

ბიზნეს-ინჟინერინგი საბანკო საქმეში

E-Banking Risks and Its Management

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Summary

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The past few years have been characterized by rapid changes in technology and the introduction of corporate and retail banking services through the Internet. The unprecedented speed with which new technologies are being adopted, the ubiquitous and global nature of electronic networks, the integration of e-banking platforms with legacy systems and the increasing dependence of banks on third party information service providers, all dramatically amplify the magnitude of risks to which banks are exposed.

რეზიუმე

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ბოლო რამოდენიმე წლის განმავლობაში ხორციელდება მკვეთრი ცვლილებები კორპორატიულ და საბანკო სისტემაში ინტერნეტ ტექნოლოგიების საშუალებით. თანამედროვე ტექნოლოგიების სწრაფი დანერგვა ხელს უწყობს რისკების გაძლიერებას საბანკო სექტორში.

ბანკების უმეტესობა თვლის, რომ ინტერნეტ ბანკინგი პირველ რიგში ზრდის ინფორმაციის უსაფრთხოებასთან დაკავშირებულ რისკს, რაც არც თუ ისე სასურველია. სამწუხაროდ რისკების მართვის სისტემები ისე სწრაფად ვერ ვითარდება როგორც საჭიროა. მცირე ზომის ინსტიტუტები სათანადოდ ვერ ახორციელებენ რისკების კონტროლს.

ინტერნეტ ბანკინგთან დაკავშირებული რისკების მართვა ხორციელდება იმავე პრინციპით როგორც ზოგადად რისკის მართვა. ყველაზე საშიშია ტექნიკური პრობლემა, რომელიც IT მენეჯერების გამოსასწორებელია. ზემოთ ხსენებულიდან გამომდინარე რისკებთან მიმართებაში საჭიროა უფროსი მენეჯერის ყურადღების მიქცევა. მოცემულ სტატიაში განხილულია სხვადასხვა რისკები, რომელიც ინტერნეტ ბანკინგთანაა დაკავშირებული და მათი მართვა.

Many banks have assumed that Internet banking primarily increases information security risks and have not sufficiently focused on the effect on other banking-specific risks. Risk management disciplines have not evolved at the same speed and many institutions, especially the smaller ones, have not been able to incorporate Internet banking risk controls within their existing risk management structures.

Managing the risks and implementing controls for Internet banking initiatives follows the same principles as other risk management processes. The most dangerous thing is to treat this as a technical problem and leave it to IT management to manage. As the previous enumeration of the risks has shown, this is a general management issue which needs attention from senior management. This article provides an overview of the various risks which are heightened with Internet banking, and a holistic approach to managing these risks.

Introduction

The world is changing at a staggering rate and technology is considered to be the keydriver for these changes around us. An analysis of technology and its uses show that it has permeated in almost every aspect of our life. Many activities are handled electronically due to the acceptance of information technology at home as well as at workplace. Slowly but steadily, the Indian customer is moving towards the internet banking. The ATM and the Net transactions are becoming popular. But the customer is clear on one thing that he wants net-banking to be simple and the banking sector is matching its steps to the march of technology. E-banking or Online banking is a generic term for the delivery of banking services and products through the electronic-channels such as the telephone, the internet, the cell phone etc. The concept and scope of e-banking is still evolving. It facilitates an effective payment and accounting system thereby enhancing the speed of delivery of banking services considerably.

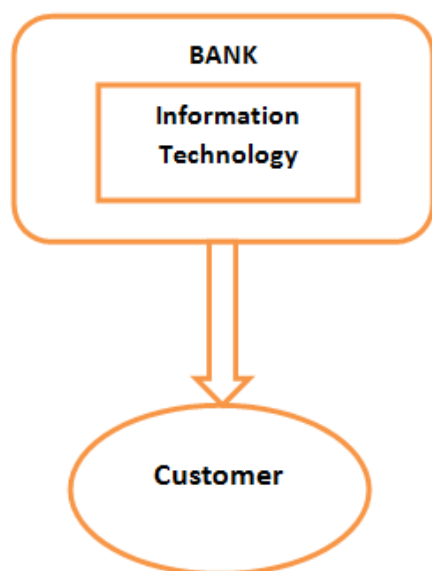
An article provides controlling the risks associated with electronic banking (e-banking) activities. The article discusses e-banking risks from the perspective of the services or products provided to customers. This approach discuss-

es risks from the perspective of the technology and systems that support automated information processing.

Definition of E-Banking

E-banking is defined as the automated delivery of new and traditional banking products and services directly to customers through electronic, interactive communication channels. E-banking includes the systems that enable financial institution customers, individuals or businesses, to access accounts, transact business, or obtain information on financial products and services through a public or private network, including the Internet. Customers access e-banking services using an intelligent electronic device, such as a personal computer (PC), personal digital assistant (PDA), automated teller machine (ATM), kiosk, or Touch Tone telephone.

Electronic Banking is a process by which a customer performs banking transactions electronically without visiting a brick-and-mortar institutions. E-Banking denotes the provision of banking and related service through extensive use of information technology without direct recourse to the bank by the customer.



1. Transactional services

Transactional websites provide customers with the ability to conduct transactions through the financial institution's website by initiating banking transactions or buying products and services. Banking transactions can range from something as basic as a retail account balance inquiry to a large business-to-business funds transfer. E-banking services, like those delivered through other delivery channels, are typically classified based on the type of customer they support. The following table lists some of the common

retail and wholesale e-banking services offered by financial institutions.

Table 1: Common E-Banking Services

Retail Services	Wholesale Services
Account management	Account management
Bill payment and presentment	Cash management
New account opening	Small business loan applications, approvals, or advances
Consumer wire transfers	
Investment/Brokerage services	Commercial wire transfers
Loan application and approval	Business-to-business payments
Account aggregation	Employee benefits/pension administration

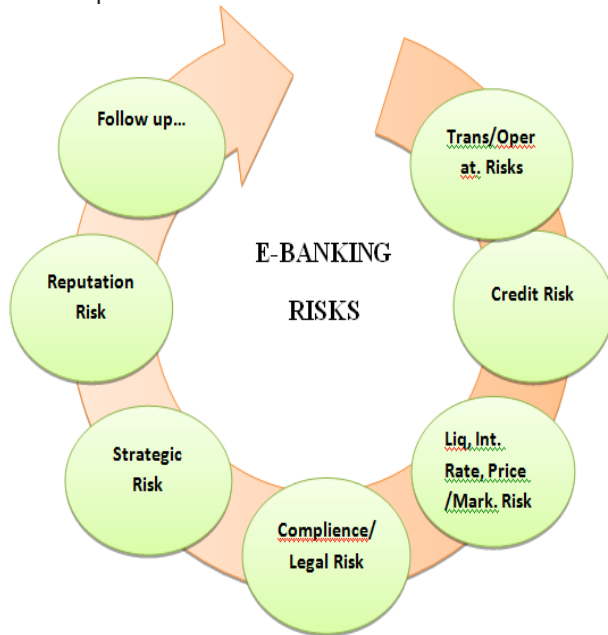
Since transactional websites typically enable the electronic exchange of confidential customer information and the transfer of funds, services provided through these websites expose a financial institution to higher risk than basic informational websites. Wholesale e-banking systems typically expose financial institutions to the highest risk per transaction, since commercial transactions usually involve larger dollar amounts. In addition to the risk issues associated with informational websites, transactional e-banking services should consider the following issues:

- Security controls for safeguarding customer information;
- Authentication processes necessary to initially verify the identity of new customers and authenticate existing customers who access e-banking services;
- Liability for unauthorized transactions;
- Losses from fraud if the institution fails to verify the identity of individuals or businesses applying for new accounts or credit on-line;
- Possible violations of laws or regulations pertaining to consumer privacy, anti-money laundering, anti-terrorism, or the content, timing, or delivery of required consumer disclosures; and
- Negative public perception, customer dissatisfaction, and potential liability resulting from failure to process third-party payments as directed or within specified time frames, lack of availability of on-line services, or unauthorized access to confidential customer information during transmission or storage.

1.2 E-Banking Risks

Internet banking does not open up new risk categories, but rather accentuates the risks that any financial institution faces. The board and senior management must be cognizant of these risks and deal with them appropriately. These risks, which often overlap, are briefly described below: Transaction/Operations Risk

- Credit Risk
- Liquidity, Interest Rate, Price/Market Risk
- Compliance/Legal Risk
- Strategic Risk
- Reputation Risk



1.3 Transaction/Operation Risk

Transaction/Operations risk arises from fraud, processing errors, system disruptions, or other unanticipated events resulting in the institution's inability to deliver products or services. This risk exists in each product and service offered. The level of transaction risk is affected by the structure of the institution's processing environment, including the types of services offered and the complexity of the processes and supporting technology.

In most instances, e-banking activities will increase the complexity of the institution's activities and the quantity of its transaction/operations risk, especially if the institution is offering innovative services that have not been standardized. Since customers expect e-banking services to be available 24 hours a day, 7 days a week, financial institutions should ensure their e-banking infrastructures contain sufficient capacity and redundancy to ensure reliable service availability. Even institutions that do not consider e-banking a critical financial service due to the availability of alternate processing channels, should carefully consider

customer expectations and the potential impact of service disruptions on customer satisfaction and loyalty.

The key to controlling transaction risk lies in adapting effective policies, procedures, and controls to meet the new risk exposures introduced by e-banking. Basic internal controls including segregation of duties, dual controls, and reconciliations remain important. Information security controls, in particular, become more significant requiring additional processes, tools, expertise, and testing. Institutions should determine the appropriate level of security controls based on their assessment of the sensitivity of the information to the customer and to the institution and on the institution's established risk tolerance level.

1.4 Credit Risk

Generally, a financial institution's credit risk is not increased by the mere fact that a loan is originated through an e-banking channel. However, management should consider additional precautions when originating and approving loans electronically, including assuring management information systems effectively track the performance of portfolios originated through e-banking channels. The following aspects of on-line loan origination and approval tend to make risk management of the lending process more challenging. If not properly managed, these aspects can significantly increase credit risk.

- Verifying the customer's identity for on-line credit applications and executing an enforceable contract;
- Monitoring and controlling the growth, pricing, underwriting standards, and ongoing credit quality of loans originated through e-banking channels;
- Monitoring and oversight of third-parties doing business as agents or on behalf of the financial institution (for example, an Internet loan origination site or electronic payments processor);
- Valuing collateral and perfecting liens over a potentially wider geographic area;
- Collecting loans from individuals over a potentially wider geographic area; and
- Monitoring any increased volume of, and possible concentration in, out-of-area lending.

1.5 Liquidity, Interest Rate, Price/Market Risks

Funding and investment-related risks could increase with an institution's e-banking initiatives depending on the volatility and pricing of the acquired deposits. The Internet provides institutions with the ability to market their products and services globally. Internet-based advertising programs can effectively match yield-focused investors with potentially high-yielding deposits. But Internet-originated deposits have the potential to attract customers who focus exclusively on rates and may provide a funding source with risk characteristics similar to brokered deposits. An insti-

tution can control this potential volatility and expanded geographic reach through its deposit contract and account opening practices, which might involve face-to-face meetings or the exchange of paper correspondence. The institution should modify its policies as necessary to address the following e-banking funding issues:

- Potential increase in dependence on brokered funds or other highly rate-sensitive deposits;
- Potential acquisition of funds from markets where the institution is not licensed to engage in banking, particularly if the institution does not establish, disclose, and enforce geographic restrictions;
- Potential impact of loan or deposit growth from an expanded Internet market, including the impact of such growth on capital ratios;
- Potential increase in volatility of funds should e-banking security problems negatively impact customer confidence or the market's perception of the institution.

1.6 Compliance/Legal Risk

Compliance and legal issues arise out of the rapid growth in usage of e-banking and the differences between electronic and paper-based processes. E-banking is a new delivery channel where the laws and rules governing the electronic delivery of certain financial institution products or services may be ambiguous or still evolving. Specific regulatory and legal challenges include:

- Uncertainty over legal jurisdictions and which state's or country's laws govern a specific e-banking transaction,
- Delivery of credit and deposit-related disclosures/notices as required by law or regulation,
- Retention of required compliance documentation for on-line advertising, applications, statements, disclosures and notices; and
- Establishment of legally binding electronic agreements.

Laws and regulations governing consumer transactions require specific types of disclosures, notices, or record keeping requirements. These requirements also apply to e-banking, and federal banking agencies continue to update consumer laws and regulations to reflect the impact of e-banking and on-line customer relationships. Some of the legal requirements and regulatory guidance that frequently apply to e-banking products and services include:

- Solicitation, collection and reporting of government monitoring information on applications and loans, as required by Equal Credit Opportunity Act (Regulation B) and Home Mortgage Disclosure Act (Regulation C) regulations;
- Advertising requirements, customer disclosures, or notices required by the Real Estate Settlement Procedures Act (RESPA), Truth in Lending (Regulation Z), and Truth in Savings (Regulation DD) and Fair Housing

regulations;

- Proper and conspicuous display of FDIC or NCUA insurance notices;
- Conspicuous webpage disclosures indicating that certain types of investment, brokerage, and insurance products offered have certain associated risks, including not being insured by federal deposit insurance (FDIC or NCUA);
- Customer identification programs and procedures, as well as record retention and customer notification requirements;
- Customer identification processes to determine whether transactions are prohibited by the Office of Foreign Asset Control (OFAC) and, when necessary, whether customers appear on any list of known or suspected terrorists or terrorist organization provided by any government agency;
- Delivery of privacy and opt-out notices by hand, by mail, or with customer acknowledgement of electronic receipt;
- Verification of customer identification, reporting, and record keeping requirements of the Bank Secrecy Act (BSA), including requirements for filing a suspicious activity report (SAR);
- Record retention requirements of the Equal Credit Opportunity Act (Regulation B) and Fair Credit Reporting Act regulations.

Institutions that offer e-banking services, both informational and transactional, assume a higher level of compliance risk because of the changing nature of the technology, the speed at which errors can be replicated, and the frequency of regulatory changes to address e-banking issues. The potential for violations is further heightened by the need to ensure consistency between paper and electronic advertisements, disclosures, and notices.

1.7 Reputation Risk

An institution's decision to offer e-banking services, especially the more complex transactional services, significantly increases its level of reputation risk. Some of the ways in which e-banking can influence an institution's reputation include:

- Loss of trust due to unauthorized activity on customer accounts,
- Disclosure or theft of confidential customer information to unauthorized parties (e.g., hackers),
- Failure to deliver on marketing claims,
- Failure to provide reliable service due to the frequency or duration of service disruptions,
- Customer complaints about the difficulty in using e-banking services and the inability of the institution's help desk to resolve problems, and
- Confusion between services provided by the financial institution and services provided by other businesses linked from the website.

2. Risk Management of E-Banking Activities

E-banking has unique characteristics that may increase an institution's overall risk profile and the level of risks associated with traditional financial services, particularly strategic, operational, legal, and reputation risks. These unique e-banking characteristics include:

- Speed of technological change,
- Changing customer expectations,
- Increased visibility of publicly accessible networks (e.g., the Internet),
- Less face-to-face interaction with financial institution customers,
- Need to integrate e-banking with the institution's legacy computer systems,
- Dependence on third parties for necessary technical expertise, and
- Proliferation of threats and vulnerabilities in publicly accessible networks.

Management should review each of the processes discussed in this section to adapt and expand the institution's risk management practices as necessary to address the risks posed by e-banking activities.

Conclusion

There is still a lot needed for the banking system to make reforms and train their customers for using internet for their banking account. Going through the survey the main problem lies that still customer have a fear of hacking of accounts and thus don't go on for internet banking. Banks are trying their level best by providing the best security options to the customers but then there is lot of factors which betrays a customer from opening an internet bank account. Banks are providing free internet banking services also so that the customers can be attracted. By asking the bank employees we came to know that maximum numbers of internet bank account holders are youth and business man. E-Banking is an innovative tool that is fast becoming a necessity. It is a successful strategic weapon for banks to remain profitable in a volatile and competitive marketplace of today.

IT management should have a corporate-wide view of technology. It should maintain an active role in corporate strategic planning to align technology with established business goals and strategies. It also should ensure effective technology controls exist throughout the organization either through direct oversight or by holding business lines accountable for IT-related controls. From a control standpoint, management should assess risks and determine how to control and mitigate the risks. Management should continually compare its risk exposure to the value of its business activities to determine acceptable risk levels.

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