

Retail Banks Require Enhanced Systems as the Industry Changes

The retail banking industry faces challenges in exploring new channels and services for customers while maintaining consistent service and controlling costs. This document explores the challenges retail banks must overcome with their IT systems.

white paper



EVERY SECOND. EVERY DAY.

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Section 1: Introduction

Growth in Electronic Transactions

Electronic payments — whether account holders use cards for payments or make payments through an Internet banking service — steadily increase every year. Although consumers generally understand the advantages of moving from paper payments — checks, giros or cash — to electronic payments, banks in some markets have more active programs to remove paper payments.

Some countries, such as those in Scandinavia and the Netherlands, have been quite successful at removing paper payments. Other countries, such as Singapore, use card technology for lower value transactions, significantly reducing the amount of cash used in the country. Figures from the Bank of International Settlements (BIS) illustrate the progress in removing paper across the world and the differences among regions.

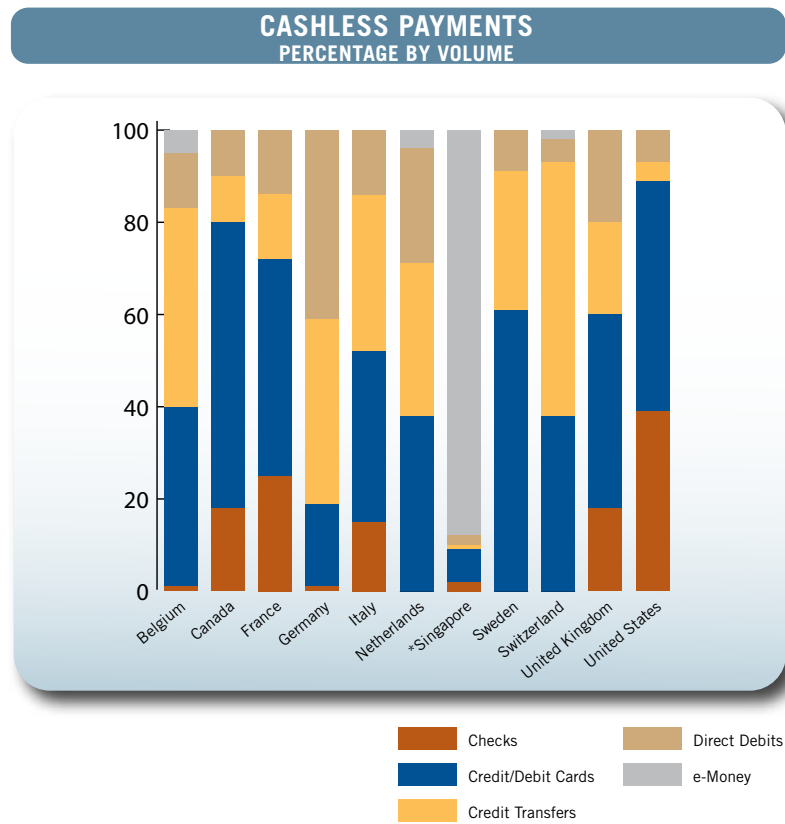


Figure 1.1

* Credit card numbers not available

Source: BIS Red Book March 2007 (data as of 2005)

ACI Worldwide conducted a study to examine the growth of electronic payments and predicts that the volume of electronic transactions around the world will grow at between three and four times the rate of growth of gross domestic product (GDP) over the next several years.

GLOBAL PAYMENT TRANSACTIONS

	2004 Transactions (billions)	Change in Transactions 2004-2009 (billion)	2004-2009 Compound Annual Growth Rate
Electronic	209.8	174.4	12.9%
Retail Payments	140.2	119.6	13.1%
Retail Transfers	47.6	40.6	13.1%
Wholesale	21.9	14.2	10.5%
Check	52.4	-8.0	-3.3%
Total Non-Cash	262.2	166.4	10.3%
Real GDP	\$34,854	\$6,027	3.2%

**TRANSACTION GROWTH
COMPOUND ANNUAL GROWTH RATE, 2004 TO 2009**

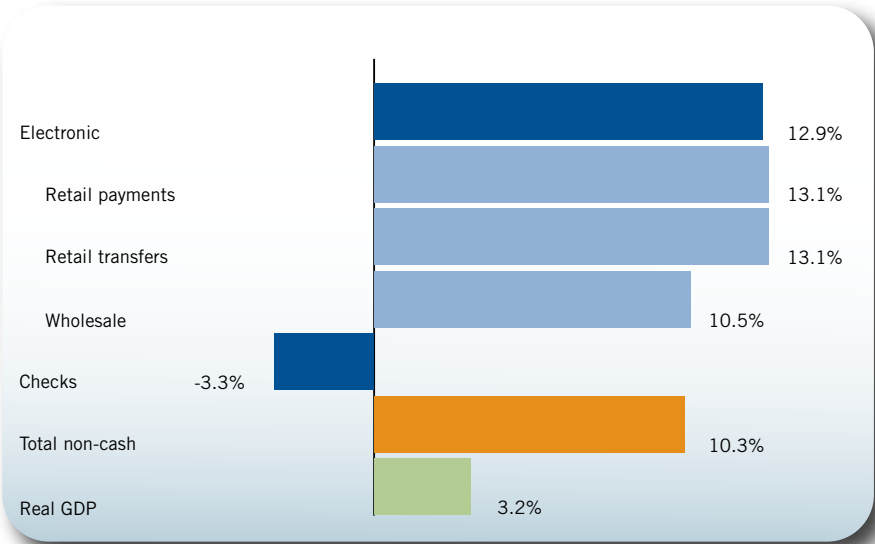


Figure 1.2
Source: 2006 ACI Worldwide Payments Market Forecast

For bank IT groups, the challenge that accompanies growth is ensuring their systems can cope with these massive volume increases without a huge increase in per-transaction processing costs.

Section 2: Managing Electronic Funds

Extending the Reach of Electronic Payments

New prepaid card products can extend the reach of electronic payments. For example, gift cards have replaced paper gift certificates or vouchers, and travel cards are replacing travellers' checks.

In May 2007, Datamonitor reported that Visa prepaid products have shown exceptional growth in the United States, increasing by 109 percent year over year. In Latin America, the number of Visa-branded prepaid cards doubled between January 2006 and March 2006, to 3.3 million cards. In Europe, 2.9 million Visa prepaid cards were in circulation in 14 countries at the end of 2005. Furthermore, in 2006, prepaid cards represented the fastest growing payment card segment, with an increase of 280 percent — 11 million cards — in the number of cards issued.

Prepaid e-money schemes are normally based on a chip card with contactless capability and can be used in lieu of cash outside traditional shopping situations — such as for road tolls or car park charges. Adding contactless capability to standard credit and debit cards also enables cardholders to use them for lower-value transactions where speed is important, such as fast food outlets. Moreover, prepaid products enable other market segments, such as children, to use card technology without creating a full banking relationship.

Another key area for electronic payments is the remittance market. Research has shown that most remittances made by expatriate workers go through informal, unregulated channels. In many areas of the world, providing a card to recipients can allow them to easily access funds and assures the sender a secure and reliable mechanism for delivery. In some parts of the world, mobile technology may be more appropriate for remittances because the banking infrastructure is not available.

All of these products simply make use of the existing card systems by adding small extensions. However, the key is to find the right set of products for a bank's particular customer base. Furthermore, since most of these are chip-based solutions, the right technology to manage all the combinations of programs is also important.

Wider Access to Financial Products

Electronic access to banking services is now widely available and used by many customers. Initial access was achieved through the Internet, but more recently banks have introduced mobile telephone access.

Services available through mobile phones include access to balance information, transfers between accounts and payment services. Many banks also use the mobile channel to provide alerts about events on an account; for instance, a bank may send alerts to notify a customer that the balance has dropped below a predefined level or that a salary deposit has been received.

Two earlier forms of automation were the call center and the automated voice response service, which enabled customers to transact banking business both away from the branch and outside traditional banking hours. Earlier still was the development of the ATM, which now has much more capability than simply dispensing cash. Many banks have included transactions such as transfers, bill payment and those specific to a local market (e.g., passbook update or remittance payment). Recent developments have improved deposit capabilities as check imaging removes the uncertainty of envelope deposits and bulk cash counting allows retailers to use ATMs to deposit cash.

Until the last three to five years, this automation was thought to sound the death knell for bank branches. However, current studies reveal that while many customers are keen to use automated channels, they clearly want to use the channel they feel is appropriate for the type of transaction and their location. Furthermore, some customers prefer the human service provided in a branch. Thus, use of branches to effect transactions is still significant, and in recent years, banks have made significant investments to improve their branch facilities.

Although branch banking is still consumers' first preference, younger customers are embracing electronic banking. In a recent poll conducted by the American Bankers Association, online banking was second only to branches: Branches, 36 percent; online, 23 percent; ATM, 21 percent; telephone, 5 percent; and mail, 8 percent.

Nevertheless, answers did vary by generation: Branch banking was preferred by 47 percent of respondents over the age of 55, but only 25 percent of respondents under 34 said they use branches most often.

It's not just in the United States that electronic banking channels are used more often. According to Booz Allen Hamilton, a leading global consulting firm, Hong Kong is the leader in embracing the mobile banking channel, and it is also one of the top three countries embracing the call center and online banking channels.

GLOBAL CONSUMERS' PREFERRED PURCHASING CHANNELS

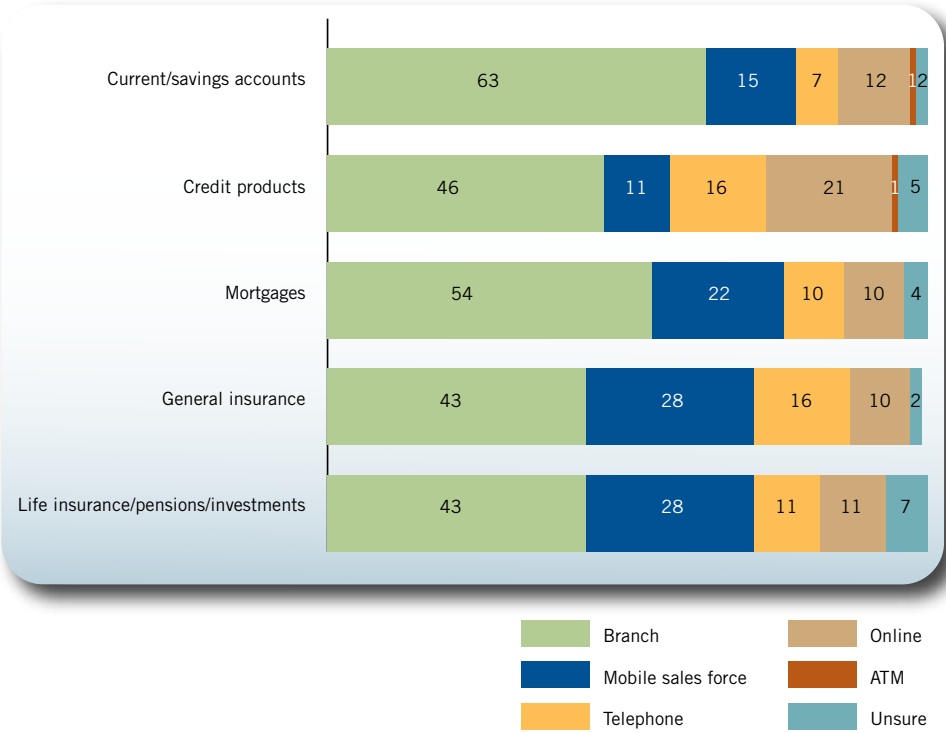


Figure 2.1

Source: Booz Allen Hamilton Revenue Enhancement Study 2007

Other countries of note: After Hong Kong, China and Switzerland have the highest volume of call center banking. South Korea and Spain are also leaders in online banking. And Australia and the United Kingdom are following Hong Kong in adoption of mobile banking.

Research by TowerGroup has also revealed that consumers are interacting with their banks more than in previous years. It predicts that the overall U.S. delivery channel transactions will increase at an average rate of 10 percent between 2006 and 2010 across all channels (bank branch, ATM, online banking and call centers).

TRANSITION FROM PAPER TO ELECTRONIC PAYMENTS (1998-2008P)

Cashless payments in major payment countries (billions of transactions per year)

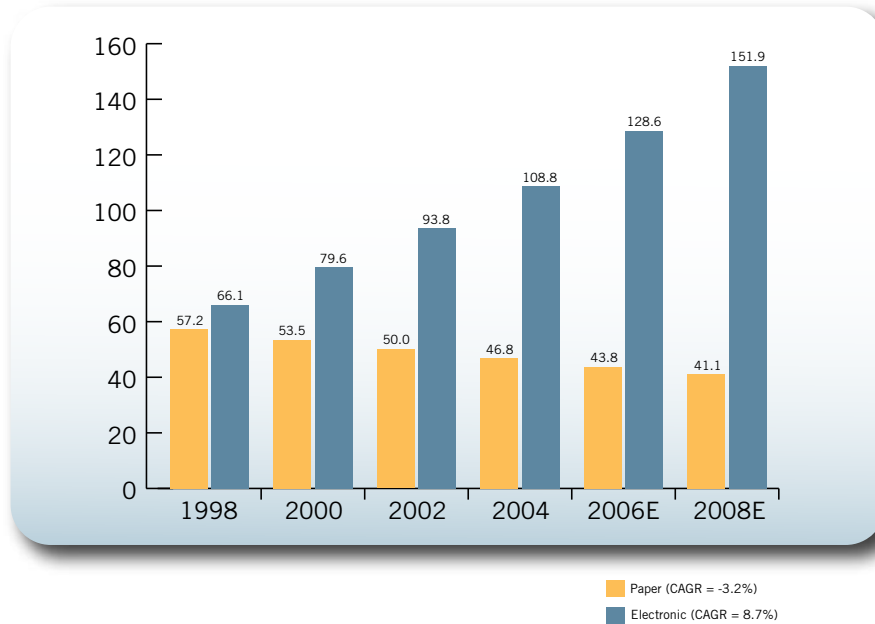


Figure 2.2

Source: Bank for International Settlements, European Central Bank, U.S. Federal Reserve Bank, TowerGroup

In servicing a multichannel environment, a key factor in customer confidence is to ensure that customers receive consistent information across the channels they choose to use. Hence, to ensure consistency, many banks are using the most available service — one that covers ATM transactions — as the common system for handling transactions from all channels. In some cases, use of service-oriented architecture (SOA) tools has enabled banks to channel management systems to use central services without the complexity of programming complicated protocols that drive ATMs.

The Move to Real Time Single Message Transactions

Many interbank systems still rely on some form of batch clearing and settlement to actually effect the transaction and move the funds to the recipient. Real time gross settlement (RTGS) or wire systems have existed for many years to provide immediate finality transactions, but these services can be expensive.

However, in today's fast-paced, technological age, consumer and corporate customers expect faster execution of transactions, and regulators are taking that desire seriously. The U.K. Faster Payments initiative is one such example of how banks are being forced to move from batch clearing to a real time, single message system. Other countries, including Australia, South Africa and Turkey, are implementing similar initiatives. This further increases the volume of transactions that need to be executed by the payment engine, which adds

another burden for banks' IT systems.

Volumes are not the only challenge of real time transactions. Fraud management is vital to successful implementation of these systems. Whereas the origination of real time gross settlement (RTGS) transactions is generally from corporate customers with more sophisticated controls on the creation of the payment, systems like the U.K. Faster Payments are handling transactions originating from consumer online banking. This opens up opportunities for fraudsters to attack the system or to engage in money laundering.

Improving online banking system security is one part of the solution. Equally important is the ability to use real time fraud detection systems to evaluate these transactions as they occur, requesting further checks on suspicious items.

Customer Segmentation

Customer relationship management (CRM) has been an industry buzzword for several years. Most banks have spent significant sums of money creating customer databases that provide enough information to allow them to target relevant segments for product offerings. However, these databases are normally used for paper mailings and don't fully support customers' everyday interactions with a bank.

With pressure to make more and better use of CRM investments, banks have started to provide branch staff with information so they can offer a product when a customer visits the branch. However, as discussed earlier, customers are using a wide range of channels to conduct their transactions, so it is important that banks try to use this data in other channels, such as ATMs and Internet banking.

Using the wait time while a transaction is authorized at the ATM to make a product offer does not extend a customer's time at the ATM and is generally acceptable to customers. Banks that have tried this have learned one important lesson: if a customer has declined a product offer, don't offer the product again when they visit via a different channel. Thus, integration across the channels is important for such consistency.

Datamonitor believes the real challenge for banks is to develop a clear distribution strategy that identifies the purposes of each channel. From that, strategies to achieve data consistency can be developed so channels are no longer disjointed, stand-alone silos but rather complementary elements to a cohesive, multichannel offering. As shown in Figure 2.3, DataMonitor reports that this will be critical to enable banks to reach the next stage of a predictive customer service model.

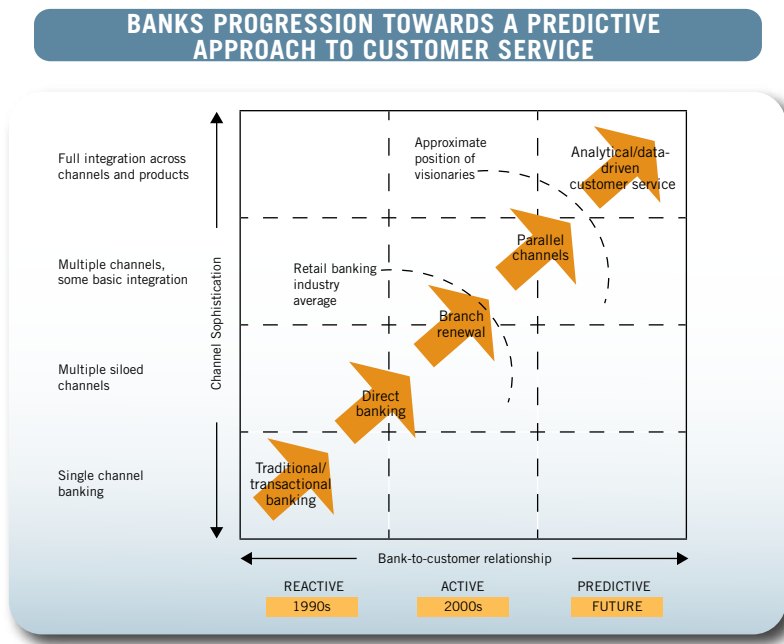


Figure 2.3

For some organizations, this is only one part of the segmentation exercise. Understanding their customers and making decisions based on a customer’s relationship with the bank — rather than generic decisions common to all users of that banking product — produces a more satisfied customer and can improve a bank’s risk management. Information such as the number of products and services a customer uses, the size of average balances and whether salary payments are deposited directly into the account can be used to assess the customer.

Although many organizations have created internal overdraft limits based on this customer data, these limits are often only updated monthly or less frequently. Some organizations want to develop this into real time decision-making by extending the factors used in the authorization process. The aim here is to use current data so the decisions adjust to reflect the current actual situation, ensuring that excellent customers are treated well, while riskier customers are managed more tightly.

As each bank approaches these authorization decisions from a different perspective, the IT requirement is to ensure that the chosen authorization system has the flexibility to incorporate specific rules in the decision-making process, as well as the capability to obtain data from a wide range of systems.

Better Risk Management

Banks have always had to cope with and manage fraud and bad debt, and there's no sign that either will disappear anytime soon. As a bank closes off one method of fraud, fraudsters either take the same technique elsewhere or find a new way of attacking the bank. For instance, while the chip and PIN deployment in the United Kingdom has significantly reduced fraud at the point of sale, fraud from card-not-present (CNP) and overseas transactions has risen considerably. Thus, banks must be vigilant in addressing and managing fraud.

Most institutions today have implemented some form of fraud detection, either using a neural pattern recognition system, a rules process or both.

Generally, however, these are silo-based systems, so there is one system for credit card fraud, another for check fraud, another for debit card fraud, etc. Many of these systems successfully combat fraud in the various silos, but fraudsters have found opportunities to use these silo systems to take advantage of a multitude of channels and transactions. An enterprise view is needed to realistically combat these attacks.

A single point for transaction authorization is an important factor in addressing overall risk management for fraud and bad debt. Furthermore, as increasingly more transactions occur in real time, banks must also risk assess transactions in real time to ensure the appropriate authorization decision is taken.

Addressing the Unbanked

All the strategies discussed so far improve the income and productivity of payments; however, for some markets a far greater challenge is persuading consumers to use bank accounts.

In regions where bank accounts are prevalent, techniques such as payroll cards or benefit cards have been successful strategies to remove the need to pay consumers in cash as well as to encourage them to use banks. In some countries, payroll cards can be used for migratory workers, so they don't have to transport large amounts of cash with the inherent risks. Like gift card programs, these cards use existing channels for transactions, so banks must ensure that their back-office card systems offer the flexibility to define these programs.

In areas where little card infrastructure is in place, many people are turning to mobile phones as a vehicle to enable payments. Since many mobile users already use a prepaid account for airtime or minutes, adding a prepaid account for financial payments is a familiar concept. Using short message service (SMS) technology and suitable security, bank customers can easily make requests to move money. While this is generally the domain of telcos at the moment, banks' expertise in processing payments will become increasingly important as volumes and values increase.

Section 3: Conclusion

The deployment of new technologies, such as chip cards, is exciting for retail banks and creates new opportunities to advance to electronic transactions. Regardless of the direction the industry takes, some key values will be required in the banking IT systems: availability — just like the telephone system, these services must be continuously available; reliability — services must meet customers' needs; and scalability — systems must scale to handle whatever volume will be generated.

Why ACI

ACI helps financial institutions adapt seamlessly to changes in the retail banking industry. We make it our business to help customers optimize their return on current investments, transact in high volumes and move forward with new technology. ACI leads in e-payment processing products and has vast payments marketplace experience.

Among software providers, ACI is unique in its ability to address the breadth of services across the payments value chain — a single source for end-to-end solutions helping banks to simplify the implementations and speed time-to-market for new services.

Experience, Expertise

Every second of every day, more than 800 customers around the world rely on ACI solutions to process payments, manage risk, automate back-office systems and provide application infrastructure services. More customers use ACI software to manage higher payment volumes, of greater diversity, across more platforms and geographies than any other provider in our field. Since 1975, ACI has provided software solutions to the world's innovators. We welcome the opportunity to do the same for you.

