Pushing the real-time accelerator
Greater competition calls for banking unusual

Content

Enhancing customer experience, costs and compliance in the always-on bank

In a constantly changing, 24/7, always-on, always-connected society, businesses across the globe are increasingly finding the need to enter the age of agile IT. Between now and 2020, the amount of digital information created and replicated in the world will grow to 35 trillion gigabytes[1]. What once was the stuff of science fiction has become an everyday occurrence. Exabytes. Zettabytes. Yottabytes. Sensors, asset intelligence, mobile devices and constant streams of unstructured communications have created a digital lattice that can capture who we are and how we live, work and play. Fundamentally, data is being created at a greater speed, and therefore the velocity at which it is processed also needs to adapt. Mobile devices and cashless transactions continue to proliferate, and banks will increasingly find the need to access and process data in real-time. "Real-time" means data is processed as it is received. Most banks, however, still sit with legacy systems, with the banking platforms of yesterday trying to offer customers the instant gratification experience expected today. Banks are also increasingly bolting more and more applications onto legacy systems. This increases the complexity of the overall system and minimises the integration of data, which compromises operational efficiency. These systems also end up garnering higher maintenance costs, as they run on outmoded and generally less-efficient technology.

With social technology and telecom competitors moving into the transactional banking space and more stringent regulations on financial service providers, banks are increasingly turning towards embracing systems that are more agile. Banks are finding that they require higher levels of transparency in order to meet new regulatory demands on them. Real-time processing can aid banks in providing more competitive and customer-focused products, lower banking fees and decrease potential fraud and money laundering. This is because it enables authorities to be aware of, track and respond to financial crimes as they are happening. With this in mind, is it time for banks to start pushing the real-time accelerator?

In a constantly changing, 24/7, always-on, always-connected society, businesses across the globe are increasingly finding the need to enter the age of agile IT.

[1] "2010 Digital Universe Study: A Digital Universe Decade – Are You Ready?". IDC. 2010. Web.

Shifting closer to a customer-led model

As banks face increased regulatory pressure, consolidation and rapidly shifting consumer behaviour, many are refocusing their efforts on becoming more customer-centric as a way to increase shareholder value, improve their reputation and help drive performance. Purely enhancing customer experience isn't the only thing on their agenda. Their checklist also includes: integrating social business and mobility into their operations; creating new products and services by blending ATMs, contact centres and other channels into one seamless interactive experience; improving fraud and risk management; and optimising processes targeted at reducing waste, optimising efficiencies and reducing the costs of back-office tasks.

Fundamentally, banking is moving towards a customer-led model. This is evident in consumer behaviour in terms of how consumers are using money and their need for instant gratification within an always-on society and in the regulation and compliance governing how banks need to treat their customers with the emergence of the Consumer Protection Act (CPA) and the principles of Treating Customers Fairly (TCF). Implementing a real-time processing model can help banks transform these nice-to-have goals into a reality that drives the achievement of a truly competitive advantage.

Greater competition (particularly from non-traditional banking organisations, such as Internet-only or telecommunications organisations, many of which are seeking to run real-time banking platforms) may lead traditional banks to be more innovative in an effort to avoid becoming irrelevant

Pioneering a new road to competitive advantage

Many financial service providers think their competitive advantage lies in having a strong physical distribution capability, being a large and secure organisation or, in some cases, owning a banking licence. These may have been strong differentiators in the past but are expected to be less so in the future. These things don't make customers loyal, they do not build trust alone and they do not give financial service providers access to previously underserved markets in a mutually cost-effective way. Driving value through customer experience requires financial service providers to deliver service that meets customers' individual needs, not generic ones, while being mindful of cost containment and revenue goals.

Greater competition, particularly for non-traditional organisations, such as Internet-only or telecommunications organisations, many of whom are seeking to run real-time payment platforms may lead traditional banks to be more innovative in an effort to avoid being innovated around, and ultimately disintermediated in, the mobile payments space. These competitors are more technologically advanced, they have lower operational costs, and they have access to context-aware and geo-locational data that enables a customised offering of products and services that are specifically tailored to their customers' needs. As competitors gain a larger foothold, some South African banks may lose market share, customers and revenues, particularly in the lower-income, transactional-banking segment.

Competitors find transactional banking lucrative

It was recently reported that the first mobile application launched by one of South Africa's banks has seen R4 billion in transactions value since inception[2]. Clearly, transactional banking is a lucrative market and is an attractive segment for competitors who have a stronger set of points-of-influence than banks.

Competitors see gaps in underserved markets

Africa has a large uninsured and under-banked market, with less than 10% of the insurable population in Africa being insured[3]. Africa as a whole has 230 million unbanked households[4].

From a South African perspective:

- 9.1 million South Africans are financially excluded, and 27% of adults do not have, or make use of, any financial products and services, whether located in the formal or informal markets.
- 57% of South Africans have no form of insurance (two in every three South African adults).
- 37% of South Africans are unbanked (27%) or under banked (10%). This is one in every three South African adults[5]

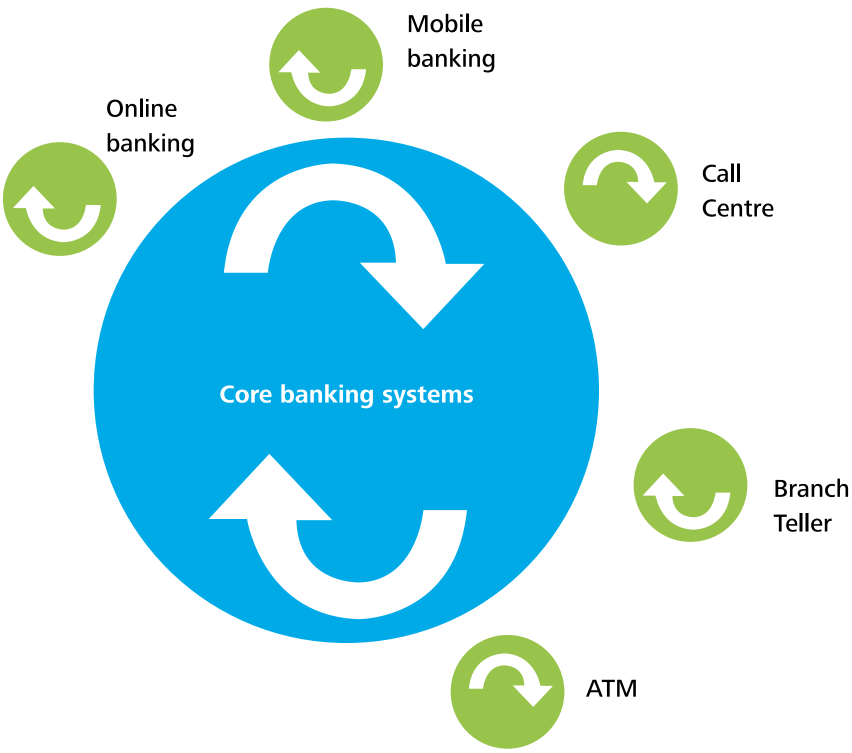
Based on the size of these markets, there is an apparent opportunity to serve new markets.

Competitors are more technologically agile and accessible

There are now more than 620 million mobile phone subscribers in Africa (the second largest mobile market in the world)[6]. A further 84 million mobile phones are internet-enabled[7]. It is predicted that 69% of mobiles in Africa will have internet access by 2014[7]. In the next few years, external social Web and cloud-based services will generate 25% of consumer-driven banking products and services, which may not necessarily be sold by traditional banks[8]. Most non-traditional competitors are not held back by legacy systems and technologies. This means they can offer transactional banking services at a faster and more cost-effective way than traditional banks.

[2] http://businesstech.co.za/news/general/16525/fnb-banking-app-hits-transactions-landmark
[3] The African Insurance Organisation. 2010. http://mansabanko.blogspot.com/2010/05/aio-conference-and-genaral-assembly-in.html (Accessed: 24/05/2010)
[4] Standard Chartered. 2009/10. Asia, Africa and the Middle East, the Guide to Working Capital Management.
[5] Finmark Trust. 2011. Finscope South Africa 2011: The Banking Sector.
[6] GSMA. 2011. African Mobile Observatory 2011. Driving Economic and Social Development through Mobile Services. (Accessed: 09/11/2011)
[7] United Nations Conference on Trade and Development. 2011. Information Economy Report 2011. http://www.unctad.org/en/docs/ier2011_en.pdf (Accessed: 26/10/2011)
[8] Gartner. 2011. Top Industry Predicts 2012: Industries Face intensified Consumerization and Technology Disruption. (Accessed: 07/01/2012).

Banks have been focusing on investing only in customer-facing channels, such as ATMs, websites and now mobile applications and devices, which has generally resulted in near-real-time processing for some banks. But it has created rigidity, complexity and a rapidly diminishing return on investment. Due to the legacy systems within banks, many still have to endure outdated policies and traditional views of risk management, which make it difficult for them to achieve true real-time processing. While many banks have adopted real-time processing between their own accounts, the notice and interbank processes, policies and agreements continue to slow them down. No matter how fast the smaller gears on the edges (the channels) spin, the slow-moving wheel at the centre (the core platform) and the legacy processes that accompany it control when transactions are processed and actioned across multiple channels. Ultimately, that wheel slows down the implementation of real-time processing on mobile devices and limits the total value generated by the overall system.



While real-time processing may be enabled in different parts of the bank, eventually it's all subject to the timing of the slow-moving wheel of core banking systems.

Deloitte. 2011. Time for real time? Why banks should be giving real-time processing a serious look.

Are customers the bank's core focus?

Leadership within banks fundamentally need to decide what the core strategic focus of their business is, be it a technology-led or a customer-led business. Being customer-led requires banks to be responsive and agile in order to satisfy customer needs in a real-time, ubiquitous fashion. New technologies such as cloud computing, interoperability layers and straight-through processing are enabling the pre-emptive, always-available services that customers are increasingly seeking from their financial service provider.

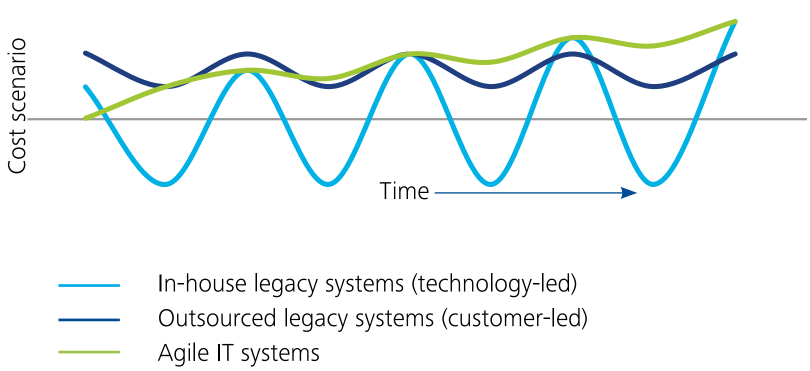
Several banks have begun to outsource IT functions on the periphery of their operations. This has enabled banks to become more customer-led, but it has complicated internal processes. Banks could become far more agile through determining which functions are truly core to them, such as the front office, product development and treasury functions to name a few. All non-core functions and back-office processing could be outsourced. Only once banks accept what their core business is, can they begin building a new banking value chain that embraces the agile IT model.

Agile IT adopts an outside-in architecture in which employees, business functions, IT systems and supporting infrastructure are essentially interchangeable building blocks across many different divisions, product classes, customer and employee groups. Flexibility, cost savings and possibly straight-through processing among other benefits can be achieved through adopting outside-in architecture.

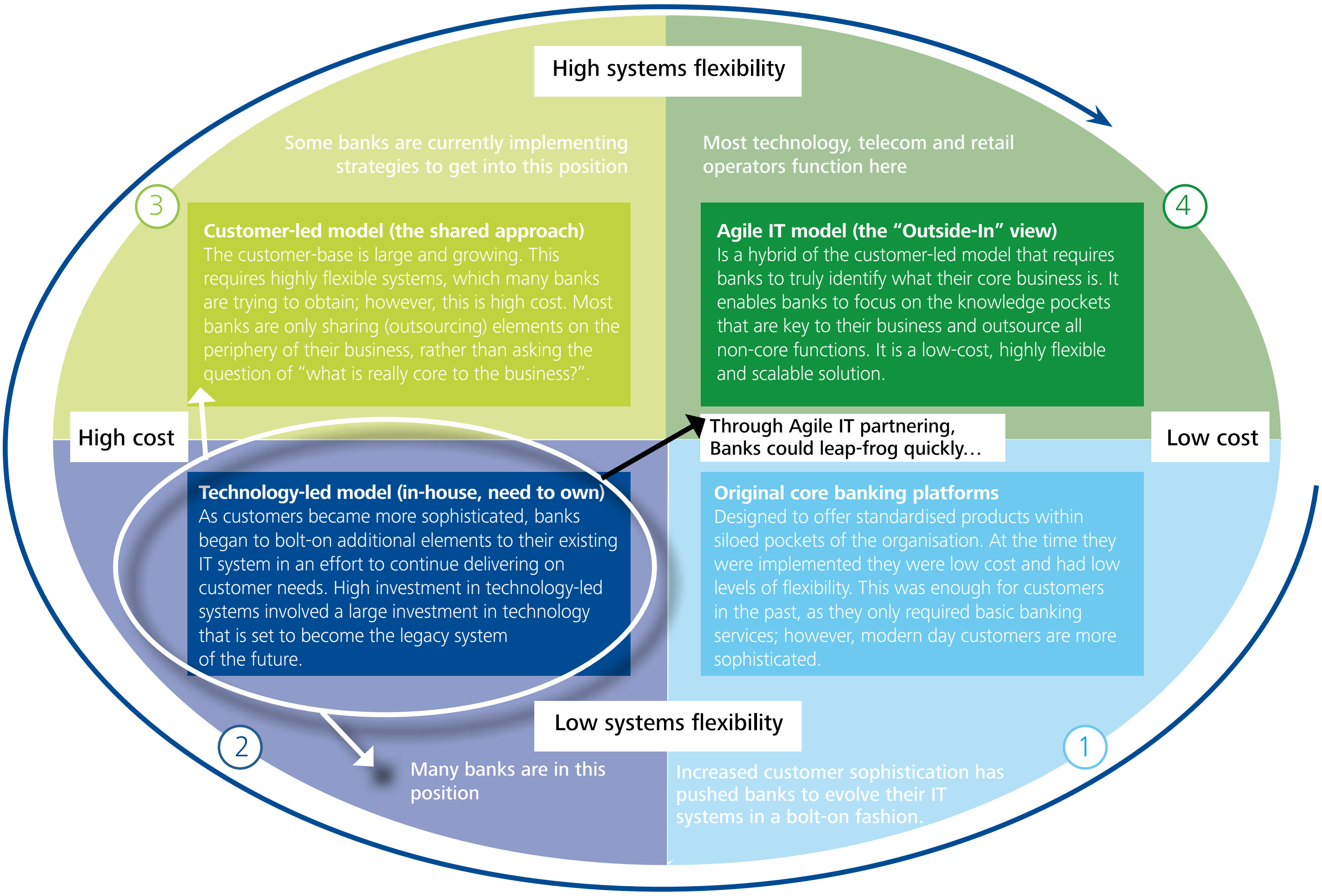
The traditional technology-led model (*need to own*) is colliding with the emerging customer-led model (*need to share*), shifting solution architectures away from a siloed, inside-out design pattern. These new IT architectures are designed to anticipate service and people dependencies from the outside – and to require that data and systems be encapsulated for external consumption. Outside-in, not inside-out, is becoming the standard.

New technologies such as cloud computing, interoperability layers and straight-through processing are enabling the pre-emptive, always-available services that customers are increasingly seeking from their financial service provider.

IT lifecycle systems progression cost trend



Shifting system flexibility to put customers at the core



The traditional technology-led model (need to own) is colliding with the emerging customer-led model (need to share), shifting solution architectures away from a siloed, inside-out design pattern

Real competition roadblocks call for real-time action

With real-time core processing in place, banks can simplify their channel solutions and reduce the total cost of ownership of their technology infrastructure. Improved efficiency is only part of the story. Real-time banking also means more satisfied customers.

Benefits of real-time core processing

Increased return on investment

- Enhancing customer experience and retention
- Increasing revenue opportunities through increasing personalised service and cross- and upsell opportunities by having a single view of the customer
- Enabling an agile, fast, efficient and effective delivery of innovative products and services
- Significantly supporting cross-sell, up-sell and customer retention objectives with fit-for-purpose product and service portfolios
- Integrated and flexible pricing and billing platform
- Integrated/single view of customer and product
- Enhanced and consistent customer experience
- Rapid deployment of new products and services

Increased agility and flexibility

- Minimising operational risk, preventing fraud and protecting customers' assets with secure process control
- Ensuring the bank is able to respond to changing regulation on an ongoing basis
- Consolidated product catalogue
- Single sales and service platform
- Integrated Management Information (MI)/Business Information (BI) system
- "Next generation" core banking platform
- Establishing a strong culture of continuous process improvement
- Process-centric operations across product, segment and channel
- Completing back-office recon

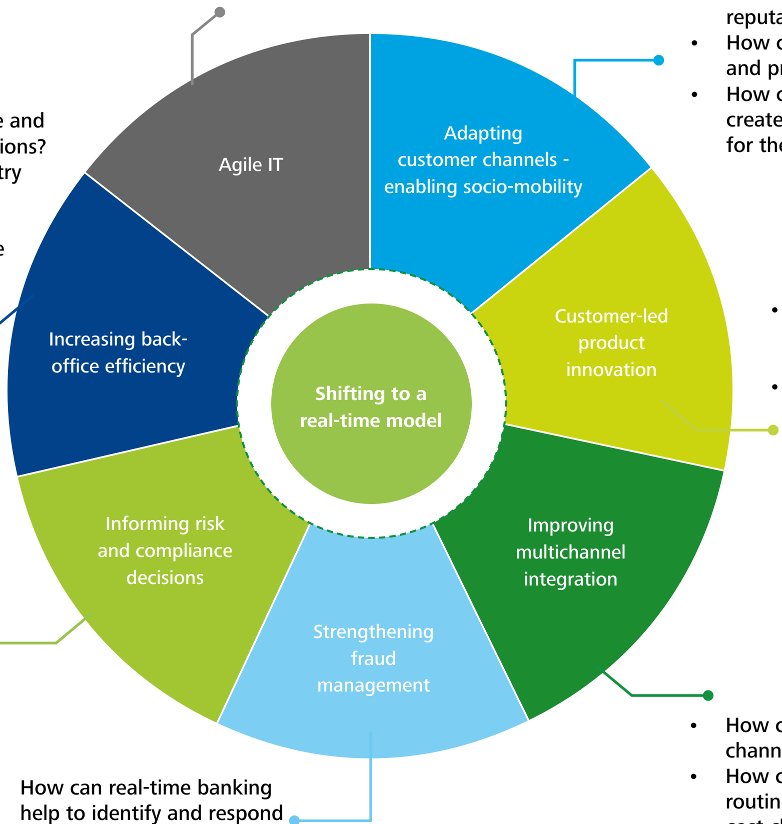
Achieving cost efficiencies while simultaneously minimising risk

- Eliminate paper-based processes – ensuring less paper and time wastage
- Accelerating time-to-market of new services and reduced cost solutions by enabling front-end services to be better coordinated with automated back-office systems
- Real-time data analytics of customer information ensures:
  - Increased transparency
  - Precise targeting and communicating with customers, aiding in meeting CPA and TCF regulatory and compliance standards
- Scalability: Increase volumes with little to no increase in operating costs
- Multi-source (optimal mix of outsourcing, co-sourcing and in-sourcing) for cost reduction
- A high level of process automation
- Significantly enhanced efficiency and effectiveness in support services through economies of scale and simplification (Standardise, Simplify, Optimise and Re-use)
- Driving business value of shared services units:
  - Charging out mechanisms per service
  - Improving costs allocation transparency
  - Maximising the use of shared services
  - Maximising value of service provision


40
50
30

Is your business ready to go real?

Banks should work towards closing the information gap between when the transactions are initiated, queued and processed, which opens up numerous opportunities for strategic growth. By combining deep, industry understanding, strategy, technology and analytical experience, with a firm understanding of the regulatory environment affecting financial service providers to drive differentiated and applicable solutions, Deloitte can help its clients in their efforts to achieve real-time processing.



- How can we have tailored products and services?
- How can we make our current services more responsive?
- How can we offer improved convenient and transparent services?
- How can the bank offer an enhanced customer experience and increase customer loyalty?

- How can the bank build a strong reputation among clients?
- How can the bank customise its product and pricing model for its customers?
- How can customer data be used to create new revenues and opportunities for the bank?

- How can the bank ensure it creates products that are fit-for-purpose?
- How can the bank proactively identify customer behaviour shifts and potential problems before they lose a customer to a competitor?

- How can the bank deliver a seamless channel experience to customers?
- How can banks get customers to do routine transactions though lower-cost channels?

- How can real-time banking help to identify and respond to fraud more promptly?

- How can the bank ensure it is able to respond and comply with increased and changing regulations on an ongoing basis?
- How can banks be more transparent about product and service price increases?

- How can banks minimise the time and cost spent on processing transactions?
- How can banks minimise data entry errors and obtain cleaner, higher quality data?
- How can the bank's infrastructure be used more wisely?
- How can data centre costs be minimised?

Imperatives driving the customer-led bank	**Agile IT**	It is not new to most that the millennial generation is more tech-savvy and networked, and has a high-earning potential. They have grown up in a real-time world and demand tailored products and services, greater responsiveness, more convenience and increased transparency. Just as important, a real-time model would improve the banking experience for the larger customer population as well. Instead of making customers plan around bank schedules, such as dealing with cut-off times and waiting for transactions to clear, banks can process transactions instantly and provide an around-the-clock service. Customers more effectively manage their money, while enjoying an improved experience that drives loyalty.
	Adapting customer channels – enabling socio-mobility	As banks become more customer-led, social media will undoubtedly begin playing a larger role in the financial services sector. Besides building stronger ties and raising their reputations, social business can help banks gain insight into the needs and preferences of their customers. This impact cannot be underestimated, as the very same clients influence their networks by communicating their experience to others. Customer analytics are used to monitor, measure and respond to the online chatter, but it's usually after the fact. Using real-time technology could take that information to a whole new level. With real-time data, banks could use it to customise a product or pricing model, for instance. They could also use social data, for example, as a factor to help determine a person's creditworthiness based on the networks in which a customer is a member. Indeed, real-time, analytics play a key role in providing banks with the necessary insights on what existing and new customers' individual needs are. New technologies have enabled these insights to be provided in real-time which enables banks to offer customised messages and offerings to customers. This gives banks the opportunity to begin offering pre-emptive marketing. While smart phones and other mobile devices provide another channel for customers to bank, they are also valuable in facilitating discussions on social media sites. People take computing devices with them everywhere, so they can instantly tell their networks where they are, what they're doing, what they're shopping for and general information that they believe they should share. This level of information, when coupled with financial history, can provide a new business opportunity for banks.
	Customer-led product innovation	If banks want to get a broad view of their customers (including demographics and purchasing behaviour along with card transactions, loans, deposit and brokerage accounts) they may want to consider the use of real-time analytics. With real-time banking, they can methodically pitch products and services that fit customer needs. For example, a bank could combine transaction activity with location-based services. If a customer has just made a large deposit in their check account, a bank may promptly respond with a tempting offer of a bonus rate CD. The ability to recognise their saving/spending situation and their location allows the generation of a lead whereby a nearby branch may approach them or contact them and invite them in to discuss a customised and enhanced offer with a knowledgeable sales representative. Analytics could also help banks spot potential problems – cancelling direct debits, declining account balances, or reduced deposits or other changes in behaviour – signalling that their customers may switch to a competitor. In that case, a bank manager could intervene and inquire about the account and try to retain that customer. With real-time analytics enabled by real-time transactions, banks can get an up-to-the-minute understanding of customer needs, develop more effective relationships and provide on-the-spot business opportunities.
	Improving multichannel integration	Many banks have added new service channels at a rapid pace in recent years to keep up with customer preferences and technology developments. While these channels are more sophisticated than a bank's back-end machinery, they are essentially stand-alone systems, providing inconsistent functionality and information. Regardless of how adept customers are with using those channels, they must still wait for transactions to be processed at a later time. Real-time processing can help banks deliver a seamless multichannel experience. For example, consider a customer who has an opening balance of R1 000. That customer today deposits R7 000 at an ATM. In a near-real time environment, that customer has to wait until the bank processes that deposit, which can take up to a day. If a point-of-sale transaction for R5 000 were attempted today, the customer would be denied that sale due to insufficient funds. With a real-time straight-through processing system, that R7 000 deposit would be cleared promptly, allowing the customer to make a transaction using a bank debit card, online or through a smart phone immediately. With real-time technology, channels could even interact with one another. For instance, a customer could use a smart phone keypad to communicate with an ATM or even queue a transaction and wave the smart phone in front of the ATM to process a transaction. In addition to opening up a plethora of customer experience options, this enhanced channel functionality may help banks sell other financial products at branches and reduce complaints and other inquiries to their call centres. Banks might also save money by driving customers to use lower-cost channels, such as through smart phones, for more routine, lower-value transactions. This could free up time at high-cost branches for more complex, higher-value transactions and services.

Imperatives driving the customer-led bank	**Strengthening fraud management**	In the current banking environment, transactions can be initiated on many different channels – online, branch, ATM, point-of-sale etc., with each channel communicating separately with the core platform. Right now, some banks use stand-in files, while others memo post and process transactions at the end of the day; some do both, depending on the time of the day. Since these channels operate independently of one another, the core platform becomes the only point of synchronisation where banks can identify potential criminal activity. With a real-time system, which could also incorporate other types of data like location information, banks could detect fraudulent transactions as they happen, by analysing aggregate pattern of transactions. For example, a series of withdrawals across several channels – a R5 000 withdrawal from an ATM in Johannesburg and a R2 000 branch withdrawal in Cape Town – may appear to be normal if viewed separately. But when these transactions are examined in aggregate across these multiple channels within minutes, they may represent a series of fraudulent transactions. Without a real-time system, such activity might go undetected for days, weeks or even months. Currently, the threat of fraud, such as identity theft, is rampant and hard to detect. Banks need to identify and react to these incidents immediately to either limit or negate potential damage. Real-time analytics can provide banks with the mechanisms to build individualised customer behaviour profiles and monitor them for any suspicious changes in behaviour relating to amounts, locations, channels, recipients, etc. These potentially erroneous transactions would be identified and controlled as they happen, thereby limiting the financial impact to the bank and inconvenience to the customer.
	Informing risk and compliance decisions	Due to the complex patchwork of channels developed in an effort to appear in real-time, such banks may not be as nimble as they need to be to respond to and comply with changing industry regulations. Under growing regulatory pressure, most banks will likely need to improve their risk management and reporting capabilities, such as fraud detection and customer liquidity. Banks can potentially provide customers with certain benefits that are impossible now with a near-real-time system. Current and future consumer protection regulations, such as the CPA, National Credit Act (NCA) and TCF for instance, may require banks to provide increased transparency and awareness around a customer's true financial status. As an example, if a customer is about to initiate a transaction that's going to overdraw an account, banks could send a text message informing the customer of the potential overdraft. The customer could either authorise the transaction or not, but the customer is at least notified of the overdraft fees involved and presented with the ability to direct the outcome. In this case, banks are not only adhering to regulations but also improving the customer experience.
	Increasing back-office efficiency	Many banks spend considerable time and cost on staffing, facilities and transportation needs when it comes to processing transactions later. A real-time system processes transactions promptly – at the front end – reducing the need for manual and automated back-office cycles. This reduces risks such as data entry errors, which can lead to write-offs and lower profitability. Banks can shift investment from back-office operations to other needed areas, such as helping customers resolve complaints and other inquiries. With a real-time system, banks can use their infrastructure investments more wisely. Computer systems are freed from running batch processes that last several hours, which may reduce delays or bottlenecks that occur if the system breaks down. The time is more effectively spent running other system activities to drive growth, resulting in much more manageable data centre costs. Since these costs are closely tagged to peak usage, and batch processing results in extreme peaks, a real-time approach can smooth out usage patterns, enhance efficiency and significantly reduce costs.

Seamless banking is all about offering customers what they want, when they want it and where they want it. Consumer demand is no longer based on a history whereby they stick to one brand because they have belonged there for a number of years. The use of social media and the Internet is making information travel from one individual to another instantly. The resultant impact is that consumers are being made increasingly aware of what other offerings are available in the wider marketplace. There is also more internal and external information on customer behaviour available that can enable banks to better understand and customise solutions for customers at a fraction of the time. The key is for banks to determine what their core focus is and then to align their strategies, processes and systems to deliver agile, real-time, tailored experiences that unlock value and differentiate them.

Key contacts

Dirk Kotze
Associate Director
dkotze@deloitte.co.za

Akiva Ehrlich
Associate Director
akehrlich@deloitte.co.za

Candice Burin
Manager
cburin@deloitte.co.za

Paul St Quintin
Senior Consultant
pstquintin@deloitte.co.za

Miguel Fernandes
Manager
migfernandes@deloitte.co.za

Thys Bruwer
Director
tbruwer@deloitte.co.za

Sources:
1. "2010 Digital Universe Study: A Digital Universe Decade – Are You Ready?". IDC. 2010. Web.
2. http://businesstech.co.za/news/general/16525/fnb-banking-app-hits-transactions-landmark
3. The African Insurance Organisation. 2010. http://mansabanko.blogspot.com/2010/05/aio-conference-and-genaral-assembly-in.html (Accessed: 24/05/2010)
4. Standard Chartered. 2009/10. Asia, Africa and the Middle East, the Guide to Working Capital Management.
5. Finmark Trust. 2011. Finscope South Africa 2011: The Banking Sector.
6. GSMA. 2011. African Mobile Observatory 2011. Driving Economic and Social Development through Mobile Services. (Accessed: 09/11/2011)
7. United Nations Conference on Trade and Development. 2011. Information Economy Report 2011. http://www.unctad.org/en/docs/ier2011_en.pdf (Accessed: 26/10/2011)
8. Gartner. 2011. Top Industry Predicts 2012: Industries Face intensified Consumerization and Technology Disruption. (Accessed: 07/01/2012).

Designed and produced by Creative Solutions at Deloitte, Johannesburg. (803720/ver)