

The role of recycling technology in retail back office cash handling

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The role of recycling technology in retail back office cash handling foreword

We at Hitachi-Omron Terminal Solutions, Corp. have observed with interest the continuing major role that cash still plays in so many markets, including those with the most sophisticated payment systems. Because this situation seems unlikely to change in the near future we have been anxious to provide our retailer clients with the best possible automated cash management solutions, including recycling. This paper outlines our current perspective on the many cash handling issues faced by retailers and seeks to provide a view of how automated cash recycling can offer significant benefits. Thank you for taking the time to read this paper which I trust you will find of value.

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Section 1 Executive summary

The developing market

- Cash continues to be used extensively (and often increasingly) as a means of payment within both developed and emerging countries.
- This trend will continue into the foreseeable future despite the deployment and growing use of many new alternative payment methods e.g. cellphones.
- It will be supported by a forecast growth in the global estate of cash dispensers, which special UK ATM research and consulting firm, RBR, projects will reach 3.7 million by 2018 (up 44% in 6 years).
- Thus, retailers will be required to continue to accept large volumes of cash at their check-outs.

Retailer automation and recycling in the back office

- Without automation, the handling of cash by retailers will remain costly and require significant logistics. It will also continue to attract greater risks.
- Cash-in-Transit companies (CIT) will continue to play a critical but costly role in banking surplus cash on behalf of retailers and obtaining the earliest value for it.
- The deployment of cash recycling systems within the back office function of a retailer will offer many benefits, including reduced reliance on CITs and other significant cost savings.
- Hitachi-Omron Terminal Solutions, Corp. urges retailers with a heavy flow of cash to review the potential for its improved management offered by automated recycling technology.
- Hitachi-Omron Terminal Solutions, Corp. has developed a reputation for supplying effective cash management solutions, including cash recycling, to retailers across the world.



Section 2 The global demand for cash

Despite the launch of many innovative and effective alternatives, there has been continued heavy use of cash in the global economy. In both emerging and developed markets a new generation of payment solutions, including the ubiquitous mobile phone, has yet to make significant inroads into the overall popularity of cash.

Safaricom reports that the development of its M-PESA service in Kenya now provides a mobile wallet for over 17 million people (or around 40% of the population). The name of the service comprises an 'M' for mobile, and 'PESA', which means money in the Swahili language. M-PESA has provided a global showcase for engaging with unbanked communities but the role of cash in Kenya is undiminished. The Central Bank Statistical Bulletin reports that the value of notes and coins in circulation has risen by more than one third from 2010 to 2012 at a time when M-PESA was also growing rapidly. In Australia, around 90% of the 22 million population makes use of the internet (source: Internetworldstats), and this sophisticated market also enjoys world leading electronic payment services. Nevertheless, the demand for cash withdrawals through ATMs is still running at historically high levels. An all-time record value of ATM withdrawals in late 2011 reported by the Reserve Bank of Australia has nearly been equalled in the corresponding periods since. This is despite the successful introduction of many new mobile payment features by the main banks.



The use of cash in Britain is equally popular. In June 2013 the UK Payments Council reported that cash payments in the UK by consumers and businesses had risen to 20.8 billion in the preceding year. Whatsmore, the number of people making all their daily purchases by cash rose by nearly 10% to 7.2 million adults. The Payments Council also reported that the number of ATMs had reached a record high of over 66,100 machines.

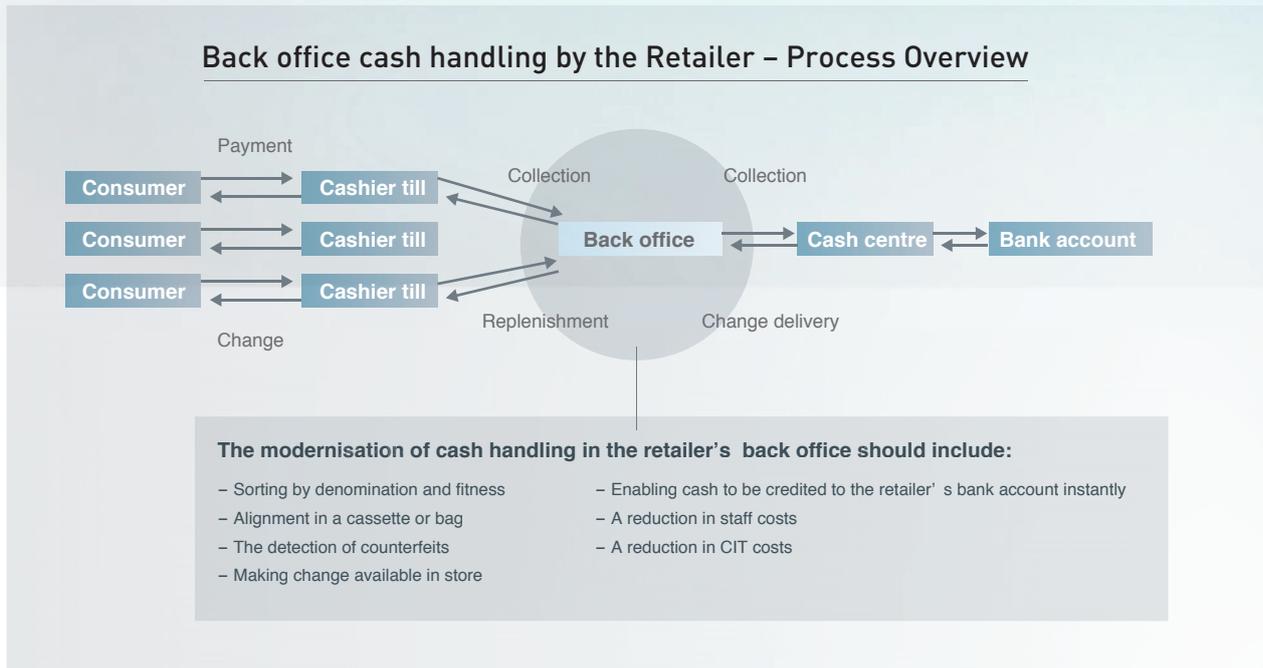
Thus, the world continues to rely heavily on cash which provides its users with both convenience and anonymity. Bankers are reacting to this with ongoing increases in the principal channel by which they meet the demand for cash, the ATM. RBR is projecting a further major increase in the total number of ATMs. In the company's report, "Global ATM Market and Forecasts to 2018", it estimates that the installed base across the world will rise by 44% to 3.7 million machines, in the period from 2012. Across the global market, around one in five ATMs equipped with automated deposit taking functionality also recycle the notes they accept. However, RBR report that 100% of the ATMs deployed in Japan carry recycling functionality. Banks in South Korea and the other Asia Pacific markets are also making wide use of recycling technology in a region where the growth of ATM networks leads the World.

Retailers also know that they must respect and react to the continuing consumer preference for cash. Payment cards and the cellphone will continue to grow their share of the payments sector. However, retail stores will still have to handle vast amounts of cash in their everyday trading activities. This brings with it the need to create an efficient cash cycle, including increasing use of automation, and process reengineering.

Section 3 Obtaining value from retail cash sales – the key issues

Notwithstanding the user-friendly nature of cash as a means of payment, it provides retailers with many challenges. The diagram below provides an overview of the processes involved from the time that cash is received in payment from customers, through to its

deposit in the retailer's bank account. There is an ongoing drive for greater efficiency in all of these processes. Indeed, it is widely recognised that a more effective back office will have a beneficial impact on profitability



The first of many challenges concerns the logistics and equipment required for the transfer of cash from the point of sale to the back office in the store. The cash must then be prepared by the store's cashiers for its subsequent onward transportation to the retailer's bank (by CIT) where it may again be checked before being credited to an account. Clearly, it then adds to the bulk of cash which must be disposed of by the bank. This formidable logistical exercise brings with it the second demanding requirement, that of security. Specialist equipment and protection is required to enable staff to remove cash from the tills in a secure manner and transfer it safely to the store cash office. At all points in the process secure storage is another major issue. Whilst it is usual for the store staff to pass cash over to a CIT on a daily basis, there may be a need for its secure overnight storage which introduces the requirement for safe facilities. In addition, the working relationship with the staff of the CIT will require both ongoing administration and accounting. This will also include a need for authentication procedures and adequate access facilities.

The measures required to ensure adequate security may detract from the working environment. In the central cash office there is a need for

protection for both staff and the cash that they are dealing with. These measures, together with the presence and nature of the cash being handled will mean that there are potentially adverse implications for the working environment. This may invoke health and safety obligations by the retailer. Such an example includes the need to assist staff who are required to lift and carry heavy coins, etc.

The issues outlined above add both timescale and costs to the overall process. In addition to the costs of the staff in the cashier's office there are the fees charged by the CIT and the implications of the time that the company takes to deposit the cash into the account of the retailer. In low interest rate scenarios the time lost in depositing funds may not be significant. However, this will vary and may be a major opportunity cost in other markets. Overall, the process of handling store takings and obtaining value for them through the retailer's bank account can be onerous and costly. Hence the increased focus that the subject of cash management has received in recent years.

Section 4 The benefits of recycling in the retail back office

The installation of cash-recycling systems offers retailers three principal benefits, which are discussed more fully in the notes that follow.

- The first benefit is the assurance that only cash which cannot be reused at the point-of-sale is transferred to the CIT.
- The second is the ability to credit the retailer's account online and immediately with the amount that is collected by the CIT.
- The third benefit arises because the deployment of cash recycling systems offers opportunities for the valuable re-engineering of many processes within the retailer's back office administration.

Not all cash collected from the point of sale need be passed over to a CIT if the capability exists to identify and separate the notes or coin that can be used elsewhere in the store. For example, a significant amount of cash may usefully be recycled to provide checkout staff with change for their tills. However, such is the administrative effort required to separate out the change requirements, in the absence of automation, that many retailers simply pass all their takings to the CIT. They then requisition a separate order for the change that they require. If the CIT service is unable to supply the change that is required, the burden falls back on the staff of the retailer to carry out the task manually. A primary benefit for retailers using cash recycling systems is the ability to automatically extract the change requirements of their point of sale. This reduces both the amounts of cash passed to the CIT and the frequency of costly collections. It also avoids the expense and additional administrative effort of requisitioning separate change orders.

The recycling system validates the notes that it has received and is able to send an online credit for the net amount direct to the retailer's bank account, immediately. Subject to the arrangements made with the bank, this will ensure that the retailer receives both the value of the funds and the benefit of an enhanced cashflow at the earliest possible point in the process after the collection of the money from the point of sale. In higher interest rate markets the ability to reduce the timescales associated with realising the value of the retail takings can offer worthwhile financial benefits. Moreover, the reduced need for CIT support means that retailers will be able to significantly lower both the costs and the risks of moving the cash in order to obtain value for it.

The staff costs associated with the handling of retail takings are significant at both the point of sale and the store's central cash office. The evolving range of payment choices has contributed greatly to increasing the productivity of checkout staff. However, in many retailers little has changed in the cash office with progress often limited to the deployment of simple counting aids. Cash recycling systems now offer the opportunity to make significant improvements to the effectiveness of the administrative processes of the retailer. The counting of cash and the orderly packing of the notes within a cassette reduces the handling and associated costs for both the retailer's staff and those of the CIT. The reconciliation of money collected from the tills and credited to the retailer's bank account, or recycled, can also be achieved between the cash recycling unit and the store accounting systems.

As mentioned above, recycling systems validate the integrity of the notes brought from the point of sale. This provides a much quicker identification of fraudulent notes than would have been possible previously. Enhancements to the equipment that cash office staff are required to use, and any resultant improvement in the workplace environment, will contribute to their greater engagement and motivation. Improved working conditions are already understood to be a major driver of staff commitment and efficiency. Significant improvements to staff morale have been widely experienced by retailers using the technology. This is always a desirable outcome of any project.

Section 5 Conclusion

The longevity and popularity of cash continues and it is hard to foresee when its use will begin to decline. Inflationary pressures in many economies will tend to expand the nominal value of purchases handled at the point of sale, offsetting any reduction in cash usage that might be caused through the adoption of other payment methods. However, recycling technology has opened the way for significantly greater efficiency in dealing with the continuing flow of cash in the retail back office. An example of this success can be seen at one retail client that runs over 400 stores with a turnover in excess of \$100 million. The retailer's store takings include a high proportion of low

denomination notes. The benefits from the cash recycling technology installed in 2010 paid for the project within a year through reductions in staff costs and errors, less administration, and reduced security issues.

Against this backdrop, Hitachi-Omron Terminal Solutions, Corp. believes that there is a compelling case for retailers to review the end-to-end cost effectiveness of their cash management processes. And many retailers who do undertake such a review will come to the conclusion that automated cash recycling techniques have a justifiable and valuable role to play.

Hitachi-Omron Terminal Solutions, Corp.

Hitachi-Omron Terminal Solutions, Corp. was established in 2004 and brings together two Japanese partners. Both companies have established world-class reputations for developing solutions for many different business sectors based on the use of leading technologies. The origins of Hitachi, Ltd. date back to 1910, and Omron Corporation has a history that began in 1933.

