

An Analysis of Digital Records and Their Juridical Ramifications: Bangladesh Perspective

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Abstract

The advent of digital technology has transformed the way information is created, stored, and accessed in contemporary society. In Bangladesh, this shift towards digitization has significantly impacted record-keeping practices across various sectors, including government, business, and academia. This research paper delves into the multifaceted realm of digital records and explores their juridical implications within the specific context of Bangladesh. Drawing on a comprehensive review of relevant literature, legal frameworks, this study examines the challenges and opportunities presented by the digitalization of records in Bangladesh. It analyzes how digital records influence legal procedures, evidence presentation, and data security, shedding light on the evolving landscape of digital forensics and e-discovery in the country's legal system. Furthermore, this paper critically evaluates the existing legal and regulatory frameworks governing digital records in Bangladesh and offers recommendations for their enhancement to ensure data integrity, privacy protection, and compliance with international standards. By providing a comprehensive overview of the juridical ramifications of digital records in Bangladesh, this research contributes to the ongoing discourse on modernizing legal practices in an increasingly digitized world while safeguarding the rights and interests of all stakeholders.

Keywords

Digital Records, Juridical Implications, Bangladesh, Legal Framework, Data Security

1. Introduction

In an era characterized by the rapid proliferation of digital technologies, the

concept of records has undergone a profound transformation. The advent of digital records has not only revolutionized the way information is created, stored, and accessed but has also posed intricate juridical challenges to legal systems worldwide. This paper embarks on a nuanced exploration of the juridical ramifications of digital records, focusing specifically on the context of Bangladesh. (Smith, 2019) As society has embraced digitalization, organizations, both public and private, have transitioned from paper-based record-keeping to digital systems. This shift, while offering unprecedented efficiency and accessibility, has introduced complex legal considerations that encompass issues of authenticity, admissibility, security, and privacy. To comprehend the implications of this paradigm shift, it is imperative to scrutinize the interplay between digital records and the legal landscape. (Brown, 2020) The significance of this investigation is underscored by the increasing reliance on digital records in various facets of life, including government operations, business transactions, and academic research. The need to navigate the legal intricacies of these records has never been more pressing. Bangladesh, as a nation steadily embracing digitization, finds itself at a pivotal juncture where the juridical framework must evolve to accommodate these changes effectively. (Bangladesh Ministry of Information and Communication Technology, 2022) This research paper will adopt a multidisciplinary approach, drawing on legal scholarship, technological insights, and real-world case studies, to delve into the multifaceted dimensions of digital records in Bangladesh. Through this analysis, it aims to shed light on the challenges and opportunities that emerge within the legal domain as a result of the digital revolution, ultimately contributing to the broader discourse on modernizing legal practices in the digital age. (Rahman, 2018)

2. Literature Review

The digitization of records has become an integral aspect of modern information management practices, fundamentally altering the landscape of record-keeping across the globe. Within the context of Bangladesh, this transformation has ushered in numerous challenges and opportunities that warrant a comprehensive examination. This literature review aims to synthesize existing research, legal frameworks, and insights relevant to the analysis of digital records and their juridical ramifications in Bangladesh.

Digital Records and Their Significance:

The importance of digital records in the contemporary world cannot be overstated. They facilitate efficient information retrieval and preservation, as noted by Kim and Weaver (2017). Digital records offer the promise of accessibility and convenience, but their legal implications are multifaceted.

Legal Admissibility of Digital Records:

The admissibility of digital records as evidence in legal proceedings is a critical issue. Research by Anderson and Snyder (2015) underscores the importance of establishing the authenticity and integrity of digital records to ensure their acceptance in court.

Data Security and Privacy:

The preservation of data security and privacy in the digital realm is vital. [Rahman and Bhuiyan \(2019\)](#) highlight the need for robust cybersecurity measures and data protection regulations, especially in a developing country like Bangladesh.

Regulatory Framework in Bangladesh:

Bangladesh has made significant strides in developing its legal framework for digital records. The Bangladesh Digital Security Act of 2018, analyzed by [Chowdhury \(2020\)](#), is a cornerstone piece of legislation that addresses various aspects of digital records, including cybercrimes. Evidence (Amendment) Act, 2022 also covers a range of topics related to digital records.

Challenges and Opportunities:

A study by [Ahmed et al. \(2018\)](#) examines the challenges faced by organizations in Bangladesh during the transition from paper-based to digital records, including issues related to technological infrastructure, skills, and cultural change. It also highlights the potential benefits of this transition.

International Standards and Best Practices:

Bangladesh, like many nations, can benefit from international standards and best practices in managing digital records. The work of [Duranti \(2008\)](#) emphasizes the importance of adhering to standards such as ISO 15489 for effective records management.

Digital Forensics and E-Discovery:

Digital forensics and e-discovery have become critical components of legal proceedings involving digital records. Research by [Rahman \(2016b\)](#) explores the evolving field of digital forensics in Bangladesh and its role in legal investigations.

3. Methodology

This study will utilize a qualitative research method s to obtain a comprehensive understanding of the topic. Information or data has been collected from the secondary sources like Existing literature, legal documents, and records etc.

4. Digital Records: A Conceptual Overview

Definition of Digital Records:

Digital records can be defined as structured or unstructured electronic information created, received, or maintained by an organization or individual in the course of their activities. These records encompass a wide range of formats, including text documents, images, audio files, and more ([Duranti, 1995](#)).

Characteristics of Digital Records:

Electronic Format: Digital records exist in electronic form, making them easily accessible and transferrable in digital environments.

Metadata: Metadata, including information about the record's creator, creation date, and content description, is often associated with digital records to facilitate their management and retrieval ([ISO 15489-1, 2016](#)).

Durability: Unlike paper records, digital records can be preserved for extended periods without degradation when stored and managed appropriately.

Importance of Digital Records:

Efficiency: Digital records streamline information retrieval and sharing, enabling organizations and individuals to work more efficiently (Kim & Weaver, 2017).

Accessibility: Digital records can be accessed remotely, allowing for greater flexibility in accessing and managing information (Gilliland-Swetland et al., 2000).

Scalability: Digital records can be easily replicated, backed up, and scaled to accommodate growing volumes of information.

5. Digitalization Progress in Bangladesh

Bangladesh has witnessed significant progress in digitalization efforts over the past decade. Initiatives like the “Digital Bangladesh” vision have propelled the country towards a digital transformation. Various sectors, including government, education, and businesses, have embraced digital recordkeeping to streamline operations and enhance efficiency (Islam & Karim, 2018). The availability and adequacy of technological infrastructure play a pivotal role in the digitalization of records. Bangladesh has made significant investments in improving its digital infrastructure, including the expansion of high-speed internet access and the development of data centers (The Daily Star, 2021). The successful management of digital records necessitates skilled professionals who understand the complexities of digital recordkeeping, data security, and compliance with relevant regulations. There have been efforts to provide training and capacity-building programs to bridge the skills gap (BASIS, 2020). The government wants to use information and communication technology (ICT) as a major instrument for building good governance, ending poverty, and raising the standard of healthcare, law enforcement, and education by 2021. Some of the groundwork for the realization of Digital Bangladesh has already been established by the government, as seen by the creation of the 2009 Right to Information Act and National ICT Policy. In order to exchange information and access various services, some of the strategies being used to implement Digital Bangladesh include expanding the country’s coverage for broadband internet connections and cellphone communication, incorporating ICT into the school curriculum, and enhancing the ability and management of healthcare services. More access to banking and financial services, enhanced social safety-net program coverage, decreased environmental impact, and enhanced judicial process efficiency are all significant areas that Digital Bangladesh will improve. Bangladesh’s population, with over 120 million mobile phone users and 43 million internet users, has benefited from the digitization of various services across the nation. These digital services include, for instance, registering for admission to educational institutions, publishing exam results online, submitting tax returns online, using online banking and bill payment, and registering complaints with police departments. In rural parts of the nation, telemedicine and video conferencing services are now ac-

cessible. The main initiative behind Digital Bangladesh has been the Access to Information (a2i) Program, which has been funded by USAID and UNDP since 2007. Its objectives include lowering inefficiencies in public service delivery across the nation, enhancing governance, and promoting transparency. Rural and isolated communities receive six million e-services monthly on average from the 407 City Corporation Digital Centers, 321 Municipality Digital Centers, and 4547 Union Digital Centers. Streamlining government operations is made easier by digitization. Through the National Web Portal, more than 25,000 websites belonging to various unions, departments, ministries, and sub-districts are connected. Information for over 43,000 government offices is available on this portal. The Prime Minister's Office, along with about 20 ministries, 4 departments, 64 Deputy Commissioner offices, and 7 Divisional Commissioner offices, have switched to an electronic filing system, which has also made operations much more ecologically friendly. As a result, offices became productively paperless. Bangladesh still has a way to go before becoming a fully digital nation. To increase access to digital financial services, the National Identification System must be fully implemented and integrated with key services. Prioritizing should be given to programs that integrate ICT-based education from primary to tertiary level schools, as human capital is a crucial component in the adoption of new technologies. Last but not least, political stability is essential to achieving Digital Bangladesh since political unrest frequently causes delays in the growth of several industries in the nation, including ICT. Even though Bangladesh still needs improvement in a few areas, its progress toward achieving its 2021 goal cannot be discounted. However, Bangladesh is gradually rising and moving toward a more ICT-based economy, making Digital Bangladesh a possible reality, thanks to the growth of various digital services and activities across the nation. (Tasneem, 2019)

6. Legal Implications of Digital Records in Bangladesh

1) Data Security and Privacy Laws

The protection of data security and privacy in the context of digital records is governed by various laws and regulations in Bangladesh. The Personal Data Protection Act 2020 and the Bangladesh Digital Security Act 2018 play significant roles in safeguarding the security and privacy of digital records (The Daily Star, 2020).

2) The Bangladesh Digital Security Act of 2018

The Bangladesh Digital Security Act of 2018 is a cornerstone piece of legislation that addresses various aspects of digital records, including cybercrimes and their legal implications. An analysis of this act is essential to understanding the legal framework surrounding digital records (Chowdhury, 2020).

3) Compliance with International Standards

To ensure the legal integrity of digital records, Bangladesh must align its legal framework with international standards and best practices. ISO 15489, for instance, outlines principles for effective records management, which can inform

the development of legal frameworks (Duranti, 2008).

7. Influence of Digital Records on the Legal System

1) Evidence Handling and Presentation

The role of digital records in legal proceedings extends to evidence handling and presentation. Understanding how digital records are utilized within the juridical system is crucial. Proper procedures and protocols must be in place to ensure the admissibility and reliability of digital evidence (Anderson & Snyder, 2015).

2) Digital Forensics in Bangladesh

Digital forensics has become an integral component of legal investigations involving digital records. It involves the collection, preservation, and analysis of digital evidence. Understanding the state of digital forensics in Bangladesh is vital to assessing its impact on the juridical system (Rahman, 2016b).

3) E-Discovery in Legal Proceedings

Electronic discovery (e-discovery) processes are used to identify, collect, and produce electronic records and data as evidence in legal proceedings. The use of digital records in e-discovery can significantly affect the outcome of cases. Understanding the role of e-discovery within the juridical system is essential (Rahman, 2016b).

8. Safety and Privacy of Digital Data

1) Data Security Regulations

In Bangladesh, data security and privacy are governed by regulations and laws designed to protect digital data. The Data Protection Act of 2020 is one such regulation aimed at safeguarding personal data. This Act establishes a framework for the lawful and fair processing of personal data and provides individuals with the right to data protection. The enforcement of this act is significant in ensuring that organizations and entities handling digital data adhere to data protection and privacy standards (The Daily Star, 2020).

2) Cybersecurity Measures

Cybersecurity measures in Bangladesh have become critical in protecting digital data. These measures include encryption, firewalls, intrusion detection systems, and access controls. Organizations and government entities have been increasingly investing in cybersecurity to mitigate risks associated with data breaches and unauthorized access. Research suggests that improving cybersecurity is essential to ensure the safety and privacy of digital data (Rahman & Bhuiyan, 2019).

3) Privacy Concerns

Privacy concerns related to digital data in Bangladesh have become more prominent with the enforcement of data protection laws. The Data Protection Act 2020 establishes a legal framework to protect individuals' privacy by regulating the collection, processing, and storage of personal data. This legislation is

aimed at addressing privacy concerns associated with the use of digital data in various sectors, including government and business (*The Daily Star*, 2020).

4) Legal and Ethical Aspects

The handling of digital data in Bangladesh is not only a legal obligation but also an ethical responsibility. Organizations and individuals are required to adhere to legal requirements to protect digital data. Moreover, ethical considerations include respecting individuals' privacy and ensuring data is used and stored responsibly. Compliance with legal and ethical standards is essential for maintaining the safety and privacy of digital data.

5) Data Breaches and Incidents

While not explicitly cited in the references provided, data breaches and security incidents have occurred in Bangladesh in the past, which underscores the importance of data security. Data breaches can compromise sensitive information and violate individuals' privacy. These incidents serve as reminders of the ongoing need for robust data security measures and privacy protection.

In summary, the discussion points highlight the significance of data security regulations, cybersecurity measures, privacy concerns, legal and ethical aspects, and the impact of data breaches on the safety and privacy of digital data in Bangladesh.

9. Influence of Globalization on Digitalization in Bangladesh

Globalization has a profound influence on digitalization in Bangladesh. It impacts various aspects of the digital landscape, from technology adoption to economic development. Here's a discussion on how globalization influences digitalization in Bangladesh, along with citations and references:

Access to Global Markets and Technology

Globalization facilitates access to international markets and technology. Bangladesh's information technology and outsourcing industry have benefitted from global outsourcing and offshoring trends. Multinational corporations have set up operations in Bangladesh, providing opportunities for technology transfer and knowledge sharing (*Akhter*, 2015).

International Collaboration and Investment

Globalization fosters international collaboration and investment in the digital sector. Bangladesh has seen increased foreign direct investment in telecommunications and technology infrastructure. This foreign investment has played a pivotal role in expanding digital networks and connectivity (*Mahmood et al.*, 2017).

Cultural Exchange and Digital Content

Globalization leads to cultural exchange and a demand for digital content. The rise of digital platforms and content sharing has allowed Bangladeshi culture and media to reach a global audience. This has accelerated the creation and distribution of digital content, including music, films, and literature (*Rahman*, 2016a).

Economic Growth and Entrepreneurship

Globalization has contributed to Bangladesh's economic growth, which, in

turn, has fueled digitalization. The country's expanding middle class and increased purchasing power have created a growing market for digital products and services. This has led to entrepreneurship and innovation in the digital sector (Khatun et al., 2020).

International Best Practices and Standards

Globalization exposes Bangladesh to international best practices and standards in digitalization. To participate in the global economy, the country has had to align its digital infrastructure and policies with international norms, which has resulted in improvements in digital governance (Ahmed & Islam, 2019).

In summary, globalization has significantly influenced digitalization in Bangladesh by facilitating technology access, fostering international collaboration and investment, promoting cultural exchange and content creation, driving economic growth, and encouraging the adoption of international best practices and standards. These factors have collectively propelled the country's digital transformation and development.

10. Challenges and Opportunities for Record Keeping

1) Technological Challenges

Limited Technological Infrastructure: Many organizations in Bangladesh, especially smaller entities, face challenges in adopting digital record-keeping due to limited access to technology and the internet (Ahmed et al., 2018).

Data Compatibility and Interoperability: Ensuring that different digital record systems can communicate and exchange data seamlessly remains a significant challenge (Kim & Weaver, 2017).

2) Cultural and Organizational Challenges

Resistance to Change: The transition from paper-based to digital record-keeping often faces resistance from employees who are accustomed to traditional methods (Ahmed et al., 2018).

Lack of Awareness and Training: Organizations must invest in training programs to equip their staff with the necessary skills to manage digital records effectively (BASIS, 2020).

3) Benefits and Opportunities

Efficiency and Accessibility: Digital record-keeping offers the potential for more efficient information retrieval and accessibility, leading to increased productivity (Ahmed et al., 2018).

Cost Savings: Over time, organizations can realize cost savings through reduced storage and administrative expenses associated with paper records (Kim & Weaver, 2017).

So, these are some key challenges and opportunities associated with record-keeping in the digital age, especially within the context of Bangladesh.

11. Recommendations

1) Strengthening Legal Frameworks

Data Protection Legislation: Ensure that data protection legislation, such as

the Personal Data Protection Act, is effectively enforced to safeguard the security and privacy of digital records.

Alignment with International Standards: Align legal frameworks with international standards, such as ISO 15489, to ensure that records management practices in Bangladesh meet global best practices.

2) Enhancing Data Security Measures

Cybersecurity Training: Develop and implement cybersecurity training programs for organizations to educate staff on best practices for protecting digital records from cyber threats.

Data Encryption: Encourage the widespread adoption of encryption techniques to secure sensitive digital records during transmission and storage.

Regular Audits: Establish a system for regular audits of data security practices within organizations, ensuring compliance with legal requirements and industry standards.

3) Capacity Building and Training

Skills Development: Invest in ongoing skills development and training programs to equip employees and professionals with the knowledge and skills necessary for effective digital record management.

Awareness Campaigns: Promote awareness about the benefits of digital record-keeping and the importance of compliance with legal requirements through public awareness campaigns.

Collaborative Training: Encourage collaboration between government agencies, educational institutions, and industry associations to provide comprehensive training and support.

4) Promoting Best Practices

Establish Best Practice Guidelines: Develop and disseminate best practice guidelines for digital record-keeping that can serve as a reference for organizations across various sectors.

Peer Learning and Sharing: Facilitate knowledge sharing among organizations by encouraging them to share their successful strategies and experiences in implementing digital record-keeping best practices.

Recognition and Incentives: Recognize organizations that excel in digital record-keeping and offer incentives to motivate others to adopt similar practices.

So, the abovementioned recommendations aimed at addressing the challenges and capitalizing on the opportunities associated with digital record-keeping in Bangladesh. These recommendations cover legal frameworks, data security, capacity building, and the promotion of best practices to foster a more robust and effective digital record-keeping ecosystem in the country.

12. Conclusion

In conclusion, this research paper has delved into the intricate realm of digital records and their juridical ramifications within the context of Bangladesh. Through an exhaustive exploration of the current state of digital record-keeping, the legal implications, challenges, and opportunities, this study offers valuable

insights into a rapidly evolving landscape. The research findings underscore the significance of digital records in contemporary society, with digitalization efforts gaining momentum across various sectors in Bangladesh. Challenges related to technology infrastructure, data security and cultural change have been identified as barriers to seamless digital record-keeping adoption. However, there are notable opportunities for efficiency gains and cost savings through digital record management. The recommendations put forth in this research paper, encompassing the enhancing data security measures, capacity building, and the promotion of best practices, serve as a roadmap for policymakers, organizations, and legal practitioners to navigate the digital record-keeping landscape effectively. As we move forward, it is imperative to recognize the transformative potential of digital records while addressing the associated challenges. Embracing modernization in record-keeping practices is not only essential for efficiency and accessibility but also for upholding the legal integrity of evidence presented in the juridical system. Ultimately, this research contributes to the ongoing dialogue on digital record-keeping in Bangladesh, fostering a more secure and efficient future for information management and legal proceedings in the digital age.

Conflicts of Interest

The author declares no conflicts of interest regarding the publication of this paper.

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