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Digitization of Land Record and Public Perception (A Case Study of District Mardan)

Miss. Hina Malik[1], Prof. Dr. Zahir Shah[2]

1. Demonstrator & PhD Scholar, Department of Political Science, Abdul Wali Khan University Mardan, Pakistan.
2. Department of Political Science, Abdul Wali Khan University Mardan, Pakistan.

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Corresponding Author:
Miss. Hina Malik
Email: hooryal123@gmail.com

Abstract: *Electronic governance, also known as e-governance, is a relatively new concept in Pakistan. In order to keep up and compete with the rest of the world, the government of Pakistan recently initiated the transition from traditional governance to the current form of e-governance. The primary objective of this paper is to give a detail discussion on e-governance, forecast its future, people's perception and to identify the obstacles and difficulties it will face as it operates. This research Paper will analyses the digitization of land record in District Mardan to examine public perception regarding e-governance in land administration, evaluates the effectiveness of digital land record management, and identifies key barriers to its successful implementation. As part of its efforts to establish effective and efficient e-governance in Pakistan, the Pakistani government places a high priority on the advancement of information technology and its application. Keep in mind that Pakistan is now serious to chase up the rest of the world regarding e-governance and that is why The government in Khyber Pakhtunkhwa under its slogan 'technology is our new ideology,' claims to take a broader view of e-government mean not just automation of government departments but also to provide the public 'a central point of access to government services'.*

Introduction

E-governance has emerged as a crucial mechanism for enhancing government efficiency, improving service delivery, and fostering transparency through the use of Information and Communication Technology (ICT) (Bannister & Connolly, 2012). In e-governance, the government uses information technology, primarily the Internet, to support operational needs, interact with citizens, and provide services. Over the Internet, the interaction could take the form of submitting paperwork, making payments, obtaining information, and a variety of other things (Sharma & Gupta, 2003; Sharma, 2004, Sharma 2006). Information and technology have a big impact on administration and government in the modern world. Many modern and developed states have already accepted these modern ways of

running the government, and developing countries are on track to do the same. As part of its efforts to establish effective and efficient e-governance in Pakistan,

Pakistan's government places a high priority on the advancement of information and technology (Mahmood, 2007). Pakistan recently took a right step in this direction by combining the electronic government directorate and the Computer Bureau of Pakistan into the National Information Technology Board that was established by the information ministry in October 2002 (Dawn, 2014).The federal cabinet had approved the information technology ministry's initiative under the national IT Policy 2000. The government in Khyber Pakhtunkhwa under its slogan 'technology is our new ideology,' claims to take a broader view of e-government mean not just automation of government departments but also to provide the public 'a central point of access to government services', thereby placing communities and individuals in 'responsive networks of knowledge, service, trust, and accountability' (G of KP DoIT website, n.d).

The Land Revenue (Amendment) Act of Khyber Pakhtunkhwa 2014 paved the way for the digitization and cross-verification of records along with the opening of Service Delivery Centers (SDCs). KP's digitization process started with the Khalsa Circle Project, which began in 2005, but it met with resistance and was not finished. In 2013, the computerization of the land records program began in seven districts and then extended to 12 additional districts in 2015. Following the phased approach permitted testing and refinement of digital systems before scaling up the implementation (World Bank, 2017). Currently, 57 Service Delivery Centres (SDCs) are operational across 19 districts, utilizing the Land Record Management Information System (LRMIS) for land-related processes.

Cadastral mapping abilities play an important role in detecting and prevention of encroachments in time by authorities (Personal Communication, May 23, 2024). Also, the transparent land history provision reduces conflicts and litigations because the relevant data is easily accessible (Personal Communication June 25, 2024). By moving over to paperless solutions, managing the land becomes easier, as it is possible to pay via e-payment options, submit complaints over complaint portals or simply access information online, all of which contribute to sustainability (Personal Communication, May 25, 2024). For governance, and the delivery of public service, digitized records improve access to information as this helps in resolving land related issues faster (Personal Communication, June 30, 2024). Personal Communication, May 30, 2024: They help to produce more efficient landuse planning and decision making for urban development and environmental conservation. Investors, who realize that reliable records attract them and are also associated with real estate activity and economic growth (Personal Communication, April 13, 2024). As a result of digitization, implementation of transparency minimizes property fraud and disputes, opening up to fairer transactions (Personal Communication, March 30, 2024). Furthermore, this process also accelerates the land acquisition, for the government projects hence stearing the planning and development (Personal Communication, June 11, 2024). Finally, the implementation of a Geographical Information System (GIS) in new settlements, particularly in the newly merged districts (NMDs) and the Malakand Division marks a significant technological advancement (Personal Communication, April 5, 2024). It develops a highly accurate, spatially referenced database of land parcels, for efficient land management and for land use planning (Personal Communication, May 15, 2024). The use of GIS minimizes disputes and reflects KP's commitment to modernizing land administration with cutting-edge technology (Personal Communication, June 1, 2024). To conclude, the experiences learned from the KP land record digitization program over the last 15 years are praiseworthy: they are clear indications of technology's importance to public administration. Though progress is significant, the process continues and continued efforts are required to complete

digitization of the remaining land records and in maintaining the principles of e-governance for the citizens of Khyber Pakhtunkhwa.

Digitization of Land Record and its Advantages

Citizens paid a lot of time and money availability to acquire information on their land property or something else to acquire this knowledge. They wanted such information for reasons similar to the sale/purchase of their land, request for bank loans, creation of their NIC, passports, and other day-to-day matters (UNH, 2015). Cadastral mapping abilities play an important role in detecting and prevention of encroachments in time by authorities (Personal Communication, May 23, 2024). Also, the transparent land history provision reduces conflicts and litigations because the relevant data is easily accessible (Personal Communication June 25, 2024). By moving over to paperless solutions, managing the land becomes easier, as it is possible to pay via e-payment options, submit complaints over complaint portals or simply access information online, all of which contribute to sustainability (Personal Communication, May 25, 2024). For governance, and the delivery of public service, digitized records improve access to information as this helps in resolving land related issues faster (Personal Communication, June 30, 2024). Personal Communication, May 30, 2024: They help to produce more efficient land use planning and decision making for urban development and environmental conservation. Investors, who realize that reliable records attract them and are also associated with real estate activity and economic growth (Personal Communication, April 13, 2024). As a result of digitization, implementation of transparency minimizes property fraud and disputes, opening up to fairer transactions (Personal Communication, March 30, 2024). Furthermore, this process also accelerates the land acquisition, for the government projects hence stearing the planning and development (Personal Communication, June 11, 2024). Finally, the implementation of a Geographical Information System (GIS) in new settlements, particularly in the newly merged districts (NMDs) and the Malakand Division, marks a significant technological advancement (Personal Communication, April 5, 2024). It develops a highly accurate, spatially referenced database of land parcels, for efficient land management and for land use planning (Personal Communication, May 15, 2024). The use of GIS minimizes disputes and reflects KP's commitment to modernizing land administration with cutting-edge technology (Personal Communication, June 1, 2024).

The digital recording system now makes it possible for anyone to verify property information without the need for previous disputes or verification issues to occur. Such a change represents a significant transformation of legal operation. Government agencies gain higher public trust from increased system transparency because the digital framework reduces possibilities of corruption.

Government of KP also tries to maximize the opportunity offered by digitization to modernize the land management system and create efficient, transparent and reliable land record systems." (Ali, 2013).In recent years, the provincial government has taken a number of steps to adopt e-governance in land and revenue administration in order to make these areas more efficient, transparent, and accountable. The multifarious and out-of-date records which were not only laborious and time-consuming but were also processed and kept manually presented one such bottleneck in property and income management in Pakistan in which the inhabitants of 207.774 million. Several reasons made the procedure to obtain ownership particulars by a property owner very difficult: there were only a few designated Government officials (e.g. Patwari6, the custodian of land revenue record) who had full charge of the testimony, and such officials were not easily available to the public.

The introduction of digitalization brings multiple benefits to businesses but ongoing implementation difficulties specifically impact countries in developing stages. The digital divide continues to be a major problem because numerous populations lack access to fast internet service and digital equipment which

prevents them from accessing digital transformation benefits. The rise of cybersecurity threats represents a danger to digital infrastructures because hackers steal sensitive data through constantly increasing data breaches and cyber-attacks. The poor understanding of digital skills stops organizations from using digital services effectively which leads governments and companies to create training and public awareness initiatives to teach people digital tool usage.

E-Governance and Public Perception

The respond of people in the public sector to digital governance programs constitutes their perception of e-governance.. The system's performance depends on four main indicators which evaluate user understanding, service ease of access, digital service satisfaction rates and privacy and security-related worries (Shah & Khan, 2021). The adoption rates rise together with resident platform acceptance while traditional procedures decrease in use because of a positive public perception.

Research studies suggest that public e-governance adoption depends on four major acceptance factors which include performance expectancy and effort expectancy and social influence and facilitating conditions (Venkatesh et al., 2003). People adopt digital platforms when these services are considered productive, user-friendly and help decrease bureaucratic challenges. The absence of trust in government institutions concerning digital security and transparency affects public perception negatively thus causing public reluctance toward e-governance services (Meijer et al., 2012).

The Stakeholder Theory establishes that e-governance success relies heavily on government interactions with citizens together with businesses alongside all other related stakeholders (Freeman, 1984). Stakeholder engagement plays a crucial role for digital land record system platforms to deliver necessary user requirements and maintain transparent operations while reducing potential corruption. Users tend to adopt digital governance services when they feel the system operates equitably along with all stakeholders (Khalid & Farooq, 2021).

The frequency at which systems are used combined with the kind of citizen feedback serve as operational indicators to measure public perception. When digital governance platforms have high traffic levels with few complaints together with positive user reviews they demonstrate greater acceptance and trust from users (Rahman, 2018). Public engagement through helplines, mobile applications, and digital literacy initiatives also plays a crucial role in shaping citizen confidence in e-governance.

Furthermore, the effectiveness of grievance redressal mechanisms influences public perception. A transparent system that allows users to lodge complaints, track progress, and receive timely resolutions fosters trust in digital governance. If citizens perceive that the government promptly addresses their concerns and ensures data security, they are more likely to continue using digital land record services, thereby reinforcing the success of e-governance initiatives in Khyber Pakhtunkhwa (World Bank, 2020).

The public perception of District Mardan's e-governance system comes from interviews and surveys directed at resident citizens, landowners and government authorities operating in the district according to their views Computerized Land Record project has brought various improvement and development in the KP governance. People no longer need to travel to land record offices because this project provides cheap and convenient online access to records.

Almost all the time, citizens paid a lot of time and money availability to acquire information on their land property or something else to acquire this knowledge. They wanted such information for reasons similar to the sale/purchase of their land, request for bank loans, creation of their NIC, passports, and other day-to-day matters (UNH, 2015). Around the world it was established that community entrance to information was the most imperative large-scale determinant of people’s empowerment; to increase

people's probability of conquer (Sen, 1997). The globe's most important indicator is a guarantee of human beings' protection. This weapon can only be used professionally if the possessors have complete information about their assets and are sympathetic and use the legitimate rights of socio-legal structures and property security to facilitate them to protect their rights (Lukes, 1994).

Through this system the accuracy of land records increased together with their completeness which ensures a higher level of transparency and reliability. The digitization of records has reduced corruption methods in land management operations because digital documentation blocks unauthorized document changes.

The legislation established Service Delivery Centers (SDCs) to provide streamlined land administration services and better access to land related public services as result of its enactment. Record deterioration, time consuming process of record retrieval and high transaction costs, especially in land record management, disproportionately affect the poor and the same has potential to stifle economic development, social cohesion and governance. Investments in improvements can help increase transparency, decrease corruption, and increase governance, but the potential of land record digitization in KP remains unrealized. The government-initiated digitization of land records in order to make records transparent and publicly available in effort to correct the case of old records that were not always accurate, timely, or efficient and thereby optimal land management (Shank, 2006; World Bank, 2017).

Conclusion

Digital land records have given land owners many benefits by providing quick and safe access to their property records. This system reduces the chances of fraud and mismanagement, as accurate records are available, which ensure transparency in transactions. Digital system transactions are safer because landowners can confirm their ownership, which reduces the risk of controversy and fraud claims. However, some people face difficulties in accessing digital systems, especially for individuals who suffer from digital literacy. Many people in the areas fail to use digital platforms effectively, which have difficulty accessing or updating their land records. In addition, the need for bad internet connectivity and system maintenance is also a challenge, which can hinder system access (Patel and Kumar, 2022). To solve these challenges, digital literacy programs and infrastructure need to be improved so as to get the full benefits of digital land records.

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