



TCS B&NCS

TCS B&NCS

Research Journal

Volume 2
Issue 3



Scintillate, scintillate asteroid minim

(Twinkle, twinkle little star)

What keeps CXOs of financial institutions awake at night? More than a handful of concerns, apparently. The proliferation of digital channels, emerging technologies, constantly changing slew of regulations, customer retention worries, rising channel conflicts... the list is endless.

At Tata Consultancy Services, we believe the answer lies in one simple word – ‘Uncomplicate’.

We can help you unravel the maze of complexity through a time-tested, market-ready and move-as-you-grow solution, TCS BaNCS—at any time and any place. An award-winning, universal financial services platform for banking, capital markets and insurance organizations, it drives customer growth, reduces Total Cost of Ownership, and enhances new product development. In short, it takes your company on a journey of innovation, notching up higher levels of customer delight. Banks of varying sizes and complexity are using TCS BaNCS and have benefitted from its growth, efficiency and innovation paradigm. Four of the top five securities firms in the world run on its capital markets suite. A leading insurance company processes more than 40,000 policies a day across 1,000+ locations with its insurance products. The solution has enabled the world's most profitable micro-lender to run its business with outstanding reach and profitability. Not surprising, considering that it has surpassed established benchmarks in scalability, processing speeds and customer expectations.

Now, don't you think it is time to uncomplicate?



any place is
a banking place™

Neophyte's serendipity

(Beginner's luck)

Be it a seasoned banking whiz or a business head at any bank—large or small, the pressure to get to grips with the changing times is growing at an ever-increasing pace. To begin with, the challenges posed by multiple delivery channels, disintermediation, dynamic business models, compliance with global and local regulatory changes, among others, are having profound implications on banks today.

At Tata Consultancy Services, we believe that the need of the hour is to 'Uncomplicate'.

To cut through these perplexing and all-encompassing demands with a time-tested, market-ready and move-as-you-grow solution, TCS BaNCS—at any time and any place. With the right mix of interactive, intuitive and instantaneous technologies that deliver flexibility, agility and greater operational control, this universal financial services platform can help your bank drive customer growth, reduce Total Cost of Ownership and enhance new product development—all together. How can we make such a promise? Some of our success stories will tell you how. TCS BaNCS enabled a leading bank in India with a network of over 18,400 branches, 25,000 ATMs and over 261 million customer accounts, with a unified technology platform to create one of the largest homogeneous banking networks in the world. On the other hand, TCS BaNCS re-engineered a Taiwanese Bank with a network of 101 branches to run 24x7 with 99.9% up-time, bringing down its Total Cost of Ownership by a staggering 58%. TCS BaNCS has scored leadership consistently in industry analyst reports.

Now, don't you think it is time to uncomplicate?

FOREWORD

The transaction processing infrastructure landscape is going through a period of great change, with an unencumbered adoption of new technologies, process innovations and a globally distributed work paradigm. Scope boundaries are becoming elastic or non-existent, and risk management has become akin to managing a Rubik's cube with far too many blocks, each controlled by a complex set of factors. Against this backdrop of techno-economic flux, infrastructure service providers and consumers are faced with the burden of existing systems and processes. Legacy systems still abound, and are stretched beyond the limit to cope with the demands of scale, complexity, agility, risk management, regulation/compliance demands and more.

On one hand, the opportunities in emerging markets are being pursued relentlessly by global financial institutions and, on the other, home markets are witnessing:

- Ubiquity of products and services
- Greater mobility of assets
- Power shifting to distributors
- A Loss of control of the customer
- Price and performance transparency
- Availability of simple yet intelligent investment tools to consumers on demand

These challenges faced by institutions are further complicated by slower organic growth and diminishing margins.

So, what's next? Does the back office in Europe and North America still have a future? Is it time for a different approach? Are there even newer ways of doing businesses or processing transactions?

Are there opportunities to decrease proprietary ownership of non-core technologies and look for avenues to leverage or create shared business services in partnership with other banks?

Today, banks are far more willing to acknowledge that there are parts in their organizations that are standard, or at least not very different from what other banks are doing. The financial services industry is borrowing a leaf from other industries (insurance, telecom and power) and moving towards common solutions. There is a clear recognition that differentiation lies in product manufacturing and delivering superior client experience in the front; while, everything else can be considered for 'commonality of purpose', attempting cost mutualization. They are firmly acknowledging that clients will not be willing to accept the cost of inefficiencies and risks as they did prior to the financial crises.

We, at TCS BaNCS, believe that, from trade confirmation through to clearing, settlement, payments, collections and reconciliation, financial industry architects can discover profitable opportunities to transform fixed costs into variable costs. There is an opportunity to reduce and share costs of implementing the myriad of compliance and risk solutions towards, in particular, Dodd Frank, and other key areas such as FATCA, AIFMD, MiFID II and UCITS IV.

Thus, the difference at present is that the impetus to change has escalated to larger firms and encompasses a more comprehensive range of business processes. As the scope of processes increase, larger firms have become more willing to mutualize the cost of transforming those processes in a common manner. This creates a once-in-a-generation opportunity to reshape the structure of the securities industry to the benefit of all of its participants and

stakeholders---through the creation of industry utilities.

Banks also believe now, more than ever in the past, that there is enough maturity in third-party vendors to deliver business services in totality (fully integrated services or utilities) and price them accordingly while the underlying technology is not necessarily a point of discussion. Many institutions have created internally focused shared services in the last decade. For example,

- A reconciliation platform addressing both cash and securities for banks, buy-side and sell-side firms
- A common back-office addressing the needs of custody, global markets, asset management and treasury
- A common transaction processing system for payments supporting various markets, with both high and low value payments being a reality today

Technology and infrastructure are available to support high STP, multi-asset class, multi-timezone and multi-entity capabilities.

What does this new model mean?

A multi-entity utility model will prove to be a transformative opportunity for financial services firms to structurally reduce costs and make them more flexible to market changes via mutualization. Highly scalable, such utility services will be able to connect to multiple clients with the end results being high volume processing and market-leading STP rates. Relying on an industry utility has numerous tangible, direct benefits such as:

- Replacing legacy, firm-specific processes with industry-standard business processes

- Allowing for greater management focus on core business activities instead of non-core data processing
- Sharing of costs involved in the analysis, design and development of industry-standard solutions, with governance and development roadmaps being managed by the industry as a whole
- Sharing of costs on an ongoing basis for regulatory compliance and other “change-the-bank” initiatives for post-trade activities
- Uncovering a greater range of edge cases and potential process failures from the participation of multiple institutions, thus reducing overall operational risk
- Enabling faster and easier compliance with regulators
- Offering the possibility for costs to decline over time in line with industry adoption

All of this requires thoughtful planning. Let us not spend our time in planning to address today’s challenges today but also visualize solutions that will help influence and secure the future.



N Ganapathy Subramaniam

President
TCS Financial Solutions

What does it take to be perceived as a value-adding, trustworthy brand to your customers? What does differentiation mean for your brand today? Consistency in communication and actions is one way of achieving some of this, but above all that, can your brand deliver the right customer experience and engage with customers in a way that inspires them to believe in your purpose and passion? Does it mean enhanced levels of communication and collaboration among all your stakeholders--including technology vendors--to deliver efficient, cost-effective solutions?

This edition of the TCS BaNCS Research Journal brings you opinions and viewpoints on all of these areas—and more.

The anchor to Brand Management in the financial services industry is keeping a close watch on managing reputation and mitigating risks while also building the necessary agility to help your organization navigate change successfully—without any significant setbacks.

At TCS BaNCS we firmly believe that trust is the bedrock of all relationships, and especially in the financial services industry. It can result in increased customer loyalty to the level of brand evangelists who delight in advocating your cause. These customers will inspire meaningful connections for you while you focus on creating the right experience for them, ultimately translating into a common purpose, passion and profits.

Happy Reading!



Anjana Srikanth

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CCPs and CSDs – Working in Tandem

The arrival of CCPs or Central Counterparty Clearing organizations as the primary solution to manage risk in the post financial crisis world is changing global markets, replacing bilateral counterparty risk with net exposure to the CCP. Under this centrally cleared model, the integrity of the CCP becomes critical in modern market infrastructure.

Regulators have also been busy ensuring that these infrastructures are robust and managing risk well. Dodd Frank in the USA, EMIR and CSDR in Europe and the new CPSS-IOSCO requirements are putting forth challenges and opportunities in the post-trade industry, particularly on CCPs and CSDs (Central Securities Depositories). CCPs have either been introduced or commissioned to play an enhanced role as mandatory risk managers in both exchange and OTC markets, thereby having an impact on CSDs, too.

CSD12, the bi-annual CSD conference that took place in St Petersburg, Russia, recently brought together all leading CSDs with the objective of bringing the community

together while also serving as a platform to exchange ideas. Operating at an increased level of maturity since it began many years ago and with very high participation at the CxO level, this conference proved to be collaborative, informative and educative in many ways. We spoke to R Vivekanand, Vice-President, TCS, who attended the event as a panelist for the session on ‘The impact of the introduction of CCPs’ to gain an understanding of what transpired in the debate that he was part of, and his opinions about the trends shaping the CCP and CSD market today.

The fact that CCPs are gaining high visibility across the globe has caused some stirring up in that their impact is both upstream and downstream. Them sitting in the middle of the exchanges and the depositories as guarantors fulfilling monetary obligations, facilitating risk management, and more, importantly, ensuring that there is simultaneous delivery versus payment, gives them a critical function to play in the creation and preservation of global wealth today.

Post the financial meltdown and, especially, after the enforcement of Dodd Frank in the USA, there has been a mandate to clear all OTC transactions through a CCP, especially in the Western hemisphere. This was one of the key points of discussion in the panel. A CCP’s risk management capabilities for mitigating and managing counterparty risk are essential contributions to the safety of the global financial marketplace. Each market participant only needs to be concerned with

The fact that CCPs are gaining high visibility across the globe has caused some stirring up in that their impact is both upstream and downstream.



Most markets may clear less than 10000 trades. As markets grow, the CCP can then invest in its own IT infrastructure.

the counterparty risk of the CCP now. This reduction in the complexity of counterparty relations significantly reduces costs for those involved. By specifying the requirements for clearing members' margining and collateral, CCPs are able to reduce the risk of a defaulting member affecting others. While this may be seen by some as an unwieldy concentration of risk, it is also a way to reduce points of failure.

Vivek's opinion was that before looking at the impact of CCPs on the OTC market, it was important to take a step back and view the development of CCPs across all markets worldwide, including exchange traded cash markets. In most emerging markets, many exchange transactions are not being cleared by a CCP yet--a case in point being the Middle East, Africa and LATAM. The critical point to note is that CCPs need to be introduced into the exchange markets (equity and fixed income, cash and futures / options) in these countries first and the accompanying regulations needed to govern them be looked at. The risk in these traditional markets needs to be brought down and managed given that OTC transactions are not high in these markets. For the audience in the room, this aspect was more relevant.

In that sense, the relevance of CCPs for OTC transactions makes sense at this time only in markets that already have them for exchange transactions.

Once set up and in place, there is a need to review margin amounts being placed, the risk algorithms, and their legal ramifications. In New Zealand, where TCS BaNCS has been deployed at the clearing company that was part of the New Zealand exchange, the formation of this new unit required well-thought out legislative measures that made sure that risks were more efficiently managed. Similar was the case in Dubai where TCS BaNCS is used in the only CCP in the Middle East. The introduction of CCPs in emerging markets will have to follow a similar route. Therefore, to answer the question put forth about the impact of CCPs on OTC markets, it is clear that the countries where CCPs are playing a significant role in conventional markets require separate treatment from those where there are no CCPs at all. Different strategies to manage CCPs in these two kinds of markets are clearly the answer.

The panel also discussed the need to outsource functions to a CCP abroad. Naturally, in the light of what was discussed earlier, outsourcing of CCP responsibilities would be placing the cart before the horse. Vivek felt that most markets can glean best practices from CCPs established internationally and create partnerships with them to take advantage of best practices and processes. This is a more practical approach than to outsource the entire Clearing and Risk function given the sensitivity and national pride associated with Market Infrastructures in most countries.

What can be outsourced, Vivek thinks, is the IT infrastructure of the CCP as it makes financial and business sense for a newly formed CCP to share its data centers, disaster recovery management with an established organization like the CSD in their own



country. Most markets may clear less than 10000 trades. As markets grow, the CCP can then invest in its own IT infrastructure.

This is where the CSDs come in. They can play a significant role in the form of a guide and provide the IT infrastructure for CCPs. They can connect to multiple CCPs and be interoperable across markets and regions, thereby fostering competition and cross-border trade. Interoperability of CCPs leads to CSDs taking transactions for settlement from multiple CCPs, and will also help standardize the messaging of CCPs to protocols like FIXML and FpML. The CSD-driven settlement arena is much more standardized today since the introduction of ISO 15022 in clearing.

While a CCP effectively mitigates and manages counterparty risk, it also consolidates counterparty risk within the derivatives market at a single point. Regulators need to ensure that effective supervision and crisis management mechanisms continue to be in place for CCPs. Positions held in a depository even for a single day can determine the creation or erosion of a nation's wealth and image.

CCPs can also start competing based on their approach to risk management, thereby

leading to derivatives markets running the risk of regulatory arbitrage. Therefore it is imperative for a level playing field among CCPs to avoid negative effects on their integrity due to competition, which can at times be a counter force on Market Infrastructures. As CCPs are a safety net, their independence must be guaranteed to avoid conflict of interests.

The panel concluded that the introduction of CCPs is definitely not a threat to CSDs. It is, on the other hand, an opportunity for CSDs to play the mentor role in their markets, bring down IT costs, and be an agent in creating an environment for investment, high liquidity and lower risk.



R Vivekanand

Vice-President
Tata Consultancy Services

Commercial Banking Top 10 for 2013

Executive Summary

The key business dynamics driving technology priorities in 2013 for commercial banking institutions reflect the convergence of pressures encompassing the past, present, and future of banking. Carrying over from 2012 is the economic uncertainty, most specifically in developed economies, as well as the ongoing pressure for revenues and margins in the face of increased competition, lower interest spreads, and underwhelming — albeit improving results — from consumer businesses. This has led commercial banking executives to identify long-term efficiencies and new sources of revenue. In this most scrutinized global industry, the regulatory focus is a prime driver. Lack of compliance with past legislation caused substantial financial and reputational damage to a number of institutions during 2012. The sheer volume of financial legislative and rulemaking initiatives across the globe, reaching an apex in 2013 and 2014, is causing the need to re-address and improve the enterprise approach to managing regulations. The rapid development of technology is presenting both opportunity and challenge. Institutions must determine how to best capitalize on big data capabilities, flexible architecture, and next generation delivery models, all of which provide opportunities for either increased revenue or cost efficiency. The balance must be weighed against operational risk, regulatory pressure for transparency and deployment costs in transforming the enterprise.

This year's top 10 technology initiatives reflect three broad themes: 1. the increased importance of data management; 2. the need to take a more enterprise approach to risk management; and 3. a more critical

role for technology to enable new business opportunities. Effective data management underpins the ability to provide the “activity dashboards” that business partners are requesting as well as the ability to take advantage of the latest business intelligence (BI) tools. Improving enterprise risk management is mandatory in order to comply with the latest wave of new regulations and to effectively combat increasingly sophisticated financial crimes. Finally, there a number of emerging business opportunities, such as supply chain finance solutions and the automation of commercial onboarding, which depend on technology solutions. All of these initiatives require a more flexible IT infrastructure that is designed around meeting customer and market needs.

Essential Initiatives

The following section summarizes each of the initiatives identified by CEB TowerGroup commercial banking as the most important in 2013.

Effective data management underpins the ability to provide the “activity dashboards” that business partners are requesting as well as the ability to take advantage of the latest business intelligence (BI) tools.



Exhibit 1

Commercial Banking Business, Strategic and Technology Priorities for 2013

Technology Initiatives

Improve access to account information	Monetize BI capabilities in commercial banking	Adopt an enterprise approach to infrastructure	Support the use of next-generation delivery models	Develop vendor management risk assessment capabilities
Create capabilities for managing new regulations	Improve sanction screening and anti-money laundering capabilities	Automate commercial onboarding	Improve commercial loan monitoring capabilities	Enhance trade servicing capabilities

Initiative 1: Improve Access to Account Information

Information is the lifeblood of organizations today, and access to actionable information regarding payment flows, account balances and loan positions is essential to corporations striving to effectively manage their balance sheets. The challenge has long been one of accessing and aggregating this information in a way that is both easy to understand and relevant to the corporate client. Increasingly, the use of custom reporting capabilities has become table stakes as corporate customers expect to emulate the experience and tools available in personal banking. Making these dashboards available across channels and devices, including mobile and tablets, extends the value of the offering because corporates can access and act on the information from wherever they are.

Initiative 2: Monetize BI Capabilities in Commercial Banking

Investment in business intelligence continues to be a priority for commercial

banking executives. We hear terms like big data and analytics, but to date there has been greater success leveraging data in the retail banking business due to the less complicated nature of individual client information versus commercial customers. Only in the past couple of years have commercial banks started to recognize the potential value of the information that exists within the institution across operations, transaction information, client instructions, and growing social media sources. The key is determining how to use this information to solidify relationships, increase revenues, save money, and comply with regulations. The journey begins with four basic steps: consolidate and normalize customer information, determine what commercial clients want and need, extract information from common customer interactions, and integrate what you learned back into the process for continuous improvement. The following chart illustrates the value contained in both of these initiatives.



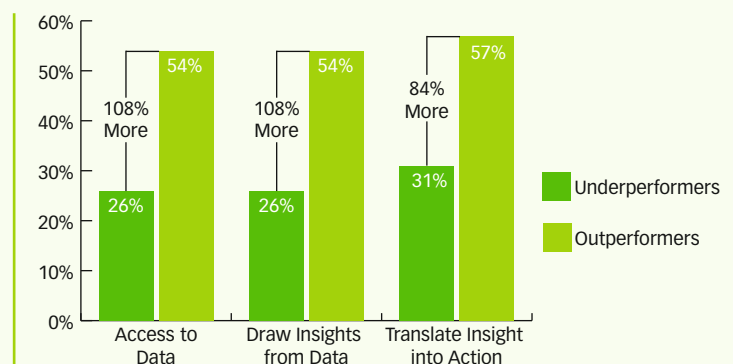
Exhibit 2

Leading Organizations use Business Intelligence more Effectively

CEOs Across Five Major Sectors - 22% Financial Services

CEOs at the more successful enterprises have better access to data and more easily transit the information into business value.

- Outperformers are twice as likely to have strong utilization of enterprise data than underperforming peers.
- The Implication is that better use of data will lead to enhanced business result.



Source: IBM Global CEO Study, Leading Through Connections, 2012

Initiative 3: Adopt an Enterprise Approach to Infrastructure

Speed, agility, and resilience are the stated goals of efficient commercial banking systems. Achievement of these is often constrained by architectural approaches that yield complex, siloed organizations. Forward-thinking organizations are reworking

these architectures to obtain an enterprise approach to their businesses where services are delivered horizontally and infrastructure is created to serve the need of the business, not the product. This approach leverages open standards to shorten development time and cost while allowing increased straight-through processing across the organization.



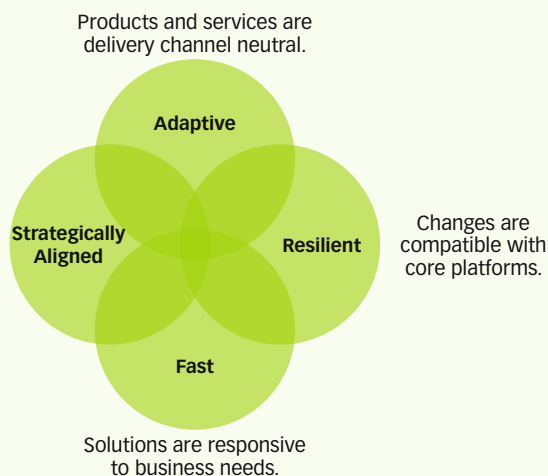
Exhibit 3

Next Generation Commercial Banking Requires A Flexible Infrastructure

The Four Components of a Flexible Technology Infrastructure

The goal of a flexible technology infrastructure is to support client demand today, roadmap for tomorrow, and enable the future of commercial banking.

Investments are consistent with the commercial technology roadmap



Source: CEB TowerGroup Commercial Banking

Initiative 4: Support the Use of Next-Generation Delivery Models

Cloud promotes the movement to real-time transactions as long as all vendors and the bank are participating and providing service in a cloud infrastructure. Cloud computing options are expanding and banks will need to determine whether to compete with cloud-based services or to integrate

and orchestrate them. Real-time transaction management defies legacy platform limitations, begging the need for more flexible and modern approaches. By 2015 banks will be spending more than 6% of their IT budget on cloud services with public and hybrid clouds overtaking the investment in private clouds. In-house IT departments will need to become the conductor of a multi-faceted delivery ecosystem.

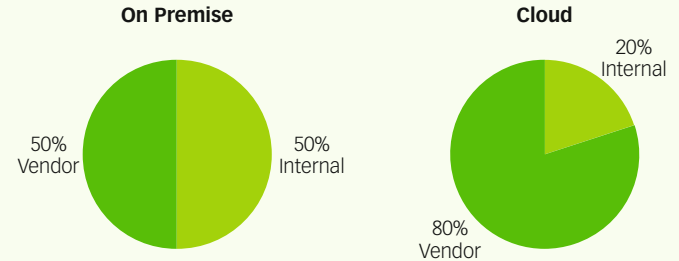
Exhibit 4

Moving Spend Outside

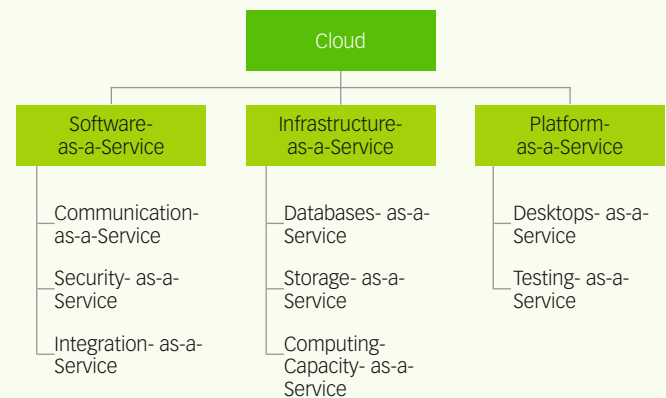
Estimated Vendor Share of Total Lifetime Spend¹ on an Application

The economics of cloud significantly increase the percentage of spend that is externalized

- This is a trend that will be compounded as cloud services expands deeper into applications and infrastructure.
- Internal roles will begin to shift from providers to brokers.



Potential Expansion of Cloud Services



¹ Includes all costs for licensing, implementation, maintenance, support, and operations.

Initiative 5: Develop Vendor Management Risk Assessment Capabilities

FSIs continue to increase their dependence on and collaboration with technology vendors. Factors driving this include an inability to keep pace with rapidly changing technology, ever evolving client expectations, and cost constraints imposed on the organization. This trend, in conjunction with the increased regulatory scrutiny, requires new and more effective approaches to managing vendor relationships. Going forward we foresee FSIs moving away from traditional linear vendor governance model often managed at the line of business and individual product level, and towards an emerging model that includes re-thinking the criteria by which partners are evaluated across the business and evolving over time. In this new model governance becomes an ongoing process that changes as the business changes.

Going forward we foresee FSIs moving away from traditional linear vendor governance model often managed at the line of business and individual product level, and towards an emerging model that includes re-thinking the criteria by which partners are evaluated across the business and evolving over time.



Exhibit 5

Govern and Manage Vendors					
Fine-tune vendor governance mechanisms to suit the type of sourcing model, contractual terms, and strategic importance of vendor relationships.	Purpose	Process	Timeline	Action	Tactics
	Gain competitive advantage through effective vendor management.	Implement a governance framework to establish the metrics, assess performance, and take remedial actions to extract full value.	Ongoing	Segment vendors.	Value-Based Vendor Segmentation
					Risk-Based Vendor Segmentation
					Vendor Classification
				Tailor sourcing relationships.	Three-Dimensional Segmentation
					Targeted Supplier Management
				Measure vendor performance.	Vendor Scorecard
	Institute processes to improve vendor performance.				Closed-Loop Performance Improvement Event-Free Collaboration
	Manage multisourcing environment.				Flexible Internal Market

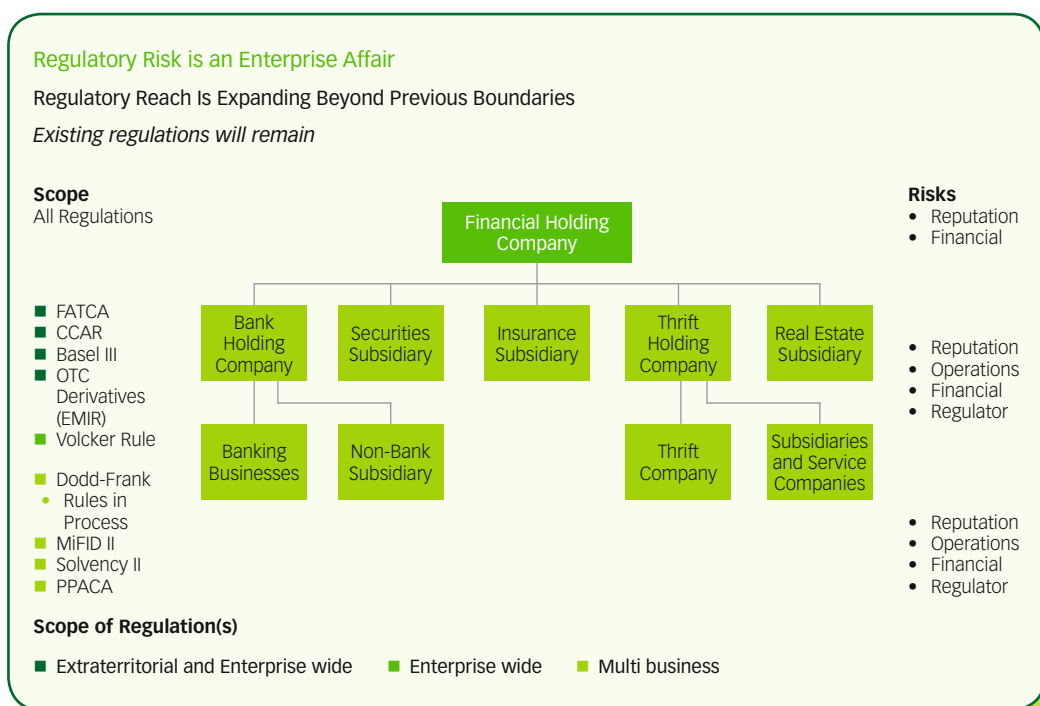
Initiative 6: Create Capabilities for Managing New Regulations

Global rules and regulations require an enterprise approach to managing risk and compliance. FSI's have adapted as necessary to the ever increasing volumes of legislation since Gramm-Leach-Bliley (1999), EU Directives, and developing markets regulatory advancement. In the 2000's, risk and compliance software have become more

commonplace among commercial banking entities, but enterprise management to match the regulatory complexities has not kept pace. CEB TowerGroup believes that the holding company and universal banking approach of the current day with more intra-company regulatory implications, requires a systemic movement that mirrors the operational or structural movement towards formal, centralized risk management offices.



Exhibit 6



Initiative 7: Improve Sanction Screening and Anti-Money Laundering Capabilities

2013 was a banner year for fines in the sanction screening and anti-money laundering space with over US\$3 billion being assessed against just three financial services institutions for failing to prevent sanctioned groups from moving funds. The growing complexity and

globalization of commercial banks, along with heightened regulatory scrutiny, demands that financial services institutions safeguard their businesses against illicit activities that can include terrorist financing and tax evasion. Failure to do so can result in massive fines, long-term decreases in shareholder value, and extended oversight from enforcement bodies.



Exhibit 7

Eye-Watering Penalties for Inadequate AML Controls

High-Profile Sanctions and Anti-Money Laundering Compliance Breaches

When a common governance framework is not evenly enforced in the enterprise, a self-interested subsidiary could pursue actions that result in serious consequences for the group.

- The cost of noncompliance extends far beyond monetary fines when the cost of upgraded compliance programs, hits to market cap, and damage to institutional reputations are taken into account.

	Jun-12	Aug-12	Ongoing
Institution	ING Bank NV	Standard Chartered	HSBC
Citation	Conducting more than 20,000 financial transactions for sanctioned Cuban and Iranian entities via an offshore branch	Scheming to hide more than 60,000 financial transactions for Iranian clients	Enabling transactions for Mexican drug cartels and Iranian entities
Size of Fine	\$619 million	\$670 million	\$1.92 billion
Assessed by	US Department of Justice	NY Department of Financial Services	Federal Regulators and US Department of Treasury
Reason for Enforcement	Stripping information of transaction totaling more than \$2 billion	Stripping information of transaction totaling more than \$250 billion	Ineffective anti-money laundering controls from 2004-2010
Remediation Path	Conduct "appropriate risk-focused sampling of US dollar payments"; submit report to Treasury Dept.	Install an on-site monitor who will directly report to state officials for 2 years	To be determined

Case in Point: Standard Chartered's Existential Crisis

Aug. 6, 2012	Aug. 7, 2012	Aug. 14, 2012	Dec. 6, 2012
NY accuses Standard Chartered of sanctions violation; market cap falls 6%.	NY threatens to revoke Standard Chartered's US dollar clearing license; market cap falls a further 16%, totaling £8 billion.	Standard Chartered quickly settles, agrees to \$340 million fine to the NYDFS and install monitors.	Standard Chartered agrees to pay an additional \$330 million to settle all investigations with other US regulators.

Initiative 8: Automate Commercial Onboarding

A number of studies in recent years have consistently identified the need for commercial banking entities to make their clients' lives easier. The most immediate and potentially impactful point for improved client experience through the lifecycle is in onboarding process. Within this set

of activities a bank has the opportunity to provide an exceptional first customer impression as well as increase the revenue generation cycle time. This can be accomplished through use of BPM (Business Process Management) in a thorough study of existing processes, implementing an automated workflow engine and integrating peripheral systems into a consistent, repeatable experience.



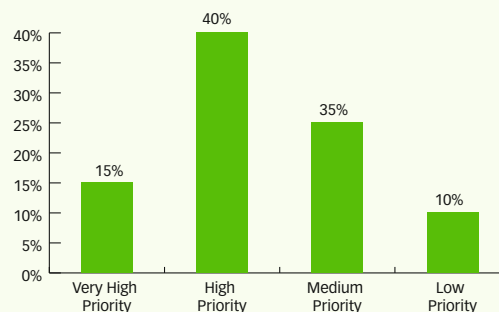
Exhibit 8

Systems Automation in Client and Product Onboarding has Management's Attention

Describe your company's priority level for an automated onboarding technology initiative

About 60% of the FIs place a high or very high priority on the automation initiative

- Only 10% of responders place a low level of priority in the effort to automate the onboarding process.



- **Very high priority:** My company has an automated process and will continue to maintain it with incremental improvements.
- **High priority:** My company has an active automated onboarding technology initiative underway.
- **Medium priority:** My company is planning to adopt an automated onboarding initiative at some time in the next 18 months.
- **Low priority:** My company is not currently planning for an automated onboarding initiative.

n=24

Initiative 9: Improve Commercial Loan Monitoring Capabilities

The past financial crisis made it clear that ongoing monitoring and reporting of loan portfolio health can be just as important as proper underwriting criteria when markets start to turn. Because of this, commercial

lenders continue to make a concerted effort to improve their ability to monitor loans across the full lifecycle of the obligation. Greater visibility into these portfolios can highlight potential changes to watch and adjust to, and new opportunities to seize, at a national, regional, or product level.



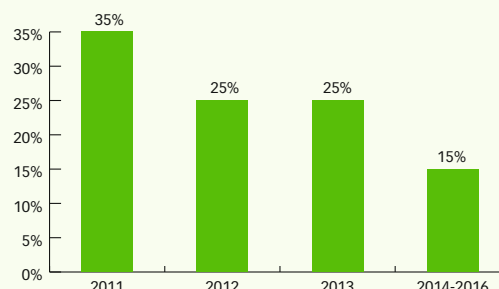
Exhibit 9

Strategically Replacing Loan Monitoring Systems

Expected Years for Replacement of Loan Monitoring Technology
Percentage of respondents, 2012

Forty percent of banks will replace their commercial loan monitoring systems by 2016.

- There is still significant opportunity to position technology over the next couple of years, however, many reported they would like to have this completed by 2013.
- Many financial institutions responded to the tightening credit policies within lending with new monitoring technology.



n=24

Source: CEB TowerGroup, Technology Survey 2011

Initiative 10: Enhance Trade Servicing Capabilities

Despite a difficult 2012, it is clear that world trade will continue to underpin business growth, outpacing GDP gains through 2030. Emerging economies will drive this, with an increasingly important role for smaller countries registering as potential trading nations; ambitious countries brimming with entrepreneurial ambitions and

confident businesses seeking opportunities to grow. Within trade services the two areas of concentration are traditional trade and open account. With the increase in open account trade, and the always expanding electronic processing ecosystem, the demand for easier financial supply chain solutions across the globe is apparent, and we believe should be a high priority for institutions, not just the largest institutions.



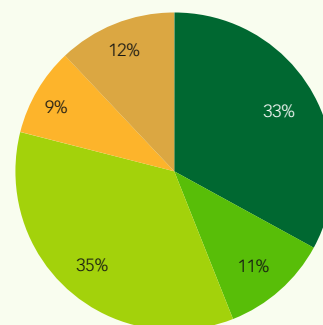
Exhibit 10

Demand Is High for Supply Chain Solutions

Do You See Demand for Supply Chain Finance Services (SCF) from Your Corporate Customers?

Eighty-eight percent of surveyed banks responded that their corporate clients are demanding SCF solutions.

- Seventy-seven percent of respondents were from Europe and Asia Pacific.
- Most banks do not have standardized offers for their clients, creating an opportunity for improved services and additional revenue.
- There is a particularly strong demand in APAC due to the large intra-regional trade growth and increasing size of companies seeking to expand.



- Yes — and we have standard solutions
- Yes — and we respond with tailor-made solutions but not standard offers
- Yes — and we would like to offer them more than we have
- Yes — and we are about to roll out new solutions
- No — our corporate customers are not demanding supply chain solutions

n = 105

Source: Finextra, Global Transaction Banking Survey 2012

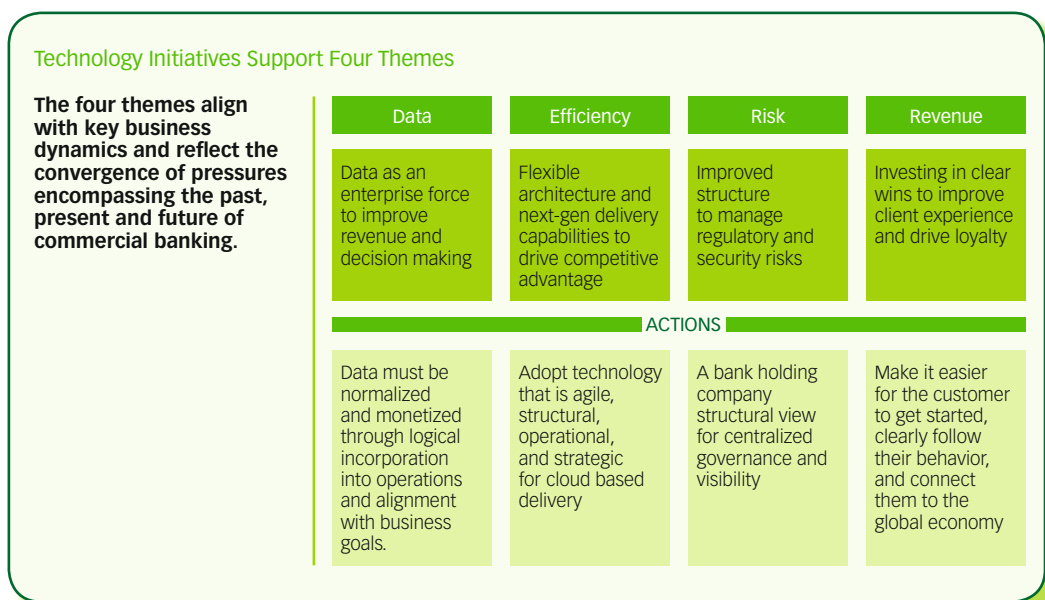
Conclusions

The top initiatives in commercial banking for 2013 essentially support four themes: data, efficiency, risk, and revenue (see Exhibit 11).

These themes align with key business dynamics and reflect the convergence of pressures encompassing the past, present, and future of commercial banking.



Exhibit 11



CEB TowerGroup recommends that financial institutions use their information architecture to further the needs of the enterprise through operational and client intelligence. They should be improving the customer experience by making it easier to gain access to information and services. FIs should also assess their regulatory preparedness, and use strong compliance capabilities to differentiate themselves from their peers. The technology companies who service the industry should help enable financial institutions to develop truly enterprise views of their businesses to increase revenue, reduce cost, and better manage risk.

The content of this report is the product of CEB TowerGroup and is based on independent, unbiased research not tied to any vendor product or solution. Although every effort has been taken

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Determining Risks within Asset Services Processing

Risks are an inherent part of life. They cannot be eliminated but can be significantly reduced. More importantly, if clearly identified and recognized, risks can be mitigated to a great extent.

Risk has always been an area of concern in the Asset Servicing arena. While standardization of messaging, user interfaces for direct entry and general improvements to STP rates has seen risks decline, they continue to exist.

A lot of operational risk effort and attention has been focused on the clearing and settlement process, where risk can be identified and measured easily. Further, the emphasis has been on recording and monitoring stock and cash breaks. As these events have already occurred, this is more a task of risk / error reporting rather than actual prevention management, unless an extensive root cause analysis is undertaken and patterns are identified. So, it would appear that Asset Servicing is falling behind other operational processes in this respect.

How is Risk Considered in an Asset Servicing Process?

At the highest level, this is essentially not doing something within the given time constraints, or not doing it correctly, or not following up on something. However, this sounds too simplistic. Let's consider some of the more common elements where risk or actual loss occurs:

- Missing an event
- Having the incorrect details or dates within an event
- Misunderstanding or misinterpreting the event details

- Incomplete eligible position calculation
- Un-reconciled eligible or entitlement position
- Not considering a linked or associated instrument
- Option mismatching across multiple vendors, custodians and counterparts
- Poor, unclear, incomplete or missed communication /notification
- Not making the out turn/correction bookings correctly or in a timely manner
- Erroneously processing election instructions, or missing them completely
- Processing the wrong out turn shape, or missing elements of it
- Incomplete or missing documentation
- Incomplete claim or tax claims management

What does it take to Address these Risks?

Data vendors have increased their market and instrument coverage over the years, which along with data matching and comparison services have helped to create a Golden Record of events. With improved static data of instruments for coupon schedules, it has meant that events shouldn't be missed and the data within them is correct.

Couple this with improved messaging, the use of ISO 15022 and 20022 standards, and the move away from proprietary feeds and overall market standardization, the risk of misinterpretation reduces.

Position keeping has vastly improved, with a single Stock Record now commonplace, and instrument static data



Standardization of messaging has removed the errors within a message and increasing automation within the recipient has allowed for better “reading” of the message.

linked to ISIN (International Securities Identification Number) numbers for multi-listed securities and derivatives that are linked to underlying equities, allowing for improved position management. Greater transparency, central counterparties and clearing agents and third-party claims matching vendors have led to a reduction in the number of claims required, and have improved the closure/settlement times of open claims.

Standardization of messaging has removed the errors within a message and increasing automation within the recipient has allowed for better “reading” of the message. Where this automation extends to instruction and election, risk has been alleviated from the operations area, and correct instruction creation occurs at source. Automation of entitlement bookings has led to a reduction in the delays incurred from when it was manually done. Overnight batches and live adjustments now ensure that the correct position is shown at the right time.

Is this Really all the Fault of Asset Servicing Processing, or are there Mitigating Circumstances?

The simple answer is no. The better the preparation, the easier and the better the end result will be. So, by undertaking pre-work for any event, the risk and the impact of that risk could be minimized. What needs to be done as part of this pre-work is to:

- Ensure all trades and positions are booked correctly and on time to reflect the correct eligibility
- Ensure all position breaks are rectified before the effective / eligible date of the event
- Minimize the number of failed trades on the affected security
- Wherever possible, return all open borrows and recall all open loans and, if applicable, replace any collateral given or taken
- Restrict the ability to cancel or amend settled trades post the effective / eligible date
- Ensure that static data records are up to date, with custodian / client / counterpart information, including contact, SSI and payment details

Are there any Specific Risks Related to Asset Servicing?

The points previously mentioned are considerations that are made outside the Asset Servicing area and will reduce risk on position eligibility calculation, event communication and entitlement delivery, and as the number of component parts within the eligible position is reduced, the risk is reduced across the event.

So let's assume these actions have been taken. What are the other key elements of risk to be considered?

- Continual improvement in STP and exception management will continue to reduce it, along with an increase in checking and workflow processing
- Incorrect event or option interpretation - this is as a result of conflicting information or erroneous manual intervention
- Human errors, on either distribution of event information, or typing errors of a manually received election
- Missing a deadline for election
- Missing or incomplete documentation, for tax or other entitlement



If these risks can't ever be eliminated, should there be more focus on the higher risk items rather than the lower risk ones?

What Happens if these Risks Materialize and an Error in Processing Occurs - What is the Actual Impact?

In the worst case scenario, it's an actual loss, and not just a P&L impact, which carries capital and other regulatory reporting issues as well as monetary and reputational.

Even if it's not an actual loss and, instead, the error realizes a profit, despite there being no monetary loss, there is still a capital / regulatory / reporting issue.

Further, there is a loss of confidence with the client, as the operations unit would be seen in a bad light, which could result in client dissatisfaction. There could be similar issues with counterparties and with confidence and reputation in the market.

Do all Asset Servicing Processes Carry the same Risks?

No. On the face of it, a voluntary event would be considered a greater risk and, to date, this is where the focus has been. The points made previously around elections and option interpretation are unique to voluntary events, but a mandatory event also carries

risk, especially, if not booked correctly and the client trades off an incorrect position because an entitlement booking wasn't made or was made incorrectly, such as a wrong quantity or security.

Further, restrictions on an event may prevent a client from participating, and if this was not considered during processing, the likely error would result in the cost of backing out of the event, and a reconstruction to the original position. Cash claims still need to be tightly managed, with most of these arising from income events. A counterparty who is a debtor who goes into default with outstanding claim obligations could result in loss, making counterparty risk key.

The 80:20 rule must be considered here, and it's fair to say, that 80% of all events will lead to 20% of the risk, though more importantly, the converse is more worrying, in that 20% of all events will lead to 80% of the risks. However, this does allow for focus on--and different treatment of--events in various conditions, which allows for better risk management of the Asset Service process.

So what's the Answer? How can Risk be Managed and Continually Reduced?

We are saying that all events should not be given the same consideration, and that



different events will pose risks at different times during the event lifecycle.

Therefore, a processor needs to give preference or priority to the more risky events or processes than to others, and perhaps the more experienced processor be given the more risky processes.

The best approach is to maximize STP processing as much as possible, and move to a processing by exceptions approach, within a work flow process, thus only touching when needing or addressing when instructed, directed or steered to do so.

There is another consideration of being able to determine which exception should be addressed first. After all, aren't all exception items equal? How can this be determined? If the user does so, then the risk would be based on their judgment and decision to favor one over another. So, how can the user determine which one of these to address first?

There are two factors to consider here:

1. Evaluating the time by which the exception needs to be completed.
As each exception is raised within a pre-defined lifecycle process, each one of them have a completion by date and time, and depending on the workflow, as in what stage or step comes next, it could be minutes away or days away. As such, the exception item with the lesser time for completion should be considered

to be of higher priority, and offer the greater risk if not completed

2. However, what happens if there is more than one exception with the same time for completion? Which one should be addressed first? The one with the highest risk associated, of course

By combining the two factors (and the order of the two can be reversed), the processor clearly knows which one has the highest risk and what needs to be addressed first. The processor needs a way to have a Risk Rating automatically assigned to each event and for this Risk Rating to be applied to the

The best approach is to maximize STP processing as much as possible, and move to a processing by exceptions approach, within a work flow process, thus only touching when needing or addressing when instructed, directed or steered to do so.



exception items created during that events lifecycle. Though thought must be given to the Risk Rating changing from the outset of an event, and during its lifecycle and as it reaches the key stages, as this will affect the risk of the exception item as well.

How can a Risk Rating be Applied?

Various factors are measured within an event and the value recorded is given a weighting. As the event evolves, more factors are measured, which along with their respective weighting can cause the Risk Rating to change.

From the announcement of an event, the Risk Rating is calculated using the factors of Event Type, Security / Market Listing and the Number of Options. So, for example, a cash dividend will have lower rating than a rights subscription, but perhaps a dividend option with four currency choices may have the highest risk rating of them all.

The second Risk Rating calculation occurs when the Eligible Positions are identified, and here the position types, the number of positions by type and certain special accounts or clients within the position types are considered. So, rights subscription previously considered as a high-risk event may now not be regarded as such because there is only one client holding the rights.

As the eligible position can change during the event lifecycle, with holders selling their entitlement and liable parties covering their liability, the Risk Rating can change. With

the rights subscription example, there may be a series of short selling, which could raise the Risk Rating again. The third consideration would be the price or value of the out turn offering as compared to the underlying affected security, as in how much is the option worth as compared to the current holding. Fourthly, for an elective event, further away the deadline, the further away and lower the Risk Rating.

However, when considered together for calculation, how far away the deadline is and how many accounts are uninstructed and how much is that uninstructed position worth, results in real risk being measured and applied to the event and any exception items associated with that event allowing the processor to see which risk takes priority over another. Consideration could also be given if the position was un-reconciled and the value of the reconciliation break or the number of certain special clients or the number of processing staff available was known. If the data is available, it can then be factored into the Risk Rating.

And how does this Reflect in Day-to-Day Processing?

By considering the Risk Rating given to an event and any of the exception items, the risk associated with a certain process can be determined and processed by the right person within the right time and given the correct priority. Here we considered exception items, but authorizations and other work items will carry the same Risk Rating and also have a certain time for completion, resulting in them being sorted and allocated by their own risks. The aim is to ensure that the most risky processing is automated first and brought to the attention of the user.



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Program Management for Large IT Transformation Projects

Program Management for large IT transformation Programs is completely different from that of small or medium-sized projects. It typically involves significant efforts, resulting in the delivery of software components, infrastructure elements, and changes in organizational structure, and new or changed business model/processes. Large IT transformation programs were undertaken with multi-sourcing methodologies over the last few years, which included a 'full services' play, with various components being provided by a number of organizations or different units of the same organization.

Large programs due to the sheer magnitude of the size of the code, longer implementation timeframes, and complexity of integration landscapes, pose an enormous execution challenge. A large program normally constitutes smaller projects with success criteria applicable for each of these projects such as schedules, on-budget, and within quality boundaries becoming difficult to predict. The law of averages cannot be applied here based on the parameters of underlying projects.

The capability to undertake large transformation programs are fairly limited due to non-availability of large pools of such skill sets and the risk adverse nature of institutions as a result of a significant number of failed initiatives.

A number of studies have been conducted in the recent past to analyze success/failure rates of projects. One such study conducted by McKinsey & Company in conjunction with the University of Oxford surveyed 5,400

large IT programs in 2012, and it concluded that problems associated with IT Project Management still exist. The key findings from the report are as follows:

- 17 percent of large IT projects face overruns and they can jeopardize the very survival of the company
- On an average, large IT projects run 45 percent over budget with a 7 percent schedule over run, while delivering only 44 percent of benefits originally envisaged

Another survey conducted by KPMG in 2010 on Project Management in New Zealand demonstrated that:

- 70 % of respondents had one project failure in the last 12 months
- 50% indicated that they failed to achieve their original objectives
- 68% of surveyed projects did not have an executive sponsor to provide direction or manage escalations
- Two thirds of the surveyed did not prepare business cases
- Projects performed badly in at least one of the areas – schedule and budget overrun and inability to achieve stated deliverables.

Large IT initiatives typically involve more than one project and the known principles of project management cannot be applied in a straight forward manner. When large programs fail, there are multitudes of reasons, and it is extremely difficult to pinpoint one or two reasons. However, when we look at the



above studies, the Program Management for such initiatives clearly becomes a priority and needs to be looked at closely. We will explore in detail in the subsequent sections, some of the common themes that emerge from the above studies.

Structured Program Governance

A project team will deliver results if the “Right Program Governance” is put in place right from the beginning. It is extremely important to define Structured Program Governance with the right level of participation from IT and Business. Any program which goes ahead with the delivery of a project without knowing the business strategy/intent will never be able to judge the measure of success vi-a-vis the objectives.

One particular bank, when implementing a large IT transformation program which was expected to replace its six business platforms with a single platform, alongside an enterprise-wide data warehouse, end-customer channel, and replacement of a pre-existing, outdated financial accounting package with an in-house solution, created a rigorous program governance structure. The success of the program lay in delivering all of the above four components at the same

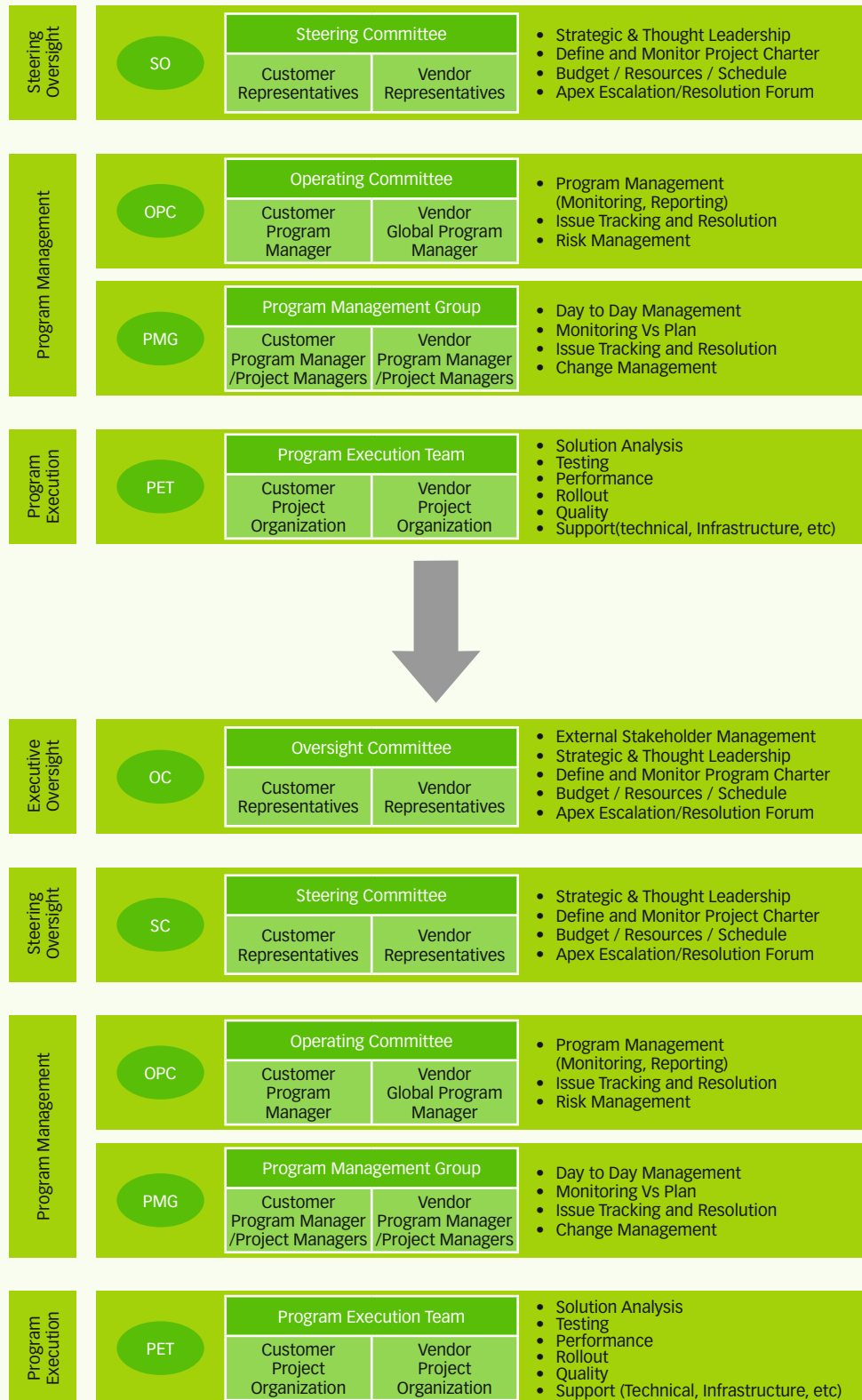
time. However, the program governance was headed by the business/product team with no participation from business operations and IT. The data warehouse, end-customer channel and financial accounting pieces were separate initiatives and not represented in the program governance. The team spent more than a year-and-a half on analysis, requirements were defined, and the vendor team worked to deliver the business solution as per plan. Steering Committee meetings were not held for almost a year and when held were ineffective, as delivery partners were not invited. On the delivery of the product, it was realized that:

- Other initiatives were not delivered on time due to lack of budgets. The program governance team was not empowered to ensure timely delivery of all components
- Lack of involvement of business operations led to re-definition of business requirements and delayed the buy-in by end users
- Inappropriate level of IT contribution made the interfacing programs incompatible

The delayed deliveries led to the review by the organization’s board. The program leadership including the governance was changed, thereby leading to a re-definition of strategy and direction of the program. The program was delivered two years late and full delivery of objectives was not made. Only one out of six business systems was replaced, and a tactical solution for enterprise-wide data-warehouse and end customer channel was made operational. The financial package was not replaced at all.

“Structured Program Governance” could have made a difference to the execution of the program right from the beginning as it would have helped right/timely decision making and escalation and remediation of issues. Participation of Business Operations and the IT Head would have ensured involvement of end users in the program right from the beginning, hereby facilitating right requirements definition and an early buy-in of the new system. The representative heads of other initiatives would have ensured timely delivery of dependent initiatives to make it a success. The standard program governance

Figure 1: Structured Program Governance



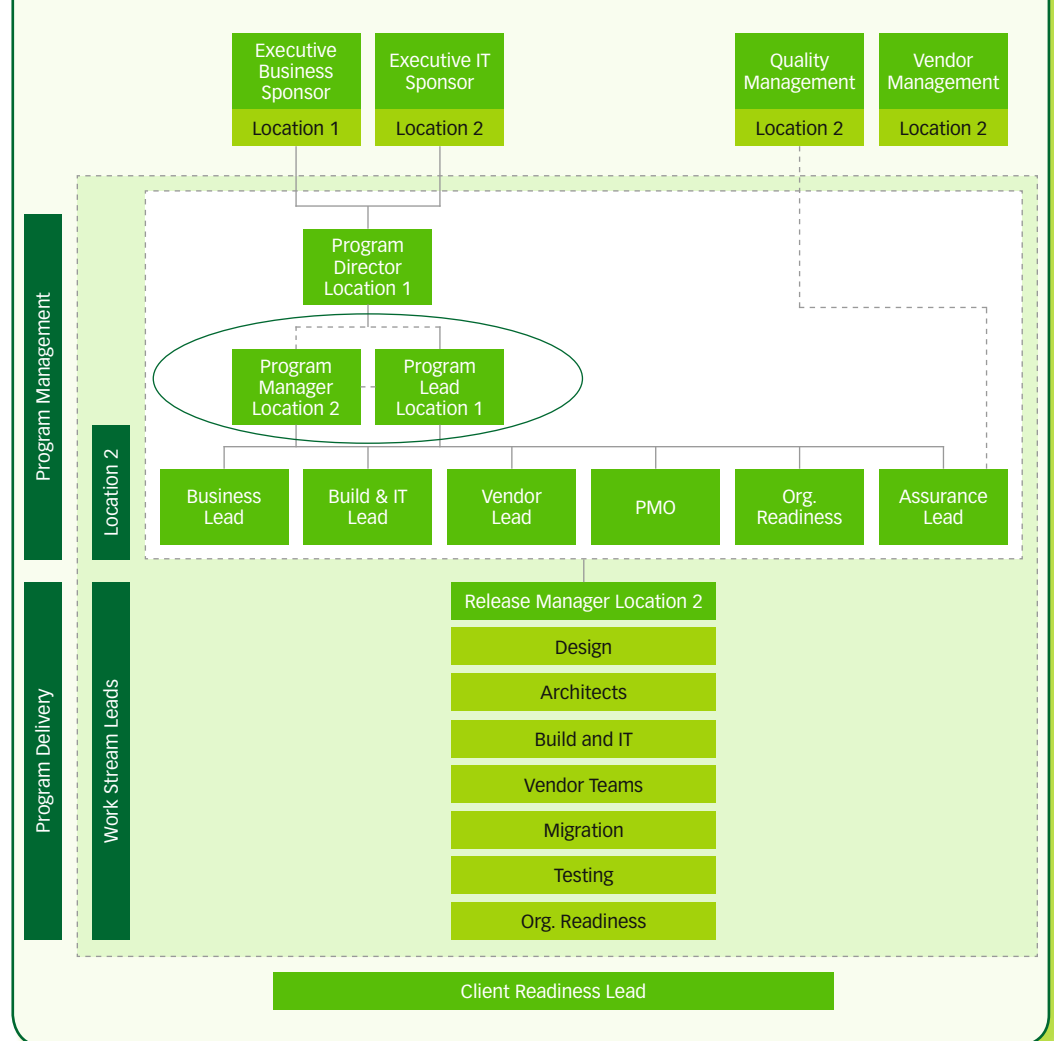
structure which would have worked for any small-to-medium size project was in place. However, this structure could not manage the external stakeholders who were not under the purview of the Project Steering Committee. The issues and challenges observed in aligning the independent initiatives whose delivery was imperative for the success of this program could not be managed. A four-tiered structure governance model was suggested to allow swift and effective handling of issues, a senior oversight committee consisting of executive sponsors running the independent initiatives was constituted. This committee could influence decisions across projects and facilitate the efficient execution of the program.

Meeting schedules were defined and published and the direct flow of information at all levels was ensured. The “Structured Program Governance” provides effective governance by ensuring external stakeholder management, communication at all levels, swift issue resolving and transparency.

Program Management Organization

The right program management organization contributes in a huge way to the success of any program; a large IT transformation program has even a greater need for the same. The predictability of a large program is far less as compared to a small- or medium-sized program. And, this goes without saying as the factors affecting

Figure 2: Program Management Organization





Program planning and scope management really go hand in hand and define the success of the program. I believe tough and timely decision making controls the program plan and execution.

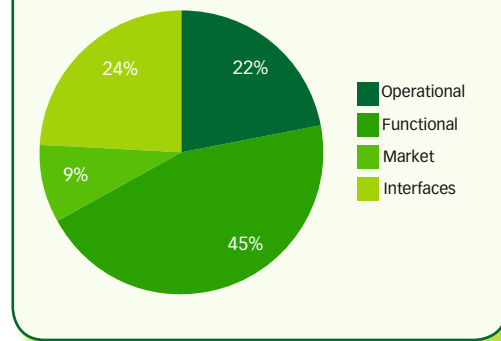
the health of the program are internal as well as external, which the program team may not have any control on. Hence, to ensure proper execution and monitoring of the health indicators, the management office needs to be in place along with an appropriate team. The leadership team supported by the program office function will be able to bring a level of predictability to the execution of such programs. The continuous assessment of risks along with mitigation action and plans needs to be in place. A good program office team will help the management team collect all the data points related to risks and analysis of the same. The ambiguity in the program management organization can lead to non-accountability and a no-result performance.

This particular financial institution was working on a multi-geography implementation of business financial system. The program was being run from location 1 and was being executed in location 2. The leadership team was in location 1 and program execution team was in location 2. The leadership team wanted the program management team to be in close proximity hence the program organization defined was as follows:

A Program manager and lead were defined at location 1 and 2; however, there was no clear articulation of roles and responsibilities. The Program lead from location 1 would travel to location 2 every fortnight to take an update. The Program manager from location 2 could not execute the function due to lack of support from the leadership team sitting in location 1. The program team was confused and thought it was waste of time to bring this program lead from another location up-to speed. The program manager from location 2 could not add value to the extent expected as he was not available at the location to provide guidance when issues were raised. The management function became weak and was closer to program management office function as it could only gather facts and present them without providing active monitoring and risk management on a continuous basis.

Also, in the above structure, the financial institution had no experience in large program execution and hired a third-party system integrator. The position of program director, program manager, program lead and PMO were filled by a third party integrator. The third-party integrator had no domain knowledge and was running the program like a Y2K implementation. The internal project execution team felt isolated due a layer of external consultants and had no direct contact with the leadership team. The reporting structure was not clearly defined. The program execution team did not demonstrate accountability and responsibility in delivering results and the Program manager and lead were not empowered to demand results. The contractual agreement with a third-party integrator was more of a time and material contract and not results-oriented.

Figure 3: Change Request Distribution



The consultants demonstrated helplessness in delivering outputs as planned due to non-cooperation of execution teams. The risks were documented and presented in steering committee meetings, however, no concrete mitigation action was taken prior to these meetings. This fact-finding exercise was always done just before such meetings. The program was re-estimated and re-planned couple of times and the program was ultimately delivered 3 years late, with a cost escalation of almost 200%.

As much as possible, the leadership and the management team leads should be from within the organization as they can provide the required accountability from people and to the organization. The communication of roles and responsibilities across organizations is critical for timely execution. The contracts with third-party consultants needs to be documented carefully and result-oriented milestones be established.

Program Planning & Scope Management

Program planning and scope management really go hand in hand and define the success of the program. I believe tough and timely decision making controls the program plan and execution. As I mentioned above, the predictability of large programs is extremely low, hence it is crucial to manage the aspect of planning and scope management. The program plan once defined should be ruthlessly executed; and, any delay in a plan causes about 15% cost escalation per year.

I followed the execution of two large transformation programs for a financial institution. The plan was appropriately supported by a program organization structure with a strong change control board (CCB). Any change in the strategy and requirements beyond USD 50K or affecting the overall plan had to be approved by this board. At one point of time, there were number of change requests raised by the business but the CCB(change control board) leadership team took the decision to go ahead with bare minimum required to go operational. They went ahead and successfully implemented the program on time thereby saving considerable time and budget. However, another bank did not establish a CCB till about midway in implementation and in the absence of any guidance, the project teams kept raising change requests. The team imagined that every business requirement had to be met before going operational. The plan was delayed by a year, and change requests were implemented prior to the go-live date. An analysis of the 280 change requests rose during the period, and demonstrated that only 9% were market related and 24% interfaces related, while there rest were changes that could have been deferred to a later stage.

The decision making at this point plays a crucial role as in the current landscape, financial services are continuously evolving, and any system can achieve near perfection but never be perfect. Managing the scope and hence containing the plan is the mantra to achieving success.

Stakeholder Management

Stakeholder management is the management of internal as well as external initiatives, resources, groups, external vendors, and third-party consultants who may not under the direct control of the project manager. The deliverables of all such groups form the ultimate deliverable of this large transformation program. The necessity of bringing all these together and establishing common communication to understand the larger objectives is extremely crucial. The deliverables from interdependent sub-projects need to follow the same timelines.



Approximately two-third of the organizations, when undertaking a large transformation program, do not even have a business case, and almost 95% of them do not continuously update them as they move forward.

Business Case Management

As was pointed out earlier, approximately two-third of the organizations, when undertaking a large transformation program, do not even have a business case, and almost 95% of them do not continuously update them as they move forward. The duration of a large program is normally long - a horizon of 2+ years, and it becomes critical to maintain an up-to date business case. The program needs to be evaluated at regular intervals versus original business cases to ensure return on investment.

In this particular example, a financial institution planned to execute a large transformation program over 3 years. The business case was created at the onset. The leadership of the program changed two years down the line and decisions regarding change of strategy were undertaken. The re-evaluation of the business case was not done. The changes in strategy led to a change in the overall timeline by 3 more years. In the meantime, since the program was not implemented as per plan, the benefits envisaged as part of this program were delivered by alternate means. The expenditure on the program increased three-folds and only one-sixth of the original program envisaged was delivered finally. At this point of time, re-evaluation of the business case led to an understanding that a change in strategy midway was not an appropriate decision as:

- The system replaced was the best system the organization had. Negative financial benefits were envisaged in the original business case for the replacement of this

The program manager may have to spend more than 50% of his time in ensuring the quality and on-time delivery from the external stakeholders to ensure timely delivery of the program. Mechanisms need to be in place to communicate requirements and accept deliveries. The difference between a small- or a medium-sized project vis-à-vis large program was not well understood by this financial institution and major hiccups were observed when the integration phase started. The common challenges observed were:

- Non-availability of program infrastructure in time including h/w and network
- Non-compatibility of integrating systems
- Data migration challenges
- Mismatch of expectation vi-s-vis contractual commitments with consultants/vendors
- Late delivery of inter-dependent projects

All internal or external stakeholders need to be part of the governance structure. This governance structure should be able to influence decisions across sub-projects, groups, external vendors and consultants and ensure the timely delivery of all components at the agreed time. The successful hand-shake of all such deliverables will ensure a smooth and successful implementation.



system and hence should have been the last to migrate

- Significant FTE saving benefits were already attained by moving operations to offshore
- The increase in time schedule and cost had diminished the net present value (NPV) progression as calculated originally

It clearly demonstrated that if a business case would have been re-evaluated prior to a change in strategy, the decision to migrate a different system with better financial and business results would have been chosen. Due to this decision, even the other intangible benefits related to addressing the demands of customer, processes and business could not be realized. An updated business case would have helped the leadership team in making the right decision, which could have helped deliver reasonable return on investment. An updated business case presents alternate options that can be evaluated by the team before taking any further steps. In large programs, it is even more critical as the time, effort, resources and budgets invested are of much higher magnitude and have significant impact on an organization's balance sheet.

In Conclusion...

The management of large IT transformation programs is a challenging area and unavailability of documented processes

and lack of expertise within the organizations makes it even more complicated. The principles applied in small- and medium-sized initiatives are not directly applicable here and may require some fine-tuning. As pointed out, the predictability of outcomes of such initiatives is not very high, hence the requirement to manage and monitor them closely and provide guidance becomes imperative. The closer association of the senior management to such programs is definitely seen as a driving factor towards enhanced results. Program management for such initiatives becomes extremely crucial to success of the program. Factors that need to be critically examined include:

Structured program governance

Program management organization

Program planning and scope management

Stakeholder management

Business case management

A continuous proactive oversight on all the above factors will help make the timely decisions that will eventually lead to a successful implementation of such initiatives.

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Reputational Risk in Banking – The Current Approach and A Way Ahead

Introduction

The ongoing turmoil in the banking and finance industry has once again pointed towards the effectiveness and level of risk management being practiced. This has resulted in the conceptualization of new regulation, further tightening of the existing ones and a need for implementation of a holistic risk management framework. Managing reputational risk is one such component.

Reputation risk exists for any entity and not necessarily for banks alone. Perhaps, it is of greater significance and importance to banks due to the fact that banks deal more with others' (other than owners') money, be it that of depositors, customers, counterparties, investors, among others.

These new initiatives shift the focus of supervisory authorities from merely checking compliance with a "tick-the-box" approach to more pro-actively supervising the reputational risk management of individual banks based on a set of principles.

This paper makes an attempt to understand the gamut of reputational risks and understand the challenges, opportunities and possible responses from banks towards this new buzzword.

What is Reputational Risk

If I have to choose a definition of "reputation" in the context of banks, perhaps the simplest would be "the estimation in which a bank is held, especially by the community or the public across borders or in different geographies". Off late, reputational

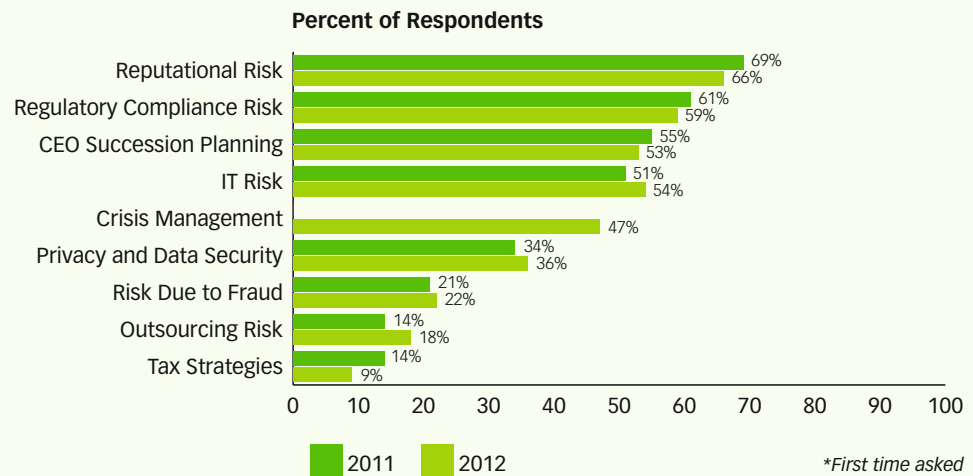
risk as a subject has gained momentum in the risk management philosophy of banks. Banks are yet to become fully adaptive to the concept of recognizing, managing and tracking of reputational risk.

There are different schools of thoughts on the need of active reputational risk management. Some explain it by citing a quote from "Othello", one of Shakespeare's most popular plays "Reputation is an idle and most false imposition, oft got without merit and lost without deserving...", which means reputation is an empty ("idle") and entirely imaginary ("false") standard. Many people who have a good reputation haven't done anything to earn ("merit") it and many people who have lost a reputation haven't done anything to deserve its loss.

Those who favor, have opined that "while the impact of traditional risk events is substantial, more visible, the impact from a reputation risk event can be even more damaging with long-term consequences. One can argue as well that, reputational risk management is not something entirely new. Perhaps, it was thought of or managed in different names or forms, but over the last few years an increasing importance is being placed on having a dedicated focus on this subject.

The Basel Committee on Banking Supervision (BCBS) defined reputational risk as "risk arising from negative perception on the part of customers, counterparties, shareholders, investors, debt-holders, market analysts, other relevant parties or regulators that can adversely affect a bank's ability to maintain existing, or establish new, business

Figure 1: Third Annual Board of Directors Survey 2012, EisnerAmper LLP's, USA



relationships and continued access to sources of funding”.

Damage to reputation and/or brand has moved up to No. 4 from No. 6 among the Top 10 risks identified in Aon's 2011 Global Risk Management Risk Ranking. EisnerAmper LLP's, USA third annual Board of Directors survey was designed to gain insight into the risks being discussed in American boardrooms. In response to a question, “aside financial risk, which of the following areas of risk management is most important to your boards?” A majority responded that reputational risk is of the highest concern to them. (Refer figure).

Regulation Towards Reputational Risk Management

Various regulatory guidelines with respect to reputational risk are mentioned below:

- The Basel Committee on Banking Supervision defined reputational risk, however, Basel II (2004) & Basel III (2010) kept reputational risk out of pillar 1 capital requirements. Reputational risk is currently not subject to any specific capital charge
- Supplemental pillar 2 Guidance (supervisory review process) published in 2009 attempts to reinforce how banks should manage and mitigate their risks

identified through a thorough and comprehensive internal capital adequacy assessment process (ICAAP) and particularly those risks that are not fully captured under Pillar 1 (among other types include reputational risk). The guideline suggests banks also need to understand how credit risk interacts with other types of risk (including market, liquidity and reputational risk). The guidelines also puts an onus on senior management that they should establish a risk management process that is not limited to credit, market, liquidity and operational risks and should incorporate other material risks, like reputational risk

- Capital Requirements Directives (2011) applicable for EU countries requires that the competent authorities shall ensure reputational risks arising from securitization transactions are evaluated and addressed through appropriate policies and procedures. The directive also mandated that institutions develop methodologies to assess the possible impact of reputational risk on funding positions as part LRM
- Notices of proposed Rulemaking, 2011 (applicable for USA) provide that a bank should address all of its material risks in its overall capital assessment process including reputational risk



- The COSO Enterprise Risk Management-Integrated Framework (ERM) defines ERM as a "...process, effected by an entity's board of directors, management, and other personnel, applied in strategy setting and across the enterprise, designed to identify potential events that may affect the entity, and manage risk to be within its risk appetite, to provide reasonable assurance regarding the achievement of entity objectives." A careful interpretation of the scope does suggest inclusion of reputational

risk as part of overall Enterprise Risk Management initiatives

- Casualty Actuarial Society (CAS) framework in 2003 defined ERM and incorporated reputational risk as a sub-category under operational risk, striking a different note when compared to Basel

Incentives for Banks to Practice Reputational Risk Management

Dr Guruswami Raghavan, professor of finance at the SDM Institute for Management Development in Mysore, India, pointed that "reputational risk is the starting point for all risk,". He explains "If you have no reputation, you have no business." Companies that see their brand as their primary asset tend to treat reputational risk as an issue in its own right, and devote special resources to managing it".

With the advent of social media and the speed in which information travels, even a slightest negative perception about a bank may prove disastrous for the organization. In fact, social media constitutes a major introspection point for banks. Compared to earlier days, today's customers have several

The success of any bank is defined by the trust that the general public places in it. Reputation also plays a role in attracting trust and confidence from other stakeholders.

options for their banking needs, resulting in fierce competition and the underlying need to safeguard reputation.

Banks with strong reputation are often large network banks for example; State bank of India, India, or those with high asset sizes such as JP Morgan Chase and Citibank in USA. These banks lead others and enjoy a great deal of flexibility and have a greater influence in policy making. The success of any bank is defined by the trust that the general public places in it. Reputation also plays a role in attracting trust and confidence from other stakeholders.

Besides, access to markets in different geographies, increased market value, ability to attract and retain talented employees and less oversight by the supervisory banks may provide sufficient incentive for banks to monitor and manage their reputation risks.

How is it Practiced in Banks - A Comparative Analysis of 20 Large Banks

20 large banks were compared on five key parameters as depicted below.

Geographical Response

It has been observed that large banks in Western Europe and USA have taken the lead in implementing some mechanism to monitor and assess reputational risk. However, in most cases, reputational risk has not been

incorporated as part of ICCAP. There are some instances of setting up of Reputational Risk committees. Boards of Directors of such banks are involved in the process. Banks in Asia and Latin America are lagging behind in terms of even recognizing and putting in place a clear cut mechanism to deal with reputational risk. Some large banks in Australia have also taken steps to monitor and manage reputational risk.

Recent Case Studies on the Impact of Reputational Risk

A Swiss bank experienced substantial net outflows of client assets in their wealth and asset management businesses in 2008 and 2009, resulting in damage to its reputation.

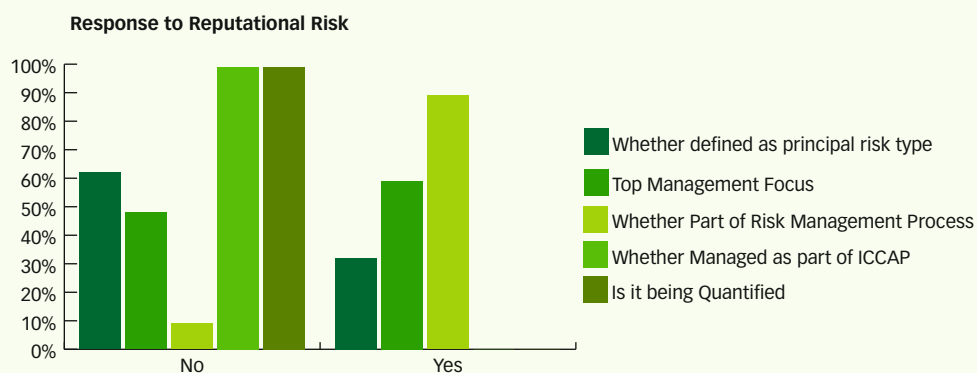
A well reputed bank in France faced a crisis in 2008 by losing around 5 Billion Euros because of the act of a rogue trader.

A London-based bank was fined a record amount by US authorities for failing to stop money being channeled to “drug kingpins and rogue nations” and agreed to pay USD1.92bn to settle the case.

Another London-based bank was fined by US regulators for illegally hiding transactions with Iran, allowing the country to sell its oil for dollars. The bank was fined USD100m (£62m) by the Federal Reserve and USD 227m (£141m) by the Department of Justice.

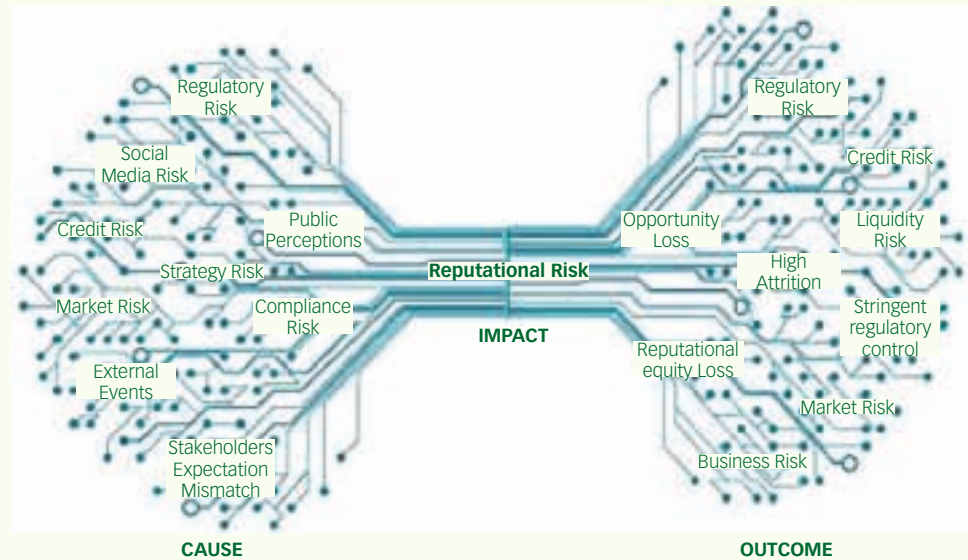
In 2012, a London-based bank had admitted to manipulating the London

Figure 2: Response to Reputational Risk



Source: Bank's Annual Accounts 2011 & 2012 & publicly available information

Figure 3: Interconnected Nature of Reputational Risk



Interbank Offered Rate (Libor), the interest rate at which banks lend money to each other.

In May, 2012 a US-based bank had revealed a surprise trading loss of at least USD2bn, which has dented the bank's image, since the bank had been viewed as a strong risk manager. The Chairman of the bank admitted that his firm's reputation had taken a hit "puts egg on our face,". The bank also faced scrutiny from the FBI, the SEC and CFTC. Besides, Standard and Poor's and Fitch had downgraded the rating of the bank. A federation of U.S. labor unions is looking to force the Board of the bank to dissolution of the company.

Similarly, another US banking giant had to take a hit on its reputation when the New York Times published a stinging op-ed by a former employee recently.

In this context, one can refer a study conducted by YouGov BrandIndex, a daily brand consumer perception research service. The study carried out in 2012 had found that, large bank's consumer perception dropped by 25 points to -33 and that of another bank reputation fell to -32 on the index.

Sources of Reputational Risk

Reputational risk behaves in an interconnected manner with respect to

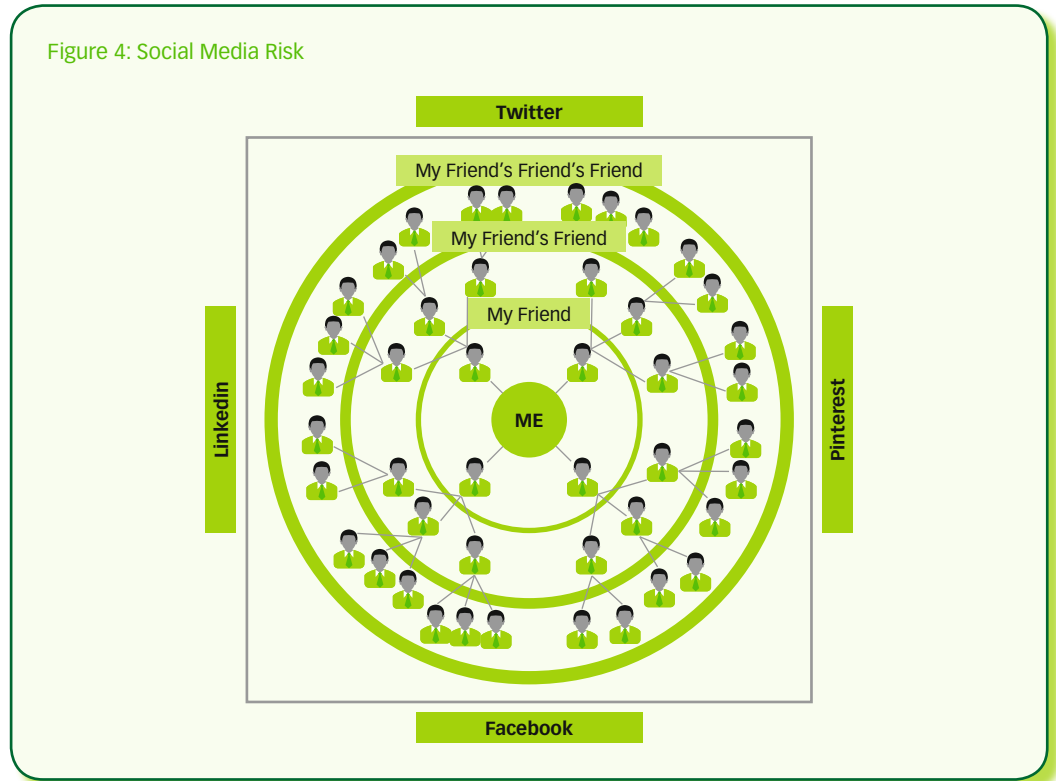
other risk types. While several risk types can jointly and/or individually give rise to reputational risk, in the same way reputational risk can lead to chain reaction of other risks. The mentioned figure depicts the inter-relationship of reputational risk with other various risks faced by a bank. A proper analysis of figure 3 exhibits "one cause to many outcomes" characteristic of reputational risk.

Perception is the biggest driver for reputation among the public. Since access to information is asymmetrical among different stakeholders, and this further adds complexity in the way stakeholders' perceptions are built.

Internal events play a major role in the rise of reputational risk. Banks might behave in a manner that is not consistent with the values or standards laid down, thereby damaging stakeholders' perception. It has systemic risk implications at the macro level.

Reputational risk could be due to association with someone or an act of others or being part of the same sector or business line. When a large investment bank revealed a surprise trading loss of USD 2Bn, it not only affected its image but other banks' reputation as well. While its shares dropped 7%, other bank shares suffered heavy losses. Even European banks were affected. Perhaps the time has come to extend reputational risk

Figure 4: Social Media Risk



management by incorporating the philosophy of “watch your peers”.

Banks are also exposed to reputation damage due to external events, on account of their association through partnership, outsourcing or other kinds of relationships. Reputational risks can arise from environmental, social or governance issues, as a consequence of operational risk events or as a result of employees acting in a manner inconsistent with banks’ laid down procedures and values.

Past conduct or activities in a particular geography may give rise to reputational risks in other geographies.

Social Media Risk

Social media risk is other major source and presents significant risks to banks’ reputation. The scale and profile of social media networks have grown both in terms of customer demographic and geographical reach, thereby these networks can be used as powerful broadcasting tools with the capability to reach large numbers of people in a very short timeframe.

Reputational risk management should take social media risk more seriously. “Mitigating the impact of reputational risk requires an immediate and calculated response, especially given the speed at which bad news travels today”, according to John Crean, national managing partner of Toronto-based National Public Relations.

Reputational Risk Management – Challenges

- Reputation Risk may be the biggest risk faced by banks today, and it’s definitely the most difficult to qualify and quantify
- “Reputation risk is always among the top five risks” identified by companies, “but it also the most esoteric. It is difficult to isolate where the risk could be generated from” said Jeanette Lawrence, Assistant Vice President of professional liability at Chartis Canada in Toronto
- Defining reputational risk’s relevance for any bank and its place in the overall risk management process is slowly gaining momentum. Banks are still grappling with the idea of categorizing reputational



risk as one of the principal risks faced by the bank

- Slow mindset change. Managing and monitoring reputational risk is yet to become the priority of top management of many banks
- Lack of awareness across all the levels in the bank
- Non-availability of globally accepted methodologies to assess reputational risk
- Scarcity of capital (since Basel III guidelines put further pressure on capital) may discourage banks in taking concrete steps
- It is obvious that reputational risk behaves in an interconnected manner with respect to other risk types; however, defining the extent and significance of the interconnection itself is a challenge

Should Reputational Risk be Part of Operational Risk Management?

Developing a balanced approach to determine whether an identified risk is operational risk, is key to successful reputational risk management. While it can be argued that sometime operational risk events may lead to reputational risk, however, there are enough merits to manage and monitor reputational risk separately.

In this context, it is worthwhile to know that Basel II mandated a separate treatment of reputational risk. In its definition, the Basel Committee differentiated operational losses from events falling in other risk categories as: “Operational risk is defined as the risk of loss resulting from inadequate or failed internal processes, people and systems or from external events. This definition includes legal risk, but excludes strategic and reputational risk.”

There is a direct relationship between the numbers of operational risk events vis-a-vis the operation loss, even Basel II guidelines on capital calculation is built on this premise. Similar relationships may not be true for reputational risk. For some cases, actual loss suffered from operational risk events may have less than a reputational impact. In such scenarios, a question may arise about which loss is to be taken, without overestimating or underestimating the actual operational loss.

The opposite is also true. Sometimes, there could be reputational damage without exposure to any operational risk. For example, recently an MNC bank was blamed for money laundering in India, though subject to a detailed investigation, thereby damaging the reputation of the bank. This could be a typical case of reputational loss but not operational risk loss, in case the bank is relinquished from the charges.



There has been some significant research conducted on the impact of operational events on market value. It has been observed that, there is a strong negative stock price reaction to announcements of such events and in some cases the loss is larger than the operational loss reported, suggesting a strong reputational impact [studies done by Cummins et al (2006), Perry and De Fontnouvelle (2005), Gillet et al (2010) and Schwizer et al (2010)].

Currently, operational risk loss is measured over a horizon of one year, whereas reputation impact could last well beyond the usual one-year horizon, since it depends on the perceptions of common public and it takes time to repair reputational damage.

There are arguments in favor as well. ERM as defined by Casualty Actuarial Society (CAS) USA, include reputational risk as sub-risk type in operational risk category. Besides, reputational risk may fit well in defining the long tail of the operational risk curve. However, considering the gamut of reputational risk, it need special attention, and hence, a separate reputational risk management unit could do well for a bank.

Mechanisms to Manage Reputational Risk

1. Proper mapping of all sources of reputational risks is imperative.
2. Reputational risk should be embedded in the bank's ICAAP process. To start with,

the bank should try to qualify, and over a period of time, evolve methodologies to quantify the same.

3. Banks need to develop reputational risk-specific frameworks for identification, scenario analyses, and managing qualifications and quantification.
4. A significant source of reputational risk is information asymmetry amongst different stakeholders and the organization, and the best way to manage this would be a good disclosure practice.
5. Strengthen crisis management.
6. Banks need to follow a holistic approach by integrating the reputational risk management with Enterprise Risk Management.
7. Special focus is required to monitor and manage social networking and new media.
8. Internal and external audit process should incorporate proper checks and update audit checklists, so as to identify vulnerable areas and unearth possible signs of reputational risk events.
9. Internal auditors of banks need to be trained to identify and qualify instances of reputational risk
10. Supervisors of respective countries should come out with specific guidelines and create and/or encourage necessary mechanisms to imbibe the culture in a bank's internal process
11. Perhaps time has come to put managing and monitoring of reputational risk at the beginning of everything, since it cuts across all channels, business lines, as well as having huge inter-relationships with other primary risk types.
12. Expectation mapping of the key stakeholders and building strong bondage with them needs to be afforded paramount importance. Managing reputational risk may differ across stakeholders.
13. Banks need to embrace more and more corporate social responsibility as part of the corporate strategy to build and sustain reputation.
14. In today's technology-driven banking sector, efficient customer relationship management and IT services



management could help reduce reputational risk to a great extent.

Top Management-Driven Strategy for Reputational Risk Management

Reputational risk is best a top-down driven approach, and percolated to the lowest level in the organization. In fact, the board and all staff members must take responsibility to safeguard and protect the bank's reputation. A well-established decision process, direct reporting lines and clarity of roles and responsibilities are prerequisites for effective management of reputational risk.

The following key stakeholders are important in reputational risk management:

- Board and top management
- Employees
- Dedicated committees
- Clear cut directions and active monitoring

Conclusion

One must agree that, a relationship between operational risk events and reputational risk events exists, which calls for comprehensive due diligence based on diverse set of information and a proper weighting of various components. There is a lot one can leverage from operational risk management. For example, scenario analyses are a common method for addressing operational risk,

and banks can leverage this knowledge in developing a similar framework for reputational risk.

Rating agencies need to add thrust to reputational risk in their rating processes. Quantification of reputation risk is difficult as there is no globally accepted methodology. Reputational risk also does not act in isolation; in fact it resembles a one-to-many relationship. It is yet not clear if reputational loss needs to be factored into the calculation of capital. A question that has remained unanswered is, how is reputation risk going to impact capital, and if yes, by how much? Capital is scarce, besides costly. The maintenance of unnecessary excess capital can affect the value creation for shareholders. A workable approach may be to keep it simple and begin with mapping, managing and qualifying of reputational risk, and the strengthening of crisis management.

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Branch Front-office Agility: The New Reality

The front office is at the forefront of banking today. Right from mobile and Internet channels, kiosks and the ensuing conflict vis-à-vis branches and channel integration that are being sought around these areas, banks are focused on delivering superior customer experience. A staggering reality is that the virtual front offices, namely, the online channels are gradually overtaking the traditional front office, the bank branch. In 2012, the industry saw online transactions crossing branch-based transactions in Australia and New Zealand. Branch-based transaction volumes in the USA dropped over 45% as compared to the past decade.¹ Deloitte, in a 2013 report, highlighted that in the Middle East, 75 to 90 percent of retail banking transactions are processed through call centers, the Internet and mobile devices.²

Where does all this lead? Will the Darwinian theory of “survival of the fittest” take a toll on the branch banking channel? Did ATM machines eliminate the branch channel? Taking the speculation a step forward, a few industry observers have predicted that by 2020 mobile will be the only relevant channel and the Internet channel would fade out. A fact vehemently countered by Forrester Research in one of its blogs, where they advocate ubiquitous banking—multichannel business processes independent from the underlying channel.³ Therefore, in all probability, we would be observing an omnichannel world; the traditional branch channel would lose its “transaction factory” tag and would evolve into a point of initial sale and relationship and advisory center for customers, while the mobile, internet, social and other such virtual channels would cater

to the transactional and research needs of customers.

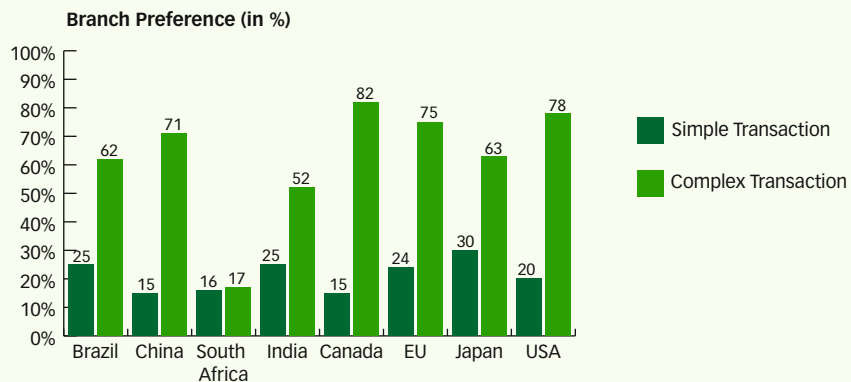
This article attempts to create a functional map between the ‘customer of the future’ and the ‘branch bank’ within the realm of evolving customer behaviors and business realities. It will also attempt to highlight a futuristic branch channel strategy and an ideal relationship dashboard to roll out an agile front office operation.

Bank’s Branch Strategy

The branch, as a channel, has been at the helm of banking operations and it personifies a bank’s brand and identity. The size and ambience of a branch was often associated with its financial strength. However, with the evolution of technology and consequent customer choices, banks across the world have invested in customer-self-service channels such as ATMs, internet and phone banking and, most recently, in mobile banking, resulting in the branch channel receiving minimal attention. Now, with digitization

The branch, as a channel, has been at the helm of banking operations and it personifies a bank’s brand and identity. The size and ambience of a branch was often associated with its financial strength.

Figure 1: Branch Preference



(Source: Ernst & Young Global Consumer Banking Survey 2012)

While banks saved a few dollars per transaction, a service request, such as accepting a deposit, costs a bank about \$7.50 when it's done in a branch, 85 cents at an ATM, and 10 cents online.

and the advent of big data technologies, industry experts have started questioning the relevance of a brick and mortar branch. Many upcoming banking franchises such as Simple, Moven, GoBank are betting on a virtual banking model.

The move towards "all things digital" is both a serious threat and an incredible opportunity in the banking sphere.⁴ While banks saved a few dollars per transaction, a service request, such as accepting a deposit, costs a bank about \$7.50 when it's done in a branch, 85 cents at an ATM, and 10 cents online. The footfalls to the bank have dropped--in the USA, transactions-per-teller-hour have dropped from roughly 20 in 2003 to about 15 in 2013,⁵ which is a problem. With the advent of self-service banking, customers have stopped visiting branches resulting in the erosion of customer loyalty and exclusivity of bank clientele. However, the percentage of customers visiting a branch for complex transactions such as refinancing a

mortgage or planning future financial needs is high as depicted in the figure above.

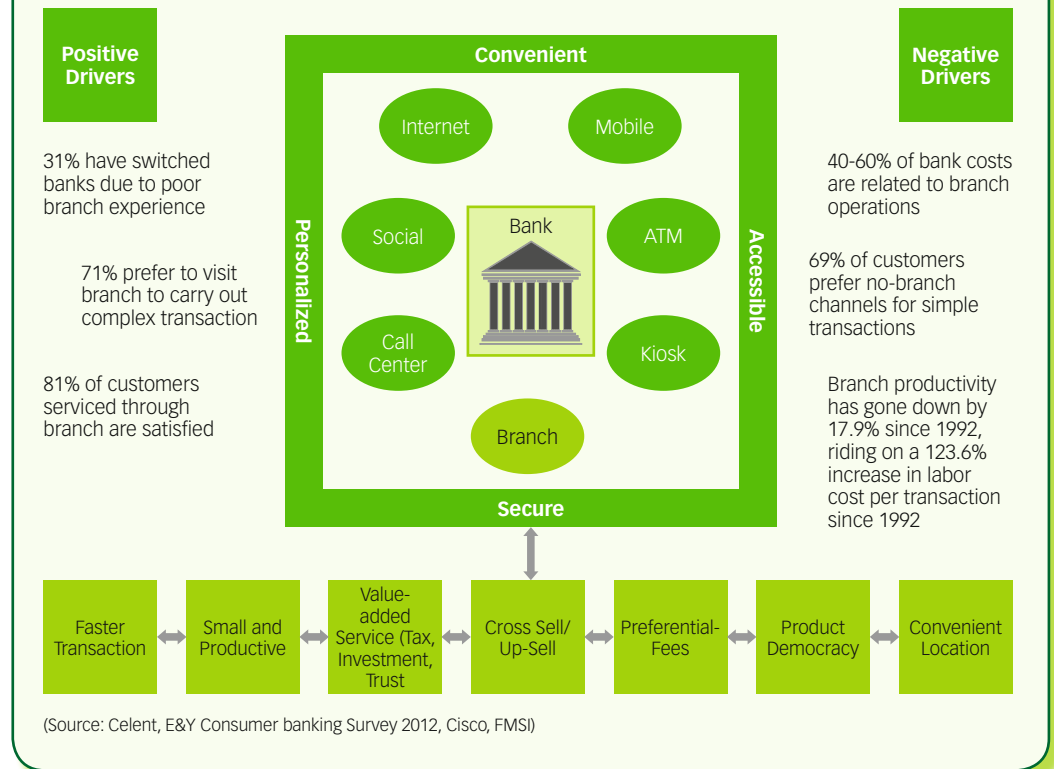
This brings forth a new reality – branches are now being seen as the hub of sales and advisory services. CEB TowerGroup estimates that sales and service transactions will make up 40% of total branch transactions by 2013. The time is not to eliminate the branch but to embrace change. Banks should not be worried about their dwindling branch transactions, but rather they need to leverage technology to turn banks into a platform that can provide comprehensive sales and advisory services along with transaction services.

As a way out, banks must concentrate on reinvigorating their strategy around the branch. The focus has to be two pronged. First, offer an omnichannel customer service; and second, empower branch bankers to offer personalized services to their customers. This has become very essential as industry statistics show, that of the total customer switch that was seen in 2012, 31% can be attributed to poor branch experiences.⁶

Branch Banking in an Omnichannel World

The omnichannel customer service is at the heart of the bank transformation and offers customers personalized, secure, accessible, and convenient services. The channel's super structure should possess common business logic irrespective of the channel. This will allow customers to bank at their convenience through internet

Figure 2: Branch Banking in an OmniChannel Realm



(ebanking), mobile, or social media channels; personalized services through social media threads, call centers, and branches; immediate access to their banking needs through mobile devices, ATMs or kiosks; and finally receive secure service across all these channels.

Where do we see the branch in this scheme? A secure financial supermarket that caters to the entire value chain of banking, from transaction and value added services to assistance in personal financial planning — all aimed to foster a loyal clientele. A significant part of this exercise should be to cross-sell and up-sell based on democratic product channelization, where customers are given the option to select a product as per their requirement; with faster transaction turnaround time; personal assistance in financial planning and education on each visit with the help of a small and efficient (productive) brick and mortar structure that is conveniently located with approachable staff. Relationship-based pricing can help keep the customers loyal and also make them feel important. Only then can we justify, retaining

a branch that is perceived to be a cost center to a bank.

Why does a customer have to wait for 5–10 minutes to open a new account or get an answer to a query? The counter argument has always been that banking is a regulated business and certain procedures/security verifications have to be completed before service delivery, and also that each customer has varied requirements which need to be addressed differently. However, there is tremendous scope for improvement. A few banks have started working to resolve this anomaly— Capitec Bank aspires to open new accounts in 90 seconds in the near future. To offer improved customer experience, banks can always learn from the best practices in customer service prevalent in other industries. The table brings forth a few such examples:

Staying Ahead of the Curve - Empowered Front Offices

Banks across the world in the last couple of years have reworked their branch strategy. A few examples are listed below:

Retail	Airlines	Hotels
Multi-channel access to purchase and review products (e.g. in-store, web, mobile app)	Online aggregator sites that compare prices, routes, travel time and enable purchases across multiple companies	Storage and access of customer visit history and information in central record
Sophisticated online comparisons of products and clear pricing	Seamless integration of multiple transit legs; ability for airlines to communicate and rebook between multiple companies	Itemized bill received prior to check-out so charges can be discussed
Robust technology to aid users in product selection (e.g. app that scan a barcode and compares prices, retail product aggregators)	Common usage of kiosks at airports for self-service check in	Loyalty programs to build brand awareness and reward customers for repeat patronage
Use of analytics to understand consumer preferences, suggest relevant products and create brand loyalty	Mobile boarding passes; notifications of delay via text or email	Seamless integration of hotel systems so agents can book stays for users across hotel locations
Product exchange/Refund products can be exchanged/money refunded if they do not meet the requirement		Comprehensive cleaned room in one housekeeping visit

Source: PWC — Customer experience in healthcare: The moment of truth (Modified)

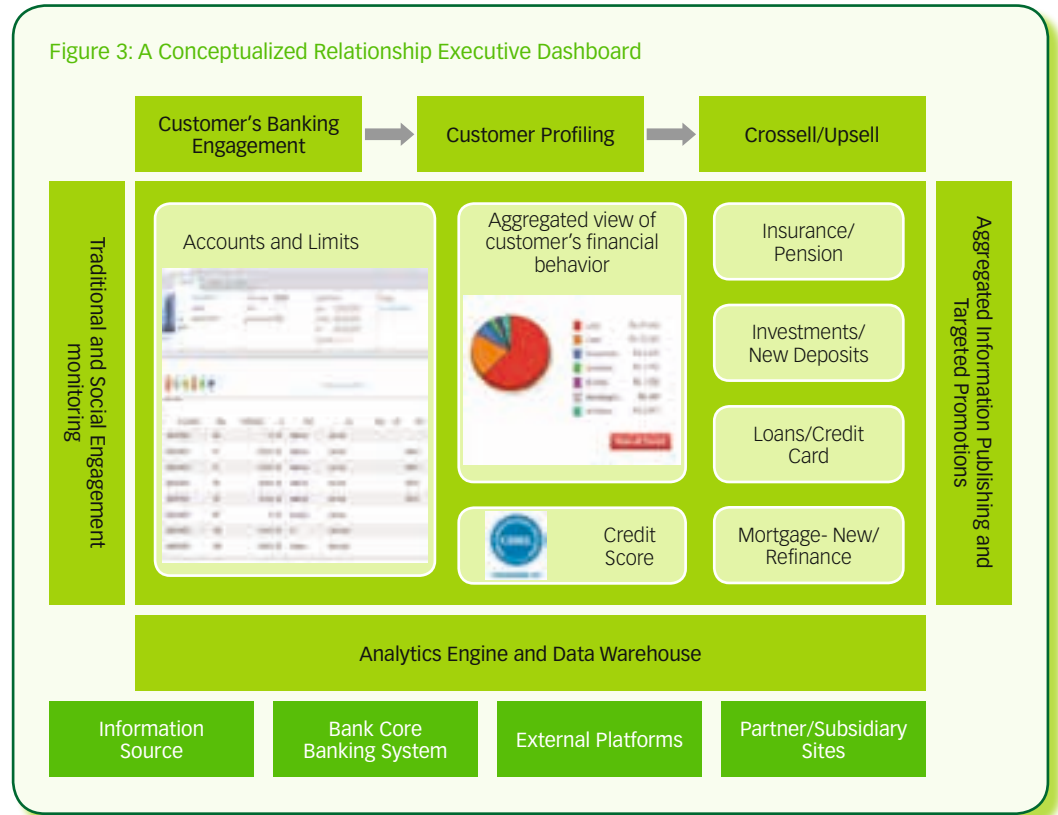
- Citi pursuing ‘Smart Banking’ branches across the globe, which has been designed by the same group responsible for the elite Apple Store designs
- Wells Fargo is launching a new branch concept — the neighborhood bank format — with a footprint one-third the size of a typical location
- In Spain, there has been widespread adoption of community banks, where a branch is the place to meet, for example, to have a coffee or read books
- State Bank of India is launching green-channel banking at its branches across India
- The Dutch ABN AMRO Bank has experimented with a “teleportal” branch, unstaffed videoconferencing facility
- Germany’s Deutsche Bank innovated way back in 2005 with its Q110 branch in Berlin, which contains lounge and self-service areas, along with tangible product displays that allows customers to pick up a package and pay for it at a counter
- Video cash machines were introduced by the Bank of America
- A few banks in India have a lounge for kids to keep them occupied while customers get their business done
- PNC Bank launched its first pop-up branch in Atlanta, ditching tellers in favor of consultants who aim to help

customers with complex transactions and display mobile and online services

In all the above cases, we saw the branch becoming modern, tech savvy, collaborative, and service oriented. In most cases, technology was used to interact with customers using video-conferencing, identifying customers using biometrics, analytics to deliver personalized promotions and offers to customers’ mailboxes. We also observe that branches are becoming small. It reinforces the fact that banks are reinvesting in branches. However, it is seldom seen that a branch front office relationship manager dashboard is transformed the way it should

A significant part of this exercise should be to cross-sell and up-sell based on democratic product channelization, where customers are given the option to select a product as per their requirement; with faster transaction turnaround time.

Figure 3: A Conceptualized Relationship Executive Dashboard



be, to help the teller (the relationship manager) offer targeted products and services to customers. The systemic enablement that will empower a teller to transform into a relationship executive was missing. Of late, bankers have taken cognizance of this missing link and have initiated multiple core banking transformations and analytical tool-based input mechanisms to get a 360-degree view of the customer.

Many banks across the world are in the process of, or are implementing solutions that would help equip the front office cross-sell or up-sell to its customer base. CEB TowerGroup figures suggest that forty-five percent of retail banks plan to replace or adopt new branch sales and service systems by 2016. These next generation sales and service platforms are designed to put the right information in a crisp form at the fingertips of relationship managers. This process has been made easy for banks that run on modern, integrated core banking engines that can pull information in real time from a unified customer database, using rule-based architecture. The limitation, however, is that the 360 degree view is confined to the bank and its subsidiaries.

Globally, multi-banking is increasing rapidly as customers want to minimize risk and avail best possible services across the spectrum. In India, customers prefer to maintain salary accounts in deep-pocket and established banks to get preferential services, and saving accounts maintained in newer banks that assure higher interest rates and better product diversity. The largest bank of India provides preferential mortgage rate discounts to salary account holders. Customers therefore are intensifying their search for the best rates, products and services. A relationship dashboard needs to be intuitive and ideally tap into all customer touch points and provide the right tools for

In an omni-channel world, banks need to adopt a “bricks, clicks and touch” strategy, revolving around the concept of security, accessibility, personalization and convenience.

relationship executives to offer pre-approved products with competitive and preferential pricing options. The tools should be used as a guide by the relationship manager to help the customer complete any request generated in an alternative channel. For this, the front office dashboard should have features that can render information from multiple sources, including other banks, social platforms and third-party partner channels such as platforms that offer rate matching services, analyze them through advanced analytics, and roll-out targeted offers and alternate options. This has become easy due to the fact that customers are willing to share personal information. A recent survey showed that 70% of customers are willing to provide their banks with more personal information⁶. In return, customers expect to receive tangible improvements in the suitability of products and services they are offered. Globally, and in India, customers have an option to link all possible banking and investment relations through a personal financial tool. This linked information should be made available to the front office executive/relationship manager, with the customer's approval. The most important aspect is that these sites need to be highly secure. They should use secure connections with high-level encryption to third-party banks and customer login credentials to prevent the compromising of money and financial positions.

Conclusion

In an omni-channel world, banks need to adopt a “bricks, clicks and touch” strategy, revolving around the concept of security, accessibility, personalization and convenience. In this scheme of affairs, branches would ideally aim to evolve to be the final resolution point-- like the Galapagos of modern day banking, a physical entity that connects the traditional and the modern world, and a place that is organizationally efficient, culturally transformed, technologically agile and financially sustainable. Research shows loan growth and cross-selling to existing customers are the top two banking marketing spending priorities⁷, therefore, it is imperative for banks to also invest in modern sales and service platforms with intuitive dashboards to improve the front office sales performance and realize the return on their marketing spend. As branch relationship manager dashboards transform and start rendering a comprehensive view of their customers (or

prospective millennial customers), front office relationship managers will be in a better position to convert a prospect into a client by offering targeted and personalized offers.

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Trade Reconciliation Outsourcing: Increasing the Efficiency of the Trade Lifecycle Process

Executive Summary

Trade reconciliation is one of the most important functions within the lifecycle of the institutional trade and also one of the most frequently outsourced functions in capital markets BPO contracts. While the global potential for trade reconciliations is more than \$2 billion, only about 5-10% of this market has been captured, representing significant untapped potential. This is becoming an important area of focus for the sourcing functions of large financial institutions, and most mature service providers in the capital markets BPO space now also offer trade reconciliation services from offshore locations. This article looks at trade reconciliation from the perspective of overall market potential, adoption trends, and solution trends. It also highlights best practices that financial institutions

should follow when selecting third party outsourcing service providers to outsource their trade reconciliation function to.

Introduction and Market Potential

Trade reconciliation has traditionally been one of the most important post-trading back office processes to be a part of BPO arrangements in capital markets. While the function itself is more of an internal audit performed after core trading activities in the trade lifecycle, it has acquired increased relevance and importance in light of the heightened risk environment today.

Trade reconciliation is one of the more mature functions within capital markets from a BPO perspective. Everest Group research indicates that about a third of capital markets BPO contracts include institutional trading

Figure 1: Trade Reconciliation is an Important Post-Trade Auditing Activity

Life Cycle of an Institutional Trade by Major Stages

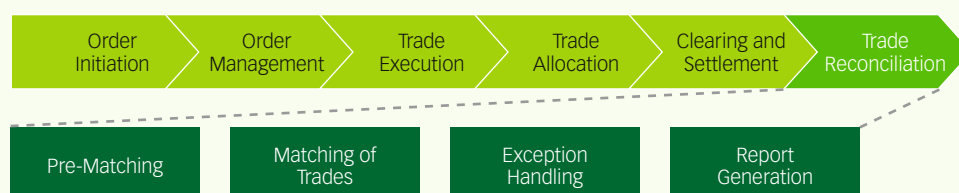
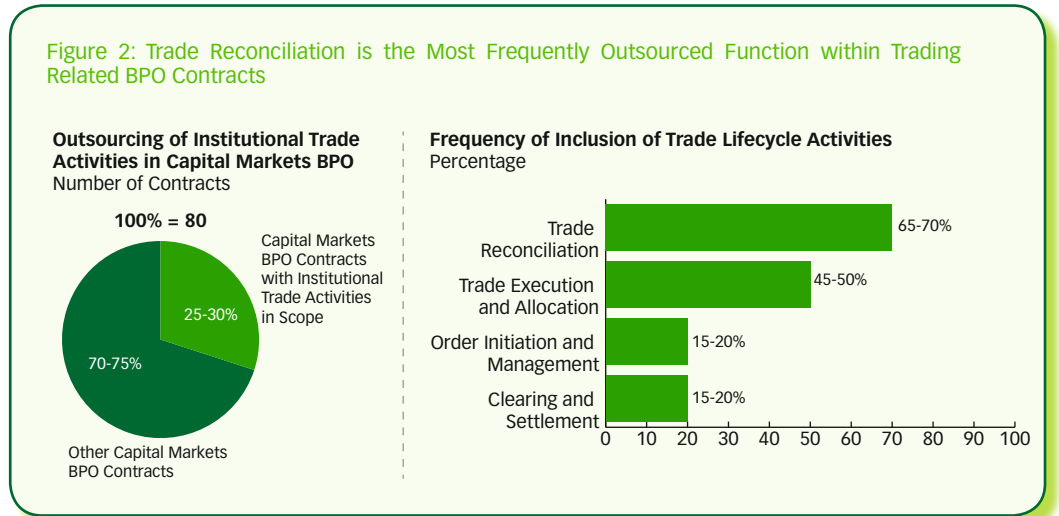


Figure 2: Trade Reconciliation is the Most Frequently Outsourced Function within Trading Related BPO Contracts



activities in some form, and within these contracts, trade reconciliation is the most frequently outsourced function, accounting for almost three-fourths of deals with trading in scope.

Everest Group estimates that global asset managers spend roughly \$12 billion on reconciliation services each year, and approximately 15-20% of this spend on reconciliation can potentially be outsourced. However, only 5-10% of the market has been captured by outsourcing and shared services, leaving a potential market of around US\$2 billion to still be captured. With the most severe effects of the financial crisis waning, the market is expected to increase in size given the increase in trading volumes and Assets Under Management (AUM) for large investment and hedge funds.

Why Outsource Trade Reconciliation?

While trade reconciliation has always been a key part of post-trading back office activities, it has acquired increased significance from an outsourcing context post the recession. In this period, trading volumes have largely been volatile, and the operational risk involved in trade processing has become a key concern for fund managers. Additionally, while trading in complex securities and derivatives has declined in this period (due to concerns over risk transparency), a greater variety of financial securities are now being traded across new markets, as financial institutions increasingly invest more beyond traditional markets.

Global asset managers spend roughly \$12 billion on reconciliation services each year, and approximately 15-20% of this spend on reconciliation can potentially be outsourced.

Finally, trade reconciliation evolved within financial institutions as a disjointed process, with different business units and brokers following different reconciliation standards and using different systems. As a result, the centralization and standardization of the trade reconciliation process has also become a key priority for financial institutions around the world.

In particular, the following factors drive the adoption of trade reconciliation outsourcing the most:

Cost saving: Outsourcing reconciliation (and other middle-office operations) provides cost savings leveraging economies of scale, access to best-in-class capabilities, and improved operational efficiencies for financial institutions. Cost saving has also become a key priority for asset managers post the global economic downturn as margins fall and global markets do not see a quick return to pre-crisis prosperity anytime soon. Third-party outsourcing service providers, by virtue of their expertise and economies of scale, are

well positioned to deliver significant cost savings for trade reconciliation to financial institutions.

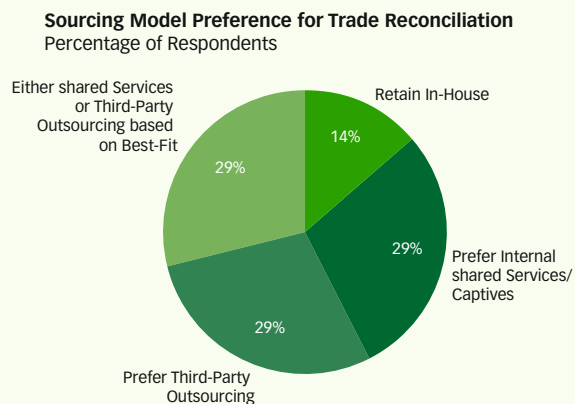
Risk management: In the current volatile and high risk economic environment, financial institutions have particular concern over two different types of risks. The first is operational risk, which stems from the involvement of multiple stakeholders in the reconciliation process, including multiple internal business units and external broker dealers. The second is compliance risk, which is fast becoming a concern given the stringent compliance requirements and new accounting standards that have been introduced by regulators across different geographies of late. These concerns translate to greater demand for outsourcing of trade reconciliation, as third-party service providers provide greater standardization and easier consolidation across different entities involved in the trade reconciliation process. These service providers are also well-positioned to offer turnkey compliance and reporting solutions that can help financial institutions meet regulatory requirements. A caveat, though, is the quality control that is put in place by the service providers to ensure that operational errors do not creep into its own processes. As has been highlighted by some recent scandals involving the outsourcing of operations by large banks, the onus is on service providers to demonstrate

that they can put in place effective checks and balances to prevent any slippages.

Access to technology expertise: Disparate reporting, broken systems, and the lack of internal standards can sometimes cause financial institutions to wonder if they need a reconciliation system for their reconciliations! Humor aside, technology solutions for trade reconciliation are high on the list of priorities for financial institutions. For example, there is significant technical expertise required to manage trade files across multiple brokers. Further, the brokers periodically change the format of their trade and position files, requiring ongoing investments in keeping the platforms relevant. Outsourcing to a third party can help avoid these investments while still availing the associated benefits of the technology. Outsourcing the reconciliation function avoids heavy investments in technology (and upgrades) while providing access to best-in-class IT capabilities of service providers.

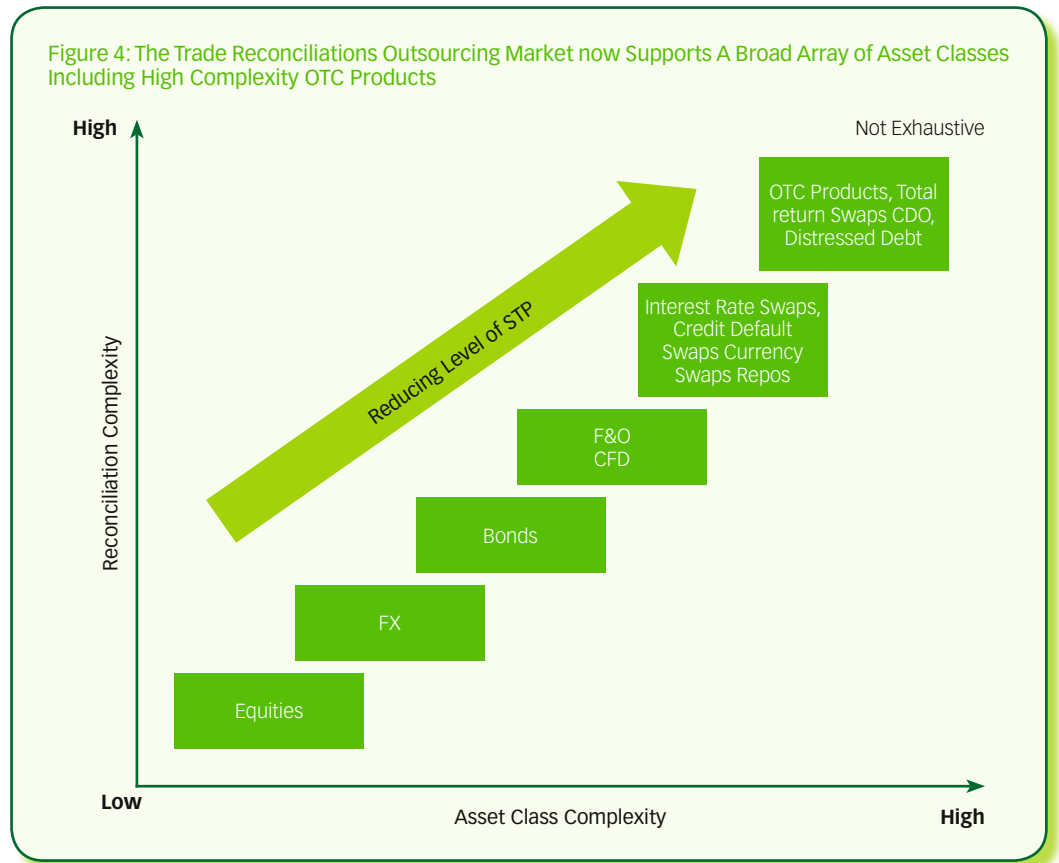
Flexibility and improved time to market: Given uncertainties in global financial markets, asset managers are witnessing large fluctuations in trading volumes, giving rise to reservations regarding the requirement of operational staff for trade reconciliation. Outsourcing of reconciliation functions provides flexibility and helps better-manage capacity with demand variations. The

Figure 3: The Sourcing Model for Trade Reconciliation Adopted by Different Financial Institutions Depends on their Internal Processes and Requirements



Source: Vertical Industry Strategies in Shared Services & Outsourcing survey, January-February 2012; interviews with financial services executives

Figure 4: The Trade Reconciliations Outsourcing Market now Supports A Broad Array of Asset Classes Including High Complexity OTC Products



flexibility also provides asset managers the service providers' expertise and helps improve time to market and scalability to support growth.

At the same time, there are also concerns against outsourcing. Key considerations which financial institutions cite to avoid outsourcing are loss of control, limited appetite for standardized solutions, corporate culture,

reduced responsiveness, and limited awareness of the possibilities (mostly cited for offshore delivery).

A Choice Between Sourcing Models – Third Party Outsourcing v/s Shared Services

While outsourcing trade reconciliation offers clear benefits, most financial

Asset Class	Reconciliation complexity
Equities	Though most trades are reconciled automatically, inaccurate processing of corporate actions (e.g., stock splits and dividends) in equities or coupon payments in bonds result in breaks
Fixed income securities	- Reconciliations require large sets of global market conventions including emerging market data - Additionally, valuation models using yield curves or credit/inflation data create additional complexity (required largely for fund accounting)
OTC Products	- There is a lack of standardized identifiers (e.g., ISIN and CUSIP) and security reference data that makes reconciliation of OTC products a challenge - Further, there is a need to interface with multiple trade booking, collateral and margin systems that do not have a common data standard or definition - In addition, broker/counterparty files tend to typically be Microsoft Excel spreadsheets or text documents rather than the preferred machine-readable formats (e.g., xml and csv) for automated reconciliations



Significantly, financial institutions now rank accuracy and speed ahead of cost as a key criterion for evaluating outsourcing service providers.

institutions are still to adopt a pure outsourcing model for it. This is partly because shared services offer at least some of the benefits also offered by third-party outsourcing, while allowing the additional comfort of stronger control over a process that is still retained within the organization, if not the business unit itself. As a result, the sourcing model decision is heavily dependent on the existing sourcing strategy followed by the financial institution. Organizations with existing shared services operations or third party service provider relationships typically prefer to go the captive route or the third party route respectively. For organizations who are looking at this choice afresh, a 'best fit' model typically works best, depending on their requirement for control, risk perception, and willingness to explore outsourcing for trade lifecycle processes.

Another factor that influences whether trade reconciliation services are outsourced or stay with shared services units is whether the service being sought is standalone or part of a larger array of other capital markets related services. Everest Group research indicates that the "componentized" model (i.e., sourcing only reconciliation services) is attractive to managers who want to maintain greater control over their operations and are not amenable to large-scale change within the organization. These kind of services are more likely to be retained within the organization (i.e. either be handled by a shared service operation or stay within a business unit).

On the other hand, the "turn-key" or "bundled" model includes an array of services including reconciliations, fund accounting, and value-added services. This is preferred by companies that have greater appetite for change, and are looking to outsource so as to be able to focus on their core competencies.

Everest Group research indicates that the two models see almost equal adoption in practice.

The Drivers of Complexity for The Reconciliation of Different Asset Classes

The trade reconciliation market now supports a broad array of asset classes including complex structured products and OTC products. However, the drivers for reconciliation complexity across these asset classes are different.

These issues and complexities give rise to the critical need for a robust, up-to-date securities master. It also emphasizes the need for a reconciliation technology platform that can continuously evolve to incorporate different types of trade files and reduce manual processing of trades, as well as the need to build relationships with the broker eco-system to ensure timely access to trade files.

The Delivery Location Decision: Cost Still Important, But Speed and Accuracy Important too

An important consideration when considering centralizing or outsourcing



trade reconciliation services is the delivery location involved. Cost saving, driven by labor arbitrage, has long been the biggest consideration driving this decision. Sourcing reconciliation services from offshore locations, such as India, provides significant savings in operating costs due to differences in labor rates. The large talent market in India makes it possible to engage a suitably skilled workforce, creating significant enhancement in accuracy rates. Further, the costs saved allow for the redeployment of capital which enables the hiring of multiple resources resulting in improved productivity.

Significantly, financial institutions now rank accuracy and speed ahead of cost as a key criterion for evaluating outsourcing service providers. This implies that while cost considerations are important, commoditized service offerings are unlikely to succeed in the marketplace.

Trade reconciliation outsourcing is still predominantly an offshore-led phenomenon. Offshore locations can optimally use time differences between closing and opening of financial markets in client geographies. For example, India can complete trade reconciliations for the previous day and

prepare necessary exceptions reports before markets open in the United States. Of late, to complement India, some financial institutions are also using other geographies in Europe and the Americas to provide seamless handoffs and enable a “follow-the-sun” delivery model. While the scale in these geographies is still very low compared to that in offshore locations, their emergence signified the need for an offshore plus delivery model.

Making the Right Choice: Key Factors that Financial Institutions should keep in Mind when Selecting A Third-Party Outsourcing Provider for Trade Reconciliation

The trade reconciliation market is complex and is dominated by players that offer a wide variety of solutions, from people and process models to turnkey technologies. To choose the right outsourcing partner in this market, financial institutions require a multi-dimensional view of service provider capabilities. While cost saving is the primary objective of outsourcing and the main criterion for selecting a service provider, the following factors also play an important role.

Dimension	Key Strategies Needed
People	• Success requires a skilled resource base that can speak the customer's language. Successful talent management requires: – Sourcing of quality talent – Training the workforce (can be biggest differentiator; allows associates to ramp-up and speak the customer's language) – Retaining key employees (primary determinant of customer satisfaction)
Process	• The service provider should be able to deliver a range of value-added services beyond core trade reconciliation services. For example, FX and cash management, collateral management, data warehouse initiatives, dashboard reporting, risk management reporting, real-time performance reporting, and start-of-day packages • The service provider should be able to support integrated operations across the middle office and back office
Technology	• A state-of-the-art reconciliations engine forms the backbone of service delivery • Investment in technology can create substantial differentiation across solutions and service providers. Key attributes of a good technology solution are: – Scalability to support volume growth across clients – Flexibility to support multi-asset, multi-currency, and multi-geography trades – Configurability to adapt to different clients and broker environments • Technical innovation is also necessary to reduce manual intervention when dealing with different trade desks among brokers (e.g., developing automated scripts to parse data from PDF trade files sent via e-mail) • Service providers are increasingly exploring delivering a standardized "software-as-a-service" solution to small and mid-market clients. If the financial institution is looking for a standardized solution with integrated technology, this may be a good option to consider
Relationships	• Obtaining timely access to trade and position files from brokers is an important aspect of reconciliations services. It will be critical for the service provider to develop relationships with large and small brokerages alike to ensure timely receipt of trade files. Brokerages, typically, have limited incentive to share standardized information unless the service provider has a large number of mutual clients, which creates collective bargaining power • Another challenge for a service provider is ensuring multiple relationships within the same brokerage given the differences in operations and file formats across trade desks. The financial institution should carefully evaluate the service provider's ability to handle complex relationships across multiple brokerages before making a selection • Cultural fit between the financial institution and service provider is another important criterion to look at closely. An outsourcing relationship requires close coordination between trading operations units and the service provider, and cultural differences can often create divergence between expectations and results on daily operational coordination



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The Need For Liquidity Management in Treasury

1. Introduction

As Banks and Financial Institutions continue to grow and experience global expansion, the need for centralization and automation of treasury functions is becoming more and more essential. This is particularly true in the Middle East. With the region having an emerging market tag, an increasing number of companies and multinationals are looking to invest in the region to take advantage of this new opportunity.

Cash and Liquidity Management is such a wide topic that a whitepaper of this nature can only focus on a relatively small selection of key issues. This whitepaper highlights areas that are applicable to banks acting as a Cash Management / Liquidity Management solution or service providers and corporates, or for their proprietary needs as part of their treasury offering.

2. The Need for Liquidity Management

On analysis of the recent financial crisis it was noted that many banks had posted adequate levels of capital but still experienced difficulties due to improper management of their liquidity. The bugbear has always been the long-range cash-flow forecasting for treasurers. Post-crisis, the higher cost of liquidity, large funding spreads, higher volatility and reduced market confidence have driven financial institutions to allocate more resources to improving their liquidity risk management capabilities and meet new regulatory requirements.

Liquidity management is the daily management of liquidity under “normal” market conditions, while in its broadest sense; it includes quantitative and qualitative objectives to prevent liquidity issues.

Globally, companies and banks are seeking to achieve visibility and control over their cash so as to reduce external borrowings, conserve credit lines for strategic activities rather than utilize it as working capital, and maximize returns. These set of agenda poses a challenge in many countries, and the regulatory challenges along with distributed or fragmented bank relationships and multiple accounts can make these objectives difficult to achieve.

3. What to Expect from A Liquidity Management Solution

With liquidity management becoming more important, Liquidity Solutions will need to provide customers with an overview of their global multicurrency cash and investments. Banks need to provide customers

Liquidity management is the daily management of liquidity under “normal” market conditions, while in its broadest sense; it includes quantitative and qualitative objectives to prevent liquidity issues.



with a wide range of options to manage their excess liquidity, including deposit accounts for providing higher yields and cross-currency notional pooling and cash concentration solutions that enable companies to sweep excess cash between regions for same-day values. The solution should enable information to be sliced and diced in a number of ways (legal entity, country, currency, third-party balances). Customers should also be able to view and manage cash concentration structures and initiate investments. It also needs to help clients better manage their liquidity by using multi-bank cash concentration services.

The Cash and Liquidity Management solution will need to enable banks to break down organizational silos with an enterprise-wide solution and create a global, real-time view of all money movements, cash and liquidity positions, to support optimal investment and lending opportunities.

Further, the solution should have the ability to calculate liquidity positions in all of the currencies in which the bank conducts business – both on a subsidiary/branch basis in all jurisdictions in which the bank is active and on an aggregate group basis. It needs to capture all sources of liquidity risk, including contingent risks and its related trigger risks

arising from new activities, and must have the ability to deliver more granular and time-sensitive information during stress events. To effectively manage and monitor its net funding requirements, a bank should have the ability to calculate liquidity positions on an intraday basis, on a day-to-day basis for the shorter time horizons and over a series of more distant time periods thereafter. It needs to cater to day-to-day liquidity risk management to monitor compliance with a bank's established policies, procedures and limits.

3.1. Automation of Global Cash Positions

Trends Towards Centralization

Middle Eastern companies and banks have historically managed each of their businesses independently. The key functionality of Liquidity Management is to oversee daily liquidity and cash investing. The key challenge of any treasury organization that lacks automation is the ability to produce an overall view of the company's cash position. For example, different parts of the business involved in treasury will frequently have different systems and various ways of recording and reporting information.

The ability to pinpoint a global cash position enables companies to identify surplus cash, which may then be used to pay down debt or even be redeployed to provide financing for new initiatives. With automation, treasury departments can gain real-time visibility into their global cash position on a daily basis. Automation expedites data collection between bank accounts (domestic and international), enabling information to easily be piped into a centralized treasury workstation where it becomes actionable. This enables treasury to accurately forecast cash and liquidity requirements and make better investment and borrowing decisions.

Another aspect of Liquidity Management would be to have integrated receivables, which helps in streamlining and automating a banks availability of funds, which, in turn, reduces the time consumed to reconcile receivables.

3.2. Customer Portal

Web-based portal offering from banks to cater to various services as the channel



in current market conditions has become a necessity. This is now a service expectation and is a part of the product offerings from IT solution providers. Banks offer this to their customers as an enhanced experience.

These services, by the bank, can be catered to both corporate and non-bank financial institution customers.

Some of the web-based service offerings which can be performed from a local, regional or global perspective could include,

- Transactional Banking (Cash Management, Trade & Securities)
- Access to global markets
- Flexible global real-time reporting of account statements
- International and domestic payments
- E-mail advice
- Centralization of payables and collections

3.3. Enterprise Risk Management

There has been a greater emphasis on financial institutions to demonstrate a comprehensive approach to view firm-wide exposure and risk since the recent distress in the financial markets. There is an increasing focus on a firm's enterprise risk management practice by the rating agencies in their processes.

In general, the methodologies for managing liquidity risk are known, whereas the focus is on the process of industrialization and subsequent application to the institution.

The key constituents of risk methodology are:

- Recognizing and measuring liquidity risk in normal course and stressed times (stress testing)
- Monitoring and ensuring that the liquidity risk is kept at or below the level defined, as well as a periodic review of the standards set and its application
- Mitigation of liquidity risk: the risk can be reduced by institutions, which will choose the appropriate tools - typically diversification of funding sources or liquidity buffers, among others

Some of the key challenges that these new requirements pose for the IT process can be categorized as follows:

- The analytical challenge – having the right solution at hand for providing a proper cash-flow modeling, calculating appropriate liquidity buffers, measuring the influences of primary risks on liquidity, having the flexibility to define measures and indicators and stress scenarios easily
- The time challenge – having the right IT infrastructure and processes in place to conduct critical calculations on a daily or even intraday basis
- The data challenge – being able to describe the institution's business and organization completely, while delivering information on a daily basis when required
- The reporting challenge – having the right solutions in place to monitor the defined measures and indicators together with a new collateral management system and flexible ad hoc reporting capabilities

Due to the urgency and necessity of the liquidity issue and the uncertainty around the flexibility of future regulatory requirements, the ability of risk management solutions to support liquidity requirements as part of a wider integrated risk management approach is key.

3.4. Multi-Bank Cash Concentration and Cash Forecasting

The common practice used by many companies and banks is to centralize their cash, currency-wise, into a single account



using zero or target balancing techniques. This method tends to have its shortcomings in jurisdictions where there are restrictions on transferability. In the same fashion, companies and banks with a decentralized approach to cash management do not necessarily wish to transfer funds physically but still want to achieve the benefit of balance sheet and interest offset.

To centralize balances held at third-party banks, the liquidity management solution will need to address multi-bank sweeping that allows the customer to check balances held at third-party banks and be able to generate balance transfer requests.

Cash flow forecasting can be defined as the modeling of a company or bank's future financial liquidity spread over a specific time period. This could in turn be an important input into the valuation of assets, and in arriving at budget for the future.

Some of the key requirements of a cash concentration solution are:

- The solution will need to support fund movement across third-party bank accounts

To centralize balances held at third-party banks, the liquidity management solution will need to address multi-bank sweeping that allows the customer to check balances held at third-party banks and be able to generate balance transfer requests.

- The channels supported for multi-bank cash concentration could be through SWIFT or FIX, among others
- Support automated movement of funds across currencies, accounts, banks and geographic regions
- Option to cater to intraday and end-of-day fund movement

These features help minimize the idle balances in local bank accounts, thus increasing the balances at a central account to be used for investment or reducing loan borrowings.

3.5. Sweeping and Pooling – Local and Cross-Border Cash Pooling

There are variety of tax and regulatory complications for banks and companies, which have cross-border liquidity management requirements. In a typical scenario, using a technique that involves a physical movement of funds, such as target balancing, among others, is likely to result in an inter-company position that may be difficult to reconcile. Additionally, in decentralized banks and organizations, the physical movement of funds may cause internal problems, especially, when the local finance team falls out of jurisdiction of the treasurer or lacks authority to direct them to transfer their cash to another business entity. Then, there are withholding tax issues, such as replacing local bank financing by a non-resident group entity funding. Any solution catering to intercompany liquidity will tend to



be disadvantageous by incurring withholding tax in this fashion.

Without access to such adequate cross-border liquidity market and infrastructure it is difficult for these institutions to manage their short-term liquidity needs, requiring them to maintain a larger amount of liquidity compared to their conventional counterparts.

Any investments can be done using sweep funds. The solution will need to have the capability to handle sweeping from both domestic and cross- There can be two types of domestic sweeps, mainly same currency sweeps and multi-currency sweeps. The cash concentration in a solution will need to specifically address the transfer pricing issues and cross border arrangements.

3.6. Liquidity and Investment Desks

Automated Investments

By linking it to liquidity structure, automated investments can ensure that

customer balances are optimally invested at regular intervals.

Some examples of the types of investment for a customer are given below:

- Interest bearing accounts – Provision for interest bearing account through which account balances earn interest based on a key market rate
- Overnight sweep investments – Enabling the customer to set up standing instructions on the accounts to manage sweeping for investments.
E.g. End-of-day investments standing instructions linked to customers operating accounts will automatically ensure full investment of end-of-day liquidity. In other words, an account maintained with a bank for a region is invested overnight to one of a few offshore branches of the bank and then returned to the operating account the next business morning
- Money market funds – The option of intraday investments prior to the fund cut-off times offer competitive yields and the highest investment quality.
E.g. Available balances are swept from a customer operating account in the late afternoon daily and remain fully invested until needed to cover overdrafts in a Demand Deposit Account, at which time they are automatically redeemed

Liquidity Desks

The role of Liquidity and Investment desks across regions is to provide a central point of contact to facilitate investment transactions in every major region.

For the bank's customer, the potential benefits of actively investing through these Liquidity Desks could include:

- A higher yield for large incremental balances
- Real-time market updates and trade execution support provided by bank
- Option for customization of investment maturities and solutions
- Increased opportunities for customers whose investment period extends overnight

The Liquidity Management solution will allow a customer to continue working



with preferred domestic banks while being fully integrated with the parent bank's cash management solutions. This will enable the customer to track liquidity trends and control concentration, investments and funding via a web-based online banking platform.

Sweeping

Sweeping is a technique of consolidating funds from various accounts (maybe at various locations or the same location) into a single account. It involves the physical transfer of funds between accounts, for the purposes of concentrating funds at a central point. Debit balances are set against the credit balances and interest is attributed to the net position. Sweeping of funds may be automated on a day end or intraday basis to assist in cash flow forecasting. Zero balancing an account, or restoring the balance to a pre-determined (pegged) level is commonly performed using the sweeping technique.

Notional Pooling

Notional Pooling can be defined as a concept that allows banks and corporations to preserve the autonomy of their subsidiaries and accounts in a scenario where they have decentralized operational structures. It is usually a setup between same entities of an organization. This, in turn, represents the organization's short-term credit and deficit balance position as a net number.

For interest compensation purposes, pool participant accounts in a single currency will need to be aggregated. There will be no actual movement of funds physically, but will be combined notionally. The functionality will also need to ensure that there is no co-mingling of funds, and all account positions will need to be maintained individually, thereby adhering to integrity of accounts. Provision for having an Automated Investment option in the solution, which takes care of deploying the net excess pool position, will be an added functionality.

Below is the list of some of the benefits of Notional Pooling:

- Interest expenses are minimized by off-setting credit and debit positions
- Autonomy, record-keeping and control are preserved
- Without the movement of funds, the benefit is derived from off-setting
- Interest reallocation process can be completely automated
- Have an impact on operating expenses, which are reduced
- Allows for concentrating balances

When Notional Pooling, Target Balancing and Automated Investment options are used in conjunction, they provide benefits of a global liquidity structure.

Target Balancing

Target Balancing can be defined as the ability to concentrate or mobilize cash into a single location based on end user need. The end-of-day balances are concentrated from source account to a target account using an automated process. These services can further be enhanced and offered as a differential at a country-specific, regional or global level to derive greater efficiency. Thereby, allowing the end user to deploy the target balance account to centralize the user's funding requirements by means of investment or incorporation of balances into an overlay pool.

Some of the benefits of Target Balancing are:

- Increase the use of internal funds across domestic and off-shore accounts
- Minimize interest expense by offsetting debit and credit balances
- Maximize the return on excess liquidity
- Automate interest reallocation



- Reduce operating expenses
- Easy tracking of inter-account balances

The most commonly used forms of target balancing is the Zero Balance Account (ZBA) structure. This is a basic technique used for consolidating account balances and reducing overdraft costs and risks.

3.7. Intercompany Lending Solution - Centralize all Internal Lending and Borrowing in one Location

In the current market scenario, intercompany lending is an important source of funding for global firms. A well-defined solution gives companies or banks greater control over funding sources, tax liabilities, and repatriation and foreign exchange exposures. These contribute to a reduced risk profile.

The Intercompany Lending solution as a capability will need to address the need of treasury departments to centralize activities related to intercompany lending between legal entities. This will need to be catered to by capturing funding activity in one globally accessible online system. It also needs to streamline the tracking and reporting of financial flows and make it easier to control and monitor related activities.

The Intercompany Lending Management Solution will need to include the following key features:

- Management of internal counterparty exposures by setting lending and borrowing limits between entities
- Initiation of loans in any currency to accrue at defined rates, day basis, accrual methods, among others
- Maintain withholding tax rates to calculate tax liabilities
- Approve and monitor loan requests and amend terms online
- Centralize and manage data on legal structures, their functional currencies, fiscal-year, percentage of ownership, and more
- Store loan-related and other documents for easy retrieval
- Maintain an audit trail to support compliance tracking

4. Conclusion

Banks across business lines and geographies will be substantially affected by new liquidity regulations and policies. The key issue in the overall liquidity chain that is preventing payments, treasury and risk managers from reaching their goals is the lack of fundamental underlying information.

An industry-wide collaborative approach to developing better business practices around intraday cash positions in particular can complement the work done at an individual bank level and ensure more consistency in implementation—reducing costs and improving efficiencies.

Liquidity is the lifeblood of any business, and we must make sure that we get there as quickly and as efficiently as possible.



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Making Banking Fun – Customer Experience Management - Gamification in Banking

You must have heard of Quirky, a crowdsourcing product innovation company that uses game mechanics to predict and evaluate ideas and develop successful products. Quirky users can log in using their Facebook credentials and submit their innovative ideas. This “social product site”, as it is called, leverages collective intelligence to gather ideas onto a social platform. What’s more, a Quirky University guides users about their idea submission, including providing guidelines on the art of perfecting a 140-character pitch statement for a successful product description.

Most of us have a LinkedIn account these days. You must have noticed that LinkedIn encourages you to complete your profile and shares a progress bar on its edit profile page, making it a visual representation of your profile’s completeness. With this, it hopes to trigger behavior that will drive you to complete your profile.

What are Quirky and LinkedIn doing here? These are two varied examples of gamification in the world of business (not World of Warcraft). One is using gamification as a tool to breed innovative products while the other is spurring you on to doing something about your profile.

Is gamification a mere buzzword? Are we talking of an extension of the 70 Billion Dollar industry spawned by video gaming in the last 40 years here? The answer is an emphatic NO. Coined in 2004, gamification

meaning the ‘ification’ of a ‘game’, the term moved up the popularity charts in 2010, and has now taken on greater significance with The Wharton School at University of Pennsylvania beginning an MBA course on Gamification this fall. Why has gamification become so relevant today? Made popular by two Wharton professors in their recent book, *For the Win*, gamification is the subject of massive debates and conferences today.

Gamification is the application of game principles to non-game business scenarios to make them more fun and engaging. It is increasingly being used by companies to change user behavior, extend brands and solve real-world problems.

The oldest example of gamification is the Frequent Flyer Program or FFP that airline companies offer as part of their customer loyalty programs. The movie *Up in the Air* in 2009, had George Clooney playing the role of someone who targets being the 7th person

With customers constantly being bombarded by “push” communication from marketing teams, gamification works better as it engages with users through the medium of play.



in history to collect ten million frequent flyer miles with American Airlines. For this effort, this frequent flier would receive a special card with special privileges from the company.

Microsoft's roll out of achievement points for its Xbox Live game was probably the start of the popularity of online gaming. Brands took note of the trend and the loyalty that users developed in their pursuit of gamer score not to mention bragging rights. Foursquare, Foodspotting, Nike+, Mint, Epicwin and a host of others are offering innovative games associated with the completion of tasks and achievements. Foursquare stands out among these brands with 10 million users on its gaming platform. What all of them are doing is taking an ordinary exercise (eating food at a restaurant in Foodspotting) and creating a casual gaming experience to drive user acquisition and peer recommendations in a creative way.

Gartner has termed gamification as a "powerful tool to engage employees to develop skills and drive innovation". Gartner predicts that by 2020, with the emergence of technologies such as gesture control and augmented reality, gamification will become commonplace in our daily lives.

Why has Gamification Caught on so Fast?

With customers constantly being bombarded by "push" communication from

marketing teams, gamification works better as it engages with users through the medium of play. Players (customers) can comment on articles on your websites, check-in to specific locations you want them to, refer their friends on social networks, all the while notching up points (rewards). Now, add to this the competitive element of any game.

Why should companies use gamification in their customer experience strategy? A simple answer: Because gaming is addictive. When customers become players working towards a purpose or goal with others, they stay on longer and remain engaged with your brand.

Case for Gamification in the Banking Sector: Appealing to the kid in your Customer

Banks today are contending with eroding brand loyalty, confidence and trust alongside high levels of customer attrition. One among many of the challenges faced involves growing and retaining an existing customer base while also being able to successfully cross-sell across all channels. The increasing emphasis on playing a significant part of a customer's social experience through an omnichannel strategy has reached crescendo levels today.

Another area that banks want to see positive change in, even as they comply with the swathe of ever-changing regulations, is to contain costs. The past few years show that banks, especially those with 1 Billion Assets and above, have increased their efficiency ratios (from 57% in 2008 to more than 60% in 2012), underpinning the spike in non-interest income and non-interest expenses (service charges on deposit accounts, employee salaries, and others).

So how can your bank streamline customer services, while it also offers low-cost services that don't affect your customer experience strategy? Focusing on the most profitable customers through well-planned games embedded in your core messages can foster a community of co-innovation, collaboration and open development while the continuous engagement bolsters a relationship of trust.

Can gamification play a role here? The answer is yes – to foster goodwill, extend your



customer engagement cycle across multiple channels and your social presence; and, educate customers about their investment portfolios and your bank's products and services.

Banks have been holding contests and promotions since the day they started doing business. Do they need a new term like gamification to describe an incentive program, you may ask. There is, indeed, a clear distinction between promotions and gamification in the sense that promotions motivate the target audience through a carrot to trigger a particular activity, such as adopting or trying out a new product. Open a fixed deposit account and get an iPad would be one such example. On the other hand, with gamification, a bank can make

a focused, deliberate effort to ingrain its products or services into the lifestyle of their consumers. Gamification targets continuous customer engagement using game principles and encourages participants to modify their behavior while they are playing the 'game'. Further, loyalty points, prizes and other such rewards prove beneficial for both the consumer and the bank. They are a part of the bank's product engagement strategy, while mere promotion-driven contests focus only on sales, and not the customer experience.

You realize that the human psychology angle plays an intrinsic role in gamification, involving not just marketing or sales teams, but cross-functional departments, processes, products and business operations. The same game can be played multiple times by a customer to bring about the desired engagement, loyalty and customer satisfaction. What we are talking of here is a long-term product and customer engagement strategy in the form of productive gaming. Naturally, when a customer is playing a game, their engagement with your solution (game) needs to be positive, more enjoyable, bringing in a sense of achievement and community. A shared purpose is what drives the experience

The increasing emphasis on playing a significant part of a customer's social experience through an omnichannel strategy has reached crescendo levels today.



rather than the end reward or point. The psychological motives for playing these games are quite different from someone entering a contest to win a prize. We all know how addicted we can get to a game.

Banks, the world over, are wizing up to this game. Some have even conducted surveys after implementing gamification to prove that more than 50 percent of their gamers are between the ages of 18-50 and, more importantly, play on mobile devices. The latter fact makes for an interesting proposition for financial institutions today.

Spanish bank BBVA's foray with its BBVA game (<http://ws1.grupobbva.com/TLBB/micros/bbvagame/index.html>) has been quoted 'n' number of times as an example of banks using gamification usefully. BBVA's customers visit the bank's website and experience a game-like interaction to gain points. This campaign has received overwhelming customer feedback, with 44 percent of its users coming from the villages of Spain, according to the bank. ICICI Bank (India)'s recent campaign, *Camaraderie – Behind the lens with a pro* is another example of how a bank used a photography contest to encourage its wealth management customers to get more involved with the bank. Other banks making their mark in the gaming sphere are Citibank and ODBC Bank in Singapore, CIMB, Malaysia, to name a few. (Read the complete story on: <http://www.banktech.com/>)

business-intelligence/5-banks-leading-the-way-in-gamification/240148098?pgno=2).

Marketing teams can build their brand messages into a game and leverage points and rewards to get users to refer friends and contacts, share feedback and talk about the brand. However you use it, gamification is a tool that has to connect to users in the form of something meaningful while you tell them the story of your brand. Organizations are constantly challenged by the customer experience they provide their customers with. How would a loyalty program that enlists cross-branding participation – where consumers are allowed to up their involvement with the aggregation of points and status membership, work? Indeed, many such successful coalition loyalty programs deploy intelligent game design for extrinsic reward schemes wherein customers are allowed to interact with multiple brands on a common ecosystem. In some instances, points picked up by the gamers can also translate into a virtual, transferable currency.

Technology product vendors for banking are also catching onto this idea, and have begun including gaming functionality in their products that can take banks' customer experience management initiatives to a new level. Today, when an organization talks about gamification, chances are they're speaking of a software gaming application designed keeping usability and human behavior in mind and delivered on social media to not only win new customers but also to create incentives to keep them coming back for more. In short, such experience management applications are fast becoming a standard operating procedure.



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Brief Overview of the latest Final FATCA Regulations – Changes and Updates

FATCA withholding has been postponed by another 6 months and IRS has issued the draft reporting format.

On 17 January 2013, the much anticipated final FATCA regulations were released by the IRS and the U.S. Treasury Department. The final regulations reflect the comments received in response to the proposed regulations of February 2012 and also address to align it in accordance with the Intergovernmental Agreements (IGAs) issued last year.

Background

FATCA, enacted in 2010 as part of the Hiring Incentives to Restore Employment (HIRE) Act, is an important development in US efforts to improve tax compliance with regard to offshore accounts of US persons. The initiative will also help combat tax evasion by US persons holding investments in offshore accounts.

Under FATCA, FFIs will need to enter into agreements with the IRS to report, in detail, the US accounts they handle, or be subject to a 30% withholding tax on any US sourced income and sales proceeds. FFIs will be required to identify US accounts, verify their ownership, report them to the IRS and withhold 30% on payments made to recalcitrant accounts.

The Final Regulations

Due Diligence Requirements

- 1) The final regulations align the due diligence requirements in line with those in IGA
- 2) FFIs can depend on already collected information (including W8 or W9 forms) as per existing AML procedures for FATCA purposes
- 3) Indicia elements for identifying US person remain the same and if no indicia are found against an account no further enquiry is required
- 4) Eases rules on documentation and payee identification:
 - FFIs/Withholding agents can rely on documentary evidence instead of a Form W-9 for US persons that are not specified US persons (i.e. permits “eye-ball test”)
 - Documentary evidence required for off-shore accounts only if any U.S. source FDAP received by the account; else written statement would suffice
 - The final regulations provide some documentation relief for owner-documented FFIs (ODFFI). For



Under FATCA, FFI's will need to enter into agreements with the IRS to report, in detail, the US accounts they handle, or be subject to a 30% withholding tax on any US sourced income and sales proceeds.

instance, only information related to direct or indirect owners that are individual and specified U.S. persons is required for documentation and reporting

- Even though the “three plus” rule for documentation validity has been retained (requiring FFI's to re-validate documents every three years or on expiry, whichever is earlier), a number of exceptions have been introduced that would lessen the burden of FFI's. For instance, provided no change in circumstances, a form W-8BEN claiming non-U.S. status along with documentary evidence is eligible for indefinite validity period

- The final regulations make it clear that a withholding agent has ‘reason to know’ that documentation is incorrect or invalid only if there is more than one U.S. indicia associated with the account (including U.S. place of birth or U.S. telephone numbers)

- 5) Customers of FFI's need not signoff their compliance with FATCA. Standards applicable as per AML requirements of the country would suffice

Withholding Requirements

- 1) The final regulations make it clear that no withholding would be applicable under IGA, as expected
- 2) FATCA withholding on gross proceeds has been postponed to January 2017 (as mentioned in the 26 October 2012 proposed timelines)
- 3) As per the final regulations, withholding under FATCA is not applicable if the withholding agent lacks control, custody or knowledge of a payment
- 4) If the source or character of a payment is unknown, a withholding agent must treat the payment as a withholdable payment. Otherwise it can choose to withhold 30% of the payment in an escrow account for a year until the determination of relevant facts

Reporting Requirements

- 1) FFI's to report using form 8966 before 31st of March (from 2015) (an additional 90 days may be granted if required)
- 2) IRS will publish XML schema for electronic submission of the report by end 2013 or early 2014
- 3) Among items to be reported:
 - Address to be reported is the residential address
 - FFI shall report average balance or value of the account if the FFI reports average balance to the account holder in normal course of business



- If FFI does not report average balance, closing balance at the end of the year should be reported
 - FFI can report in USD or the currency in which the account is denominated
 - FFI must report income credited to an account such as gross interest credited (for deposit accounts), gross dividend, gross interest, gross proceeds from sale of property and gross value of any other income credited (for custodial accounts) and gross amount paid (for equity and debt accounts)
- 4) If any account is closed during the year, gross amount withdrawn or transferred also needs to be reported
 - 5) Reports and records should be retained for a period of at least 6 years

FATCA Registration Portal

- 1) FATCA registration number, called Global Intermediary Identification Number (GIIN), will be provided to all registered FFIs
- 2) IRS will electronically publish list of FFIs on a monthly basis

- 3) Qualified Intermediary (QI) agreements will be modified and all QIs will be required to assume FATCA responsibilities to maintain their QI status. QI's GIIN will replace its existing QI EIN
- 4) Model 1 FFIs can also use the registration portal and will be treated as registered deemed compliant FFIs
- 5) Limited FFIs, deemed compliant FFIs and foreign branches of USFIs (falling under Model 1 of the IGA) also need to register and obtain GIIN

Treatment of Financial Institutions and Non-Financial Foreign Entities (NFFEs)

- 1) The definition of a 'financial institution' has been modified to closely conform to the one provided in the IGAs by incorporating the term 'investment entity'¹. This leads to the following conclusions:
 - Fund managers along with the funds managed would be considered as a financial institution (FI)
 - Family trusts and Private Investment Corporations (PICs) organized in IGA countries would generally not be considered as a financial institution. They are likely to be treated as passive NFFEs²
 - Similarly non-U.S. passive entities that are not FFIs are also expected to be treated as passive NFFEs
- 2) The final regulations have expanded the category of FFIs that will be considered as deemed-compliant FFIs:

As per the final regulations, withholding under FATCA is not applicable if the withholding agent lacks control, custody or knowledge of a payment.

¹ An investment entity includes any entity that primarily conducts as a business on behalf of customers: (1) trading in an enumerated list of financial instrument (like derivatives, money market instruments, foreign currency, interest rate and index instruments, transferable securities or commodity futures); (2) individual or collective portfolio management; or (3) otherwise investing, administering, or managing funds, money or financial assets on behalf of other persons.

² A passive NFFE must provide: (1) Certification of no substantial U.S. owners (2) Name, address, and TIN of each owner. An FI can rely on self-certification from a passive NFFE under IGA.

- Qualified Credit card issuers: A category of “registered deemed-compliant FFIs” where the credit card issuers agree to prevent customers from having a deposit in excess of \$50,000
 - Sponsored Investment Entities: Also a category of “registered deemed-compliant FFIs” where the sponsoring entity agrees to perform all due diligence, withholding, reporting and other requirements on behalf of the sponsored FFI. The “sponsored FFI” would be treated as a “registered deemed-compliant FFI”
 - Qualified Collective Investment Vehicles: This category of deemed-compliant FFIs has been created to provide relief for investment entities that are owned solely through participating FFIs or directly by large institutional investors, payments to which otherwise would not be subject to withholding or reporting under chapter 4 of FATCA
 - In addition to these, the final regulations also provide important guidance regarding some restricted funds (foreign funds which target only foreign investors), limited-life debt investment entities, non-registering local banks and some sponsored, closely-held investment vehicles
- 3) Transitional relief for limited FFIs (not having an IGA) would end on 31 December 2015 as stated in the proposed regulations. This is different from the IGA agreement that allows a limited FFI to continue in that capacity indefinitely.
 - 4) The treatment of passive NFFEs has been modified under the final regulations. Under proposed regulations an FFI was required to treat an undocumented NFFE as a Non-Participating FFI (NPFFI). But the final regulations have modified it as follows:
 - If the Participating FFI (PFFI) has an account for the passive NFFE but does not have certification in regards to its substantial owners and their details, the PFFI is required to treat the passive NFFE as a recalcitrant account and not an NPFFI
 - If the PFFI holds no account for the passive NFFE, the PFFI must treat it as an NPFFI

Grandfathered Obligations

- 1) The final regulations have once again extended the date for grandfathered obligations to include any obligations outstanding on 1 Jan 2014
- 2) The grandfathered rules have been expanded to include life insurance contracts payable upon the death of the insured
- 3) A withholding agent may rely on a written statement by an issuer of an obligation as to whether it qualifies to be treated as a grandfathered obligation

FATCA Certification and Compliance

- 1) A compliance officer must be in charge of the FATCA compliance program and would have to periodically certify to the IRS regarding the FFI's compliance with FATCA. Such a certification is required once in three years
- 2) In case of an event of default (as defined in the final regulations) of the FFI agreement on part of the PFFI, the IRS would allow the FFI sufficient time to remediate the event of default. If the PFFI fails to comply with the request, IRS reserves the right to terminate the FFI's participating FFI status
- 3) IRS could request for additional information such as account statements of US persons reported using 8966
- 4) IRS can request for audit by external auditors/third party consultants

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