

ROLE OF INFORMATION TECHNOLOGY TO CONTROL CORRUPTION ON LOCAL GOVERNMENT IN NEPAL

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Abstract

Information Technology is very powerful tool to reduce corruption, increase the transparency & accountability and develop the nation in today's world. This study describes the role of IT in local government for accountability, transparency & corruption control. Improvement of delivery service mechanism, open government, administrative reform, law enforcement and social capital through information technology can provide accountability, efficiency, transparency to the public. This study is focused on local governments of Nepal. Corruption, lack of transparency, accountability & efficiency are the main problem for development of local society in local governments. To reduce these types of problem IT can play vital role. The main aim of this study is to explore the current status of information technology and its use in local governments. The researcher has applied field survey, direct interview and observation method to collect primary data from employees, public and elected representative body of local governments for current status and utilization of IT. The researcher has analyzed current status of IT and its utilization by their employees, public & elected representative for different activities in local governments then concludes impacts of it on transparency, accountability & control corruption in local governments.

Overall proper implementation of Information Technology played vital role to increase the accountability, transparency and efficiency of work by delivering quick service and other activities in local governments and reduce the corruption & develop the society of local governments.

Key words: Information Technology, Local Government, Corruption

1. Introduction

IT stands for Information Technology. Information Technology is the most important tools for doing work easily, transparently, fast, effectively, efficiently and accountable. It refers to anything related to computing technology such as database, security, communication, E-commerce, E-government, multimedia, server, internet, network, hardware and software or people who works with these technologies (Kumar, 2014). World is running along with technology and all traditional method is replaced by Information Technology. Many countries are being most powerful on economic, politics, defense, education and health by using Information Technologies. Many poor or process of developing or under developing countries are having lack of using modern technologies. In context of Nepal,

Information Technology is most important to control corruption and develop the nation. When our government is divided into three parts; namely Federal Government, Province Government and Local Government. Corruption is increasing in each part of the government because of many reasons but one of them is using traditional method rather than modern technology. The local government is more suffering from corruption rather than federal and province government. One of the best methods to control the corruption is abundance use of Information Technology in each sector of local government and other government sectors.

According to transparency international corruption is defined as the abuse of entrusted power for private gain and on the basis of 2021 data it places Nepal at 117 positions out of 180 countries in corruption perception index (<https://www.transparency.org/en/cpi/2021/index/npl>). Corruption exists in all types of communities, religions, and ruling parties. There are two types of corruption in public sector; Political corruption and Bureaucratic corruption. In our local government both types of corruption are supporting to one another. Political corruption occurs when political alliance or ruling party or powerful person influences the formulation of national laws, policies and regulations to serve their interest. It includes activities such as being owner of hospital, college, etc. on their own police, law and regulation, vote-rigging, registration of unqualified, dead or non-existent voters, buying and selling of votes, and the alteration or outright falsification of election results. Bureaucratic corruption occurs when government bureaucrats tactically alter the government law, rule and regulation to their advantage. It includes activities such as missing important documents, false or incomplete entries in accounts or records, faked reconciliations, high quality items are replacing by low quality items (Mbaku, 1996). Both types of corruption occurs due to some other activities such as nepotism, embezzlement, fraud, extortion, cronyism, parochialism, patronage, influence peddling etc.. E-government system played important role to reduce corruption in developing countries. E- Government system such as BHOOMI in India, BKMS in Kenya, GCNet in Ghana and COPARA in Chile played as anticorruption role (Twinomurinzi & Ghartey-Tagoe, 2011). This paper investigate role of IT in local government of Nepal to curbing all types of corruption activities.

The constitution of Nepal 2015 has established three level government: federal, State & local governments. The Constitution of Nepal 2015 has provided enough power and authority to the local levels based on devolution under federalism. Despite that, the inadequacy of laws, and policies, lacking coordination between local levels and center-province, poor mobilization, lack of information technology tools and infrastructures, lack of skilled manpower, corruption control are major challenges to local levels and the question of proper implementation of IT is more pronounced in this regard. Based on the group discussion at three number of local level, there were many problems such as delay of formulation of law, facing insufficient staff, conflict between staff and elected leader, more tax on people instead of service providing, deficiency in technical and administrative knowledge and skills, number of trade union in civil

service, Nepal civil service lacks in Information Technology, corruption and deferment are the constraint in development of local governments (Chaudhary, 2019).

In Nepal, local governments have been practiced in different form since hundreds of years. During ancient Kirat/Malla period, they were utilized strictly for administrative and judicial purpose. The actual concept of local development through local governments started only after 1990 when democracy was restored in Nepal. The constitution of Nepal 2015 has established new form of local governments having 6 metropolises, 11 sub metropolises, 276 municipalities & 460 gaupalikas. There are many challenges and problem to develop the society. Local peoples' expectations are very high in terms of service delivery, infrastructure development, economic wellbeing & local prosperity. Still there is confusion about authority and responsibility in local governments for planning, budgeting & implementation of fiscal year. There is no collaboration or contradiction among three level governments to provide service to the public. Accountability and transparency are also main issue in local level. On the survey of municipalities within Kathmandu valley regarding implementation of e- services have been found Lack of strategic plans, change management, budget constraint, weak infrastructure, lack of construction knowledge, lacks of leadership supports, security and privacy are most problematic challenges (Dhonju & Shakya, 2019).

Employees of municipalities using political power and traditional method to develop and delivery service to public are being misused of budget funds (TAF, 2015). There are no certain rules and regulations to entirely control corruption. There are many other problems to increase the corruption such as, political power, geographical difficulties, illiteracy, information gap, poverty & lack of technical manpower. Transparency, accountability, effectiveness and efficiency are also main problem due to lack of using Information Technology. So in this study out of many solutions effective use of IT can reduce the corruption and increase the transparency and accountability in local government of Nepal.

These miserable conditions are seen in many local governments of Nepal, Sudurpashchim province local governments are also not far from these situations. Therefore, this research paper focuses on the present condition of IT and impact of it in Dipayal Silgadhi Municipality of Sudurpashim province in Nepal. The significance of this study will be fast, effectively and efficiently service will provide to the public through IT and public will realize transparency, accountability, efficiency and corruption control from local government of Nepal

Objectives of the Study

The main objectives of this paper are as follows

- To explorer the current status of Information technology in local government and its use to provide service.
- To analyze the impact of IT on local government for transparency, accountability and corruption control.

2. Materials & Methods

The study has focused on Sudurpashchim province only. In Sudurpashchim province, there are 9 districts, 88 local bodies, out of which 1 is sub-metropolitan city, 33 are urban municipalities and 54 are rural municipalities. Out of many districts research has been focused on only one district of 1 urban municipality that is Dipayal Silgadhi municipality and its 9 ward offices. Those 9 wards are located under Dipayal Silgadhi municipality in Doti district are as follows: ward number 1 is located in Tikha, 2 is located in Khatiwada, 3 is located Dipayal, 4 is located in Rajpur, 5 is located in Indrachok, 6 located in Silgadhi, 7 is located in Ratuli, 8 is located in Ladagada, and 9 is located in Kalena. Researcher has selected these areas to know their current status and service facilities of IT. Descriptive and exploratory research designs have been used in this study. This study has based on both primary and secondary source of data. Primary source of data have been collected through questionnaire, interview and observation field survey on various ward of Dipayal Silgadhi Municipality. There are mainly two types of selection sampling techniques those are probability and non-probability sampling techniques to select sampling unit. In this study, I have used to probability random cluster selection technique for sampling unit. This technique is best way to select sampling unit from large number of population.

The primary data have been collected through field survey on employees of hill area of Dipayal Silgadhi Municipality and its ward offices. In this field survey there are total 127 employees in Dipayal Municipality and its ward offices. Out of 127 employees 36 were presented in office and 30 were responders during field survey time. Another way of collection primary data has been taken through direct interview with total 40 people, 30 were public and employees and 10 were elected representative of LG. All respondents were from different ward offices of Dipayal Silgadhi Municipality. From these respondents, researcher came to understand the nature of local leadership through exploring their background, motivation, vision and policy.

3. Data Analysis & Interpretation

Table 1: Result of Yes/No questions.

Questions	Total % of Yes	Total % of No	Total respondents
Do you have basic knowledge of computer?	80%	20%	30
Is internet service available in your office?	100%	0%	30
Does your office use biometric device for attendance?	16.67%	83.33%	30
Do you feel work delivery fast and corruption	90%	10%	30

reduction while working with technology?			
Is CCTV installed in each staff room?	20%	80%	30
Does your office have its own website?	30%	70%	30
Is digital profile developed by your municipality?	60%	40%	30
Is e-service provided by your office?	90%	10%	30
Do you have your official e-mail id?	33.33%	66.66%	30
Do you face any political pressure while working?	56.66%	43.33%	30
Should bureaucrats' union be politicalized	96.66%	3.33%	30
Does your office use any technology to share information to the public?	90%	10%	30

This table shows maximum number of respondents of Dipaya Silgadhi Municipality are involve with different types of IT such as basic knowledge of computer, internet service, e-service, digital profile and other technology to share information to the public. In context of biometric device, CCTV, website, and official e-mail id, low percentage of respondents are active. From this result research can say, without implementation of these technologies there will be decrease transparency, accountability, efficiency and increase the corruption.

Table 2: Existing infrastructure in office

Infrastructure	No of respondents having infrastructure in office
Photocopy machine	30
Printer	30
Computer(Desktop or Laptop)	30
Fax	1
Scanner	30
Internet	30
Website	9
Digital Notice Board	9
Scrolling Led Board	0
Digital Voice recorder	2
CCTV (Closed Circuit Television)	9

camera	
Multimedia Projector	8
Biometric Device	5
Toll Free Call System	0
Cloud Service	0
Online Service	27

Table 2, here are some technology such as printer, photocopy, computer, scanner & internet are around 100% available but CCTV, digital notice board, toll free call system, Scrolling led board, digital voice recorder, biometric device etc. are not available as much as possible in office to delivery service to the public. It shows, still required many technology in Dipayal Silgadhi Municipality of Doti. If these technologies are available in this municipality and its ward offices there public can feel transparency, accountability and efficiency. Corruption may be decrease and service delivery will be increase by using these all types of technology.

Table 3: Existing capacity of respondents on software and hardware

Software & Hardware	No. of respondents who can operate
MS word	28
MS Excel	28
MS PowerPoint	28
Photoshop	11
Tally	3
MS Access	9
Financial Transaction App	0
Income Tax and PAN Card App	0
Public Complaint App	0
DigiLocker App	0
Printer	28
Photocopy machine	30
Computer (Laptop, Desktop)	28
Telephone	30
Digital Notice Board	9

Scrolling Led Board	0
Digital Voice recorder	0
CCTV (Closed Circuit Television) Camera	9
Multimedia Projector	8
Biometric Device	4
Toll Free Call System	0
Social media messaging app	1

Table 3, describes existing capacity of respondents on software and hardware for service delivery to the public. It shows that capacity of existing employees should be enhanced for better service delivery.

Perception of public, employees and elected representative about transparency, accountability and corruption

❖ Public of Dipayal Silgadhi municipality and its wards

Public of Dipayal Silgadhi Municipality are not fully satisfied from elected representative body. They said local government didn't use as much as required technology to delivery service transparently, accountability and efficiently. To promote transparency and citizen engagement in various sectors of government, municipalities have not fully implemented such as freedom of information law, enhancing the scope and accessibility of information made available through the government's various transparency portals, assessing the effectiveness of the government's charter of citizens' services and evaluating the effectiveness of the ombudsman system. They blamed to elected representative and employees of LG for biased on service delivery to public. Employees of LG are providing good service only to them who are their relative and favoritism. They said elected representative are also not behaving equally to all public but they behave good for their cadres only. There are not any openness technology for Transportation, Housing & Construction, Environment, Urban planning, Construction work, Industry and Economy, Sanitation and Welfare, Fire Emergency service, Payment of logistic and construction charge etc.

❖ Employees of Dipayal Silgadhi municipality and its wards

On the perception of employees, they are also realized that having lack of IT tools and infrastructures in office and public area but improving LG system by adding required technology & manpower. They accepted some type of the Information Technology related with accountability mechanism are not available & implemented in the local government such as Fix my street platform (Web based accountability mechanism that allow citizen to report their problem), Citizen feedback model, I paid bribe etc. Some of technologies are available but not used by maximum people such as Digital complaint mechanism (access to phone, internet and other digital device), MIS etc. Big parts of municipality's public are illiteracy, lacking access of internet, troubling of fluctuation of electricity & transportation

difficulties. These types of problems are also obstacle to implementation of IT in Dipayal Silgadhi Municipality. IT tools and infrastructures have to available in both sides (municipality office and public area) for transparency and accountability.

❖ **Elected representative body of Diayal Silgadhi municipality and its wards**

On the perception of elected representative, they are also not fully satisfied with their work in Dipayal Silgadhi municipality. Except biometric devices, CCTV camera and other common devices, they are unknown for other technologies such as freedom of information law, enhancing the scope and accessibility of information made available through the government's various transparency portals, assessing the effectiveness of the government's charter of citizens' services and evaluating the effectiveness of the ombudsman system, Fix my street platform (Web based accountability mechanism that allow citizen to report their problem), Citizen feedback model, I paid bribe, openness technology for Transportation, Housing & Construction, Environment, Urban planning, Construction work, Industry and Economy, Sanitation and Welfare, Payment of logistic and construction charge etc. They also said same as employees such as big parts of municipality's public are illiteracy, lacking access of internet, troubling of fluctuation of electricity & transportation difficulties. These types of problems are also obstacle to implementation of IT in Dipayal Silgadhi municipality.

Observation on different information technology tools of Dipayal Silgadhi municipality

❖ **Website**

List of wards number and their elected representative body and employees have not found in website of Dipayal Silgadhi municipality. The total 120 number of employees are listed in the website but in real 69 are permanent and 31 are temporary employees are there according to information officer. The researcher didn't get online complain box, voice recorder and toll free number for public in website.

❖ **Some other important devices**

There are some basic and most important tools to control corruption and gives accountability, transparency and efficiency in work such as CCTV camera which is available in municipality but not implemented properly, Biometric device, digital board, toll free call system, voice recorder, cloud services are neither available nor implemented. In ward offices of municipality, internet is available but not implemented properly and other devices such as CCTV, biometric device, digital board, voice recorder, toll free call system are not available. Printer and desktop are only available in ward offices of Dipayal Silgadhi municipality.

4. Result/Finding

The analysis and interpretation of online survey data, the results are as follows.

- Common type of IT tools such as CCTV, biometric device, toll free number system, internet etc. are also not implemented properly in Dipaya Silgadhi municipality and its ward offices.

- Still more traditional method using than digital method for service delivery to the public in Dipayal Silgadhi municipality and its ward offices. It requires more time to totally convert it into digitalized.
- Maximum employees of local governments are not active with official e-mail technology in their daily life activities.
- Respondents are positive towards IT tools and infrastructures but political pressure, illiteracy, geographical difficulties & fluctuation of electricity interrupts the implementation of it.
- Lack of IT tools and infrastructures, lack of skilled manpower & proper implementation of IT for service delivery have shown in municipality.
- Capacity of existing employees should be enhanced for better service delivery.
- Not fully transparency and accountability have been appeared in LG due to less availability and implementation of IT
- There are many causes of increasing corruption such as political pressure, ethics, lack of IT tools & infrastructures for delivery service to the public, lack of skilled manpower, lack of transparency & accountability.
- Lack of IT tools and infrastructures in both sides (public and employees places) have less impact in municipality to access and interaction between client and server.
- Many elected representative and employees have been misusing their entrusted power for private gain.
- For good impact of IT required good implementation of IT tools and infrastructures in LG.

Discussion

There are many problems being corruption in local governments such as political pressure, geographical difficulties, lack of technical people, traditional method, union of employee and lack of technology. To solve these problems implementation of required information technology is best method out of many methods. For this study, researcher has focused in two points. First, focused on current status of IT and second, impact of it in local governments. Researcher has applied field survey to know current status of IT, e-delivery service and other activities through technology in local government.

There are several researcher have begun to study the impact of IT in government or private sector. In this study, main problem of corruption have shown monopoly of elected representative and union of employees due to this there have not sufficient technology and not proper implementation of IT. During this study appropriate Information Technology are not available in different area for different purpose such as natural hazard, draught, landslide, flood technology to provide quick information to the public, E-learning, e-education & e-service technology required for online learning & service delivery activities. Based on the perception survey, main problem of implementation of these technologies are geographical

difficulties, political pressure & lack of manpower but geographical difficulty was main problem shown on this paper [Kharel, 2018]. The case study of the Seoul City of Korea where “On-line Procedures Enhancement for civil application (OPEN)” a system which was developed to achieve transparency in the city’s administration by preventing unnecessary delays, and arbitrary decisions, and to prevent corruption. This system has covered Transportation, Housing & Construction, Environment, Urban planning, Construction work, Industry and Economy, Sanitation and Welfare, Fire Emergency service, Payment of logistic and construction charge etc. Among many of the civil transactions, this web-based system allows citizens to monitor applications for permits or approvals where corruption is most likely to occur and to raise questions in the event any irregularities are detected. OPEN has also had an impact on Seoul City’s policy-making process. Previously most policy decisions were made by a few bureaucrats acting in isolation which left room for distortions in policymaking. Now, owing to citizens’ participation and the introduction of OPEN, the policy-making process is becoming transparent. As it is progressively introduced into all local governments and central government OPEN is expected, after some time, to lead to significant changes in the culture and behavior of government officials in Korea. In our local government researchers didn't find any such kinds of software implementation. Before to implement this type of software Nepal governments need to build infrastructures, to produce skilled man power & maintain them for long period (Organization for Economic Cooperation and Development [OECD], 2012). There are different types of accountability mechanism are applied in many countries but some of the IT accountability mechanism are Digital complaint mechanism (access to phone, internet and other digital device), Fix my street platform (Web based accountability mechanism that allow citizen to report their problem), Seoul Municipal government (open & OASIS), Citizen feedback model, I paid bribe & My E-municipality (Ardigó I, 2019).In Nepalese local government some of the municipalities has complaint mechanism such as phone, website & email but didn't get proper implementation. Call, e-mail, & website system are there but no one responsible for complaint.

Local governments of Nepal are backbone for development of local society. There are many sectors in local governments such as IT, health, education, construction etc.. There may be much corruption and many problems. There may be many difficulties of implementation of IT tools such as political, social, geographical, etc.. So what types of IT tools and infrastructures are required to solve these types problem will be subject for researcher to further study on different sectors of local government.

5. Conclusion & Recommendation

Conclusion

Local government is still lagging behind in terms of IT to improve e-municipality service, administrative reform, law enforcement and many other things such as transparency, accountability and quick delivery service. Many common information technologies are also not available and available technologies are

also not properly implemented in local governments. This existing system is killing valuable time & money of the people.

Geographical difficulties, illiteracy, lack of skilled manpower, Lack of financial resources, traditional system of resource mobilization, monopoly of some elected representative and union of employees are main problem to the implementation of IT tools and infrastructures in local government. These types of problem encouraged the corruption activities & difficult to implement rule, law and other activities to service delivery to the public.

Many changes have been occurring in local governments with help of IT. Partially people are feeling impact of IT in local governments but people's expectations are high. It can play vital role to provide transparency, accountability and efficiency in services to the public & help to reduce the corruption & develop the local governments of Nepal but proper implementation of IT tools & infrastructures is most important. So, local governments need to more focus on proper implementation of IT tools and infrastructures in both sector (government & private sector).

Recommendation

Based on the study and analysis of the answers of the questionnaire, interview and observation has found some problem. This paper makes the following recommendation to the policy makers and elected representative of the local governments.

- To create official e-mail address for all employees and make compulsory to use e-mail for all possible documentation. This compulsory system is to keep them active with their email address. Order the all local governments to keep email address of all employees in their website.
- Central government has to bring regular program for capacity development of local people and employees toward IT tools and systems.
- To use complaint and observation technologies for those who shows corruption behavior & political pressure during work & strictly have to take action against such people.
- To make national IT expert team by central government for welfare of local governments. All activities of IT such as monitoring, observation, training etc. have to conduct through this IT expert team.
- To solve monopoly of some elected representative and union of employees, central government has to dismiss the union of employees and strictly implement the IT tools with rule and regulation.
- Implementation of IT play vital role but moral education with rule and regulation is most important to control corruption.
- Center government need to apply big project for develop & keep regular maintenance of basic IT tools and infrastructures in local governments such as internet, phone, electricity, road, etc.

This study has focused only on Dipayal Silgadhi municipality and its ward offices to know their existing capacity & impact of IT tools on transparency, accountability & corruption control. This study has not included the all aspect in depth such health sector, education sector etc. Therefore fulfillment of this gap; the researcher recommended that further research can do on every sector in detail.

Reference

- Ardigó, I.(2019). *Local government accountability mechanisms*. U4 Anti-Corruption Resource Centre. <https://www.u4.no/publications/local-government-accountability-mechanisms.pdf>
- Chaudhary, D. (2019). The Decentralization, Devolution and Local Governance Practices in Nepal: The Emerging Challenges and Concerns. *Journal of Political Science*, 19, 43–64. <https://doi.org/10.3126/jps.v19i0.26698>
- Dhonju, G. R., & Shakya, S. (2019). Analyzing Challenges for the Implementation of E-Government in Municipalities within Kathmandu Valley. *Journal of Science and Engineering*, 7, 70–78. <https://doi.org/10.3126/jsce.v7i0.26795>
- Giri, S., & Shakya, S. (n.d.). *Ict Tools And Service Delivery: A Case Of Nepalese Civil Service*. In Science Globe International Conference (pp. 38-43). Bengaluru, India. Retrieved September 6, 2022, from https://shailendragiri.com.np/wp-content/uploads/2019/03/Ict_Tools_Service_Delivery_A_Case_Nepalese.pdf.
- Kharel, S. (2018). Information and Communication Technology for the Rural Development in Nepal. *Tribhuvan University Journal*, 32(2), 177–190. <https://doi.org/10.3126/tuj.v32i2.24714>.
- Kumar, Dr. (2014). Information Technology: roles, advantages and disadvantages. *International Journal of Advanced Research in Computer Science and Software Engineering*, 4, 1020-1024. <https://studylib.net/doc/8373523/information-technology--roles--advantages-and>
- Mbaku, J. M. (1996). Bureaucratic Corruption in Africa: The Futility of Cleanups. *Cato Journal*, 16(1), 99–118. Retrieved 29 July 2021, from <https://ideas.repec.org/a/cto/journl/v16y1996i1p99-118.html>
- OECD, (2005). OECD open government reviews. <https://www.oecd.org/mena/governance/open-government-review-flyer-en.pdf>.
- Organisation for Economic Cooperation and Development. (2012). OECD Integrity Review of Brazil. : Managing Risks for a Cleaner Public Service, OECD Public Governance Reviews, OECD Publishing. <http://dx.doi.org/10.1787/9789264119321-en>
- The Asia Foundation. (2015). Challenges and Opportunities in Municipal Governance. Kathmandu, Nepal. Voice of Cities: LGAR Special Edition, Vol 15(1)
- Twinomurinzi, H., & Ghartey-Tagoe, K. (2011). Corruption in developing countries and ICT: The urgent need for work systems to precede E-government. In 11th International Conference on Social

Implications of Computers in Developing Countries. Kathmandu, Nepal Retrieved 29 July 2021,
from

https://www.researchgate.net/publication/281436030_Corruption_In_Developing_Countries_And_Ict_The_Urgent_Need_For_Work_Systems_To_Precede_E-Government.