# Chapter 1 (Book)

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# Aspects of value-adding of Financial Services Through IT

- Address needs of key stakeholders
  - Customers
- Functions
  - Business
  - Operation
  - o Risk Management
- Regulatory Bodies

# Challenging Task

- Complex process
  - o Balancing conflict business requirements
  - Managing technology limitations
  - Navigating through organization and external politics

# How IT benefits and support Financial Institution growth

- Customer-focused solution makes it more competitive
  - o Enables domination in the market segment
- Customers enjoys better convenience and accessibility to diverse products

# Drawbacks of ineffective use of IT

- Inability to use IT fully
- Customer dissatisfaction
- Employee frustration
- Business stagnation

# Business Drivers of Financial Services

### 1. Increase Competition

- Shift in protected market to a competitive market
  - Higher standards
  - o Attaining position in strength for subsequent industry consolidation
- Reduce profit margins
  - o Traditional and the commoditizing of products
    - leading gap of dominant and lagging institution begins to diminish

# 2. Increase Scale

- Competition allows banks to take advantage of economies of scale
  - o Universal Banking Providing for forms of financial products and services
    - Reduces unit cost
    - Lower risk through diversification
    - Improve returns for large IT infrastructure investment.
- Expansion of existing products to new markets
  - o Consideration in entering new markets
    - Regulation
    - Customer preferences
    - Business practices
- Increase scale played a huge impact on IT and operations
  - Necessary to integrate siloed business function
    - Remove duplicate functions and improve efficiencies
    - Find synergies across business lines
      - □ Create greater value

#### New opportunities

### 3. Changing Revenue Sources

- Focused on fee-based income from interest-margin income
  - o Fee-based is less sensitive to interest rates and business cycles
  - o Fee-based do not require growth in balance sheet size
    - Interest-margin income products require institution to have margin of capital investment

# 4. New Delivery Channels

- Accessibility to new delivery through phone, internet banking
  - Supported growth and profitability
    - Less Cost
    - Greater reach
    - Improve turnover and handling capacity
    - Customer convenience
- Need for staff education
  - Bank staff to be IT literate
  - o Bank IT staff to be more customer and business oriented
- new risk
  - Need to identify such risk and mitigate these risk
    - Business users and IT staff to work closely together

### 5. Regulatory Changes

- Financial Institution have to adapt to changing regulation on products and processes
  - Hurt profit and cost of change
- Type of regulation changes
  - Risk management guidelines
  - Security management

# Technology Drivers for Financial Services

# 1. Technology Infrastructure

- Tremendous improvements in hardware, software and networks
  - o User interface becomes flexible, powerful and intuitive
  - o Processing speed has become more powerful to handle more customers and products
- Influences the financial products
  - Foundation of these products
    - No more limitation by IT
- Challenges emerged
  - o Choosing of best platform for given solution purpose
    - Cost, performance, stability and skills availability
  - o Rate of development VS obsolete speed of technology
    - Concern over the need to constantly change to accommodate technology platforms

### 2. Distributed Processing

- Move from central computer mainframe to servers and desktop applications
  - Easy relocation of computer resources
- Capturing and processing information becomes more decentralized
  - Extended range to customer home, offices and branches through internet
  - Crucial factor as banks become diverse in location
    - Allow banks to route manual processing electronically to lower cost location
  - Allow customers to use banking services through different location
- Challenges of decentralizing of computer
  - Monitoring and Managing of decentralized processes and functions
    - Need to decide on which processes and functions are to be centralized and decentralized
    - Need to choose which parts are for regional or local business units to source, manage and customized

### 3. Data Processing and Management

- Real-time information to be transmitted, process

- Allow practises to be expanded (FX trading)
- o Allows automation
- Distributed processing creates issues
  - Duplicates of information
    - Management and aggregation
      - □ Challenge of risk management

### 4. Solution Building Blocks

- Speeds up construction process of system
  - o Allowing of assembling of combination of component and best-practice business logic
    - Layered architecture models
  - Allow better customization of system to suit business needs
    - As compared to stand-alone and off the shelves

### 5. Enterprise Application Integration

- Allows flexibility and better communication between applications
  - Allow automation and triggering through communication
    - Enterprise Service Buses links system and platforms
    - Enterprise Application Integration presents communication link way between applications

### 6. Business Process Orientation

- Allow constant improvement and monitoring of business process and flow
  - Business Process Management Systems allow integrating and consistent management of interactions between systems and users
- Allows paperless environment
  - Business Process Management allows automation of past manual process
- Reduction in processing time, and improvement in accuracy and efficiency

# **Business Opportunities for Financial Services**

- Varies for different markets due to technology and current business capabilities
- Rate of innovation increases rapidly
- Increase in competition has forced financial institution to become innovative

#### 1. New Product

- Enhancing and differentiation existing products
  - Address the needs of different market segments
- New products provide short-term competitive advantage
  - Pricing is less transparent and provide higher profit margins
  - Competitors will catch up with their own new products to reduce profit margin
- Not easy to develop
  - Regulations, technological and operation hurdles
  - Hidden Risk

### 2. New Services

- Direct benefits
  - Generate fee-revenue
  - Improve volume of transaction process, cheaper modes
    - Reduces cost and improve profitability
  - Greater operational efficiency
- Indirect Benefits
  - o Customer convenience of real-time information
  - Create loyalty for free services
  - Improve customers perception of responsiveness

#### 3. New Channels

- Extending existing channels and introduction of new channels
  - o Extend the reach to its customers (services, social media)
  - Create possibilities of mobile solutions
  - Increase sales volume through easier access to products and information
  - Reduction of cost and replacing of obsolete and costly channels

### 4. New Business Models

- Provide innovative practises

- Pricing schemes
- o Extending of customer segment
- o Combining of different industries
- Leverage growth in markets that become saturated
- Counteract against larger rivals

### 5. Improving Service Levels

- Improvement of current business process and IT infrastructure
  - Automation to improve process time of transaction and efficiency, accuracy
  - o Reduces delays, bottlenecks (streamlining of manual processes into automation)
    - Improve customer satisfaction
      - ☐ Faster processing time (loan application from days to hours)
      - □ Faster turnover rate (shorter queue times)

# Business Challenges For Financial Services

### 1. Competition

- Changing environment resulted in a need to fend off competitors to stay in the market
  - Regulations
  - Technology advances
  - o Channel advancement
  - o International expansion
- Other industries are now introducing products to rival bank products
  - Ownership of payment modes

### 2. Complexity

- Business processes and IT system environment becomes more complex
  - Mergers and acquisitions
  - Regulatory changes
  - New technology
  - New service delivery channels
- Global expansion and services sourcing
  - Dispensing of IT system and business processes across location
    - Led to higher operational risk
    - Internal controls of business processes are easily circumvented
- Creates inefficiencies and diseconomies of scale as complexity increases
  - Profitability curve as product increases
    - Conflicts with other products, handling capability
- Legacy system creates problem as business processes becomes complex
  - Need for streamline and integrate system
    - Faster processing
    - Reduce operation risk
    - Better automation between process
    - Clearer communication of information
  - Integration of system
    - Remodelling of interfaces, structure
    - Impact of other system

# 3. Risk

- Risk Management affects the long-run profitability
- Consequences of operation failure in financial institution is huge
  - Poor implementation of risk management
  - Failure of data control and process
- Financial Institution have to take risk seriously
  - o Operational risk
  - o Potential Risk
- Identifying Risk
  - o Significance of risk
  - o Cost of risk
  - Mitigation of risk

### 4. Regulatory Changes

- Compliance of the regulation
  - Cost of change to address requirements
  - Draws resources away from profit generating and cost saving initiatives
- Handling of fast changing regulations
  - o Combine them with other initiative, so as to create momentum
    - Take advantage of the changes to push business forward
  - Choose to relocate to areas where regulations are more favourable
    - Business process, IT system requires the least disruption of regulation enforcement

# Stakeholder Alignment

### 1. Management Concerns

- The need to ensure that the IT solution are aligned with company's overall strategy
- Weigh the merits of different solution, and prioritize them
  - Cost
  - o Return on Investment
  - o Risk
  - Benefits
- Categories of solution to highlight benefit focus
  - Strategic
  - o Tactical Best to focus on all three categories and not too focus on a category
  - Maintenance related
- Ensure that IT solution are flexible
  - o Pace of change are fast
    - Changes are need to adapt to the pace (regulatory, market)
  - Legacy system hamper the changes of IT solution

### 2. Customer Concerns

- Solutions are focus on customers
  - Internal customers (Employee)
  - External customers
- Factors of customers concern
  - Cost
  - o Ease of use
  - o Convenience
  - Service quality
  - Security
- Some factors might have conflict
  - Trade off depends on the type of customers
  - o Current trend is a more customer-centric (External) approach
    - Design business process and IT solution around customer preferences (as compared to organizational structure)
- Important to consider the indirect effects
  - IT solution for operation staff can affect external customers

### 3. Operational Concerns

- How IT solutions affect operational performance in the short and long run (SLA, KPI)
  - Processing time and Throughput
  - Cut-off times
- Solution should embrace the SLA, KPI
- Resistance to adopt solution
  - Affect short-term to achieve long term
    - Mitigation of operation processes and working practise
- Operational concerns on IT solution
  - o Internal control

circumvented

Flexibility

IT solution can affect the KPI, SLA

Efficiency

O Positively and negatively based on the design of solution

Ensure that control points incorporated into operation process are not

- Exception management
- Consistency
- Continuity
- Greater number of change will lead to higher likelihood of defection
  - o Affects KPI and SLA
    - Need to find optimal balances implementing changes to improve efficiency and limit frequency of change

### 4. Information Technology Concerns

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Standardization of hardware and software , networking	Simplify the IT environment at lesser cost
Technology Risk	<ul><li>Defects in software application</li><li>Security vulnerability</li><li>Poor design of IT solution</li></ul>
Cost of development and maintenance	<ul> <li>Cost of address operation risk</li> <li>Spending of development (8% revenue)</li> <li>Maintenance over the years (20% of development cost)</li> </ul>
Geographical logistic	<ul><li>- Linking of operation processes in dispersed system</li><li>- Allocation of resources in each location</li></ul>

- Management of IT solution
  - Single unit (Technology and Operations)
    - Business processes are executed by IT system and people
    - Cost and benefits to reduce number of operational units and interface
      - □ It and operational concerns may be combined or intertwined

# 5. Regulatory and Compliance Concerns

- IT solution must address regulation and compliance
  - Regulatory directives
  - Review for potential concerns
  - o Identification of control and security vulnerabilities
- Compliance functions
  - o Focused on controlling business risk
  - o Compliance Staff to educated
    - Business staff to understand IT strengths and limits
    - IT staff to understand the business risk
- Fundamental requirement of developing banking solution
  - o Consider, address and obtain consent of key stakeholders as early as possible
    - Conflict between the regulation and stakeholders objective
      - □ Each stakeholder and elements have different objective
      - ☐ Finding of optimal compromise between stakeholders, compliance function

Understanding of reciprocal concerns

- IT and compliance functions can find common understanding