

# Core Banking Transformation: Measuring the Value

**With significant initial investments and long payback periods before generating substantial return, is it worth transforming your core banking system?**



**People matter, results count.**

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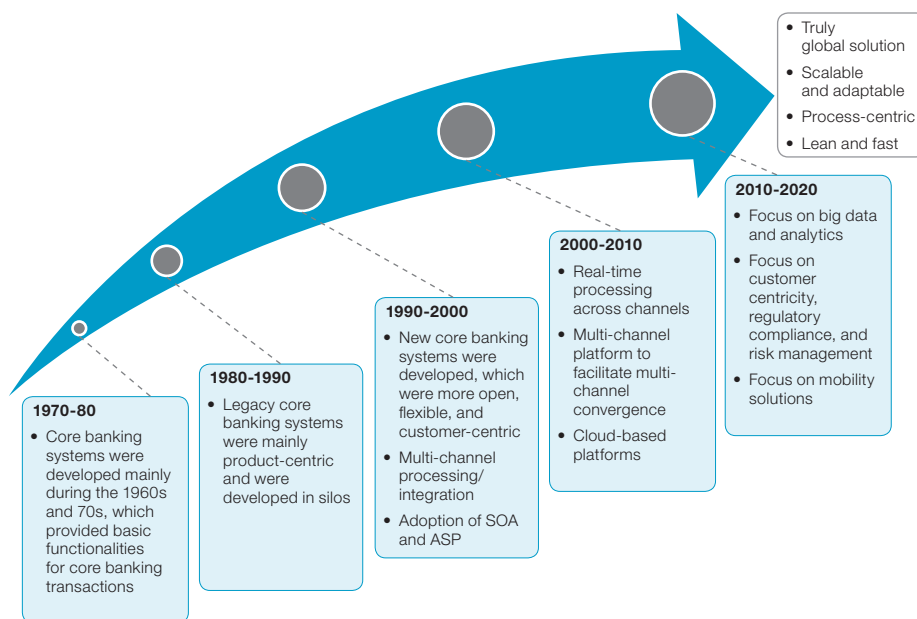
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# 1. Introduction

**Core banking transformation** refers to the replacement, upgrade, or outsourcing of a bank’s core banking systems which are an integrated suite of software applications for processing and posting of transactions and managing the accounting processes of settlement. These applications perform mission-critical operations for a bank related to accounts, loans, payments, and securities, and constitute the heart and backbone of the bank’s information technology (IT) infrastructure.

The first core banking systems appeared in the 1970s and were mainly developed in-house and ran on mainframes. Package-based solutions started to appear in the 1980s but were limited in their ability to handle large volumes. In the 1990s, new players entered into this space with package offerings that were more open, flexible, and customer-centric. The core banking solutions developed in the last decade have focused on convergence of digital channels along with increase in scalability and flexibility. These solutions focus on enhancing the mobility for the customer and internal bank staff, and on achieving real-time channel processing and multi-channel integration capabilities.

Exhibit 1: Evolution of Core Banking Systems



Source: Capgemini Analysis, 2013; “Core Banking Systems Survey”, Capgemini, 2008

The core banking solutions of the future will be truly global so a bank can easily deploy a system across multiple geographies. New core banking solutions will be more scalable, adaptable, and process-centric than before and will be lean and fast to be economical to deploy over the cloud and enhance the banks’ agility in responding to competition and changing business requirements.

## 2. Drivers & Objectives

The introduction of new products, channels, and technologies has necessitated the transformation of old legacy systems.

### 2.1. Internal Drivers

Core banking transformation is driven by the need for responding to internal business imperatives, such as growth and efficiency.

- **Product and channel growth.** There are an increasing number of products to cater to different customer segments. Furthermore, the number of channels is expanding with time, which is increasing the complexity of multi-channel banking. This has necessitated investments into modernizing core banking systems in order to handle an increasing volume of product-channel transactions and payments.
- **Legacy systems management.** As legacy technologies are fast becoming obsolete, fewer resources are available with knowledge on legacy technologies and banks are forced to move to new technologies. The introduction of these new technologies provides banks with real-time systems, flexible business process set-up, and reduced platform costs through hosted and cloud-based solutions.
- **Cost reduction.** As banks look to improve internal IT efficiency in the current macroeconomic environment, they are turning to core banking systems transformation as a way to gain more internal cost savings. Today's core banking systems are aimed at consolidating several stand-alone applications and optimizing existing costs associated with core applications and hardware processing which helps banks reduce the high maintenance costs associated with legacy IT systems.

### 2.2. External Drivers

Core banking transformation is also driven by the need to respond to external business imperatives, such as regulations and competition.

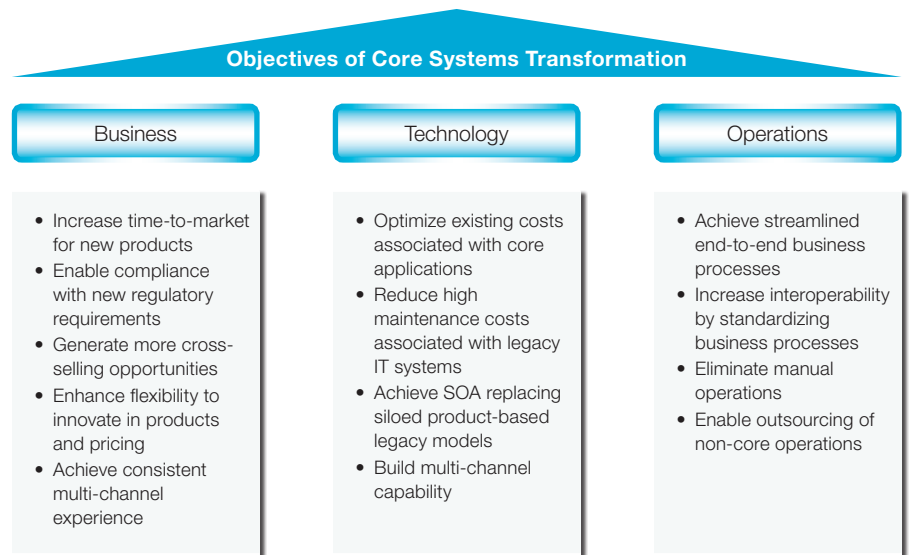
- **Regulatory compliance.** Banks need to enhance their IT systems and operations in order to comply with an increasing array of new regulations such as Basel III, Foreign Account Tax Compliance Act (FATCA) and the Dodd-Frank Act which are aimed at enhancing risk management and governance procedures and improving transparency of banking operations in customer interaction.
- **Customer centricity.** Traditionally banking has been product-centric but now products have become commoditized. Banking is now more customer-centric and there is a new focus on customer service, single view of the customer, and relationship-based pricing.
- **Increasing competition.** Banks are facing increasing competitive pressure from new entrants such as online and direct banks running on new core banking platforms. This is forcing traditional banks running legacy core banking applications to decide in favor of migrating their core banking systems to new platforms.

### 2.3. Transformation Objectives

Core banking transformation must have a proper business justification, such as decreasing operating cost, improving operating efficiency, and growth in business. Transformation objectives can be categorized under business, technology, and operations.

- **Business.** Core banking transformation helps to standardize and streamline end-to-end business processes. The transformation also helps to improve compliance with new emerging regulations, which in-turn improves time-to-market for new products.
- **Technology.** Core banking transformation replaces legacy systems and thus reduces the costs associated with the maintenance of legacy systems. The transformation also improves core applications through service oriented architecture (SOA), and through improved interoperability of silo product-based legacy systems.
- **Operations.** By achieving standardization of business processes, straight-through-processing and elimination of manual operations, the operational efficiency improves. The transformation also helps to facilitate the outsourcing of non-core operations.

Exhibit 2: Objectives of Core Banking Transformation



Source: Capgemini Analysis, 2013

# 3. Building a Business Case

The business case for transformation includes both qualitative and quantitative analysis along with a long term commitment among all key stakeholders.

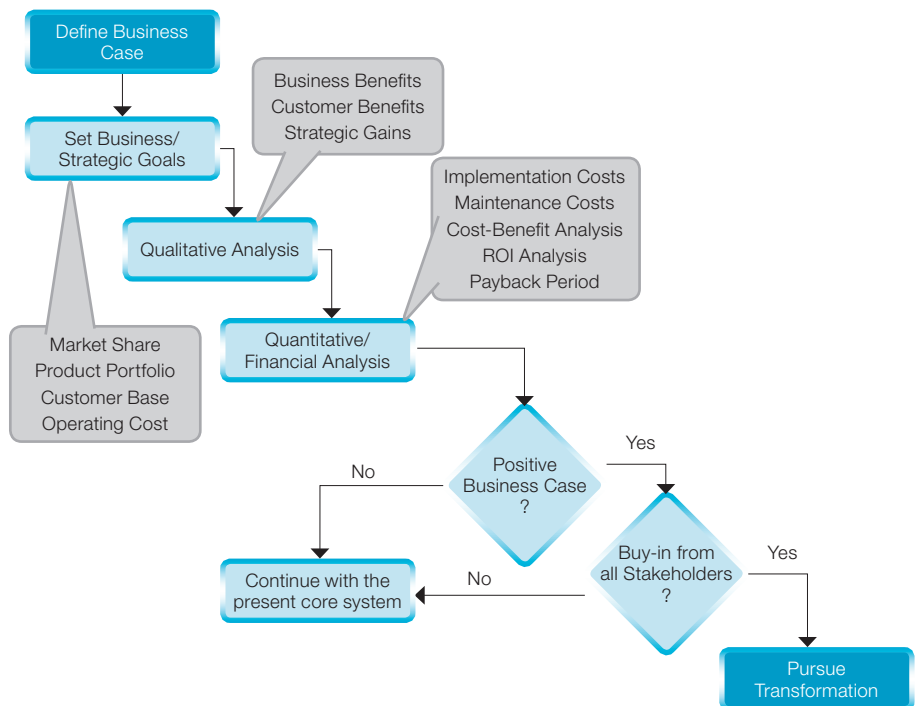
A business case seeks justification for core banking transformation and involves carrying out both qualitative and quantitative analysis. It lets decision makers agree on the business objectives for transformation. A strong business case should be built out before embarking on core banking transformation, as it requires substantial investments in both time and money.

The business case starts with the setting of objectives and long-term business and strategic goals, and includes targets for market share, future product portfolio, target customer base, and reduction in operational costs. The qualitative analysis looks at the benefits of transformation in terms of non-financial benefits, such as increased brand perception, more satisfied customers, and greater competitive advantage.

The quantitative analysis looks at the costs and benefits in financial terms that accrue to the firm post core banking transformation. This will be measured in terms of what will be the total transformation costs involved and how much reduction will be achieved in existing operational costs over several years.

Furthermore, transformation will happen only when there is a positive business case as well as buy-in from all internal stakeholders on the need for transformation. The decision makers will need to critically assess the need for investing into new systems based on an assessment of the benefits vs. the costs involved along with the possible transformation risks to ongoing business and existing systems.

Exhibit 3: Business Case for Core Banking Transformation



Source: Capgemini Analysis, 2013

### 3.1. Cost Analysis

Core banking transformations are costly and are made up of various upfront charges for hardware, software, and vendor services, as well as recurring or maintenance charges. Services from the core system vendor, such as implementation and customization costs, can often exceed the initial license fee. Over the life of a core banking system, the initial license fee comes to less than half of the total cost of ownership (TCO) while maintenance cost or recurring license fee comes to an average of about 18%.<sup>1</sup>

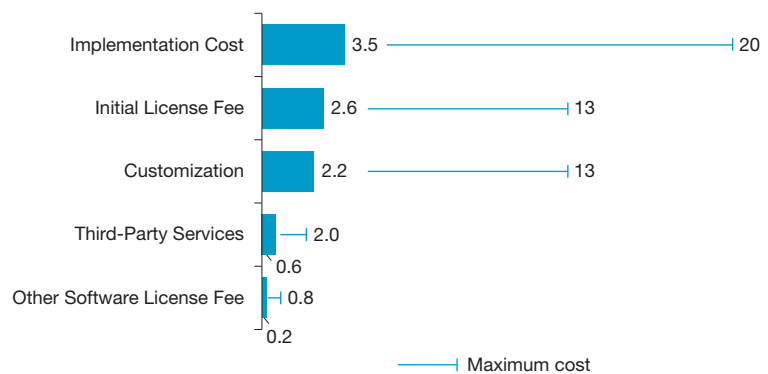
Core banking transformations are costly and comprise of significant implementation and ongoing maintenance fees.

Exhibit 4: Core Banking Transformation Costs

Upfront Costs	Recurring Costs
<ul style="list-style-type: none"> <li>Initial license fee</li> <li>Customization charges:                             <ul style="list-style-type: none"> <li>System integration</li> <li>Third party services</li> <li>Training and change management cost</li> </ul> </li> <li>Hardware charges including network storage and security</li> </ul>	<ul style="list-style-type: none"> <li>Recurring license fee</li> <li>Internal IT costs</li> <li>Other overhead</li> </ul>

Transforming core banking systems requires changes to supporting systems, interfaces, hardware, and network. There are training and change management costs associated with re-skilling and re-deployment of people on new systems.

Exhibit 5: Average Cost Breakup of Core Banking Transformation, (\$ millions)



Note 1: The plot is comprised of 29 banks belonging to Tier 1 (>USD\$500mn), Tier 2 (USD\$100-500mn), Tier 3 (USD\$5-100mn), and Tier 4 (<USD\$5mn) category, with a majority of banks belonging to Tier 3 and Tier 4 category

Note 2: The core banking systems included in the survey are TCS Bancs, Infosys Finacle, Oracle® FLEXCUBE, and Temenos T24

Source: Capgemini Analysis, 2013; Core Banking Systems Cost Benchmark, IBS Intelligence, 2012

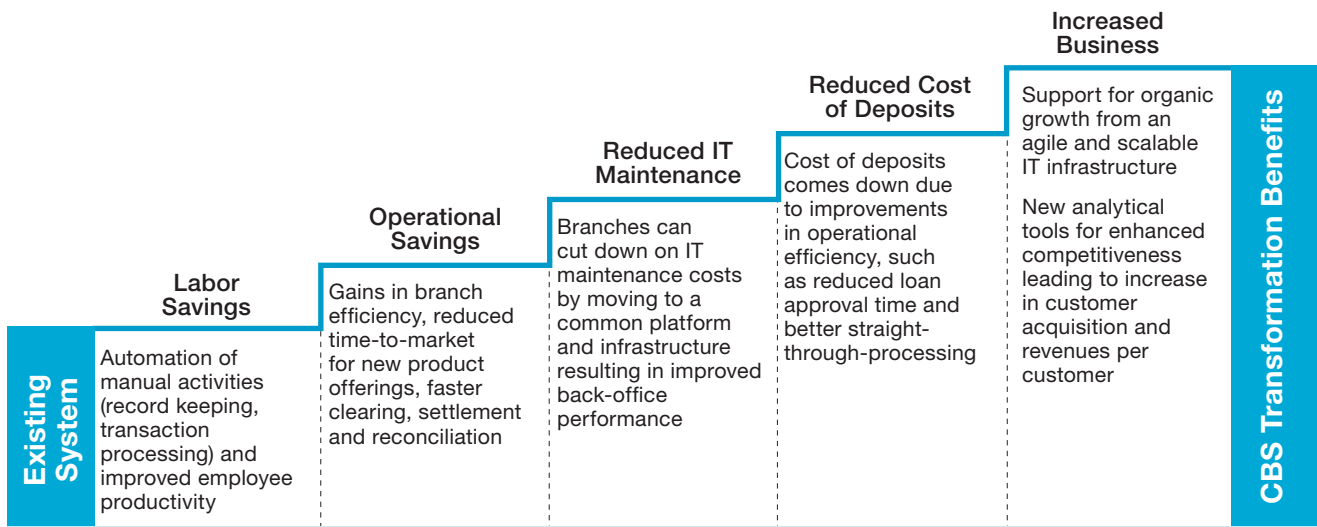
The TCO for core banking transformation therefore becomes quite significant when measured over a period of time. The total cost of core banking transformation, rather than just the initial license fee, becomes important in choosing a particular transformation strategy.

<sup>1</sup> Core Banking Systems Cost Benchmark, IBS Intelligence, 2012

### 3.2. Benefit Analysis

The business case for core banking transformation should be based not only on the financial analysis, but also on the qualitative or non-financial benefits of transformation, such as increase in operational efficiency, improved sales and service capability, and enhanced regulatory and risk management.

Exhibit 6: Benefits of Core Banking Transformation



Source: Capgemini Analysis, 2013

As shown in the chart, core banking transformation produces cost savings through labor savings, operational savings, reduced IT maintenance, and reduction in the cost of deposits. Business gains come from higher revenues through increased sales per customer and growth in customer acquisition.

Labor savings result due to reduced manpower requirements and improved employee productivity. Operational savings come from front-to-back office integration, which enables straight-through-processing and consolidation of customer information. Due to replacement of legacy systems with a new technology platform, the overall IT maintenance costs come down.

Core banking transformation improves competitiveness due to faster rollout of products, product innovation, and product differentiation. This leads to intangible benefits such as increase in market share and enhanced competitiveness due to reduced costs of deposits.

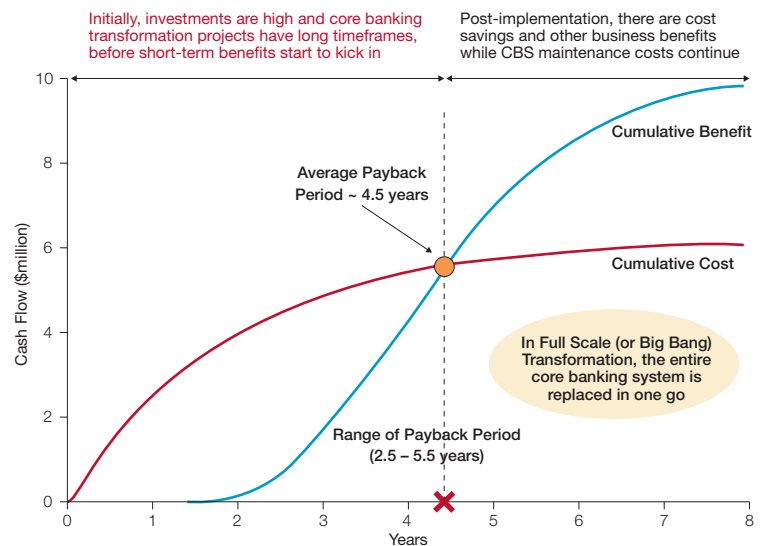


### 3.3. Payback Period

Given the high TCO, the **payback period** for core banking transformation therefore stretches into years. Initially, investments are higher due to high license fees and software customization and integration costs. The benefits of transformation start to trickle in only post-implementation and that may itself take anywhere from one to three years for completion. Post-implementation, there are ongoing costs associated with core banking maintenance and upgrades.

Exhibit 7: Payback Period for Core Banking Transformation

The payback period for core banking transformation stretches into years, depending on the scale of transformation.



Source: Capgemini Analysis, 2013; Core Banking Systems Cost Benchmark, IBS Intelligence, 2012  
 Note 1: The plot is comprised of 29 banks belonging to Tier 1 (>USD\$500mn), Tier 2 (USD\$100-500mn), Tier 3 (USD\$5-100mn), and Tier 4 (<USD\$5mn) category, with the majority of banks belonging to Tier 3 and Tier 4 category

# 4. The Transformation Plan

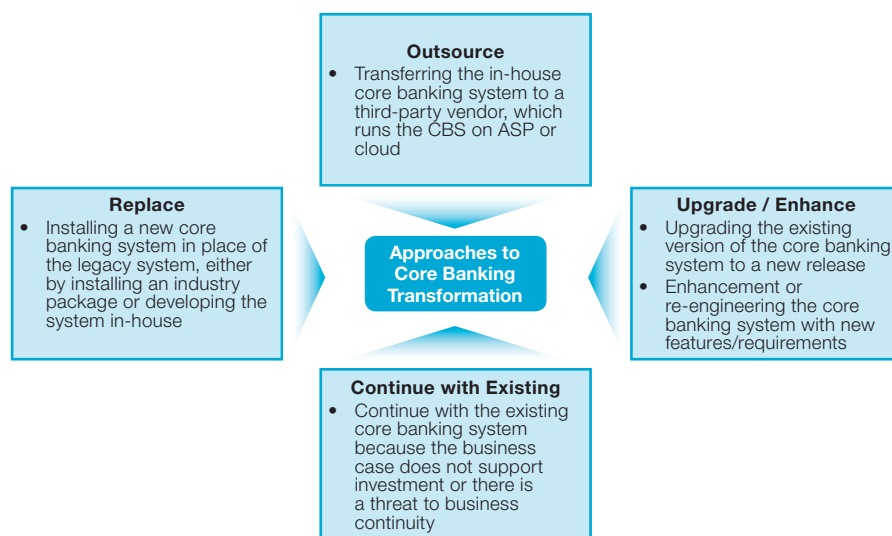
## 4.1. Approach

If the business case is not strong, then it would make both financial and strategic sense for a bank to not go ahead with the transformation and continue with the existing system. If the business case is strong, then an appropriate transformation approach is warranted: complete replacement, outsourcing, or upgrade.

Replacement of the core banking system can be done either in-house or by installing a core banking package solution from a vendor. Upgrading of the core banking system is done either to a new release of the existing package or by enhancing the existing functionality of the system. Outsourcing is done by transferring the core systems to a third-party vendor and running the system over a hosted platform (ASP) or over cloud.

Exhibit 8: Approaches to Core Banking Transformation

The right transformation approach will depend on the size of the bank and the complexity of its existing IT systems.

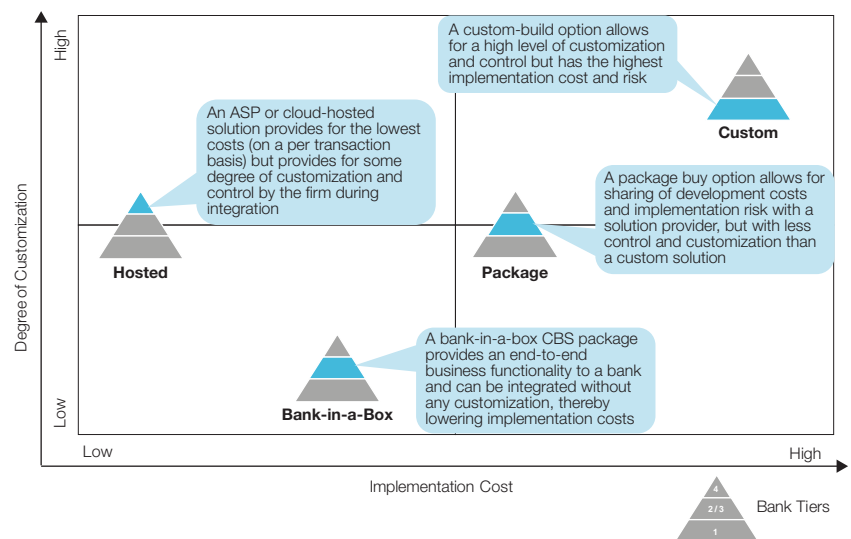


Source: Capgemini Analysis, 2013

An appropriate transformation approach is decided based upon the size of the bank and the complexity of its operations and IT systems currently in place. As a result, there are differences in how a small bank approaches core banking transformation as compared to a mid-tier or a large-tier bank.

**Large-tier banks** prefer to develop their own custom systems in-house to meet their business requirements. This is primarily due to the complexity of the operations and the need for flexibility in the system to meet unique requirements. However, substantial cost, resources, and expertise involved in building a new system has forced many big banks to turn to purchasing vendor packages and customizing them to suit their own requirements. Moreover, vendors with new age solutions such as Oracle and SAP are gearing up their existing core banking solutions for large banks.

Exhibit 9: Tier-Based Core Banking Transformation Strategy



Note 1: Tiers refer to asset size of a bank, where Tier 1 is greater than USD\$500mn, Tier 2 is USD\$100-500mn, Tier 3 is USD\$5-100mn, and Tier 4 is less than USD\$5mn  
 Source: Capgemini Analysis, 2013

**Mid-tier banks** prefer to go for package-based solutions with some degree of customization involved to meet the specific requirements of the bank. A Bank-in-a-Box approach provides pre-configured and pre-integrated solution components which results in accelerated implementation timelines. This strategy is very appealing for small to medium-size banks, which have low IT budgets and require low levels of customization.

**Small-tier banks** prefer to go for complete outsourcing to a hosted or cloud-based services provider, and the banks pay on a per-transaction or per-branch basis. In this approach, the management of the data center and branches is outsourced to a vendor.

Since core banking transformation involves large data migration and integration of multiple processes and systems, such initiatives have high risk.

## 4.2. Challenges

Core banking systems are mission-critical in nature, and transforming them can cause significant business disruption during the implementation or deployment stages. Banks have been running non-integrated back-office legacy applications on various platforms, which increase the technical complexity of integrating these diverse applications to a common core banking platform.

During a core banking transformation project, the risks and potential losses are very high due to data migration, integration of multiple processes, and the consolidation of multiple systems. Apart from the technological risk, there are various other implementation challenges associated with core banking transformation.

- **Time and cost management.** Core banking transformation projects usually have long project timeframes (spanning over years) and therefore there are inherent risks of slippages and cost overruns. Project governance structure and risk-management should therefore be an inherent part of project management.
- **Measuring payback period.** Core banking transformation projects usually have long-term payback periods and therefore sometimes do not justify large upfront costs. It is therefore important to measure a core banking solution's return on investment (ROI) by measuring efficiency ratios, business process improvement, and strategic gains.
- **Stakeholder management.** Core banking transformation leads to significant changes to business processes and IT systems and therefore it is a pre-requisite to have buy-in from all internal stakeholders. Furthermore, since core banking transformation projects usually stretch into years, long-term commitment from all stakeholders becomes essential to its success.
- **Resource requirements.** Core banking transformation projects require a lot of resources and significant investments over a period of time. It is therefore important to adopt an appropriate transformation strategy that takes into account the available financial and human resources.
- **Change management.** Core banking transformation projects need to deal with significant change management issues, such as organizational resistance to change, internal communication to all affected departments, and retraining of IT and banking staff on the new system.

Core banking transformation projects therefore have to deal with several barriers to transformation that may cause these projects to fail. A proper understanding of these challenges must be incorporated into every core banking transformation plan.

### 4.3. Key Considerations for Success

In order to make core banking transformation a success, banks must carefully evaluate key business and technology parameters including vendors and integration partners.

#### Internal Considerations

Banks must evaluate their own ability to take on a large transformation project in a few key areas.

- **Business goals.** Banks must align their IT strategy to their business goals such as operational improvement, ROI, revenue growth, and cost reduction. The business goals set must be for a future timeframe of three to five years since it takes a long gestation period for core banking transformation to be completed and deliver results. The transformation must deliver improved business functionality and optimize business processes.
- **Stakeholder support.** Strong leadership support and change management focus are critical for core banking transformation success. There should be effective communication and active management of stakeholders with well-defined roles and responsibilities.
- **Package selection.** The core banking package should have a flexible architecture and must be scalable enough to meet the future business requirements of the bank. The package selection process must also take into account the degree of maintenance support and customization required over a period of time.
- **Vendor selection.** Transformation of core banking systems takes from three to five years and therefore the long-term viability of vendors is of critical importance. Banks must assess vendor's tools, methodologies, business process models and past experience in implementing similar core banking transformation projects. Banks should also consider a vendor's capability to continuously enrich core banking solutions to meet emerging banking requirements.

#### External Considerations

When working with vendors for core banking transformation projects, banks should look at a few key factors.

- **Contract Definition.** The contract should contain clauses on support and maintenance post-transformation, user training and transfer of training, service level agreements, and quality assurance programs. Risk mitigation strategies for time and cost overruns should be included in the contract.
- **Managing expectations.** The business case should contain agreed-upon measures on improved efficiency ratios, as well as agreed-upon IT milestones over the transformation timelines. There should be clear expectations of the benefits from transformation over both the short and long term.
- **Communication.** Roles and responsibilities need to be clearly identified for all stakeholders who are involved with the transformation project—from the bank and from the vendor, so as to facilitate communication among all stakeholders.
- **Deployment strategy.** A modular or phased approach to deployment significantly reduces the risk of core banking transformation. For a multi-site implementation, a cluster-based approach can mitigate risk over a single large rollout.
- **Change management.** The bank should put a strong governance mechanism in place and any scope changes to requirements must be properly managed to prevent slippages.

Along with the right vendor/ package selection, system integrators play a key role in the success of core banking transformation.

## 5. Conclusion



Core banking transformation helps to overcome the legacy challenges associated with redundant IT infrastructure and obsolete systems, and therefore brings about a reduction in application maintenance costs. The transformation helps in increasing operational efficiency and bringing systems standardization from front-office to back-office.

However, it is important to properly assess both quantitative as well as qualitative benefits that a core banking transformation will achieve. A bank should embark on the transformation journey only when there is a strong business case and a positive ROI associated with the project. An appropriate transformation approach must be decided upon based on the resource requirements of a bank and the TCO associated with the core banking solution.

Given the high risk associated with core banking transformation, it is essential for a bank to have strong governance and change management structure in place that would smoothly manage all aspects of the transformation from internal stakeholders to external partners.

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