TRIBHUVAN UNIVERSITY

INSTITUTE OF SCIENCE AND TECHNOLOGY

Case Study Report On:

"E-Sewa, Nagarik App, Connect IPS and Banking App"

A project report submitted for the partial fulfillment of the requirement of the course

E-Governance (CSC 366)

for the degree of

Bachelor of Computer Science & Information Technology

(B. Sc. CSIT)

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ABSTRACT

The objective of this study is to investigate the role of electronic governance (e-governance) in Nepal, with a focus on four significant platforms: e-Sewa, Nagarik App, Connect IPS, and Banking App. These platforms represent different aspects of e-governance, such as digital payments, citizen services, and government-citizen communication.

Nepal has been facing various challenges in implementing e-governance due to several factors, including low digital literacy, insufficient infrastructure, and low adoption rates. However, this study highlights how these four platforms have overcome these challenges and contributed to the advancement of e-governance in the country.

Through this study, it has been observed that e-governance has had a considerable impact on Nepal, such as increased efficiency, improved access to services, and greater transparency. The findings reveal that these platforms have helped bridge the gap between the government and the citizens, making it easier for them to access public services.

The study concludes with some recommendations for further development of e-governance in Nepal, such as improving the collaboration between the government and the private sector and investing in digital infrastructure. This could help overcome some of the obstacles and increase the effectiveness of e-governance in Nepal, making it more accessible to the public.

ACKNOWLEDGEMENT

We would like to express our gratitude to all those who contributed to the completion of this case study on e- governance in Nepal. Their vast knowledge and expertise have been invaluable in helping us understand and navigate the complexities of this study.

Firstly, we would like to express our gratitude towards e-Sewa, Nagarik App, Connect IPS, and Banking App for providing us with the necessary information and data required for this study. Their insights and knowledge have been invaluable in understanding the workings and impacts of these platforms.

Furthermore, we extend our thanks to Mr. Ananda KC, who took the time to provide us with their perspectives and experiences related to e-governance. His contributions were critical in understanding the challenges and opportunities associated with e-governance in the country.

We are grateful for the opportunity to work on this study and for the support of all those who have helped us along the way. This study has been a valuable learning experience and we are looking forward to applying what we have learned in our future endeavors.

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E-sewa

Introduction

E-sewa has been instrumental in transforming the way Nepalese citizens transact. Before its launch, the country's payment system was primarily cash-based, which made it difficult for many individuals to access financial services. With e-sewa, users can easily transfer money, pay bills, and access a range of financial services without needing to visit a bank or exchange cash.

The platform has been successful in promoting financial inclusion in Nepal. According to the Nepal Rastra Bank, as of mid-2021, there were over 6 million registered e-sewa users, and the platform had facilitated over NPR 1 trillion in transactions. By providing an easy-to-use and accessible payment solution, e-sewa has enabled many Nepalese citizens to participate in the formal economy and access financial services that were previously out of reach.

E-sewa has also played a significant role in supporting the Nepalese government's digital initiatives. The platform has partnered with various government agencies to facilitate the online payment of taxes, fees, and other government services, reducing the time and effort required to complete these transactions. This partnership has not only streamlined the payment process but has also helped to reduce corruption and increase transparency in government transactions.

Overview

E-sewa is focused on providing a range of online payment services in Nepal. It is one of the major service provided by f1soft.com, which is a well-known name for safer and easier way to pay online. E-sewa aims to make financial services accessible to all Nepalese citizens, including those who do not have access to traditional banking services. Additionally, E-sewa has partnered with various government agencies to facilitate the online payment of taxes, fees, and other government services, contributing to the government's digital initiatives and promoting transparency in government transactions.

E-sewa provides a wide range of online payment services in Nepal, some of them are:

- Money transfer
- Bill payment
- Mobile recharge
- Online shopping
- Airline ticket booking
- Hotel booking
- Insurance payment
- Government services

- School fee payment
- Remittance

Installation Process

Installation process of e-sewa:

1. Download the eSewa app from the Play Store for Android or the App Store for iPhone
2. Open the eSewa app
3. Select Register for Free
4. Enter your full name, mobile number, and gender
5. Agree to the Terms & Conditions and Privacy Policy
6. Create your MPIN (Mobile Personal Identification Number)
7. You will receive a verification code via SMS.
8. Load money into your e-sewa account: To use e-sewa services, you need to load money into your account. You can do this by visiting an E-sewa website, bank, or using online banking.

Fig: Installation Process of e-sewa

Services

E-sewa is a digital payment and money transfer service provider in Nepal. It offers a wide range of services, including mobile top-up, utility bill payment, online shopping, and money transfer. Here's how some of these services work:

1. **Mobile top-up:** To top up your mobile phone using e-sewa, you need to log in to your account and select the mobile operator you want to recharge. Then, enter the mobile number and the amount you want to top up. Finally, confirm the transaction and the mobile phone will be

recharged instantly.

2.   **Utility bill payment:** E-sewa allows you to pay your utility bills online, such as electricity, water, and internet bills. To pay your bills, log in to your account and select the utility provider you want to pay. Then, enter the customer ID or account number, and the amount you want to pay. Confirm the transaction and your bill will be paid instantly.

3.   **Money transfer:** E-sewa allows you to transfer money to other e-sewa users or bank accounts. To transfer money, log in to your account and select the "Money Transfer" option. Then, enter the recipient's mobile number or bank account details and the amount you want to transfer. Finally, confirm the transaction and the money will be transferred instantly.
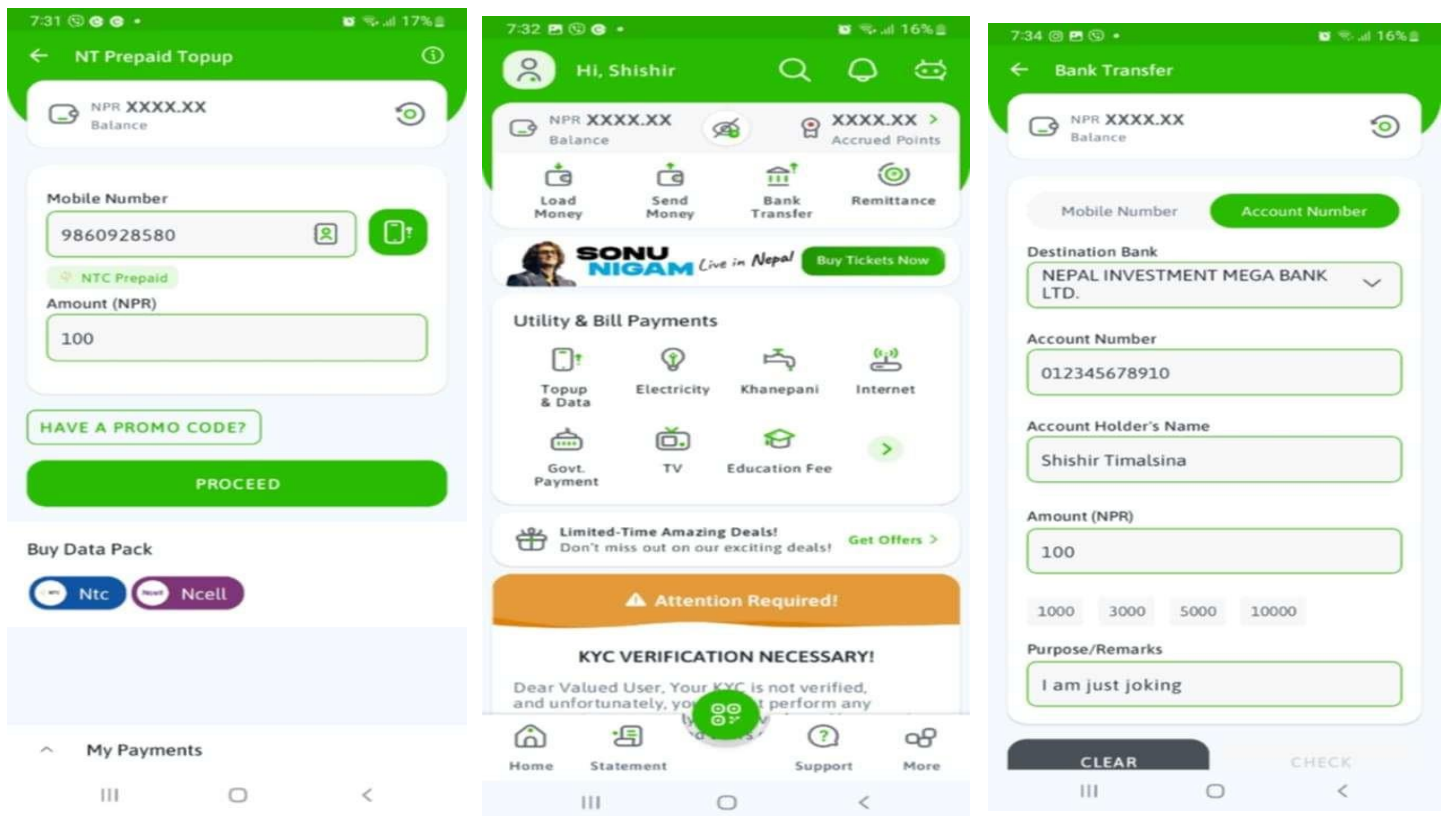
Fig: Shows various services can be performed from -sewa

Conclusion

With its user-friendly platform and reliable services, e-sewa has become a popular choice for many Nepali users who prefer digital transactions over traditional payment methods. Overall, e-sewa has contributed to the growth of the digital economy in Nepal by providing a reliable and efficient platform for digital transactions.

Connect IPS

Introduction

Connect IPS is a single payments platform that allows the customers to link their bank account(s) to enable payment processor, fund transfer and biller payments. An extended product of Nepal Clearing House to support citizen-to-government (C2G), customer-to-business (C2B) and peer-topeer (P2P) payment transactions directly from/to the bank accounts. There will be no need to park funds in an intermediary platform like e-Sewa or Khalti for fund transfers or bill payments.

The platform can be accessed through its website and a dedicated mobile app. However, there is a limit on the per-day transaction amount. As of now, the per-transaction limit for online payment via Connect IPS is Rs 5,000 through the mobile application and Rs 100,000 through its website.

Connect IPS was conceived and developed by Nepal Clearing House Limited (NHCL), which has been guided and promoted by Nepal Rastra Bank. The company also received support from other banks and financial institutions (BFI). Since its launch on October 28, 2018, the platform has been supported by 44 BFIs, among which 32 are already in operation.

Overview

Connect IPS is an easy and hassle-free medium to perform any sort of electronic payments directly through the bank. This platform can also be used for fund transfers during purchase or procurement of goods. Additionally, all transactions carried out on the platform are entirely encrypted. Connect IPS is ISO 270001 certified, ensuring the protection of its users' information.

Furthermore, as the platform was introduced and promoted with the involvement of almost all major banks and financial institutions in Nepal along with the central bank, it can be regarded as reliable and trustworthy.

Connect IPS appears to be an easier digital payment system than e-Sewa or Khalti since it does not require an intermediary. However, not many businesses support Connect IPS for payments yet, even if government services might. In any case, the development and support of such a payment gateway by a government entity itself bodes well for the future of digital payments in Nepal.

Installation process

1. Visit the connect IPS website or app store: To download the connect IPS app, visit the connect IPS website or app store, depending on your device's operating system Click on the download button: Click on the download button to start the installation process. If you are using an Android device, you will be redirected to the Google PlayStore. If you are using an iOS device, you will be redirected to the Apple App Store.

2. Install the app: Once the download is complete, click on the Install button to install the

app on your device.

3.   Launch the app: After installation, launch the connect IPS app by clicking on the icon on your device's home screen.

4.   Sign up for an account: If you are a new user, sign up for an connect IPS account by providing your personal details, such as name, email address, and phone number will be used as authentication keys for account validation and for every transaction that happens through the platform. After providing these details, the website will direct the user to enter a unique username, password, and answers to security questions, then an account is created.

5.   Select Bank Account: select the bank account from which to pay and confirm credential.

Unlike e-sewa, connect IPS does not require to load money for online transaction.


Fig: Signup into the connectips

Services

Connect IPS is a payment gateway system used in Nepal that facilitates electronic transactions between customers, banks, and merchants. Here is a general overview of how Connect IPS works:

1.   Customer initiates a transaction: The customer selects the products or services they want to purchase and initiates the payment process through a merchant's website or mobile app.

2.   Payment details are sent to Connect IPS: The payment details, including the amount to be paid, are sent to Connect IPS by the merchant.

3.   Connect IPS verifies the transaction: Connect IPS verifies the transaction details, including the customer's account balance, transaction limits, and fraud checks, to ensure that the transaction is valid.

4.   Connect IPS requests payment from the customer's bank: Connect IPS sends a payment request to the customer's bank, which debits the customer's account and confirms the payment to Connect IPS.

5.   Connect IPS deposits funds to the merchant: Connect IPS then deposits the funds to the merchant's bank account, minus any transaction fees charged by Connect IPS or the customer's bank.

6.   A confirmation message is sent to the customer, merchant, and the bank indicating the successful completion of the transaction.
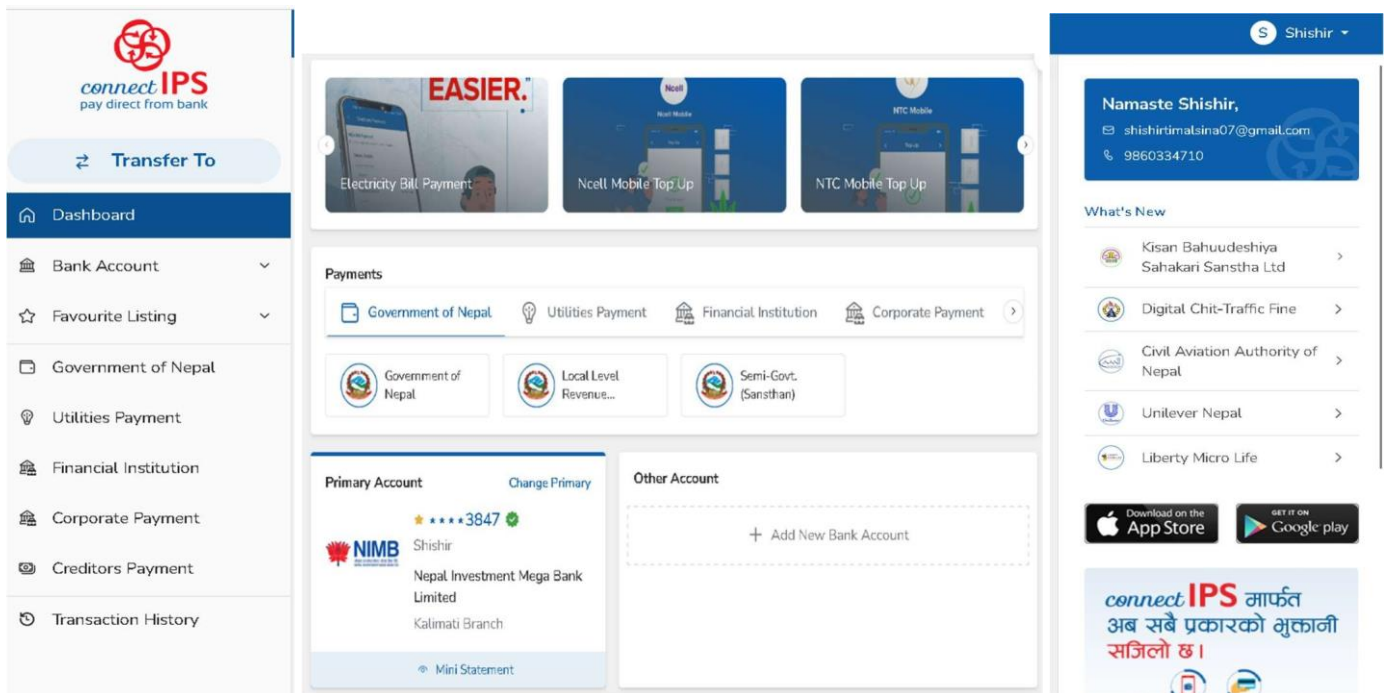
Fig: Connect IPS interface

Conclusion

Connect IPS has revolutionized the way Nepalese customers perform financial transactions. The platform has made it easier, faster, and more convenient for customers to perform a wide range of transactions, including bill payments, mobile top-ups, fund transfers, and merchant payments. The platform is highly secure and easy to use, which has made it a popular choice among customers in Nepal. Connect IPS has had a significant impact on Nepal's financial landscape, and it is expected to continue to grow in popularity as more Nepalese customers become aware of its benefits.

Bank e-service

Introduction

Bank e-services in Nepal refer to the online banking services provided by banks in Nepal. These services allow customers to access their bank accounts and perform various banking transactions online without the need to visit the bank physically. The platform, which was launched in 2012, allows customers to conduct a variety of financial transactions online, including checking account balances, transferring funds, paying bills, topping up mobile phones, and shopping online. The service is available round the clock, making it convenient for customers to manage their finances anywhere and at any time.

The introduction of Bank e-Service Nepal has transformed the banking industry in Nepal, providing customers with a secure and user-friendly alternative to traditional banking methods, which often involve long queues and visits to a physical bank branch. Furthermore, the platform has helped promote financial inclusion by making banking services more accessible to people, especially those residing in rural areas who may have previously lacked access to bank branches.

In summary, Bank e-Service Nepal has been a significant innovation in the Nepalese banking sector, offering customers a modern and hassle-free way to manage their finances while also promoting financial inclusion in the country.

Overview

Bank e-service provides a range of services, including online fund transfer, bill payment, mobile top-up, balance inquiry, account statement, and other financial transactions. The platform is designed to be user-friendly and accessible to customers from anywhere at any time through the internet or mobile devices. Bank e- services in Nepal have undergone significant changes over the past few years, driven by advancements in technology and increasing demand from customers for convenient and efficient banking services.

The platform is integrated with various banks in Nepal, allowing customers to access their accounts and conduct transactions seamlessly across different banks. It is also equipped with advanced security features, such as two- factor authentication and encryption, to ensure the safety and privacy of customers' information.

Bank e-service has been a game-changer in the Nepalese banking industry, providing customers with a more convenient and efficient way to conduct their banking transactions. Its success has led to increased adoption of digital banking services in Nepal and has contributed to the country's overall economic growth.

Installation Process

E-banking:

If a new user wishes to register for e-banking, they can download the form online and apply for this service. The user will also have to request OTP to activate the e-banking services. After you receive the OTP, you can log in and continue the transactions online.

Mobile Banking:

To register yourself, you can either visit the nearby branch. After registration, simply follow the steps mentioned below:

1. Download the Bank app where you have your account.
2. Then, select the new user option.
3. Fill up the details as displayed on your screen like account number and mobile number.
4. After that, you will receive the activation code. Use the code and move forward.
5. Set your login ID and password.
6. Set your new transaction pin and continue using the app.
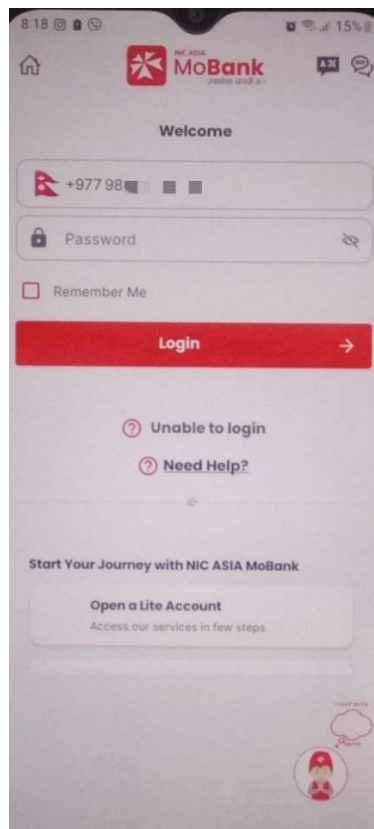
Fig: Bank e-Service login portal

Services

Inquiry:

Customers can access their bank accounts, view account balances. Balance Inquiry and Mini Statement is also provided.

Fund Transfer:

Transfer of funds into a bank account or interbank account within Fonepay Network. Banks provide mobile banking services that allow customers to carry out financial transactions using their smartphones.

Merchant Payment:

Banks provide merchant payment services to businesses, allowing them to accept payments from customers using various digital channels such as credit/debit cards, mobile wallets, and online payment gateways.

• Utility Payment:
Payment of various utility bills like GSM Postpaid, PSTN Landline, etc.
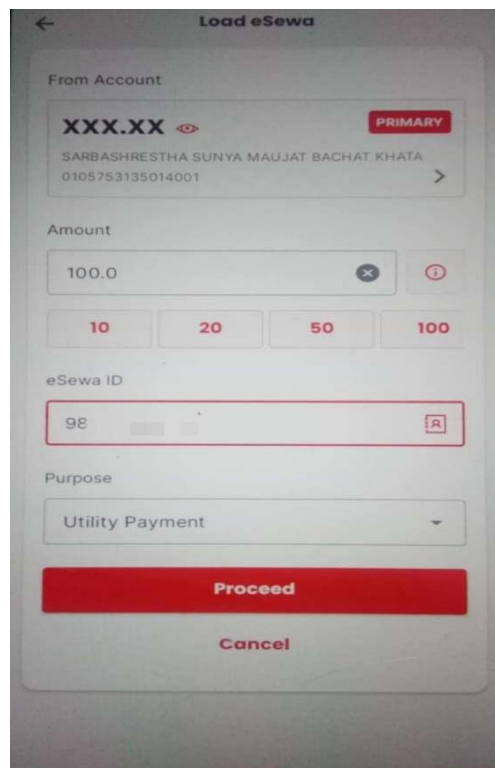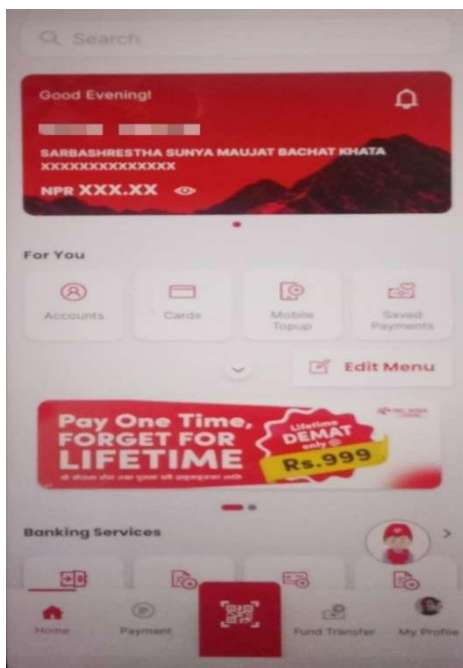
Fig:Service Portal of Bank e-Service

Nagarik App

Introduction

Nagarik App (Citizen App); is a mobile application launched by the Government of Nepal to provide government-related services in a single online platform. The services provided through the application include PAN registration, getting local government information, viewing details of the taxes submitted, services related to Citizen Investment Trust, Police clearance report, Land ownership information, Health insurance board, educational details, and Opening bank account online. The services are added gradually.

The full version of the app designed to provide all government services as much as possible from a single app has been launched by Prime Minister KP Sharma Oli on fourth national Information and Communication Technology Day 2021(2078 BS).

The Nagarik App is an important step towards digitalization in Nepal, making government services more accessible and efficient for Nepali citizens. With the increasing use of smartphones in Nepal, the app provides an easy and convenient way for people to access government services and carry out various transactions.

Overview

Nagarik App is a mobile application developed by the Government of Nepal with the aim of providing various online services to Nepali citizens. The app has multiple features and focuses on providing services related to various sectors such as finance, healthcare, education, security, and public services.

Some of the key features of Nagarik App include:

- Online payment

- COVID-19 related services

- Government services:

- Emergency services

- Digital citizenship

Installation Process

The general steps to install the Nagarik app on an Android device:

1. Go to the Google Play Store on your Android device.
2. In the search bar, type "Nagarik App" and press search.
3. Look for the "Nagarik App" icon and click on it.
4. Click on the "Install" button.

5. The app will start downloading and installing on your device.
6. Once the installation is complete, click on the "Open" button to launch the app.
7. Follow the instructions to register and set up your account.
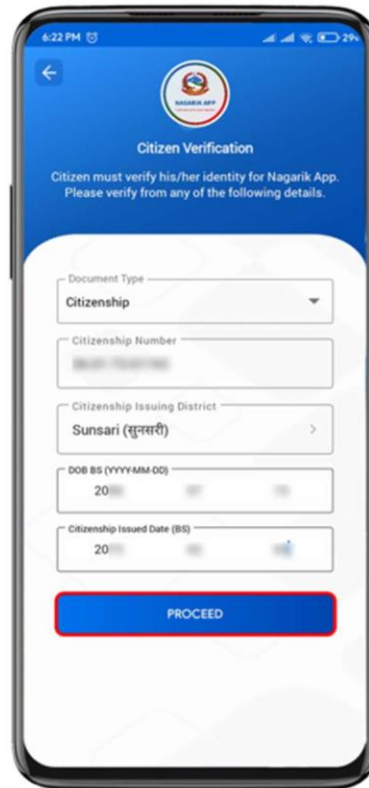
Fig. Nagarik app setup

Services

1. **Registration:** To use the Nagarik App, citizens first need to register and create an account. They can do this by providing their personal details such as name, date of birth, citizenship number, and mobile number.

2. **Selecting a service:** Once registered, users can select the service they want to avail from the app's home screen. The app provides a range of services in different sectors, including finance, healthcare, education, security, and public services.

3. **Providing required details:** Users need to provide the required details for the service they want to avail. For example, if they want to pay their electricity bill, they need to enter their customer ID and the amount to be paid.

4. **Payment:** Users can make online payments for the services they use through the app. They can use various payment methods such as mobile banking, internet banking, or credit/debit cards to make the payment.

5. **Confirmation:** Once the payment is made, users receive confirmation of the transaction through the app. They can also check the status of their transaction by accessing the "Transaction History" section in the app.
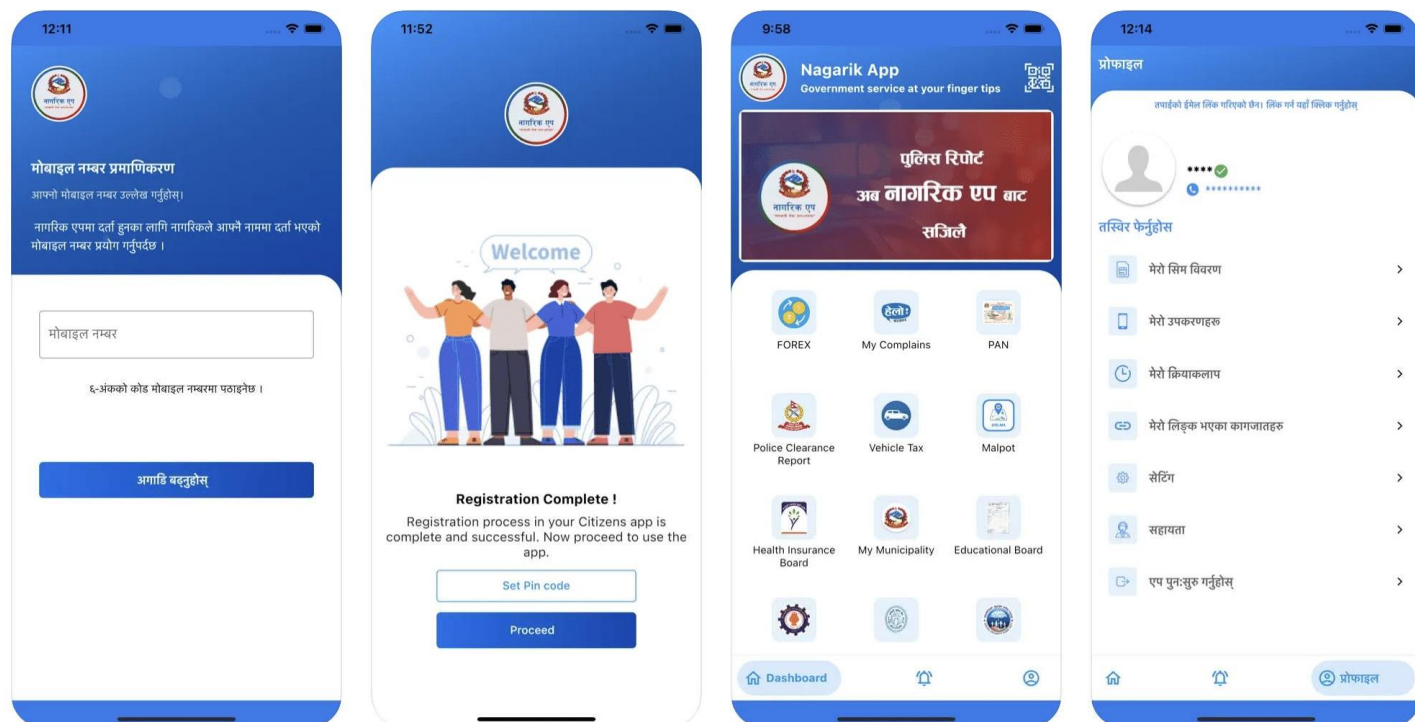
Fig. Nagarik App Services

Conclusion

Overall, the Nagarik App is a significant technological innovation that has the potential to revolutionize the way government services are delivered in Nepal. By providing citizens with a digital platform for accessing government services, the app has the potential to enhance citizen participation in the governance process and foster a more inclusive and responsive government.

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Case Study Report On:

"E-Government Initiatives in Nepal, Cyber Laws, Implementation in Land Reform, E-Governance Master Plan of Nepal, E-Governance in Local Government in Nepal"

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Abstract

This case study explores the e-governance landscape in Nepal, focusing on various critical aspects such as government initiatives, cyber laws, implementation in land reform, the E-Governance Master Plan, and its integration in local government operations. The study begins by examining the e-government initiatives in Nepal, highlighting the country's efforts to leverage digital technologies for efficient service delivery, transparency, and citizen participation. Next, the case study delves into the cyber laws in Nepal, emphasizing the legal framework established to govern and regulate cyberspace activities.

The study further explores the implementation of e-governance in the context of land reform in Nepal. It examines how digital platforms and systems have been utilized to streamline land administration processes, enhance transparency, reduce corruption, and improve land tenure security. Additionally, the case study discusses the E-Governance Master Plan of Nepal, which outlines the strategic vision, goals, and action plans for digital transformation across various government sectors. Lastly, the study explores the integration of e- governance in local government operations in Nepal.

Overall, this case study provides a comprehensive overview of e-governance in Nepal, examining government initiatives, cyber laws, land reform implementation, the E-Governance Master Plan, and integration in local government operations. It offers valuable insights into the country's journey towards digital transformation and highlights the potential for leveraging technology to enhance governance, transparency, and citizen-centric service delivery.

Acknowledgement

We would like to express our gratitude to all those who contributed to the completion of this case study on e- governance in Nepal. Their vast knowledge and expertise have been invaluable in helping us understand and navigate the complexities of this study.

First and foremost, I extend my deepest appreciation to the Government of Nepal for their proactive approach and commitment to e-governance initiatives. Their vision and efforts have paved the way for the modernization and digitization of government services, leading to increased efficiency and transparency. I would like to acknowledge the significant role played by the legislative bodies and policymakers in enacting and enforcing cyber laws in Nepal. Their dedication to creating a secure and conducive environment for e-governance deserves recognition.

Furthermore, we extend our thanks to Mr. Ananda KC, who took the time to provide us with their perspectives and experiences related to e-governance. His contributions were critical in understanding the challenges and opportunities associated with e-governance in the country.

We are grateful for the opportunity to work on this study and for the support of all those who have helped us along the way. This study has been a valuable learning experience and we are looking forward to applying what we have learned in our future endeavors.

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E-government Initiatives in Nepal

Introduction

Nepal has embraced various e-government initiatives to enhance the efficiency, transparency, and accessibility of public services. These initiatives include the development of online platforms such as the National Portal, where citizens can access government information and services, and the implementation of digital systems for tasks like tax filing, citizen registration, and land administration. Through these e-government initiatives, Nepal aims to streamline administrative processes, improve service delivery, and promote citizen engagement in governance, ultimately contributing to the country's socio-economic development.

Furthermore, Nepal has been actively promoting the use of mobile technology to extend the reach of e-government services to remote areas. Mobile applications have been developed to facilitate services like mobile banking, agricultural information dissemination, and health services. The government has also been working on digitizing its internal operations to enhance coordination and collaboration among different government entities. By leveraging technology and digital platforms, Nepal's e-government initiatives strive to create a more inclusive and responsive government, empowering its citizens and fostering a culture of digital innovation in the country.

National Portal and Online Service Delivery:

The development and implementation of the National Portal in Nepal have been instrumental in transforming the delivery of government services. The National Portal serves as a centralized platform where citizens can access a wide range of government information, services, and resources. Through the portal, citizens can obtain crucial documents, such as birth certificates, citizenship certificates, and land ownership records, conveniently and efficiently. This online service delivery mechanism has significantly reduced the need for physical visits to government offices, saving time and resources for citizens.

The National Portal and the online service delivery initiatives in Nepal have revolutionized the way citizens interact with the government. By leveraging digital platforms, Nepal has made significant strides in enhancing efficiency, transparency, and accessibility of public services, ultimately contributing to citizen satisfaction and the overall development of the country.

Mobile Technology and Digital Inclusion:

Nepal has harnessed mobile technology to bridge the digital divide and promote digital inclusion. The government has developed mobile applications that enable services like mobile banking, agriculture information dissemination, and healthcare services. These applications have extended vital services to remote areas where access to traditional banking, agricultural information, and healthcare facilities may be limited. By leveraging mobile technology, Nepal has empowered citizens in these areas, providing them with access to financial services, agricultural knowledge, and healthcare resources. These initiatives have played a crucial role in promoting digital inclusion and improving the lives of citizens in

remote regions.

Citizen Engagement and Participation:

Nepal has implemented various mechanisms and platforms to promote citizen engagement and participation in governance processes. Through e-participation platforms, public feedback mechanisms, and online consultation forums, citizens have been encouraged to actively participate in decision-making and provide their input on government policies and initiatives. These platforms have empowered citizens, giving them a voice in shaping governance outcomes. The government's commitment to citizen engagement has fostered a culture of participation, allowing for more inclusive and responsive governance. By leveraging digital tools for citizen engagement, Nepal has strengthened the bond between the government and its citizens, promoting transparency and accountability in the governance process.

Challenges and Lessons Learned:

Nepal's e-government initiatives have encountered several challenges, providing valuable insights and lessons for future implementations. One of the key challenges has been infrastructure limitations, particularly in remote areas. Limited internet connectivity, inadequate digital infrastructure, and unreliable power supply have hindered the widespread adoption of e-government services. The government has had to invest in expanding and improving infrastructure to ensure equitable access to digital services across the country.

Another significant challenge has been addressing digital literacy gaps among citizens. Many individuals, especially in rural and marginalized communities, may lack the necessary skills to effectively utilize e- government platforms and services. To overcome this challenge, Nepal has focused on digital literacy programs and training initiatives to empower citizens with the necessary digital skills and knowledge. These efforts aim to bridge the digital divide and ensure that all citizens can fully benefit from e-government initiatives.

Ensuring cybersecurity and protecting sensitive data have also been crucial concerns. As e-government systems involve the exchange and storage of sensitive information, robust cybersecurity measures must be in place to safeguard against cyber threats and data breaches. The government has implemented stringent security protocols, including encryption, authentication mechanisms, and regular security audits, to protect citizens' information and maintain public trust in the e-government initiatives.

Throughout the implementation of e-government initiatives, Nepal has learned valuable lessons. One key lesson is the importance of stakeholder collaboration. Successful e-government implementation requires close collaboration between government agencies, private sector partners, civil society organizations, and citizens themselves.

Conclusion:

In conclusion, the case study of e-governance initiatives in Nepal highlights the significant progress made by the government in leveraging technology to enhance public service delivery and promote

transparency. Nepal has recognized the potential of e-government in improving efficiency, reducing corruption, and fostering citizen engagement.

Cyber Laws

Introduction:

The rapid growth of information technology has led to an increase in illegal actions, prompting the creation of Cyber Law to combat cybercrimes and protect digital communication and data. Cyber Law, encompassing legal informatics, oversees the digital flow of information, software information security, and e-commerce. In Nepal, the government introduced "The Electronic Transaction and Digital Signature Act-Ordinance" in 2005 to tackle the rising cybercrimes. Hacking and other forms of cybercrime have become prevalent in the country, affecting various industries. Corruption is also evident, with government agencies and businesses resorting to pirated software. However, addressing these issues requires reconciling the virtual world governed by Cyber Law with the physical world's legal framework, presenting challenges due to the lack of geographical boundaries and physical attributes of netizens.

While computers and Internet connections offer unprecedented opportunities for communication and education, some individuals exploit these tools for malicious and terrorist purposes. It is crucial for both individuals and adults to learn how to use the Internet securely and responsibly, thereby minimizing the harm caused by such individuals. By harnessing the Internet's power for positive purposes and promoting digital literacy, we can mitigate the negative impact of those who misuse its potential.

Present Context of Cyber Laws in Nepal:

The Government Nepal issued electronic transaction ordinance 2061 in September 2004 as ordinance. The house of representatives of the government of Nepal approves the Electronic Transaction Act-2063 on December 4, 2006, and ministry of science. For the legal validity of electronic records and digital signature, there is provision of controller of certification authority (CCA). The act is divided into 12 sections and 80 clauses with detailed information on the role and rights of regulator, certification authority, customer, government and all the concerned stakeholders.

Computer and cyber-crimes such as hacking, piracy, copyright violation, fraudulent and all other deceitful activities have been clearly defined and punishment is set accordingly.

Crime	Punishment and imprisonment
To pirate, destroy or alter computer source	Two hundred thousand rupees' punishment or 3-year imprisonment.
Unauthorized Access in Computer Materials	Two hundred thousand rupees' punishment or 3-year imprisonment.
Damage to any computer and information system	Two hundred thousand rupees' punishment or 3-year imprisonment.

Publication illegal materials I electronic form	One hundred thousand rupees' punishment or 5-year imprisonment.
Confidentiality to divulge	One hundred thousand rupees' punishment or 2-year imprisonment.
To inform false statement	One hundred thousand rupees' punishment or 2-year imprisonment.
Submission or display of false license of certificates	One hundred thousand rupees' punishment or 2-year imprisonment.

Present Scenario

CASES

In this part, certain reported cases are discussed which exemplifies the existing pattern of cybercrime in Nepal. These cases are collected from the national daily newspaper where media constantly has been reporting commission of various instances of cybercrime in Nepal. Although there are many cases reported by newspapers, the author has attempted to take a few similar cases for exemplification of the tendency and pattern of cybercrime.
•   Defamation online or Internet harassment
•   Unauthorized Access / Hacking

Problems with the present Cyber Laws in Nepal

Lack of financial resources:

Cyber related issues and electronic transactions are directly associated with electricity and infrastructures costs high. The financial investment done should perform tangible benefit in development country like Nepal. Due to the lack of certainty in outcome, financial resources are facing lack of investment.

Lack of general awareness to public:

Proper awareness should be provided to public regarding Cyber Laws and ethics. They should be well known about the different nine provisions made under Electronic Transaction Act 2063 BS, ethics they should follow while making electronic transactions and support they would get while facing problems in electronic transactions.

Solution to the present problems

Proper planning and research:

Governmental plan and policies should be inclusive and suitable to implement among various range of public. Before introducing new law, citizens, long term impact and current recognition should be well understood.

Public awareness:

Public should be made aware properly about the Cyber Laws because the laws are made for welfare of citizen and country. Similarly, they should be aware about the ethics they should follow while using electronic transactions. They should be assured of the protection of their confidentiality, their right by the current Act.

Conclusion

The biggest challenge before cyber law is its integration with the legacy system of laws applicable to the physical world. The unique structure of the internet has raised several legal concerns. While grounded in physical computers and other electronic devices, the internet is independent of any geographic location. While real individuals connect to the Internet and interact with others, it is possible for them to withhold personal information and make their real identities anonymous. If these are laws that could govern the internet, then it appears that such laws would be fundamentally different from laws that geographic nations use today. Since the internet defies geographic nations use today. Since the internet defies geographical boundaries, national laws will be created to address concerns like intellectual property and individual rights. In effect, the Internet will exist as its own sovereign nation.

Implementation in Land Reform

Introduction

Land reform in Nepal is an ongoing process aimed at addressing historical inequities in land ownership, promoting agricultural productivity, and supporting social justice. As part of the broader reform efforts, the implementation of e-governance has played a crucial role in streamlining land administration, enhancing transparency, and improving service delivery.

Nepal has a complex land tenure system, with issues such as unequal land distribution, lack of land documentation, inefficient land administration, and widespread corruption. The government recognized the need for comprehensive land reform to address these challenges and promote social and economic development. As part of this reform, e-governance initiatives were introduced to modernize land administration and improve governance in the sector

Background and Objectives

The land reform program in Nepal was initiated to address various socio-economic issues related to land, with the overarching goal of promoting social justice, reducing land inequalities, and fostering inclusive and sustainable development. The historical context of land reform in Nepal can be traced back to a long history of land ownership disparities, feudal practices, and limited access to land for marginalized communities.

The objectives of the land reform program include promoting equitable distribution of land, improving land governance, enhancing agricultural productivity, alleviating rural poverty, and empowering marginalized communities. Land reform is seen as a critical driver for social and economic transformation in Nepal, as it seeks to ensure that land resources are utilized more efficiently, benefiting a wider segment of the population.

The reform program aims to tackle issues such as landlessness, land fragmentation, insecure land tenure, and unequal land distribution. By addressing these challenges through comprehensive land reforms, Nepal aims to create a more equitable and inclusive society. Furthermore, the land reform program in Nepal is aligned with the broader development agenda, including poverty reduction strategies, sustainable agricultural practices, and rural development programs. It recognizes the interconnectedness of land, livelihoods, and broader socio- economic development and seeks to leverage land reform as a catalyst for positive change.

The land reform program in Nepal has undergone multiple phases and iterations, each building upon the previous efforts and lessons learned. Through ongoing policy revisions and implementation strategies, the government continues to refine and adapt the land reform program to align with changing social, economic, and environmental contexts.

By addressing historical inequalities, improving land governance, and empowering marginalized communities, the land reform program in Nepal aims to create a more equitable and sustainable society,

where land resources are effectively utilized to benefit all segments of the population.

Implementation

The implementation of e-governance in land reform in Nepal involved various key steps and initiatives:

Digital Land Records Management:

The government introduced a comprehensive digital land records management system to replace manual record- keeping practices. This involved digitizing existing land records, creating a centralized database, and implementing robust land information systems. These systems enable easy access to land records, minimize data duplication, and facilitate efficient land administration.

Online Land Registration and Transaction:

To streamline land registration and property transactions, online platforms were developed to enable citizens to apply for land registration, transfer ownership, and obtain necessary documentation electronically. These platforms provide a user-friendly interface, clear guidelines, and online payment facilities, reducing the need for physical visits to government offices and minimizing the scope for corruption.

Land Information and Mapping:

Digital mapping technologies, such as Geographic Information Systems (GIS), were utilized to create accurate and up-to-date land maps. These maps are integrated with land records and provide visual representations of land parcels, boundaries, and ownership details. The availability of reliable land information and mapping helps in resolving land disputes, preventing encroachment, and facilitating effective land use planning.

Challenges

Despite the progress made, the implementation of e-governance in land reform in Nepal has faced certain challenges:

1.   Infrastructure and Connectivity:

Lack of adequate internet connectivity, particularly in remote rural areas, has hindered the seamless adoption of e-governance initiatives. Infrastructure development and improving internet connectivity remain ongoing challenges.

2.   Digital Divide and Capacity Gaps:

Limited digital literacy among certain segments of the population, especially older individuals, and marginalized communities, poses a challenge to the widespread adoption of e-governance. Addressing

this digital divide requires targeted capacity-building programs and awareness campaigns.

3.   Data Security and Privacy:

Safeguarding land records and citizen data from cyber threats and ensuring privacy protection are critical concerns in e-governance implementation. Robust data security measures, including encryption, access controls, and regular audits, must be in place to mitigate risks.

Conclusion

The implementation of land reform in Nepal has significantly transformed land administration processes, improved service delivery, and enhanced transparency. The digital land records management system, online registration platforms, citizen service centers, and mapping technologies have collectively contributed to more efficient land governance and reduced landrelated disputes. Overcoming challenges related to infrastructure, digital literacy, and data security will be essential to ensure the continued success and sustainability of e- governance initiatives in the land reform process.

E-Governance Master Plan of Nepal

Introduction

The E-Governance Master Plan of Nepal is a strategic roadmap designed to leverage technology and digital solutions for enhancing government services, promoting transparency, and improving overall governance in Nepal. It aims to harness the potential of information and communication technology (ICT) to streamline administrative processes, increase efficiency, and deliver citizencentric services. The master plan envisions a digitally empowered government that embraces egovernance principles to enhance service delivery, foster innovation, and engage citizens in decision-making processes. It outlines key objectives, strategies, and implementation guidelines to guide the adoption and integration of digital technologies across government departments and agencies. The E-Governance Master Plan of Nepal serves as a roadmap for transforming Nepal into a digitally inclusive and efficient nation, driven by technology-enabled governance.

Objectives

Enhance efficiency:

Streamline government processes, reduce bureaucratic delays, and improve service delivery through use of technology.

Improve transparency:

Promote accountability and reduce corruption by digitizing government transactions and making information easily accessible to citizens.

Bridge the digital divide:

Ensure equitable access to digital services, particularly in remote and marginalized areas.

Strengthen cybersecurity:

Implement robust security measures to protect sensitive government data and citizens' privacy.

Implementation

Digital Services:

The e-governance master plan of Nepal focuses on providing digital services to citizens. Initiatives such as the Government Integrated Data Center (GIDC) have been established to consolidate and centralize government data for efficient service delivery. Various online platforms, including the Nepal Government Portal, have been developed to provide access to government services, information, and

resources online.

Digital Identity Management:

The implementation of a digital identity management system, known as the National Identity Management System (NIDMS), aims to provide citizens with a unique digital identity. The system involves the issuance of a unique identification number, biometric data capture, and the creation of a centralized database. This initiative enhances efficiency, reduces identity fraud, and facilitates targeted service delivery.

Online Payment Systems:

To enable secure and convenient financial transactions for government services, online payment gateways and systems have been introduced. Citizens can make payments for various government services and transactions electronically, reducing the need for physical visits to government offices and enhancing transparency.

Online Application Systems:

This plan includes services related to citizenship, passport, driving license, land registration, business registration, and more. These online systems streamline application processes, reduce paperwork, and increase efficiency in service delivery.

Challenges and Lesson Learned

Challenges faced during the implementation of the e-governance master plan in Nepal:

Digital Divide:

Nepal faces challenges related to unequal access to digital technologies and internet connectivity, particularly in rural and remote areas. The digital divide hinders the equitable distribution of e-governance services and limits the participation of marginalized communities.

Infrastructure Constraints:

Limited infrastructure, including reliable electricity supply and internet connectivity, poses challenges for the implementation of e-governance initiatives. Insufficient infrastructure in remote areas can hinder the delivery of online services and data management.

Technological Capacity:

The effective implementation of e-governance requires skilled human resources with adequate technical expertise. Nepal faces challenges in building the necessary technological capacity among government officials and employees to fully utilize e-governance tools and platforms.

Security and Privacy Concerns:

Protecting citizen data and ensuring the security of egovernance systems are crucial challenges. Cybersecurity threats, data breaches, and privacy concerns need to be effectively addressed to build trust and confidence among citizens.

Lessons learned from the e-governance master plan implementation in Nepal:

Capacity Building and Training:

Investing in capacity building and training programs for government officials and employees is crucial to enhance their skills and knowledge in utilizing e-governance tools and platforms. Continuous training and support ensure the sustainability of e-governance initiatives.

Partnerships and Collaboration:

Building partnerships and collaborations with various stakeholders, including development partners, private sector entities, and civil society organizations, can bring diverse expertise, resources, and support to the implementation of e-governance initiatives.

Incremental Approach:

Adopting an incremental approach to e-governance implementation allows for learning from pilot projects and adapting strategies based on feedback and evaluation. This iterative process helps identify challenges early on and make necessary adjustments for effective implementation.

User-Centric Design:

Placing citizens and users at the center of e-governance initiatives by incorporating user feedback and involving them in the design and development processes. User-centric design ensures that e-governance services are intuitive, user-friendly, and meet the needs of the target audience.

Conclusion

In conclusion, the e-governance master plan of Nepal holds great potential for transforming governance, improving service delivery, and promoting citizen engagement. However, challenges such as the digital divide, infrastructure constraints, and security concerns need to be addressed. By incorporating these insights, Nepal can continue to progress towards a more inclusive, efficient, and transparent digital governance system.

E-Governance in Local Government of Nepal

Introduction

E-governance in the local government of Nepal refers to the utilization of digital technologies and communication systems to enhance governance processes at the local level. It involves the implementation of online platforms, electronic services, and digital communication channels to improve service delivery, promote citizen engagement, and ensure transparency. By embracing e-governance, local government authorities in Nepal aim to streamline administrative procedures, provide convenient online services, and foster participatory governance for the benefit of the citizens and the overall development of local communities.

Objectives

- Enhance transparency and accountability in local government operations.
- Improve service delivery and accessibility for citizens.
- Streamline administrative processes and reduce bureaucratic red tape.
- Promote citizen engagement and participation in decision-making.
- Facilitate data-driven decision-making and policy formulation.

Implementation

The implementation of e-governance in Nepal's local government involved several key steps:

1. Developing a comprehensive e-governance strategy and roadmap.

2. Establishing the necessary infrastructure, including internet connectivity and hardware devices, at the local level.

3. Conducting capacity-building programs to train government officials and staff on using digital tools and technologies effectively.

4. Collaborating with relevant stakeholders, including local communities and civil society organizations, to ensure the success of e-governance initiatives.

5. Continuous monitoring and evaluation of the implementation process to identify challenges and make necessary adjustments.

Challenges and Lesson Learned

Challenges faced in e-governance implementation in the local government of Nepal:

Digital Divide:

Unequal access to technology and internet connectivity poses challenges in ensuring equitable access to e- governance services, particularly in remote and marginalized areas.

Infrastructure Constraints:

Inadequate infrastructure, including reliable electricity and internet connectivity, hinders the seamless operation of e-governance systems, especially in rural areas.

Capacity Building:

Limited technical expertise and digital literacy among government officials and employees require investment in capacity building programs to effectively implement and utilize e-governance tools.

Security and Privacy:

Ensuring the security of e-governance systems and protecting citizen data from cyber threats and privacy breaches is a significant challenge that needs to be addressed.

Resistance to Change:

Resistance to adopting new technologies and processes, both among government officials and citizens, can impede the successful implementation of e-governance initiatives.

Lessons learned from e-governance implementation in the local government of Nepal:

Contextual Adaptation:

Customizing e-governance initiatives to the local context and needs of the population enhances their effectiveness and relevance.

Stakeholder Engagement:

Active involvement and collaboration with various stakeholders, including citizens, government officials, and civil society organizations, contribute to successful e-governance implementation.

Incremental Approach:

Adopting an incremental approach and piloting projects allows for learning, evaluation, and adjustment based on feedback and experience.

Capacity Building and Training:

Investing in capacity building programs to enhance technical expertise and digital literacy among government officials and employees supports effective e-governance implementation.

Security and Privacy Measures:

Implementing robust security protocols and privacy safeguards to protect citizen data and ensure trust in e- governance systems.

Conclusion:

In conclusion, the case study on e-governance in the local government of Nepal highlights the challenges and lessons learned in its implementation. The challenges include the digital divide, infrastructure constraints, capacity building needs, security and privacy concerns, and resistance to change. By addressing these challenges and applying these lessons, e-governance in the local government of Nepal can effectively enhance service delivery, transparency, and citizen engagement,