



Tribhuvan University

Institute of Sciences and Technology

A Case Study on

“Department of Information Technology”

*In partial fulfillment of the requirement for the degree of BSc Computer Science
and Information Technology*

(BSc CSIT)

Submitted to:

**Department of Computer Science and Information Technology, Academia International
College**

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LETTER OF APPROVAL

We certify that we have read this case study report and, in our opinion, it is satisfactory in the scope and quality as a project in the partial fulfillment of the requirement of Bachelor's Degree in BSc Computer Science and Information Technology.

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External Examiner

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Internal Examiner

Executive Summary

This case study looks at how e-Governance is developing in Nepal and the role of the Department of Information Technology (DoIT) in this process. With technology growing rapidly, Nepal is working to improve public services, make governance more transparent, and support economic growth through digital solutions.

Despite these efforts, there are still challenges, such as weak internet infrastructure, cybersecurity risks, slow adoption of digital services, and low public awareness. The government has taken steps to address these issues by expanding internet access, setting up a National Data Center, introducing online payment systems, and strengthening cybersecurity policies.

Programs like the Digital Nepal Framework and the Government Integrated Data Center have already improved service delivery. However, further improvements are needed, such as better cybersecurity, more digital literacy programs, and stronger partnerships between the government and private companies.

Overall, Nepal has made good progress in e-Governance, but there is still work to do. By addressing these challenges, the country can fully benefit from digital transformation and make governance more efficient and accessible to everyone.

Acknowledgement

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Introduction

The rapid global advancement in information technology (IT) presents a significant opportunity for Nepal to enhance its economic and social development. The strategic adoption of IT can lead to improved governance, efficient public service delivery, and the growth of various economic sectors. Recognizing this potential, Nepal has initiated several policies and established institutions to promote and regulate IT usage across the nation.



History

In 2010, the Government of Nepal introduced the National Information Technology Policy 2010 (2067 B.S.) with the objective of driving social and economic transformation through IT. To ensure effective implementation of this policy, the Department of Information Technology (DoIT) was established under the Ministry of Communication and Information Technology (MoCIT) in 2012 (2069 B.S.). The DoIT serves as a pivotal body for IT research, development, regulation, and enforcement in Nepal.

Problem Statement

Despite the recognized importance of IT, Nepal faces several challenges in its IT infrastructure and adoption:

- Limited Digital Infrastructure: Many rural areas lack sufficient broadband access, hindering equitable digital growth.

- Cybersecurity Concerns: The rise in cyber threats is exacerbated by inadequate security frameworks.
- Slow E-Governance Adoption: Numerous government offices continue to rely on manual processes, delaying digital transformation.
- Lack of Awareness and Digital Literacy: A significant portion of the population remains unaware of e-Governance services and lacks basic digital skills.

Case Background / Context

The National Information Technology Policy 2010 laid the foundation for Nepal's IT-driven transformation. Following this, the establishment of the DoIT under MoCIT marked a significant step towards structured IT development and regulation. The DoIT's mandate includes promoting IT adoption, ensuring cybersecurity, and facilitating the growth of IT-enabled services.

Methodology

This case study employs a multi-faceted approach to analyze the effectiveness of the DoIT's initiatives:

1. Website Evaluation: Analyzing the official DoIT website's design, layout, navigation, and responsiveness across various devices.
2. User Feedback: Conducting surveys and interviews to gather user experiences and satisfaction levels with the website and online services.
3. Comparative Analysis: Benchmarking Nepal's e-Governance platforms against those of other countries to identify areas of improvement.

Objectives of DoIT

The Department of Information Technology aims to:

1. Develop E-Infrastructure: Facilitate and promote e-Governance by building robust digital infrastructure.
2. Promote IT-Enabled Services: Encourage the growth of the IT and IT-enabled services industry to boost economic development.
3. Ensure Cybersecurity: Establish a secure cyberspace through effective regulation and security measures.

Findings & Analysis

Key observations from the analysis include:

1. Infrastructure Development:
 - Broadband Expansion: Efforts are underway to extend broadband access, particularly in underserved rural regions.
 - National Data Center (NDC): The establishment of the NDC aims to centralize and secure government services and data.
2. E-Governance Implementation:
 - Integrated Online Services: Development of platforms that offer multiple government services online, enhancing accessibility.
 - Digital Payment Systems: Introduction of e-payment options for government transactions to streamline processes.
3. Cybersecurity Measures:
 - Cyber Security Policy 2023: Formulation of updated policies to address emerging cyber threats and protect national digital assets.
 - Capacity Building: Training programs aimed at enhancing the skills of IT security personnel.
4. Challenges Faced:
 - Rural Internet Access: Persistent gaps in connectivity in remote areas.
 - Technical Issues: Frequent glitches and downtimes in online service platforms affecting user experience.
 - Public Awareness: Limited knowledge among citizens about available e-Governance services.

Implemented and Proposed Solutions

Implemented Initiatives:

- Digital Nepal Framework: A comprehensive roadmap outlining strategies for IT development and expansion of digital services.
- Government Integrated Data Center (GIDC): A secure, cloud-based infrastructure supporting various public services.
- Online Government Portals: Platforms facilitating services such as e-passports, e-payments, and e-procurement.
- DoIT Website: Offers services including online applications for citizenship, passports, and driving licenses, along with application tracking features.

Proposed Future Solutions:

- Public-Private Partnerships: Collaborations to enhance IT infrastructure development and service delivery.
- Enhanced Cybersecurity Frameworks: Strengthening data protection measures to safeguard against evolving cyber threats.

- Digital Literacy Programs: Initiatives aimed at increasing public awareness and proficiency in using digital services.

Results & Outcomes

The initiatives have led to:

- Improved Service Delivery: Reduction in paperwork and increased efficiency through online systems.
- Heightened Cybersecurity Awareness: Enhanced understanding and preparedness against cyber threats among stakeholders.
- Expanded Internet Penetration: Broader internet access, especially in previously underserved rural areas.
- Enhanced Public Participation: Greater citizen engagement through online feedback mechanisms and service platforms.

Conclusion

The Department of Information Technology's efforts reflect Nepal's dedication to embracing digital transformation for improved public service delivery and governance. While significant progress has been made, addressing existing challenges through proposed solutions can further enhance the effectiveness of e-Governance initiatives. This case study offers insights into the strategies and outcomes of IT adoption in a developing nation context.

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