 2006 still represented a cost to retailers and their customers of £3908.5 million," says Professor Joshua Bamfield, director of the Centre for Retail Research which conducted the study. "Security costs have risen to £979 million to bring this reduction."

That close to £4 billion total breaks down as 38 per cent due to staff theft, 43.4 per cent customer theft, 14.3 per cent wastage and administrative errors, and 4.4 per cent supply chain theft. Staff theft is continuing to grow steadily as a proportion of the total while police attitudes to shoplifting are also encouraging light fingered customers. Even so, technology, as Bamfield points out, is helping.

Beyond the store

Retailers have been using various forms of electronic article surveillance (EAS), CCTV and EPoS analysis for the past 30 years to protect their merchandise and identify rogue employees. Today these techniques are being joined by automated video analytics, RFID, wireless networks and sophisticated data mining tools. Systems have extended beyond the store, as well, with shopping centres joining the battle. Importantly, too, many of these tools have multiple functions bringing benefits beyond security and helping to justify the not inconsiderable investments involved.

Comgenic, which has now joined forces with Vicinitee.com as Vicinitee Retail, provides what is essentially a content management system for shopping centres but one which also has valuable security implications. The system sits on a wireless network using digital signage within the complex while each retail tenant is equipped with a highly visible PC. While retailers can input information about promotions and special events, which are broadcast to shoppers via the digital screens, alerts about security and lost children can also be transmitted from the centre management directly to stores ensuring a rapid response.

One of the early installations was at the stylish Bullring centre in Birmingham, which opened four years ago, and the latest user is the Silverburn shopping centre in Glasgow, opening this autumn. "Silverburn is one of the most exciting and innovative retail developments in the UK," says Paul Earl, managing director of Comgenic. "And Vicinitee Retail will be helping to create a safer, more efficient and well-informed retail environment for staff, retailers and shoppers."

Checkpoint Systems, too, sees interest from shopping centres for IP-based video analytics that can review CCTV footage automatically and alert security staff if specific criteria are met. "It takes the drudgery out of monitoring video in real time with security staff sitting in front of screens all the time," says Simon Edgar, global business manager at Checkpoint Systems. "The system can be set to identify abnormal motion so anyone running or loitering, for example, can be quickly identified. Runners can be tracked as they move through the centre and security staff alerted." Alerts can instantly be sent by SMS or wireless to security staff in the malls as well as to individual stores if gangs of shoplifters are identified.

While IP may seem more expensive than traditional analogue systems, Checkpoint, along with its partner Axis Communications, which specialises in such systems, maintains that the "break even" point is 32 cameras: more than that in a location and IP is less expensive and far easier to install.

IP video analytics are also being adopted in-store to improve monitoring of till points and other store activity. Clear video images also help, for example, when it comes to trolley push-outs in supermarkets. The scale of the push-out problem is often unknown as it can be very difficult to monitor. Some years ago systems were tested using floor monitors and trolley sensors to alert staff if trolleys took an irregular route back to the entrance, by-passing the checkouts. It was, however, both expensive and difficult to implement and the technology was not widely adopted. Yet with new video techniques, it is possible to set the system to give an automatic alert if a trolley is seen by the camera heading back to the entrance and, again, security staff can be quickly alerted by SMS or radio.

Systems that match unusual till activity to CCTV have been around for years but poor quality video can make it difficult to obtain clear evidence of just what the employee is up to: it may be a genuine training issue or something dishonest. "With IP-based video analytics the system sits on the existing IT infrastructure so it is easier to implement and the video images are much better quality," says Edgar. "Because it is part of the network it can also be used for other activities, such as customer counting for flow analysis or conversion rate calculations."

While alerting security staff in real time to unusual till activity can be helpful, most systems depend on detailed data mining to pinpoint staff who are making abnormal numbers of refunds, take longer than average to complete transactions or whose sales per

shift are significantly lower than other checkout operators. Once staff become aware that activity is monitored, the dishonest tend to leave before they are challenged.

While much EPoS analysis is aimed at identifying staff theft, it can also help pinpoint dishonest customers. Photocopying receipts and claiming a refund more than once is a common practice: thieves simply take their fake receipt to the store, pick up the same item from the shelf and head for the refund counter. Canadian retailer, Hudson's Bay Company, very quickly paid for its investment in receipt tracking when it found a gang of thieves across the country "returning" food processors on the same day using the same copied receipt. "They had good looking receipts which we would have accepted as genuine," says Mary-Jane Jarvis-Haig, Hudson's Bay's senior manager business intelligence. "But they were just very, very good photocopies and it was a national crime ring."

Hudson's Bay had developed its loss prevention system on its Teradata warehouse, and was able to check the receipts against the original purchase in real time, no matter which branch the items were returned to. While the first fraudster was able to reap a reward, subsequent ones were not.

It's a problem which UK retailers have increasingly noted in the past year and one that the police seem reluctant to investigate unless evidence of significant activity, and thus an organised crime ring, can be produced.

While data mining and video are prime tactics to combat staff theft, EAS often remains the first line of defence when it comes to deterring shoplifters. A key trend here is for source tagging with manufacturers either attaching or embedding tags in products. According to the European Theft Barometer around 74 per cent of large European retailers will be using source tagging by the middle of next year.

In future RFID is expected to take over from EAS with tags combining both information and security controls. Item level RFID tagging can rapidly alert retailers to shelf sweeping activity and could eventually also be used in evidence to show that items have not been legitimately acquired. Around 58 per cent of the retailers questioned for the European Theft Barometer expect to use RFID for security and loss prevention in future.

But while technology can be essential in the fight against crime, so too are processes and people. As Laurence King, managing director at the Oris Group says: "Technology will never deliver the expected benefits unless implementation is supported by the right education, training process, and procedures. EAS is great for a store manager to have – but it is essential that it does not just become an excuse to abdicate their own responsibility for preventing theft."

Fail to train the people and put the necessary processes in place and when that EAS alarm goes off at the entrance – as so often happens – staff happily ignore it.