MANAGEMENT INFORMATION SYSTEM

REPORT ON

NMB BANK



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By

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A Report Submitted to

Faculty of Management, Tribhuvan University

in partial fulfillment of the requirements for the degree of

Bachelor of Information Management

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STUDENT DECLARATION

This is to certify that we have successfully completed a MIS report entitled "NMB Bank" under the esteemed guidance of Er. Dipak KC as part of the requirements for the degree of Bachelor of Information Management at Tribhuvan University.

We hereby declare that this is our original work and has not been submitted previously to any other institution or for any other purpose.

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CERTIFICATE FROM THE SUPERVISOR

This is to certify that the report entitled "NMB Bank" is an academic work completed by Pratichya Giri and Susmita Sharma submitted in partial fulfillment of the requirements for the degree of Bachelor of Information Management (BIM) at the Faculty of Management, Tribhuvan University.

e. .dhsi The report has been conducted under my supervision and guidance. To the best of my knowledge, the information presented in this report is original and has not been submitted

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ABSTRACT

This report presents a comprehensive analysis of the Management Information Systems (MIS) employed by NMB Bank of Nepal and their pivotal role in transforming the bank's operations and service delivery. It explores how the bank used advanced IT systems such as SQL DB, Oracle, Customer Relationship Management (CRM), and Human Resource Management System (HRMS) to enhance operational efficiency, ensure data security, and deliver exceptional customer experiences. These systems collectively enable NMB Bank to streamline its processes, improve decision-making, and comply with regulatory standards set by Nepal Rastra Bank.

The report delves into the core functionalities of these systems, focusing on their integration to support key banking services such as online banking, mobile banking, risk management, customer service, and workforce management. For instance, SQL DB serves as the backbone of data storage and management, while Oracle powers the bank's digital transformation efforts by supporting flexible and scalable online and mobile banking platforms. The CRM system enhances customer satisfaction through personalized interactions and automated marketing campaigns, while HRMS streamlines internal processes like payroll, recruitment, and performance tracking.

Furthermore, the report highlights the role of IT systems in driving innovation and competitiveness within the financial sector. By adopting cutting-edge digital tools and integrating them across core operations, NMB Bank has positioned itself as a leader in the industry, recognized for its efficient and customer-centric services. The study also examines the benefits of MIS, such as improved operational efficiency, enhanced customer engagement, and real-time data accessibility, while addressing challenges like the need for employee training, system optimization, and cybersecurity.

This report underscores the significance of IT systems in achieving NMB Bank's strategic objectives, supporting its goal to become a fully digitized and paperless financial institution. By continuously advancing its IT infrastructure, the bank is well-equipped to meet the demands of an increasingly digital banking environment and maintain its leadership in Nepal's financial sector.

ABBREVIATIONS

- NMB: Nepal Merchant Banking and Finance Limited.
- MIS: Management Information System.
- **SQL DB**: Structured Query Language Database.
- **CBS**: Core Banking System
- CRM: Customer Relationship Management
- shered. HRMS: Human Resource Management System
- CEO: Chief Executive Officer
- IT: Information Technology
- AML: Anti-money Laundering
- ATM: Automated Teller Machine
- Customer Service Representatives CSRs:
- KYC: Know Your Customer
- BI: **Business Intelligence**
- Enterprise Resource Planning ERP:
- **Business Process Management BPM:**
- **RPA:** Robotic Process Management
- ISO: International Organization for Standardization
- PCI DSS: Payment Card Industry Data Security Standard
- MFA: Multi-Factor Authentication
- **IDS**: Intrusion Detection Systems
- EDMS: Electronic document management systems

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CHAPTER 1: INTRODUCTION

1.1 Background

The banking industry today faces an ever-evolving competitive landscape. Organizations must continuously adapt to rapid technological advancements, shifting customer expectations, and increasing regulatory pressures. Those that successfully used superior technology, a skilled workforce, and high-quality information can maintain a competitive edge in this dynamic market.

Technological progress, particularly in information systems, is reshaping the global banking environment. Staying competitive now requires not only adapting to these advancements but also fully integrating new systems that enhance decision-making, efficiency, and customer satisfaction. The adoption of advanced Management Information Systems (MIS) plays a pivotal role in enabling banks to manage vast amounts of data and ensure smooth operations.

This report delves into the MIS framework employed by NMB Bank Limited. The purpose is to explore how NMB Bank uses MIS to streamline operations, support decision-making, and achieve its strategic goals in the competitive financial sector. By analyzing the bank's systems and processes, the report aims to highlight the critical role of MIS in modern banking operations.

1.2 Objectives

- To understand the structure of organization with respect to MIS in NMB Bank.
- To identify the benefits and challenges of implementing MIS in NMB Bank

1.3 Introduction of Organization

NMB Bank Nepal is a commercial bank in Nepal with headquarters in Kathmandu. The bank is licensed by central bank of Nepal, the Nepal Rastra Bank, and has 202 branches across the nation providing retail and commercial banking services. (Nepal, 2024). It was founded in May 2008 and is licensed as an "A" class financial institution.

As a publicly traded company on the Nepal Stock Exchange (NEPSE), NMB Bank maintains a strong presence in the financial market. Its commitment to international standards is reflected in its joint venture agreement with the Netherlands Development Finance Company (FMO), a Dutch development bank. FMO, as the largest shareholder, holds 13.69% of the bank's shares, further strengthening NMB Bank's financial stability and global partnerships.

The bank offers a wide range of products and services, including retail banking, corporate banking, SME financing, and digital banking solutions. With a robust network of branches and ATMs across Nepal, NMB Bank is dedicated to fostering economic growth and empowering communities through its financial expertise and strategic initiatives.

1.4 Vision

• Building communities through responsible banking, preferred by all stakeholders, enabling customers and clients achieve their financial goals thus contributing towards prosperous Nepal.

1.5 Mission

- Helping clients and customers to achieve financial security.
- Strengthening and promoting sustainable socio economic development by working actively with local and international stakeholders.
- Being responsible for bringing about positive environmental and social impacts.
- Promoting self reliance through financial products for real economy.
- Creating an innovative climate within the organization, utilizing the skills and potential of staff.

1.6 Values

- Be innovative with the changing time.
- Be a team player and deliver results together.
- Be responsible to our actions.
- Be prudent for sustainable and consistent growth.
- Be committed to deliver service excellence.(Bank, n.d.)

1.7 Methodology

Management Information System of NMB Bank of Nepal involves gather relevant information on how the bank uses its information systems. A visit was conducted to NMB Bank to gather firsthand information from employees and management about the organization's information systems. Observation of daily operations was made to observe how the systems (like Core Banking System, Customer Relationship Management and Human Resource Management System) are used in real-time. Information was gathered from NMB Bank's official website, industry publications, and relevant regulatory guidelines. Access to sensitive data was restricted due to privacy policies. The study was conducted within a limited time frame, restricting the scope of research to specific departments.

1.8 Literature Review

The official website of NMB Bank provides detailed insights into the bank's technological infrastructure and services. It highlights the implementation of key systems like the Core Banking System (CBS), which integrates branches and enables real-time transaction processing. The understanding of Management Information Systems as tools that collect, store, and process data to assist in decision-making, control, and analysis within organizations.

The bank used digital banking services, including mobile banking, online banking, and ewallet integration, to improve accessibility and convenience for its customers. The website also highlights the bank's focus on data security by adopting international standards such as ISO 27001, ensuring compliance with global norms and safeguarding customer data from breaches. Furthermore, NMB Bank aims to transition toward fully digitized and paperless operations, using MIS to streamline workflows and enhance decision-making capabilities.

MIS is defined as a structured system that collects, stores, processes, and disseminates information to support organizational decision-making, control, and analysis. In banking, MIS facilitates seamless management of customer data, loan records, transaction history, and financial reporting. NMB Bank has strategically implemented MIS to integrate core operations, improve customer satisfaction, and ensure secure data management.

CHAPTER 2: OVERVIEW OF THE ORGANIZATION

2.1 History and Background

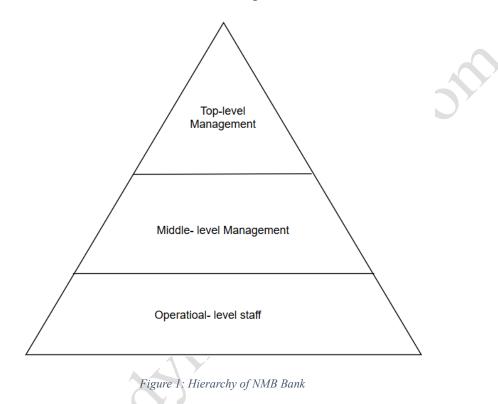
NMB Bank Nepal is a leading commercial bank in Nepal, headquartered in Babarmahal, Kathmandu. It is licensed as an "A" class financial institution by the central bank of Nepal, the Nepal Rastra Bank, and has established itself as a key player in Nepal's financial sector. The bank provides a comprehensive range of retail and commercial banking services, with a strong focus on leveraging digital technologies to enhance customer experience.

Founded in May 2008, NMB Bank came into existence as a result of a merger between four financial institutions Bhrikuti Development Bank, Pathibhara Bikas Bank, Prudential Finance Company and Clean Energy Development Bank. This strategic merger allowed the bank to pool resources, expand its customer base, and strengthen its position in the competitive banking industry of Nepal. As of 2022, NMB Bank operates 202 branches across Nepal, making its services accessible to a wide range of customers, from urban centers to remote areas. The bank has a significant presence in both consumer banking and corporate banking, offering services such as Savings and current accounts, Loans and credit facilities, Investment banking, Corporate financing, Securities and financial advisory services.

NMB Bank's performance has consistently been recognized at both national and international levels. Notably, the bank was awarded "Bank of the Year in Nepal" for two consecutive years, 2017 and 2018, by The Banker, a service of the Financial Times. This recognition highlights NMB Bank's commitment to innovation and its leading role in driving the adoption of digital banking technologies in Nepal's financial sector. The bank's financial performance has also shown significant growth. In 2022, NMB Bank reported a net income of Rs 370 crore (US\$28 million), reflecting its robust financial management and growing customer confidence. Additionally, the bank employs approximately 1800 people globally, with around 450 employees in Nepal, demonstrating its role as a major employer in the financial industry. NMB Bank has also diversified its operations through its subsidiaries, including NMB Capital Ltd., which provides investment banking and capital market services. This diversification enables the bank to cater to the growing demand for financial solutions, including wealth management, asset management, and securities services. (Bank, History, 2022).

2.2 Organizational Structure

NMB Bank follows a structured and well-defined hierarchical system to ensure smooth operations, effective decision-making, and efficient management of its diverse banking services. The hierarchy is divided into top-level management, middle-level management, and operational-level staff, with clear roles and responsibilities at each level.



2.2.1 Top-Level Management

The top-level management consists of key decision-makers responsible for setting the strategic direction, goals, and policies of the bank. It includes Board of Directors, Chief Executive Officer and Deputy CEO. The Board of Directors oversees the overall performance and governance of the bank. It ensures compliance with Nepal Rastra Bank's regulations and legal frameworks. The Chief Executive Officer is responsible for implementing strategies, managing operations, and achieving the bank's vision. The Deputy CEO assists the CEO in executing high-level decisions and oversees critical projects.

2.2.2 Middle-level Management

The middle-level management bridges top management and operational staff. It includes Chief Financial Officer, Chief Technology Officer and Regional/Branch Managers. Chief Financial Officer manages financial planning, budgeting, and reporting. Chief Technology Officer oversees IT infrastructure, digital banking systems, and innovation in financial technologies Regional / Branch Managers Oversee operations at branch and regional levels, ensuring smooth service delivery and customer satisfaction.

2.2.3 Operational-level Staff

Operational-level employees are responsible for the day-to-day execution of tasks, direct customer interactions, and service delivery. It includes Relationship Managers, Loan Officers, Customer Service Representatives, Cashiers and Tellers, and IT and Support Staff. Relationship Managers manage client relationships, focusing on deposits, loans, and other banking products. Loan Officers handle loan applications, credit analysis, and approvals. Customer Service Representatives assist customers with account-related services, inquiries, and complaints. Cashiers and Tellers manage cash transactions, deposits, and withdrawals. IT and Support Staff provide technical support, system maintenance, and ensure operational continuity.

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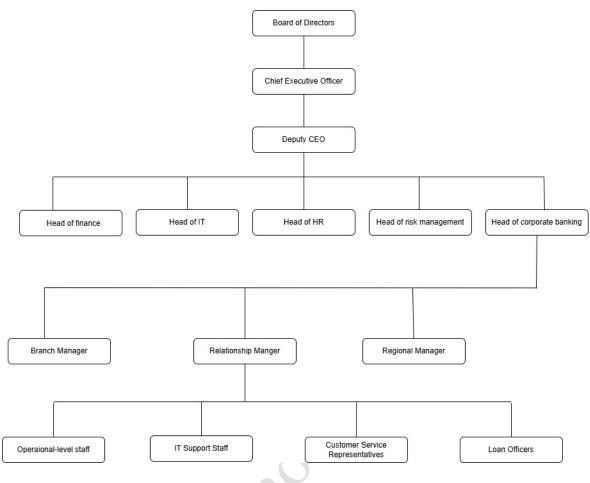


Figure 2: Organization Structure

The organizational structure of NMB Bank represents a clear hierarchy that ensures efficient management and decision-making across all levels of the organization. At the top is the Board of Directors, which provides governance and strategic oversight. The Chief Executive Officer leads the bank, supported by the Deputy CEO, who assists in implementing strategies and managing day-to-day operations. The departmental heads, includes the Head of Finance, Head of IT, Head of HR, Head of Risk Management, and Head of Corporate Banking, manage specific functional areas such as financial planning, technological advancements, employee management, risk assessment, and corporate client relationships. The Regional Managers oversee the performance of multiple branches, while Branch Managers supervise daily operations and customer service at individual branch levels. Supporting them are Relationship Managers, who handle client portfolios, and operational staff, such as Loan Officers, Customer Service Representatives (CSRs), and IT Support Staff, ensuring smooth service delivery and customer satisfaction. This hierarchical structure facilitates effective communication, role clarity, and accountability across all levels of the organization.

2.3 Roles and Responsibilities of NMB Bank

• Financial Services and Products:

NMB Bank provides a wide range of financial services including savings and current accounts, loans, credit cards, and insurance products, catering to both individual and corporate clients. The bank offers specialized services such as remittance, fixed deposits, and foreign exchange facilities.

• Customer Service:

Ensuring a high level of customer satisfaction through personalized services. It address customer queries and concerns promptly. It provide advisory services for financial planning and investment.

• Compliance and Regulatory Adherence:

Ensuring adherence to Nepal Rastra Bank's regulations and other national and international financial regulations. It helps in maintaining transparency in financial reporting and operations. It implements Know Your Customer (KYC) policies.

• Loan and Credit Management:

It offers various types of loans such as personal loans, home loans, and business loans. It helps to ensure the responsible lending by evaluating loan applicants based on their financial capabilities. It helps in managing loan recovery and follow-ups.

• Technology and Innovation:

It adopts and implements the advanced banking technologies, including mobile banking, internet banking, and ATM services to provide convenient and efficient banking to customers. It enhances digital banking services to stay competitive in the market.

CHAPTER 3: MIS IN NMB BANK

3.1 Overview of MIS Systems used in the Organization

NMB Bank has adopted robust Management Information System to optimize its operations and provide efficient services to customers. The core MIS systems used in NMB Bank include:

• SQL DB:

SQL databases, also known as relational databases, are systems that store collections of tables and organize structured sets of data in a tabular columns-and-rows format, similar to that of a spreadsheet. SQL DB is used to store and manage customer details, account balances, loan information, transactions, and other essential banking data. Data is stored in tables with relationships, making it easy to organize and retrieve structured information.

• Oracle:

NMB Bank transformed its corporate and retail banking experience and increased competitiveness with Oracle. It helps on the fast track to achieving digital transformation goals, bringing new flexibility, convenience, and efficiency to customers and powering future innovation. Oracle offered a superior combination of value, functionality, and global banking expertise. NMB benefits from the fact that Oracle Banking Digital Experience includes mobile capabilities as part of the core solution, without additional cost.

• Customer Relationship Management (CRM):

The CRM system helps the bank enhance customer experience by tracking customer interactions and preferences. It is used for marketing campaigns, customer service management, and generating insights into customer behavior, enabling the bank to offer personalized services.

• Human Resource Management System (HRMS):

The HRMS streamlines the bank's internal processes related to employee management. It handles recruitment, payroll, employee performance tracking, leave management, and training programs. NZ-HRMS is used in NMB Bank. The term NZ is a specific vendor, version, or internal naming convention of the HRMS used by NMB Bank.

3.2 Functionalities and Integration of Systems in NMB Bank

NMB Bank uses several Management Information Systems (MIS) to enhance operational efficiency, improve customer experience, and support decision-making processes. Below is an overview of the functionalities of the systems and how they are integrated:

1. SQL DB:

- Functionalities: It stores and organizes large volumes of structured data such as customer details, account balances, loan information, and transactions. It helps to ensure efficient data management and retrieval using relational tables with rows and columns as well facilitates real-time updates to ensure accuracy and consistency in financial data across branches. Additionally, it also allows secure storage and maintenance of sensitive customer and transactional information.
- Integration: SQL DB is the backbone of the bank's Core Banking System (CBS), ensuring seamless management of customer accounts and real-time transaction processing. Integrated with BI tools and reporting systems to generate analytical reports for management and compliance purposes.
- 2. Oracle:
 - Functionalities: Oracle drives the bank's digital transformation, enhancing flexibility, efficiency, customer convenience and also enables real-time updates for corporate and retail banking services. It provides built-in mobile banking capabilities as part of its core solution without additional cost. Also supports future innovations through advanced functionalities and scalability.
 - Integration: Oracle integrated into the bank's digital banking platforms, enabling customers to access online and mobile banking services seamlessly. It works alongside risk management systems to monitor and mitigate operational risks efficiently as well it combines with CRM and ERP systems to optimize service delivery and customer engagement.

3. Customer Relationship Management (CRM):

- Functionalities: It tracks and analyzes customer interactions, preferences, and transaction histories to enhance customer satisfaction. It automates marketing campaigns, enabling targeted offers and promotions based on customer behavior and it also provides insights for personalized banking services and customer retention strategies. It manages customer service inquiries and complaints effectively.
- Integration: CRM is connected to SQL DB and CBS to access real-time customer and transactional data. It integrated with communication platforms (e.g., email, SMS) for personalized customer engagement and works with BI tools to generate actionable insights for improving customer relationships.

4. Human Resource Management System (HRMS):

- Functionalities: Human Resource Management handles recruitment, including job postings, application tracking, and employee onboarding. It manages payroll processing, ensuring accurate salary disbursement and tax compliance. It also tracks employee performance and schedules training programs for skill development and automates leave management and ensures transparency in employee attendance.
- Integration: Integrated with the bank's financial systems to streamline payroll processing, budget allocation and connected with reporting systems to provide detailed HR performance reports to top management. It supports compliance by automating employee-related record-keeping and documentation.

3.3 How These Systems Work Together

- Centralized Data Management: All systems (SQL DB, Oracle, CRM, and HRMS) are interconnected to ensure real-time data sharing and eliminate redundancies. For example: SQL DB provides the primary data for CRM and HRMS functionalities. Oracle ensures smooth integration of customer-facing systems like digital banking and backend systems like CRM.
- Enhanced Decision-Making: Oracle and CRM systems feed customer insights into BI tools, helping management make data-driven decisions. HRMS provides analytics on workforce performance, aiding strategic planning.
- Improved Customer Experience: CRM enables personalized banking by leveraging data from SQL DB and Oracle systems. Oracle's mobile banking capabilities enhance accessibility for customers.
- **Operational Efficiency:** HRMS automates internal processes, reducing the workload for HR teams. SQL DB ensures accurate and reliable data management, improving transactional efficiency.

By utilizing above advanced systems like SQL DB, Oracle, CRM, and HRMS, NMB Bank streamlines its operations, improves customer satisfaction, and enhances decision-making capabilities. The integration of these systems ensures a unified infrastructure that supports the bank's digital transformation and positions it as a leader in Nepal's financial sector.

CHAPTER 4: IT SUPPORT BY INFORMATION SYSTEM

4.1 Introduction

Information Technology (IT) has become the backbone of the modern banking industry, enabling banks like NMB Bank to deliver efficient, secure, and customer-centric services. In an increasingly competitive and digitally driven market, IT systems play a vital role in automating processes, reducing operational costs, improving service quality, and ensuring regulatory compliance.

At NMB Bank, IT systems are integrated into various aspects of banking operations to streamline workflows, enhance risk management, and provide innovative solutions that meet customer expectations. From core banking systems (CBS) to modern tools like mobile banking and cloud-based platforms, IT supports both front-end and back-end banking services, ensuring real-time operations and improved decision-making.

4.2 IT Systems Supporting Banking Services

At NMB Bank, IT systems are used to streamline operations and support various banking services, including business services, risk management, and customer relationship management. The systems used include:

- Core Banking Systems (CBS): These systems manage day-to-day banking operations, including account management, transaction processing, and customer records. CBS ensures that banking activities are performed in real-time.
- **Customer Relationship Management (CRM):** CRM tools help the bank manage customer data, track communication history, and improve customer service.
- Risk Management Tools: IT supports risk management systems that monitor transactions for anomalies, fraud detection, and ensure compliance with banking regulations.
- **Business Process Management (BPM):** BPM tools optimize business workflows, enabling the automation of repetitive tasks and enhancing productivity.

4.3 Examples of IT Systems in Banking Services

- Online Banking: NMB Bank provides secure online banking platforms for customers to manage accounts, transfer funds, pay bills, and check transaction history 24/7. This service improves customer convenience and reduces branch workloads.
- **Mobile Banking:** NMB Bank offers mobile banking applications that allow customers to access banking services on smartphones. Mobile banking includes features like fund transfers, utility payments, and account alerts.
- Cloud-Based Solutions: NMB Bank leverages cloud-based platforms such as Microsoft 365 for collaboration and productivity, enhancing efficiency across departments.

4.4 IT Support for Risk Management

Risk management is a critical function in banking to ensure the safety of financial assets, compliance with regulatory standards, and prevention of fraudulent activities. At **NMB Bank**, IT systems play a significant role in supporting risk management processes by providing advanced tools and technologies for monitoring, analysis, and decision-making.

The bank uses risk management tools such as automated monitoring systems and fraud detection software to track transactions in real time. These systems analyze transaction patterns to identify anomalies, suspicious activities, or potential fraud, enabling immediate action to mitigate risks. Additionally, IT solutions assist in credit risk assessment by analyzing customer data, loan history, and repayment behavior to ensure safe and responsible lending practices.

Moreover, NMB Bank leverages data analytics platforms to perform risk analysis, generate reports, and support strategic decision-making. By utilizing advanced analytics, the bank can predict potential risks, identify emerging threats, and take proactive measures to minimize financial losses. The implementation of IT-based risk management tools not only enhances the bank's ability to safeguard its assets but also ensures compliance with industry standards and regulatory requirements. This builds customer trust, strengthens operational security, and promotes long-term stability in the banking environment.

4.5 How These Systems Work Together

The integration of these systems ensures that NMB Bank operates efficiently while providing excellent services. For instance:

- **CBS integrates with CRM** to provide personalized recommendations based on customer transaction history.
- Mobile and online banking systems integrate with payment gateways to enable seamless transactions.
- **Risk management tools use data from SQL DB** to proactively identify potential threats.

4.6 Management Software Applications Used in NMB Bank

The applications used in the organization fall under three categories:

- Custom-built applications: Specifically tailored for organizational needs, such as Sajilo Smart.
- Off-the-shelf solutions: Includes systems like CCMS and BPM.
- Cloud-based solutions: Utilizes platforms like Microsoft 365 and Fedena.

CHAPTER 5: BENEFITS AND CHALLENGES

5.1 Benefits of NMB Bank

- Financial Inclusion: NMB Bank provides banking services to underserved populations, particularly in rural areas. They offer microfinance and small business loans that stimulate local economies.
- Diverse Financial Products: NMB Bank offers a range of products like savings accounts, loans, insurance, and investment services. Digital banking services make transactions convenient and accessible.
- Support for Entrepreneurs: NMB Bank provides credit facilities for startups and small businesses, fostering economic growth. They offer financial literacy programs to empower entrepreneurs.
- **Digital Innovation:** Mobile banking apps and online platforms ensure 24/7 access to banking services. It enhances customer experience through automated services and reduced transaction times.
- Corporate Social Responsibility (CSR): NMB Bank invests in community development, education, and environmental conservation. They build trust and goodwill among customers and communities.
- **Strong Local Presence:** Tailors services to meet the specific needs of local markets, ensuring relevance and customer satisfaction.

5.2 Challenges of NMB Bank

- **Competition:** NMB Bank faces stiff competition from other banks and financial technology companies offering similar services. It is difficult to retaining customers in a competitive environment requires continuous innovation.
- **Regulatory Compliance:** Needs to adhere to strict regulations from central banking authorities, which can be costly and time-consuming. The frequent changes in policies can disrupt operations of the bank.
- Economic Instability: Economic Instability vulnerable to economic downturns, inflation, or currency fluctuations in its operating regions. It impacts loan repayment rates and increases default risks.

- **Technological Risks:** Technology risk such as cybersecurity threats could compromise customer data and bank operations. It requires constant updates to IT infrastructure, which is costly.
- Financial Inclusion Challenges: Reaching remote areas involves high operational costs and logistical issues. Limited digital literacy among some customer segments can hinder the adoption of online banking services.
- **Customer Expectations:** Customers demand seamless, fast, and innovative banking solutions. Meeting these expectations consistently can be challenging without significant investment.
- **Credit Risks:** Defaulting loans, particularly in high-risk segments like small businesses or agriculture, can impact profitability.

While NMB Bank has substantial opportunities to grow and make a positive impact, it must proactively address these challenges through strategic planning, investment in technology, and customer-centric policies.

CHAPTER 6: WORKPLACE PRACTICES AND IT POLICIES

6.1 IT Security and Workforce Development Practices

1. Security Policies and Practices

NMB Bank prioritizes the security of its customer data, internal systems, and transactions by implementing internationally recognized security standards. The following key policies and practices ensure robust IT security across the organization:

- **ISO 27001**: NMB Bank adheres to the ISO 27001 standard, which provides a framework for managing information security. This standard ensures the confidentiality, integrity, and availability of data through effective risk management practices. The bank conducts periodic audits and updates its policies to address emerging cybersecurity threats.
- PCI DSS Compliance: The bank complies with the Payment Card Industry Data Security Standard (PCI DSS) to secure card transactions and protect customer payment information. This includes measures such as data encryption, secure payment gateways, and regular monitoring of payment systems to prevent fraud.
- Multi-Factor Authentication (MFA): NMB Bank enforces multi-factor authentication for online and mobile banking users, adding an extra layer of security to protect against unauthorized access.
- Firewall and Intrusion Detection Systems: Advanced firewall technologies and intrusion detection systems (IDS) are used to monitor network activity and prevent cyberattacks. Suspicious activities are flagged and addressed in real-time to ensure uninterrupted service.
- Employee Access Control: Access to sensitive customer and financial data is restricted based on employees' roles and responsibilities, minimizing the risk of data breaches.

6.2 Training Practices

To maintain a high level of IT security and operational efficiency, NMB Bank conducts regular training sessions for its employees. These practices aim to equip the workforce with the knowledge and skills needed to manage modern banking systems and address security risks effectively.

- Cybersecurity Awareness Training: Employees receive training on recognizing and preventing phishing attacks, malware threats, and social engineering tactics. It periodic sessions are conducted to update staff on the latest cybersecurity best practices.
- System-Specific Training: Staff members are trained on using core banking systems (CBS), CRM, and other IT tools efficiently. Technical teams undergo specialized training on managing SQL DB, Oracle systems, and risk management tools.
- Skill Development Programs: Regular workshops and seminars are organized to improve employee skills in areas such as data analytics, digital banking technologies, and customer relationship management.

6.3 Employee Feedback

NMB Bank values employee feedback as a key element in improving its policies, practices, and workplace culture. Feedback mechanisms ensure that employees feel heard and contribute to the bank's growth.

- Feedback on IT Systems: Employees are encouraged to report issues or suggest improvements for the bank's IT systems, ensuring their efficiency and user-friendliness. It brings suggestion on enhancing workflow automation and customer service are prioritized for implementation.
- Performance Evaluation Feedback: Regular performance evaluations are conducted, where employees can provide feedback on their roles, responsibilities, and professional growth opportunities.
- Anonymous Feedback Channels: The bank provides anonymous channels for employees to share concerns or suggestions related to workplace policies, including IT security and training programs.

CHAPTER 7: NMB BANK'S FUTURE PLAN

7.1 Fully Digitalization Plan

NMB Bank is committed to becoming a fully digitalized bank, ensuring that all its operations and services are accessible online. The aim is to eliminate manual and traditional processes by leveraging advanced digital tools and platforms. The goal of NMB Bank involves:

- Transition to paperless banking, reducing dependency on physical documentation in account opening, loan approvals, and financial reporting.
- Enhance online and mobile banking services to provide customers with a seamless banking experience.
- Expand the use of digital wallets, e-commerce integrations, and secure payment platforms to promote cashless transactions.

7.2 Upgrades

• Reducing Paperwork:

The bank plans to reduce its reliance on paper-based workflows by implementing automated systems for documentation and approval processes. Following steps will be taken to reduce paperwork:

- 1. Introduction of electronic document management systems (EDMS) to digitize and archive records securely.
- 2. Implementation of e-signature solutions to enable paperless contracts and approvals.
- 3. Expansion of digital forms and portals for customers to handle account-related activities without visiting physical branches.

The reducing paperwork reduces operational costs and environmental impact and fast in document processing and improved efficiency in customer service.

7.3 New Implementation

1. Robotic Process Automation (RPA):

Robotic Process Automation (RPA) involves the use of software robots to automate repetitive tasks, enabling employees to focus on more complex and strategic activities.

• Implementation Plans:

Automating processes like loan eligibility checks, transaction verifications, and compliance reporting. It will reducing human error in back-office tasks such as data entry and reconciliation. It will improve processing speed and accuracy. It will save cost through efficient resource utilization.

2. Data Security Analyst Integration:

Data Security Analyst Integration refers to the process of incorporating Data Security Analysts into an organization's operational framework to strengthen its information security systems.

• Implementation Plans:

Data Security Analyst Integration assess Current Security Framework. It will define the Role of Data Security Analysts. It will hire skilled professionals and provide onboarding to familiarize them with the bank's systems and policies. It will deploy Security Tools.

The future plans outlined by NMB Bank centered on digital transformation, process automation, and data security reflect its commitment to innovation and operational excellence. By adopting paperless workflows, RPA technology, and advanced cybersecurity measures, the bank is preparing to meet the challenges of the evolving banking landscape while maintaining customer trust and satisfaction.

CHAPTER 8: RECOMMENDATIONS AND STRATEGIC SUGGESTIONS

8.1 Strengthen Digitalization Efforts

Current Status: Plans for full digitalization and paperless operations are highlighted.

Recommendation: Accelerate the adoption of end-to-end digital workflows to eliminate paper-based processes completely. Implement electronic document management systems (EDMS) for secure and efficient data storage and retrieval. Adopt e-signature solutions to further reduce paperwork.

8.2 Enhance Cloud-Based Infrastructure

Current Status: The bank currently uses cloud-based solutions like Microsoft 365 and Falcon, primarily for collaboration and basic storage needs.

Recommendations: Broaden the adoption of advanced cloud platforms to ensure scalability and enhanced security for banking operations, including disaster recovery and backup systems. Implement a hybrid-cloud strategy that balances on-premises data storage for sensitive information with cloud storage for scalability and flexibility.

8.3 Upgrade Existing Applications

Current Status: The bank relies on a combination of custom-built applications like SQL and Oracle, alongside off-the-shelf solutions such as CCMS (Call Center Management System) and BPM (Business Process Management).

Recommendations: Perform a thorough assessment of current applications to identify inefficiencies, outdated features, or areas that require upgrades. Invest in modern ERP (Enterprise Resource Planning) and CRM (Customer Relationship Management) solutions to ensure seamless integration and coordination across all departments. Enhance existing applications by incorporating AI-powered automation features to improve speed, accuracy, and operational efficiency.

CHAPTER 9: CONCLUSION

9.1 Conclusion for the Report on NMB Bank

In conclusion, this report highlights the pivotal role of Management Information Systems (MIS) in transforming the operations, customer experience, and overall efficiency of NMB Bank of Nepal. By using advanced IT systems like SQL DB, Oracle, Customer Relationship Management (CRM), and Human Resource Management System (HRMS), the bank has established itself as a leader in the Nepalese financial sector. These systems not only streamline core banking operations but also enable the bank to meet regulatory compliance, enhance decision-making, and provide personalized customer experiences.

The report underscores the bank's commitment to digital transformation, as evidenced by its efforts to transition to paperless banking, adopt cloud-based infrastructures, and integrate innovative technologies like Robotic Process Automation (RPA). NMB Bank's focus on strengthening data security through the integration of Data Security Analysts and compliance with standards such as ISO 27001 and PCI DSS ensures that customer trust remains at the forefront of its priorities.

However, the report also identifies areas for improvement, including the need to accelerate digitalization efforts, upgrade existing applications, and enhance workforce training. By addressing these challenges, NMB Bank can further solidify its position as an innovative and customer-centric financial institution.

The recommendations provided in this report ranging from strengthening digital workflows to leveraging AI-driven tools serve as actionable strategies for the bank to achieve its strategic objectives. As NMB Bank continues to embrace modernization and innovation, it is well-equipped to adapt to the evolving demands of the banking industry and maintain its competitive edge in the digital age.

This report concludes by reaffirming that NMB Bank's integration of MIS and futurefocused strategies not only drives operational excellence but also sets a benchmark for sustainable growth and customer satisfaction in Nepal's banking landscape.

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APPENDIX



Office premises



Manager workplace



NMB Bank branch Pokhara

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