



# Controlling Cash Operations in the Branch Environment - How to Increase Revenue While Decreasing Costs White Paper



# Executive Summary

Controlling the cash in a financial institution's branch is an expensive challenge. It always has been.

Branches continue to operate today in much the same way that they have for hundreds of years. Many branch processes have been automated, but cash procedures, such as dual control, drawer limits and trips back and forth to the main vault are still required in order to keep cash secure.

These cumbersome policies have an impact on every feature of the branch, from the physical design of the branch to the number of people required to staff it. The need to secure and control cash even dictates the way customers engage with the frontline staff of the branch.

Many financial institutions have learned that cash recyclers are game changers in the way branches operate and that this technology has an impact on more than just teller productivity. Recyclers make it possible to lower cash inventories, engage customers in dynamic new ways, free head tellers for higher value activities and reduce costs associated with the entire supply chain of cash within their branch network.

In this report:

- Free up six hours of labor per day for tellers and head teller,
- Create focused customer engagements during each transaction and double cross selling results,
- Save over \$12,000 annually per branch by automating cash operations.



# Reducing the Hidden Costs of Controlling Cash

This model is based on having a centrally located, full-service

The practice of dual control has long been a necessity in financial institutions. This practice requires extra staffing in large busy branches, as well as extra staffing and process complexity in small branches. The unspoken reality is that many branches shortcut some security policies simply because they are too busy or not staffed at the level needed to comply.

By using cash recyclers, cash is stored in a distributed vault system and is secure but still readily available for tellers to use for customer transactions. All cash-in and cash-out transactions are tracked by an audit trail of each staff member who touches the cash.

Cash deposits go directly into the secure safe of the cash recycler, and deliveries from armored car companies can be processed directly into the recycler. By eliminating the need for two people to count and recount cash whenever it changes hands, branches become more efficient in their staffing models and can more easily comply with security policies that control the way exposed cash is handled and moved.



We are constantly trying to achieve high efficiency and great customer service, yet we have a small staff. So to help us achieve these competing objectives, we implemented cash recycling and it has really helped us achieve our goals by keeping tellers in the lobby and not in the vault and by really having them available to help customers.

**Terry Keegan**

Fidelity Bank of MN, 2011



## Table 1:1 Six Hours per Day Saved in Branch Staff Labor

The elimination of dual control procedures and the automation of back room activities result in over 6 hours of labor reduction per day – over 3 hours of tellers' time and over 3 hours of the head teller's time. This can be used to reduce staffing levels (by eliminating part time tellers, for example) as well as to allow the head teller to focus on improving customer service and supporting tellers as a mentor and coach.

Cash handling procedures <sup>1</sup> (average minutes spent per day over the course of a week)	Manual Branch		Recycler Automated Branch		Time savings per day (minutes)
	Tellers (2.5)	Head teller	Tellers (2.5)	Head teller	
					<i>Combined for teller</i>
Start of day	35	35	6	0	64
End of day	65	30	13	10	72
Vault buys & sells	62	62	20	0	104
Commercial & night deposits	60	60	0	60	60
Main vault balancing		20		10	10
Armored delivery & verification		15		5	10
Cash order preparation		30		10	20
Teller audits & reporting		30		5	25
<b>Total time per day (minutes)</b>	<b>222</b>	<b>282</b>	<b>39</b>	<b>100</b>	<b>365</b>

1 Branch with 2 full time tellers, 1 part time teller & 1 head teller doing an average of 200 transactions per day.



# Customer Engagement

Not only do cash recyclers allow branches to streamline their cash operations, but they also allow tellers to focus on engaging with customers.

## **SPEED AND ACCURACY MATTER**

During each cash transaction, tellers focus on getting the cash count right. It is not only important to the institution to have accurate cash transactions, but accuracy and speed are critical to satisfying customers.

*"The study found that a quick, accurate transaction satisfies 90% of consumers and displeases 1%. However, slow and inaccurate transactions satisfy 27% of members/ customers and dissatisfy 22%. (It's always that group in the middle who cite "indifference" when they head elsewhere.)" (Frank Diekmann, "As Go the Teller Transactions, So Goes Perception," Credit Union Journal, April 25, 2011)*

By automating all cash dispenses and cash deposits, recyclers keep tellers from having to break eye contact with their customer to drop their heads to count cash. Recyclers automatically take the responsibility for getting the count right.

## **TELLERS DO NOT CROSS SELL EFFECTIVELY UNDER PRESSURE**

In a manual environment, tellers live under the constant fear of being out of balance. This pressure drives some unintended consequences. Tellers constantly "fiddle" with their cash drawers during the day, moving money back and forth from their top drawer to the second drawer, performing trial balance counts, strapping and counting money, just to maintain control of the accuracy and amount of cash in their drawers.

Tellers must perform every transaction perfectly and must do so quickly. Many tellers resist the additional pressure to cross sell, citing that they cannot afford to take their focus off of counting the cash.

Consequently, cross selling initiatives have failed partly because tellers wait until they finish counting the cash before they switch their focus to the customer. Once the customer has received their cash or cash deposit receipt, they are ready to leave and are unreceptive to a sales pitch from the teller. However, while the customer is waiting for the transaction to process, the teller has their complete attention, as long as he maintains control of their cash.



## TIMING IS EVERYTHING DURING A CUSTOMER TRANSACTION

The typical cash-handling portion of a transaction takes from 20 to 45 seconds. With cash recyclers doing the counting, this time in the middle of each transaction becomes valuable customer engagement time for the teller who is no longer burdened with the task of manually counting cash. The institution has bought back this critical “mid-transaction” moment while the customer is still engaged with the teller. It is a more natural point from which to start a conversation about new products or for the teller to follow prompts from a CRM system for cross selling. The customer is more likely to listen and take interest in what the teller has to say as the cash recycler is doing the mundane, but critical task of counting cash.

### SOME DON'T COME TO THE BRANCH OFTEN, BUT WHEN THEY DO...

Visits to the branch are declining in certain demographic groups, but it remains true that over 80% of all new accounts are still opened in a local branch. So when these customers do show up in a branch for some sort of non-typical cash transaction it becomes even more important to engage with them in a meaningful way. If the teller misses this chance to connect with this infrequent visitor, it might be a year or more before they get another chance.

**Table 1.2: Revenue Impact of Customer**

Number of customer visits (per day)	Free time during each transaction for engagement	Total	Increase in new sales (per day)	Value of additional sales per month due to increased engagement	Annual revenue impact of increased engagement time
200	30 seconds	1 hour & 40 minutes	1 product or service	\$4,333	\$52,000

1 Average revenue impact of a new sale is \$200. Branch with 2 full time tellers, 1 part time teller & 1 head teller doing an average of 200 customer transactions per day.

The ability to engage with customers during each transaction leads to higher referral rates and higher cross selling revenue. Along with additional product sales, there is an increased wallet share and a significantly higher retention rate of customers.



# Cost Reductions to the Control of Branch Cash

A summary of the following cost reductions can be found in Table 1.3.

## **DISTRIBUTED BRANCH VAULT REDUCES CASH INVENTORY**

Cash recyclers serve as a distributed vault system in a branch. However, unlike traditional vaults, branches and head offices can have real-time visibility to the amount of cash in each branch by denomination. This allows for centralized control and management of cash supply and ordering practices.

Operationally, branches can reduce their cash inventory by 15-40% through improved cash management made possible through cash recyclers.

## **NO IDLE CASH STORED IN TELLER DRAWERS**

Idle cash sitting in teller drawers can be eliminated. Teller cash drawers do not need to be managed each day or stored overnight in branch safes. Cash is held overnight in cash recyclers right at the teller workstations.

## **FLEXIBLE STAFFING MODELS**

Part time and float tellers do not need to keep cash drawers stocked and ready because they simply log onto a workstation connected to a cash recycler and immediately begin to accept and dispense cash. Also, because cash drawers are not needed, managers and customer service personnel are able to quickly fill in at peak times to handle customer transactions by simply logging onto a workstation. Extended branch hours and weekend operations are handled without the need to have a manager present to open the main vault.

## **OPEN AND SECURE BRANCHES**

Some branches have taken this model to a grander scale where they do not have any dedicated tellers, but every employee is trained to handle every type of customer need. By eliminating the teller line and cash drawers, these institutions have reduced the overall amount of cash in their branches, made existing cash readily available when any staff member needs it and dramatically improved the experience of their customers.

## **OPTIMIZE CASH IN TRANSIT SERVICES**

Better visibility and management of cash through cash recycling has allowed branches to reduce the number of armored carrier deliveries and shipments by 50% or more.

## **CASH VARIANCE AND OUT OF BALANCE**

With increased controls and improved teller accuracy, out of balance situations are virtually eliminated. Tellers can perform end of day balancing in just a few minutes and dollars are no longer lost to miscounts or human error. Internal theft becomes less of an issue for institutions that use cash recyclers because all cash is tracked at the time of transaction. Cash is not available to branch staff unless they are logged into the system which keeps an audit trail for every bank note movement.

*"We put a cash recycler in one of our branches, and when HR performed the review of the performance and development agreements with the MSR's (Member Service Representatives), they found that one of the tellers had no balancing issues whatsoever. And that is the first time we had ever seen that with an MSR. The cash recycler certainly helped from a balancing perspective."*  
*(Jason MacDonald, Central Minnesota Credit Union, 2011)*

## **STOP COUNTERFEITS AT THE TELLER LINE**

Cash recyclers are designed to identify and reject counterfeit currency right at the teller window. Tellers are immediately aware of suspect notes and are able to keep counterfeit money out of the general cash supply of the branch. Enforcement of the financial institution's policy becomes automated to a large degree with every bill being checked for authenticity at the time of presentation.

## **HIGH SECURITY REDUCES THE HIGH COST OF ROBBERIES**

5546 bank robberies occurred in 2010 in the US with the average cash loss of \$6,288 per incident ([www.fbi.gov](http://www.fbi.gov)). The direct costs of robbery, cash losses and the time that a branch is closed for robbery investigation, are minimal in the overall picture of an institution's cost of robbery. The true cost of a robbery should be calculated to include the impact to teller safety and subsequent teller turnover, as well as the effect that robberies have on customer confidence and the institution's reputation.

Robbers visit the branch prior to a robbery over 75% of the time. Cash recyclers have been shown to be a robbery deterrent because of the added security they provide and the limited access to cash. Some institutions have posted signs on their exterior doors saying, "Our associates have no direct access to cash. All cash is auto-dispensed."

The true value of reducing robberies is difficult to estimate, but has ranged from \$10,000 to \$20,000 above the actual cash losses for many institutions.

Insurance premiums for branches are often reduced due to having less exposed cash and a lower overall risk factor for the branch. In Europe, 50% of insurance premiums are commonly saved through the implementation of cash recyclers in branches.



One Canadian bank reported a 65% decrease in robberies over a two year period as a result of the implementation of teller assist cash machines.

US Dept of Justice,  
"Bank Robbery,"  
COPS-Problem Oriented Guides for Police

## **TELLER RETENTION AND JOB SATISFACTION**

Teller turnover has traditionally been high for financial institutions— as much as 50% or more per year in larger institutions. During the recent economic crises, turnover rates have been declining, especially among smaller institutions. Yet tellers are often terminated because of out of balance situations. A teller may have been especially effective at cross selling and serving customers, but simply did not have the cash handling skills needed to perform at the accuracy standards of the institution.

By automating cash transactions, out of balance situations can be minimized. Not only do tellers get to keep their jobs, savvy financial institutions are realizing that they can hire for skills other than the requisite cash handling experience. Branches filled with happy, customer-oriented tellers perform at a much higher level of profitability and efficiency than traditionally staffed branches.

Tellers who are given higher value tasks and who contribute in a more meaningful way to the performance of their branch are more likely to experience greater job satisfaction, create more value for the branch and remain on the job longer than the average of 9 to 12 months for an entry level teller.

### Table 1.3: Reduction of Cost of Cash Operations in Branches

Annual Cost of Cash Held in Branches	Manual Branch	Recycler Automated Branch	Total Savings
Total branch cash inventory <sup>1</sup>	\$170,000	\$100,000	<i>40% reduction of overall cash inventory</i>
Financial cost of cash at 5% annual <sup>2</sup>	\$8,500	\$5,000	\$3,500
Cash in Transit trips <sup>3</sup>	\$4,800	\$3,600	\$1,200
Cash variance or out of balance <sup>4</sup>	\$2,400	\$240	\$2,160
Insurance costs for branch cash <sup>5</sup>	\$3,200	\$2,500	\$700
Robbery risk factor <sup>6</sup>	\$900	\$200	\$700
Teller turnover cost <sup>7</sup>	\$10,500	\$6,500	\$4000
<b>Total Savings (per year)</b>			<b>\$12,260</b>

1. Cash reduction due to elimination of teller drawers and reduction of cash in reserve or operating vault of branch. Cash is stored in distributed vaults at teller workstations.
2. Cost of cash included lost opportunity costs for cash held as a non-performing asset in branches, as well as the actual cost of holding cash.
3. Cash deliveries and shipments can be scheduled at less frequent intervals with higher, real-time visibility of cash usage and needs.
4. Assumes \$200 variance per branch per month for manual branches.
5. Insurance premium reduction of ~20% for eliminating exposed cash.
6. Cash losses averaged \$6288 in 2010 with additional cost for teller counseling, robbery investigation, temporary closing of branch, increased teller turnover and loss of consumer confidence combined for estimated total cost for robbery of \$18,000 per incident. Annual risk based on 4.9% of branches robbed in 2010, extrapolated to five-year period and annualized. Risk reduction calculated at 80%.
7. Teller turnover rate of 30% average, assumes one teller per year for example branch of 3.5 tellers. Costs include termination processing, advertising, interviewing, on-boarding processing, teller training, branch operational costs to cover for open teller position and lost productivity in branch. Teller turnover reduced by 38% with full implementation of cash recycling.



# Conclusion

Automating cash dispensing and accepting in branch environments has captured the attention of most financial institutions at some point over the past 10 years; however, developing a clear business case has eluded many institutions as well.

Moreover, banks and credit unions continue to deploy cash recyclers and dispensers at an ever-increasing rate. By drawing on the experience of these institutions both in the US and overseas, the true benefits have become clearer. The change to branch operations has solidified today, and replaced the list of soft benefits touted by hardware vendors for over a decade, “Increasing security, enhancing productivity and improving customer service levels.”

The cash automation devices of today are delivering hard benefits in the three main areas cited in this report.

- Reducing hidden costs of controlling cash in branches
- Engaging with customers for greater profit & satisfaction
- Lowering cash inventory levels and the enterprise level cost of supporting cash operations.



Since 1998, Arca has been committed to helping people control and streamline cash operations in bank branches, retail stores and self-service kiosks. By focusing on technology and services, Arca delivers thoughtful solutions to make transactions simpler, more efficient and more secure.

We are reimagining everyday transactions, freeing people to focus on what matters most.

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