e-Banking in Nepal

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e-Banking in Nepal

Presentation Outline

- History of e-Banking
- Current status
- Frauds concerning e-Banking and Preventive measures
- e-Banking risks and secure e-Banking
- Future of e-Banking
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History of e-Banking
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History of e-Banking in Nepal

Evolution of Banking

Banking started in Nepal in 1937 by ‘Nepal Bank Limited’ (Government Sector)

Evolution of Joint Venture (JV) Banks and e-Banking

Establishment of first Joint Venture Bank, Nepal Arab Bank Limited (now NABIL Bank), in 1984

Introduction of Credit Cards in Nepal in early 1990 (by NABIL Bank)

Automated Teller Machine (ATM) was first introduced by another JV Bank, Himalayan Bank Ltd. In 1995.

Himalayan Bank Limited was also the first bank to introduce Tele-Banking (Telephone Banking) in Nepal.
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History of e-Banking in Nepal

Evolution of Private Sector Banks and e-Banking

- Kumari Bank Limited was established in the year 2001.
- Internet-Banking was first introduced by Kumari Bank Limited in 2002.
- Laxmi Bank Limited was the first bank to introduce SMS-Banking (or Mobile Banking) in Nepal in the year 2004.
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History of e-Banking in Nepal

- Introduction of Credit Cards in 1990.
- First ATM launched by Himalayan Bank Limited in 1995.
- Tele-Banking facility was introduced in 1997 by Himalayan Bank Limited.
- Formulation of IT Policy in 2000.
- Internet-Banking was first introduced by Kumari Bank in 2002.
- SMS-Banking (mobile banking) was launched by Kumari Bank in 2004.
- Electronic Transaction and Digital Signature Act (revised in 2005, yet to be brought in practice).
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Current Status of e-Banking
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Current Status of e-Banking

- Channels in e-Banking available in Nepal
  - Automated Teller Machines (ATM)
  - Point of Sales (PoS)
  - Telephone Banking (Tele Banking)
  - Internet Banking
  - Mobile Banking (SMS Banking)

- Currently 46 ATMs are installed all over the country in addition to around 2000 PoS.
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Current Status of e-Banking

Banks (and financial institutions) in Nepal

- Commercial Banks: 17
- Development Banks: 26
- Other Financial Institutions: 91

Commercial Banks can be classified as:

- Government/Semi-Government: 2
- Joint Venture: 7
- Private Sector: 10
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**Current Status of e-Banking**

- Banks (and financial institutions) providing e-Banking facilities
  - Altogether 19 Banks and Financial Institutions are providing e-Banking facilities.

* Development Banks and other Financial Institutions only provide ATM facility to their customers.
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Current Status of e-Banking

- Banks (and financial institutions) providing e-Banking facilities
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Current Status of e-Banking

Services Provided in e-Banking

- In ATMs
  - Cash Withdrawal
  - Balance Inquiry
  - Fund Transfer is not available.

- In PoS Terminals
  - Financial transactions are made via Cards.
  - Cash is debited from the client’s account(s).
  - Cash cannot be deposited.
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Current Status of e-Banking

Services Provided in e-Banking (contd…)

In Tele-Banking
- Account Status check
- Balance Inquiry
- No fund transfer facility.

In SMS-Banking
- Similar to Tele-Banking except telephone
- Cell phone is required instead of telephone.
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**Current Status of e-Banking**

- Services Provided in e-Banking
  - In Internet-Banking
    - Fund Transfer within accounts (within the bank)
    - Get balance statement online
    - Pay bills online
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Current Status of e-Banking

- Internet Users and e-Banking Customers
  - Around 200,000 Internet Users in Nepal.
  - Over 95% of Internet Users are using Dial-up access
  - 50% of the users are inside the capital city, Kathmandu
  - Around 3000 users using Internet-Banking
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Current Status of e-Banking

Security measures in the Bank side

- All banks that are providing internet-banking facility have the system consisting of the followings:
  - Password controlled system entry.
  - VeriSign issued Digital ID for the Bank’s server.
  - Secure Socket Layer (SSL) protocol for data encryption.
  - Firewall setup.
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Current Status of e-Banking

- **Requirements for e-Banking (Bank Side)**
  - **SMS Banking**
    - A PC with 40GB hard disk, 1 GB RAM, Pentium 4 processor, Network Card
    - Nokia GSM device
    - USB Infrared adaptor
  - **Internet-Banking**
    - A PC with 40GB hard disk, 1 GB RAM, Pentium 4 processor, Network Card
    - Software Requirements: Windows 2000 or above, Internet Explorer v5.5 or above
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Current Status of e-Banking

- Requirements for e-Banking (Client Side)
  - In case of SMS Banking, a Cell phone (Mobile phone) that is capable of sending SMS
  - For Internet-Banking, a PC with Internet Explorer v 5.5 or above having internet connection.
Frauds in e-Banking & Preventive Measures
Frauds in e-Banking

Most popular frauds in e-Banking (worldwide) are

- Card duplication
  - In this, the information in the cards are copied to another card.
  - Although the duplicated card may have other information, but the financial transactions are done from the original account.

- Key Loggers
  - These are the programs which stores the characters as typed in the keyboard
  - The account no./passwords entered can be tracked via key loggers.
Frauds in e-Banking

- ‘Phishing’ e-mails
  - E-mails pretending to be from the bank asking to input the username and password to update the information.
  - After submitting the information, the information passes to the false site where the information is captured.

- In Nepal, no e-banking frauds have been found yet.
- Lack of understanding of internet technology may be the reason.
- E-banking is at its infancy right now; it means the system is not perfectly secure.
- Precaution must be taken.
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Precaution and Protection

- Use of device that creates ID for one session only
  - Login to that device using account id and password
  - It creates a temporary ID to login to the bank’s server
  - User should login from that newly generated ID
- Some of the duties that the banks must do to prevent e-banking frauds:
  - Information Security Controls
    - Up-to-date knowledge of ongoing attack sources, scenarios, and techniques
    - Up-to-date equipments and network maps
    - Ability to show rapid response to react to newly discovered vulnerabilities.
Precaution and Protection

Some of the duties that the banks must do to prevent e-banking frauds:

- **Internal Controls**
  - **Dual Control**
    - One person can make a mistake, other can find the error
    - The possibility of two persons making the same mistake at the same time is negligible.

- **Control of Suspicious Activities**
  - Controlling the withdrawal up to some limit
  - If an account is dormant for years and the transaction is unexpected, the account holder must be informed
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**Precaution and Protection**
E-Banking users must consider these things while transacting electronically

- Never give your cards, account no. to anybody
- Update your antivirus program regularly
- Don’t use public computer for e-transactions
- Don’t give your information in the websites which you don’t know
- Before visiting any sites, check the certificate; and don’t continue unless you feel it is from trusted site
- Use passwords which are difficult to guess
- Regularly check your account status; if you feel something is wrong, then let this know to your bank
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Future of e-Banking
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**Future of e-Banking**

- **Cashless Transaction**
  - Can transact via non-cash elements; like credit cards, internet-banking.
  - Convenient way to transact if distance matters.

- **Target Areas – Remote places**
  - People of remote areas where transportation is not reached can transact on other parts of the country.
  - Will be one of the means of communication between two regions.
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Future of e-Banking

- More choices, more use of e-Banking
  - Market of SMS and Internet Banking will make tele-banking extinct within few years
  - Via internet banking, one can transfer amount from one bank to another not only within the same bank
  - More the internet users, more the number of e-banking customers
  - Enhanced security - attract people to join e-Banking
  - Around 40 ATMs are going to be added within this year.
  - The number of PoS will increase upto 3000.
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Future of e-Banking

Connecting World
- People can transact from anyplace to anywhere
- Stay connected even they don’t know each other
- Mobilization of money – Global Market - economic and social development
- Innovative Global Market – Innovative Global Village
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THANK YOU!!!