WHITEPAPER

“Banking” on Digital Transformation – Surfing the Wave

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Transforming the World Through Quality

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Management summary

Digitalisation across the globe is intensifying and is moving from being a trend, to constituting a basic necessity for organisations to deliver and have their products/services perceived as value-adding by customers. Organisations that are delivering value at various levels within the information technology and digital eco-system will need to stay abreast of the trends and demands of digital consumers and equip themselves adequately to continue to remain relevant in this rapidly evolving market.

This whitepaper **leverages SQS exposure to banking across global markets and sectors** in the banking industry to:

- Establish key **components** of digital transformation
- Map **current trends** in digital transformation in the banking industry to understand the evolving needs of digi-savvy customers
- Underscore the **quality challenges** in this highly dynamic platform and what it means to banks riding the transformation wave
- Establish an **agile and robust assurance framework** that can meet the quality and agility demands of transformation efforts in the banking industry
- Highlight the **benefits** of the assurance framework

Keywords

DIGITALLY MODIFIED BANKING

OMNI-CHANNEL

CROSS-CHANNEL

ROBUST DIGITAL ASSURANCE FRAMEWORK

Introduction

New inclinations in technology, financial models, delivery systems and customer expectations are driving companies in every industry to re-evaluate how they deliver value to their digital consumers. Revolutionised markets are demanding improved business models and technology in order to become more agile, enable innovation, proliferate operating efficiency, enter new markets, intensify customer loyalty and gain ground against competitors. The banking industry is no exception to the digital transformation: digitally modified banking becomes a mandate for surfing the digital wave and meeting the enhanced expectations of the digital consumer and ecosystem.

Today’s demand of banking is **“anytime anywhere banking”**. Traditional banks will need to move towards innovative, robust, secure, flexible and optimised solutions, ready to meet the expectations of empowered and tech-savvy customers.

Market analysis

The Gartner 2016 CIO Agenda Survey [1] data shows that digitalisation is intensifying. In the next five years, CIOs expect digital revenues to grow from 16% to 37%. Similarly, public-sector CIOs predict a rise from 42% to 77%.

Retail Banking 2020 findings [2]: 59% of respondents expect the importance of branch banking to diminish significantly as customers migrate to digital channels, and 48% expect branch banking to change significantly by 2020. Yet only 16% of respondents view themselves as ‘very prepared’ for this shift.

Strategy to succeed on the digital wave

Key components of digital transformation

The trends in digital transformation will focus on the three main components where banks are remodelling their business with the help of digital technology – digitally modifying the customer experience, operational processes and business models for faster growth and to stay afloat on the wave of change. Figure 1 illustrates the key areas where businesses are leveraging digital technology to transform the way they do business [3].

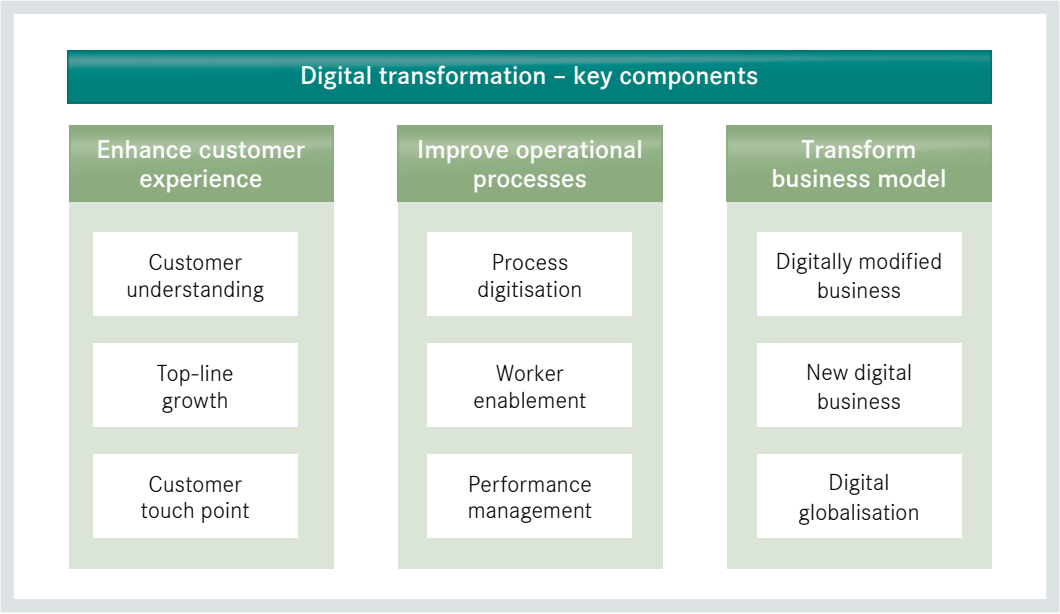

Figure 1: The nine elements of digital transformation

Map current trends in the banking industry

How are banks applying each of these key components to transform their business digitally? Many banks have started to redefine their business in the digital world, and still have a long way to go on their journey. Digital transformation within traditional banks is not so easy and needs a more clearly envisioned customer experience, proliferated operational processes and restructured business models that must still comply with all applicable regulations and industry standards.

Customer experience

Customer expectations constantly grow and vary across industries, and before investing in any ambitious strategies or technologies, it is absolutely critical for banks to understand the needs and expectations of their customers across global market segments and align their digital strategy accordingly. Bank customers expect unique and collaborative digital experiences. Most banks extensively use digital advances like social media, analytics, mobility and smart embedded devices which have grown rapidly in the past decade to enhance the digital customer experience.

Understanding customers' expectations early in the value chain can help the banks to ensure that their technology investments truly deliver the unique digital experiences that customers desire.

Recent studies [4] have revealed two important shifts that greatly impact the way financial institutions deliver services across banking channels (Figure 2):

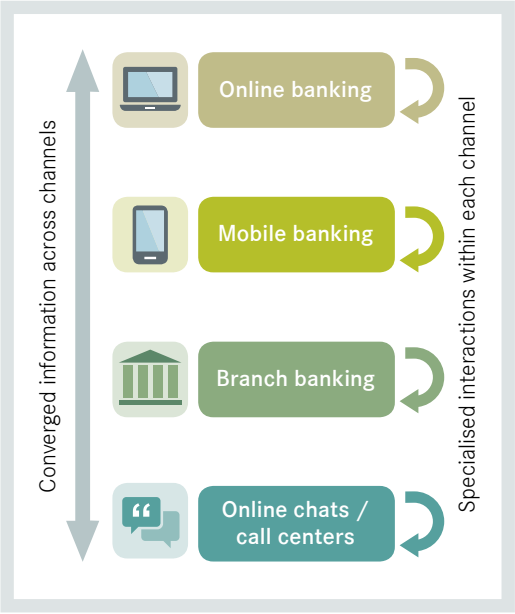

Figure 2: Major shifts across banking channels

- **Converged information across channels:** Banking channels have evolved from single channel, multi-channel, cross-channel, omni-channel to bi-directional channel. Customers expect that transactional details completed through one channel (e.g. mobile banking) should be readily accessible through another channel (e.g. online banking), and expect transactions initiated online to be completed via mobile, with troubleshooting of any transactional issues through online live chat with bank users. Hence, the information across channels should be delivered consistently with smart technologies coupled with real time banking functionalities, accelerated across all popular devices in markets.
- **Specialised interaction within each channel:** The unique features of each channel determine the primary activities conducted through that channel. Bank customers prefer using digital channels like online and mobile for day-to-day activities. Mobile channels are frequently used for checking account balances, viewing transaction history, adding a payee, paying bills, receiving notifications, and making one-time and recurring payments or transfers. A research study states that an average of 28 logins to mobile banking has been recorded per user, per month – which proves customers' desire to access and use financial services information through the mobile channel. Online channels are used where customers need greater insight into banking products, or for account management, configuring their preferences, signing up for new/additional services, setting up payment templates and importing file profiles. Specialised interactions require customised channel-specific services like remote deposit capture for cheques, payments through near-field communications (NFC) technologies, text notifications, SMS banking, fingerprint authentication and geolocation-based services and offers which are delivered as "mobile-only" services.

Each of the bank's customers is "unique" by nature, making it important for the bank to establish a stronger customer relationship and higher level of commitment. Predictive analysis, digital marketing and social networking are the major contributors towards top-line growth and create more impressive customer touch points. Banks gain the advantage of a well-integrated customer relationship management system (CRM) by having access to full customer details and thus making a significant difference over customer touch points. In addition, banks can access CRM systems to understand their customers' existing products and services and create an opportunity for marketing any of their new products/services which will be of interest to that customer.

Predictive analysis enables banks to identify potential areas of customer need and thus helps with sales proliferation. For example, a customer clicking on a banking website in search of a product/service will leave digital traces of their interest, which can be capitalised on by the customer relationship managers and marketing sectors. Top-line growth also facilitates cross-selling by understanding past customer behaviour (e.g. purchase history), customer geography and credit status. Banks capture the customer experience and usage metrics through the analytics tools to develop and manage their business and marketing strategies – e.g. the Guardian analytics tool is used to understand the online banking experience and Google analytics is used for the mobile banking experience.

Digital marketing has grown, by itself, as one of the banking channels that makes extensive use of digital media such as social media, the Internet, television and radio. Social media are mostly used for branding and sharing customer experiences (cf. Figure 3). Social networking sites like Twitter, Facebook, LinkedIn and Google+ are used for promoting business opportunities using the customer’s geolocation.

Banks have started to integrate social media into their mobile banking platforms, creating an integrated experience where customers can access their friends list via social media and send payments through their mobile app. Customer service requests, discussions, feedback and complaints are handled through social media which has now become a frequent medium of interaction for banks to build relationships with their customers. However, compliance may play a major role in social media banking which every bank must closely monitor.

Figure 3: Samples from the social media accounts of Barclays

Improve operational processes

Banks are enhancing their global reach and increasingly developing and differentiating their financial services through better customer experience and business models. As customer touch points are overhauled to provide a better experience to customers, it is also becoming equally important to improve the efficiency and effectiveness of the

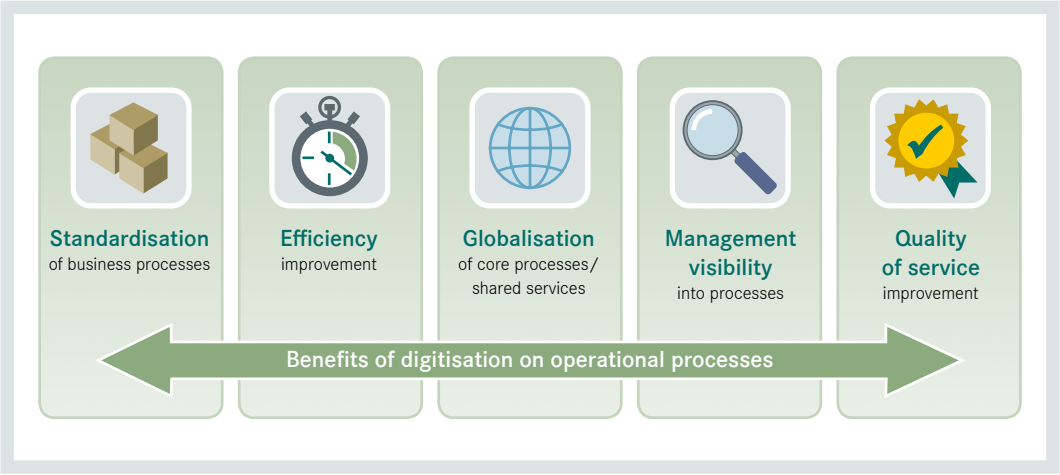

Figure 4: Benefits banks can achieve by digitising their processes

back-end processes. Without robust back-end processes, it will be difficult for banks to consistently deliver value to customers, however transformed their customer touch points are. Hence back office process automation/digitisation plays a key role in this evolving landscape.

Banks typically have between 300 and 500 back office processes to manage and monitor. In addition to processes that support the running of the bank, there are regulatory processes related to Sarbanes Oxley and Know Your Customer (KYC) regulations, and reporting to central banks and other financial bodies that need to be accomplished to ensure compliance.

Banks across the globe are increasingly adopting core banking solutions, business process management software, and Bank in a Box offerings (BiAB) in order to digitise their core business processes.

Through digitisation of their operational processes, banks are able to achieve the benefits depicted in Figure 4.

Transforming business models

The banking industry, as the backbone of the world’s economy, has been rapidly adopting digital solutions to transform the way it does business. Leading banks across all geographies offer digital solutions or channels for close to 70% of all their key services. Almost 90% of all key services have been fully/partially digitised.

Only a very few services dealing with physical assets or multiple intermediaries are yet to be digitised (Figure 5).

What is interesting is that the adoption of digitisation initiatives is more or less uniform across leading banks in most geographies, indicating the degree of interconnectedness between banks and demonstrating how banks across the globe are increasingly collaborating with each other. This also shows how banks are rapidly evolving to address the needs/demands of global citizens.

Figure 5: Typical services offered by a bank & their extent of digitisation

Quality challenges / testing requirements

This section outlines the end-to-end quality challenges that each bank needs to focus on during digital transformation (cf. Figure 6). A robust digital assurance framework addressing these quality challenges is detailed in the next section. Before embarking on a digitisation journey, banks must factor in the quality constraints below and ensure a sound quality assurance strategy that will cater to the very unique challenges in every layer of digitisation.

Back office/operations processes – critical success factors:

- Team with sound knowledge of the domain and the bank's business processes, with the ability to shift left for arresting issues upfront
- Ability to gauge right product fitment; knowledge of core products in the market
- Structured, plug-and-play test repositories and automated test frameworks, for exhaustive testing and early detection of defects
- Simulation of integration touchpoints and thorough testing of all touchpoints to iron out integration weaknesses – technical and process gaps

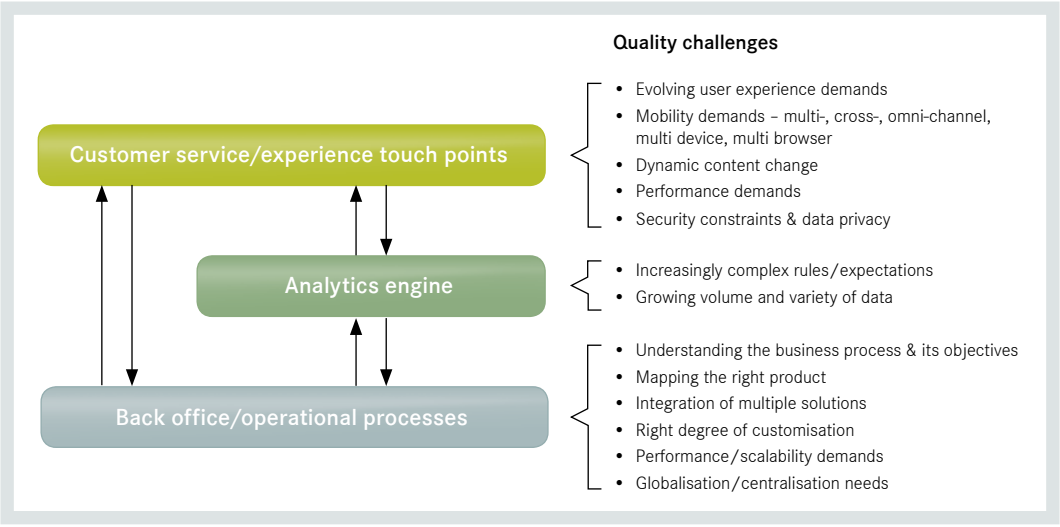

Figure 6: End-to-end quality challenges during digital transformation

- Extensive performance testing with clear mapping of performance demands at all stages of application development lifecycle
- Ability to simulate globalised usage across multiple geographies, time zones backed by geography-specific regulations and compliance needs

Analytics engine – critical success factors:

- Understand the data architecture, volume and nature of data/information handled
- Ability to generate the required volume of data, with real-lifelike data points

Front end/customer experience testing:

- Need for robust tools/frameworks to support multi-, cross- and omni-channel, multi-device, multi-browser testing
- Extended and repeated UI testing by leveraging UI testing tools and frameworks
- Ability to expand to cloud-based testing solutions to handle all the possible channel and device variations
- True understanding of user experience demands and best practices – standardised user experience test methodologies and tools

The digital assurance framework – enhancing the success of the bank's digitisation strategy

A holistic quality assurance framework that addresses all the quality challenges in an end-to-end digitisation initiative is critical to the success of the digitisation program.

The framework needs to be constantly aligned with the efficiency improvement and user experience improvement goals of the digitisation program. The assurance framework should also be extremely agile to cater to shorter development cycles and the need to provide new features, faster.

Figure 7: Digital assurance framework - 8 steps

The 8-step digital assurance framework (cf. Figure 7):

1. Baseline the digitisation program objectives – customer experience/satisfaction, efficiency, globalisation, standardisation and business growth
2. Business process optimisation analysis and mapping – multi-user/system touchpoints, non-value adding/redundant processes, shared service/globalisation opportunities
3. Derive reusable test repositories from the business process maps
4. Automate tests continuously on a robust, easily maintainable and scalable framework – to enable testing across channels, browsers, devices, geographies for the entire testing lifecycle
5. Build advanced data generation and management frameworks that will help simulate all possible business cases
6. Extend automation and data framework to assess the achievement of performance needs
7. Best practice security testing based on existing database of system vulnerabilities and potential threats
8. Implement a standardised usability framework deploying state-of-the art user experience testing tools and methodologies

Benefits of digital assurance framework

This robust assurance framework within banks will augment the success of digitalisation with the following benefits:

1. Ensure the objectives of the digitisation initiative are met continuously, providing 360^0 quality assurance
2. Close alignment between quality assurance layers of the digitisation initiative for better reuse and collaboration
3. Improved quality roll-outs with reduced costs and schedules, due to industrialised test frameworks, methodologies and repositories

Conclusion and outlook

Banks across the globe are rapidly adopting digitisation techniques to help improve customer experience and operational processes, and transform their business model in order to sustain and grow their business. Digitisation is happening at all levels within banks, from the operational/back-office layer to the customer touch points to facilitate holistic improvements and ensure enhanced value for customers.

A sound quality assurance framework that will factor in all quality and security risks, enabled by robust tools, methodologies and frameworks, is imperative to the success of the digitisation initiative. The quality assurance framework must be built on a foundation of clear understanding of the digitisation goals/objectives of the bank and must be able to objectively gauge the extent of achievement of the objectives throughout the transformation process.

The digitisation initiative summarised above is only the tip of the iceberg and banks will be moving forward to leverage digitisation and improve services that have so far only been partially digitised. Banks will also have to play catch-up with other industries such as e-commerce that are rapidly changing the rules of the game and influencing the expectations and demands of the new-age customer.

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