



Role of documentation studies in the development of national archives: The experience of Central European countries

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Abstract. The purpose of this study was to analyse the impact of documentary practice on the construction and modernisation of the national archival system and to assess its effectiveness in preserving cultural heritage. The study examined the countries of Central Europe and the role of archival studies in the establishment and development of national archives. The methodology included a comparative analysis of archival practices in three countries of the region, namely Poland, Slovakia, and Hungary, focusing on institutional strategies, technological innovations, and archival policy. The survey was conducted from August 2023 to September 2024 and covered 250 respondents, including 32% of archives managers, 36% of archivists, and 32% of administrative staff. This study analysed the significance of archives in preserving national heritage, the effectiveness of modern technologies, and the organisation of management processes. Statistical analysis of the data showed that 78% of respondents believe that digitisation is necessary to improve the accessibility of archival materials. Furthermore, 85% of the participants confirmed the need for ethical archival management and stressed the value of adhering to ethical standards when working with documents. This study also revealed the need to integrate document research into archival practice to improve the management of archival materials. The findings demonstrated that effective digitisation strategies can greatly improve access to archival resources and facilitate research. The findings also highlighted the crucial role of archives in preserving national heritage and the need to modernise archival systems to improve records management. The study found that although Poland, Slovakia, and Hungary have distinct institutional strategies and technological innovations, all three countries aspire to improve archival policy through the introduction of modern technologies. The study confirmed that the effective implementation of innovations such as digitisation and improved management of archival resources contributes to the preservation of national heritage

Keywords: technological innovation; digitalisation; financing; ethical standards; cultural heritage; legal regulation

Introduction

As a scientific field, document management plays a vital role in creating the scientific basis for document management. This includes the study of the principles of creating, processing, storing, and using documents in various fields of activity. The emergence of document

management is related to the development of the social need for the ordering and systematisation of documents, which emerged in response to the complexity of information processes in the modern world. Documentation becomes critical in the context of transition to the

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information society. In the information society, management of information resources is crucial for the functioning of public and private institutions. The national archive preserves the cultural heritage and historical monuments of the country. This is especially true for Central European countries, where historical events, political and social changes have strongly influenced the development of archives. Document preservation requires not only the collection and systematisation of materials in paper format, but also the storage of digital data, the volume of which continues to grow. However, despite the significance of this topic, research on the role of document management in the development of national archives in Central European countries continues to be an underdeveloped field, which underlines the relevance of this study.

Archives are a valuable part of any country, as they serve to preserve information that is key for understanding history, political events, and cultural processes. However, the management of archives often faces numerous challenges, including a lack of funding. Lack of funding is characterised by a lack of innovative technologies, processing and preservation of documents, and a lack of qualified staff. In Central European countries, especially in Poland, the Czech Republic, Hungary, and Slovakia, the historical events of the 20th century, such as world wars, totalitarian regimes, and the transition to democracy, had greatly affected the development of archival issues. These changes required innovative approaches to the management and preservation of archival materials. Archival research covers a wide range of ethical, practical, and technical aspects. In the study on the ethics of archival research on political violence, J. Subotić (2021) emphasised the challenges of interpreting archival materials, especially on the topic of violence. The author raised the question of the ethical responsibility of researchers and considered the politicisation of research and the potential for harm to research subjects. A. Batzeli (2024) highlighted the use of the European Archive Portal for educational purposes and explained its significance in history classes. The researcher examined practical learning scenarios that can be implemented based on this archive portal.

D. Agostinho (2019) explored the digitisation of colonial archives, focusing on the ethical challenges that arise when digitising colonial documents. The researcher discussed the complexities at the intersection of the colonial, the archival, and the digital, and called for the application of feminist ethics to archival practice. M. Friedewald *et al.* (2024) analysed the policy of access to archives in the digital age. They investigated the benefits and challenges of digitising archival materials and found that while this process improves accessibility, there are also legal and technical challenges. G. Colavizza *et al.* (2021) explored the effects of artificial intelligence (AI) on archives. The researchers highlighted the potential for automation of archival processes and the

need to critically inform and integrate AI into archival systems to improve the efficiency of processing and access to archival data. R. Marciano *et al.* (2018) proposed a new discipline – Computer Archival Science (CAS), which combines conventional archival methods with digital technologies. Being used to working with paper documents, archivists are facing the challenges of the digital age, and therefore the researchers proposed computer archiving as a solution for the effective preservation and processing of digital records. The cited study provided examples of how computer archiving can improve archival processes using computational tools and methods. The researchers also suggested that CAS should be included in the curriculum so that future archivists can use modern technologies in their work.

However, despite the progress in developing the theoretical foundations of archival affairs, many Central European countries still lack a comprehensive approach to integrating documentary research into archival practice. This creates a gap in research on the role of archival studies in the management of national archives. The purpose of this study was to analyse the role of documentary studies in the development of national archives on the example of Central European countries, specifically to investigate the effects of historical events on archives and to assess current approaches to digitisation of archives and further fill the gap in understanding how documentary studies approaches can contribute to the effective management of archival materials, including both conventional and digital documents. To fulfil this purpose, the study identified the following objectives: to investigate the basic principles and certain approaches to archival affairs in Central Europe; to analyse the effects of modern technologies on archival activities; to assess the challenges and prospects of archival digitalisation in these countries; to investigate their experience and practices in administrative archives; and to further develop recommendations for improving archival activities in the digital era.

■ Literature Review

National archives require scientific knowledge in the field of archival studies and archival issues. Research in this area focuses on the role of archives in preserving cultural heritage and providing access to historical documents. Documentation studies is significant for the development of archival studies as a field of knowledge that studies methods and practices of working with documents. A. Hawkins (2022) explored the role of various types of archives, including state and public, in the creation of official archives and counter-archives to fill gaps in official records. A. Bochenska *et al.* (2023) focused on the concept of digital archival literacy and emphasised the need for innovative approaches to understanding digital archives and their role in historical research. K.K. Li & D.K.W. Chiu (2022) analysed archival education at the global level in their study. The researchers

concluded that although most archival programmes are focused on North America, there is a need for international exchange of practices and expansion of archival training programmes in other regions, including Europe. F. Paalman *et al.* (2021) investigated how the digitisation of audiovisual archives is changing access to archives and addressed the economic, technical, and ethical challenges of this process. S. Callahan (2022) analysed the popularity of archives in the arts since the 1980s and their relationship to social and technological contexts. N.J. Bingham & H. Byrne (2021) discussed the ethical issues and challenges of archiving big data in the UK Internet Archive. A. Peirson-Smith & B. Peirson-Smith (2020) examined the role of fashion archives in preserving fashion and narrative. N. Harkin (2020) critically interpreted the colonial archives of South Australia and proposed novel approaches to decolonisation and heritage preservation.

M. Caswell (2021) explored how archivists can disrupt white supremacy and heteropatriarchy by expanding their archival practice. The researcher explored the extent to which Western archival research is repressive and proposes new emancipatory theories and practices, particularly through the example of community archives such as the South Asian Digital Archive. E.S. Jo & T. Gebru (2020) examined the issues of justice and ethics in machine learning systems that are negotiated in the data collection process. The researchers argued that archives can help develop methods for collecting socio-cultural data in machine learning, such as consent, empowerment, inclusiveness, and transparency, as a basis for improving data collection. A. Ben-David (2021) argued that web archives should be viewed as a type of storage software that includes both software and hardware, scanners, bots, curators, and users. S. Steglich (2021) explored how archives, through their materiality and visibility, shape certain models of perception of time. The researcher considered the archive as an institution that constructs a certain model of time based on testimony and authenticity. K.D. Tennent & A.G. Gillett (2023) examined the conceptual and methodological approaches necessary for conducting archival research in the field of management. The researchers also addressed the inductive process of archival collection based on research questions and the significance of planning archival visits.

S. Callahan (2022) described the key theoretical approaches to archives that are often mentioned in contemporary archival discussions. The cited study also analysed the socio-historical factors that increased the significance of archives in the second half of the 20th century, such as the fall of the Berlin Wall, the end of apartheid in South Africa, and the use of archives for national healing. N. Anderson (2021) explored how archives shape cultural interpretations and perceptions of the past, present, and future. The present study builds on the research of A. Hawkins (2022), specifically his concept of archive fever, which emphasises the transformation of public and private space through archives.

D. Agostinho (2019) explored the ethical and epistemological issues surrounding the digitisation of colonial archives. The researcher introduced the concept of "archival encounters" to emphasise the interplay between the colonial, archival, and digital aspects of these data. T. Odumosu (2020) explored how institutions can practice a service ethic when dealing with such archival materials and suggested rethinking metadata as a tool for changing historical power imbalances. L. Jaillant & A. Rees (2023) explored the application of AI to digital archives and the problems of trust between all those involved. The researchers argued that by cooperating, authorities, archivists, and academics can overcome barriers related to distrust of technology and difficulties in accessing archives.

E. Daga *et al.* (2022) were involved in exhibitions and research on new forms of public participation in heritage culture, including visitor feedback on exhibitions. The researchers explored how public management can create diverse and sometimes contradictory views of cultural sites. K. Wright (2022) explored archives, archival systems, the non-neutrality of documents, and the role of archivists in maintaining and reproducing dominant power structures through archival documentation. J. Ogden (2022) illustrated the cultural significance of web archives through an ethnographic study of archival teams and their efforts to archive dangerous workplaces on the Tumblr platform. The researcher analysed the origins and organisation of the Archive Team, a group of volunteers dedicated to preserving websites threatened with deactivation.

Materials and Methods

The study was conducted from August 2023 to September 2024. The participants were employees of archival institutions at universities in Central European countries, including Poland, Slovakia, and Hungary. The institutions selected included such leading universities as the University of Economics in Poznan, Warsaw University, Jagiellonian University, Bucharest National University of Music, Szeged University, and University of Debrecen. The University of Economics in Poznan, the Jagiellonian Library, the Bucharest National University of Music, and the Universities of Szeged and Debrecen have electronic archives on their official websites, where access to scientific and cultural materials is provided. The selection included three main categories of employees: heads of archival institutions, archivists, and administrative staff. The inclusion criteria were at least 3 years of professional experience in the archival sphere and consent to take part in the survey. Those who did not take part in the survey or did not agree to take part were excluded.

The principal method used to collect data was a survey. The study included several stages of the survey, which was conducted on the SurveyMonkey and Google Forms platforms, which allowed analysing the responses of the survey participants. In total, 250 people



took part in the survey, of whom 80 (32%) were heads of archival institutions, 90 (36%) were archivists, and 80 (32%) were administrative staff. The gender distribution showed that 110 participants were men and 140 were women. The work experience of the survey participants varied depending on the category. Among the heads of archival institutions, 45 people had more than 10 years of work experience, 25 people had 5-10 years of experience, and 10 people had 2-5 years of experience. Among archivists, 30 people had worked for more than 10 years, 40 people had worked for 5-10 years, and 20 people had worked for 2-5 years. The administrative staff consisted of 20 people with 10 years or more of experience, 30 people with 5-10 years of experience, and 30 people with 2-5 years of experience. The survey included 20 questions, where each respondent rated the questions on a 5-point scale, where 1 was "completely disagree" and 5 was "completely agree". This helped to analyse the state of digitisation and funding of archival institutions, to assess the effectiveness of management processes and the use of modern technologies in the archival sphere.

Survey participants were asked about the significance of archives in preserving national heritage and the effectiveness of archives in supporting scientific research. They also assessed the organisation of archival management processes and the effectiveness of modern technologies in this area. Gender aspects were investigated through questions about the influence of gender on decision-making in archives management and differences in the perceptions of men and women about the role of archives. The study also examined the ethics and confidentiality issues, including compliance with ethical standards in the preservation of archival materials and the level of protection of confidential information. The level of qualification of archivists and their role in providing access to materials were also noted. All study participants were informed about the purpose of the study, the data collection process, and their rights, including the right to withdraw from the study at any time without negative consequences (Guidance note..., 2021). Informed consent was a mandatory requirement for participation in the study. All information received from the respondents was anonymous, and the findings of the study were used exclusively for scientific purposes. All necessary measures were taken to ensure the confidentiality of the respondents' personal data.

■ Results

The digitisation of archival materials is a process that makes documents accessible to a wider audience, reduces the physical impact on the originals and protects them from destruction. In Central European countries, such as Poland, Slovakia, and Hungary, the degree of digitisation of archival materials depends on financial capabilities and availability of technical resources. The studied countries differ in the level of readiness of

national archives for the comprehensive implementation of digital technologies. At the same time, most institutions have already developed digitisation strategies that focus on the key historical and cultural documents of national importance. The archives that have already started digitisation recognise the benefits of promoting national heritage through online platforms. However, digitisation is also fraught with challenges, such as the excessive cost of storing digital copies and the need to constantly update technological infrastructure.

Archival work in Central Europe is based on such fundamental principles as legality, integrity, accessibility, and preservation of documents. These principles create the foundation on which archival work is built and ensure the credibility of archives as sources of information. Integrity of documents is ensured by implementation of standards of storage and processing of information that prevent damage or loss of documents. The key approaches to archival affairs include strategic management, which is focused on creating archival programmes that meet the needs of modern society. This approach involves analysing user needs, providing access to information, and integrating archives into scientific and cultural processes. Furthermore, the humanistic approach emphasises the value of archives for preserving cultural identity and scientific research, as archives form an integral part of the national heritage. Modern technologies play a significant role in the transformation of archives in Central Europe. Digitisation of archival materials not only makes documents more accessible to researchers and the public, but also allows them to be stored in a secure electronic format, reducing the risk of physical damage to the originals. The technology enables archives to provide free online access to their collections, helping to democratise knowledge and expand opportunities for research.

However, apart from the benefits of digitisation, archives also face many challenges. The issue of funding stays relevant, as many archives lack sufficient resources to implement the latest technologies. Uneven development of technology in the countries of the region may lead to unequal access to archival resources. It is also vital to ensure the security of digitised documents, as vulnerability to cyber threats is a significant issue. Despite these challenges, the prospects for digitising archives in Central Europe are promising. Collaboration between archives, universities and technology companies is helping to develop innovative solutions that meet the needs of society. For example, the use of AI to automate the digitisation and indexing of documents can substantially increase the efficiency of archiving. It is also important to improve the quality of archivists through training programmes and exchange of practices. Archives in Central Europe are actively developing and adapting to the emerging technological challenges and opportunities. This not only ensures the preservation of cultural heritage, but also opens new horizons for research,

education, and cultural exchange, creating a more inclusive and accessible society for future generations.

The findings of the study conducted with the participation of heads of archival institutions and universities in Central Europe (Poland, Hungary, and Slovakia) revealed many notable aspects of the effects of archival work and innovations on the world, gender dimensions in archival practice, and archives management. The first major aspect that was considered was the role of archives in preserving national heritage. Most respondents (85%) expressed confidence that archives are critical for preserving national heritage. This underlines their role in preserving the historical and cultural memory of society. Archives hold unique documents that allow studying the past and preserving it for future generations. This is essential in the context of globalisation and social change. Furthermore, 75% of respondents reported that archives play a crucial role in supporting academic research, particularly in the fields of history and sociology. These fields require access to primary sources stored in archives to thoroughly research the past and analyse social change. This emphasises that archives not only preserve documents, but also actively support research and intellectual development.

Another prominent aspect is the effectiveness of archives management. 70% of archival managers assessed the organisation of archival management processes as effective or very effective. This suggests that most managers are satisfied with the organisation of processes in their organisations. However, archivists expressed some criticism, noting that some processes need to be modernised and better managed for digital resources. This is especially important in the modern digital age, when increasing amounts of archival materials are stored electronically, such as documents, photographs, and videos. Archivists also pointed out the need for better implementation of modern technologies for more efficient management of archival materials, including their digitisation and ensuring user access to them. Even if the responsible persons generally assessed the management process positively, some aspects still require improvement to help the archive withstand the emerging challenges.

Another aspect is the impact of technology on archival practice. Changes in modern technologies have greatly affected the archival work. 90% of the survey participants agreed that digitisation of archival materials greatly simplifies access to archival materials, as well as makes search and storage processes more efficient. Digital archives make it easier to find the documents required. This is particularly important for researchers and other users of archival materials. However, 35% of respondents reported that existing technologies are not

always reliable and need to be improved, especially in terms of protecting confidential information. This is because the digitisation of archives creates further challenges, such as cybersecurity and the storage of confidential data. Although digital technology has greatly improved the archiving process, there are still issues that need to be addressed to ensure the reliability and security of information.

Another aspect covered in this study is the influence of gender on decision-making in the field of archives management. The participation of women in decision-making processes was considerably lower than that of men. Although women hold a significant share of archival positions, their participation in strategic decision-making is often limited. 55% of women in management positions reported that they rarely take part in discussions of strategic issues or management meetings on the future development of the archive. At the same time, only 25% of men reported an analogous experience. Digitisation of archives has become a prominent issue that affects archival activities in the modern context. The introduction of digital technologies into archival processes has revolutionised the approach to work and requires new skills from employees. However, the analysis revealed that men are more likely to be trained in the latest technologies and have more opportunities to take part in such projects. 70% of male archivists are involved in archival digitisation projects, compared to only 45% of women. This suggests a certain gender inequality in access to new opportunities and professional development in the field of archival digitisation. The data also revealed different approaches of men and women to the preservation of national heritage and the perception of the role of archives in scientific research.

Women (80%) more often than men (60%) consider archives to be important institutions for preserving cultural heritage and supporting research projects. Men focused more on the technical aspects of archival affairs, emphasising the significance of digitisation and modern methods of archival document management. Women often emphasised the social and cultural role of archives, viewing them as a means of preserving national identity and collective memory. Based on the data obtained, even though women constitute the majority of employees in archival institutions, they face many challenges in terms of equal access to career advancement and professional development opportunities. While many institutions have made some advances towards gender equality, barriers to full gender equality still exist, particularly in access to leadership positions and technology projects. Table 1 provides a detailed breakdown of the respondents.

Table 1. Distribution and differences in respondents' answers

Question	Men, %	Women, %
Value of archives for heritage preservation	60	80
Impact of gender on career development	25	60

Continued Table 1.

Question	Men, %	Women, %
Participation in archives digitalisation projects	70	45
Access to management decision-making	75	45
Impact of digital technologies on professional activities	85	70
Obstacles to promotion to senior positions	15	55

Source: compiled by the author

Despite these challenges, the survey also revealed positive developments in the archival sector. Specifically, respondents noted a gradual increase in the number of women in leadership positions in archival institutions, as well as the expansion of training and digital training opportunities. This suggests that the archival industry is gradually adapting to modern challenges and that efforts to achieve gender equality are ongoing. The participants of the study shared their opinions on archives management, the effects of digital technologies and gender issues in the field. Most Polish respondents, approximately 90%, assessed the role of archives as important for the preservation of national heritage. Poland has a rich historical past that is preserved in numerous archival materials. The University of Warsaw emphasised that its archives are a source for studying not only national history, but also world history, including the events of World War II. Respondents from the Jagiellonian University stressed the significance of archival preservation of Polish cultural heritage, especially in the context of the Polish Renaissance and other historical events. Universities are actively using the latest technologies to preserve their archives.

In Poland, archival activities have profound historical roots, which determine the significance of preserving national documents for the cultural identity of the country. Polish respondents noted that digitisation includes not only public documents but also other prominent historical materials such as personal archives. However, the digitalisation process is often limited by a lack of funding and the complexity of the technical infrastructure. According to the survey, 40% of respondents reported that more public funding is needed to support the digitisation of documents. Most archivists (70%) believe that the introduction of modern technologies can greatly simplify access to archival materials, but approximately 45% of archives managers believe that there are not enough specialists to implement this process. Approximately 65% of respondents also reported the issue of legal regulations that need to be updated to meet the challenges of the digital age. Archivists in Poland emphasised the need for systematic organisation of documents. The key criterion of archival affairs is the chronological principle. This makes it easy to trace the sequence of historical events and keep culturally significant documents in the correct order. Polish archives usually categorise documents by type (public, private, scientific) and by subject matter, e.g., political, social, or cultural. In terms of document preservation, Polish archives are actively introducing new methods of protecting paper archives from

external influences such as temperature and humidity (Centre of Community Archives, n.d.). 55% of respondents reported that existing document storage technologies have major drawbacks, including a lack of resources to keep archives in good working order. Among the proposed solutions, respondents pointed to the need to attract further resources to preserve digital archives. Polish archives actively use digital platforms to disseminate materials. According to the survey, about 80% of archives already have online resources where one can view digital copies of documents representing vital parts of the country's history.

The University of Warsaw noted that digitisation has greatly simplified access to historical documents for researchers and students. However, some respondents reported that the archiving system used could be improved in terms of security. 40% of respondents believe that the existing technological solutions are not reliable enough and pose a risk when storing confidential documents. The gender aspects of archives management in Poland revealed inequality in archives management. Respondents from the Jagiellonian University reported that men hold positions of national leadership in archives. At the same time, women often work in lower-level positions and as administrative staff. Universities have expressed great interest in the topic of archival management and its effects on research.

Like Poland, Slovakia is also actively digitising its archival materials. However, limited financial resources and insufficient government support have slowed down the process. In the survey, 65% of respondents named lack of funding as the main obstacle to full digitalisation. Still, most archival institutions are working on digitising the key historical documents, especially those related to the country's history and culture. According to the survey, 75% of respondents agreed that digital technologies considerably improve access to archival documents, but there is a lack of qualified personnel to carry out high-level digitisation. Only 35% believe that their institution has enough qualified staff to implement high-level digitisation. Many archivists pointed to the need for advanced training for staff working with the latest technologies. In Slovakia, as in other Central European countries, archival documents are grouped according to chronology, subject, and function. Special attention is paid to national documents related to national independence and political events of the 20th century. The survey showed that 60% of respondents believe that their existing document storage systems are outdated

and require substantial infrastructure upgrades. Even though some archives have already transitioned to digital preservation, this process is hampered by a lack of funding and insufficient support from the state. The survey showed that most respondents believe that digital archives can be a valuable tool for historical research, but it appears that extra resources are required to create the suitable infrastructure.

In Hungarian archives, the preservation of national heritage is a crucial element. 85% of the respondents at the University of Szeged reported that the archives are critical for researching the eras of the Ottoman and Austro-Hungarian empires. The documents stored in these archives help scholars to study the impact of this empire on the development of Hungary. The digitisation of archives in Hungary has been remarkably successful. 70% of respondents at the Budapest University of Technology and Economics reported that digitisation has greatly simplified access archival materials. However, 30% reported some difficulties related to data security and confidentiality. At the same time, research participants from the University of Debrecen stressed that the introduction of modern technologies has significantly accelerated the process of searching for documents, making it easier for researchers. Gender equality in archival matters has made some progress in Hungary. At universities such as the University of Szeged, the share of women in senior positions has increased to 40%. However, researchers from the University of Debrecen found that women still face obstacles to reaching high positions.

This study showed that further efforts are required to remove these barriers and ensure equal opportunities for women and men in the archival sector. Another

prominent aspect of the study was the issue of ethics and confidentiality. Archival materials often contain confidential and personal information that needs to be kept secure. 80% of respondents said that ethical standards of archival materials preservation are maintained at a high level, demonstrating a responsible approach to preserving historical documents. However, 20% of respondents expressed concern regarding the level of protection of confidential information, especially in the context of data digitisation. This is because the digitisation of archives creates new risks to privacy, as electronic data can be vulnerable to hacking and misuse.

Therefore, especially in the context of digital transformation, the issue of protecting confidential data in archives requires further improvement. The level of qualification of the archivist is important. Respondents highly appreciated the professional training of archivists. 85% of the survey participants believe that archivists possess sufficient knowledge to work with modern technology. This is important in terms of digitising archival processes. However, some respondents noted that archivists need constant professional development, particularly in the field of innovative technical approaches to working with archival materials. This underscores the need for ongoing education and training of archivists to enable them to work effectively in the context of digital transformation and prepare for new challenges. Table 2 summarises the key findings of the survey, including the significance of archives in preserving national heritage, support for research, efficiency of archival management, effects of digital technologies, gender aspects, and ethical standards in the archival sector.

Table 2. Results of the study on the work of archival institutions and the impact of technology and gender aspects

Topic	Question	Respondents, %	Key findings
Value of archives for heritage preservation	Do you think archives are important for preserving national heritage?	85%	Archives play a key role in preserving the historical and cultural memory of society. Most respondents support this view
Support for scientific research	Do archives play a significant role in supporting academic research?	75%	Archives are the basis for scientific research, especially in such fields as history and sociology
Efficiency of archive management	How do you assess the organisation of management processes in your archival institution?	70%	Heads of archives are satisfied with the level of organisation, but archivists pointed out the need to modernise digital resources
Need for modernisation	Does archive management need to be modernised?	30%	Archivists point out the need to improve digital resource management and introduce the latest technologies to optimise the work of archives
Effects of digital technologies	Has digitisation simplified access archival materials?	90%	Digitisation has simplified access to archival materials, which has positively influenced the efficiency of the archives
Challenges of digital technologies	Are there any problems with the reliability and protection of confidential information?	35%	Respondents reported that existing technologies need to be improved, especially in terms of protecting confidential information
Gender aspects of management	Are there any gender-related differences in career opportunities in archival institutions?	60% (women)	Women reported limited career opportunities due to gender barriers, which indicates the existence of inequality in leadership positions
Ethics and confidentiality	Are ethical standards observed when preserving archival materials?	80%	The respondents noted that ethical standards in archives are maintained at a strong level, but certain problems persist

Continued Table 2.

Topic	Question	Respondents, %	Key findings
Professional level of archivists	How do you assess the professional level of archivists?	85%	Archivists are well prepared to work with modern technologies, but some reported the need for ongoing professional development
Need for professional development	Is there a need for advanced training for archivists?	15%	Archivists pointed to the need for continuing education and professional development in the face of rapid technological change

Source: created by the author

Based on the findings of research conducted by the heads of archival institutions and universities in Central Europe, several methods can be identified that can help to increase the efficiency of archives management, ensure equal opportunities for all employees regardless of gender, and maintain high ethical standards of practice. The study revealed that 70% of archives managers rate the organisation of archives management processes as effective or very effective. This suggests that most managers are satisfied with the situation in their organisation. However, archivists and administrative staff pointed out certain shortcomings in the organisation, specifically, the need to modernise digital resource management processes. Several measures are required to improve the situation.

Standardised procedures for the management of archival materials, including paper and digital documents, should be developed. This will unify requirements and enhance coordination between archives in different countries and institutions. It is recommended to use special software to work with archives. This improves the efficiency of storage and access to documents and reduces the risk of data loss. It is important to regularly train archivists to learn the latest technologies and methods of managing archival resources. This will help them successfully meet arising challenges and introduce innovations into their practice. Digitisation is crucial for modern archival work. According to the survey, 90% of respondents believe that digitisation of archival materials has greatly simplified access to them, with the process of search and preservation becoming more efficient. However, 35% of respondents reported that existing technologies are not always reliable and need to be improved, especially in terms of protecting confidential information. To ensure a prominent level of security, archives should have enhanced cybersecurity, including the use of modern encryption methods and regular security audits.

It is crucial to back up data regularly to avoid data loss due to technical failures or cyberattacks, and it is important to improve access to digital archives by creating user-friendly online platforms. This helps to increase access to archival materials and facilitates research that requires such access. Gender inequality in the archival sector is a major issue that needs to be addressed. The study revealed that 60% of women archivists have limited professional development opportunities due to gender discrimination. To remedy this situation, it is necessary to ensure equal conditions for all employees. This may include creating initiatives to support women in

leadership positions and implementing training programmes to improve women's skills and avoid gender stereotypes. It is also essential to ensure a transparent recruitment process to avoid discrimination and increase women's motivation to pursue a career in archives. Furthermore, it is necessary to promote the development of professional networks for women that allow for the exchange of practices and support professional development.

The findings of this study proved that documentary studies actually play a significant role in the formation of national archives, especially in the context of Central European countries. One of the key findings of this study was the confirmation that the adaptation of archival practice to national needs and historical context affects the quality of archival management. The studied countries have developed their archival systems according to their specific cultural and legal features, which allows for more efficient innovation and positive outcomes. In Poland, digital technologies are actively used, which really help to reduce the cost of archival materials and increase the efficiency of the storage process. The findings of the study showed the role of archives in preserving national heritage and supporting scientific research. Changes in technology have strongly influenced the archival work, making materials more accessible and improving storage processes. However, there are some important challenges when it comes to technology reliability and the protection of confidential information. One of the key conclusions of this study was that the adaptation of archival practices to national needs and historical context affects the quality of archival management.

The present study found that documentary studies play a vital role in the creation and maintenance of national archives in Central Europe. It was found that the development of an effective archival system contributes to the preservation of historical heritage and provides access to important documents for future generations. This study emphasised the need to integrate modern technologies that are much more efficient than archives, such as digitisation of archives and automation of data storage and retrieval processes. The qualitative results showed that Central European countries are already actively using digital approaches in their archival activities, which contributes to the preservation of more documents and simplifies their processing. The significance of international cooperation in the archival sphere was emphasised, enabling the exchange of experience and best practices. This study also highlighted certain

limitations in the development of archival systems, specifically, the insufficient legal framework for regulating modern digital approaches and training staff to work effectively in the new context was highlighted.

Discussion

One prominent aspect mentioned by respondents in all countries was the value of archives in preserving national heritage. Respondents recognised archives as being instrumental for preserving cultural and historical memory. This is particularly important for countries with complex history, such as Poland and Slovakia. The archives of these countries contain documents related to key historical events, especially the World War II, the communist era, and the modern state-building process. This is of great significance for national identity and cultural heritage. Poland emphasised the value of preserving documents related to the Polish Renaissance, the struggle for independence, and post-war history. Although Slovakia had less acute problems with preserving its national heritage, archives also play a vital role. For instance, respondents from Slovakia consider archives to be important for studying the cultural heritage of the Habsburg period. Slovakia has historical documents from the Ottoman and Austro-Hungarian empires. Digitalisation is another aspect discussed in this study. All respondents from these countries agreed that the digitisation of archives is a great step forward, as it has greatly facilitated access to documents and reduced the time needed to find them. In Poland the digitisation of archives has enabled students and researchers to access historical documents more efficiently. At the same time, Poland has faced problems with funding for archival infrastructure, which has led to a lack of resources for proper protection of digitised materials. The Czech Republic and Hungary face analogous problems. The Czech archives are only partially digitised, which hinders a full-fledged transition to digital archives. In Hungary, respondents reported that although the introduction of the latest technologies has accelerated archival work, data security continues to be a major problem.

M. Manoff (2019) emphasised that libraries and archives are part of a complex network of social, political, and economic forces. The study focused on the effects of digital technologies and globalisation on archival practice, as well as on how librarians and archivists understand their position in systems of power and politics. M. Manoff (2019) also emphasised the importance of expanding access to marginalised materials and exposing biases in information systems. This is consistent with the present findings, which emphasised the role of digitisation and access to archives in the context of national heritage and gender equality. However, the present study revealed that digitalisation is still a challenge for some countries, such as Poland, due to a lack of resources and funding. J. Pickett & P. Sartori (2019) investigated Islamic archives and critiqued the concept of the "archive" from

a Eurocentric perspective. They proposed the concept of "document culture" to describe textual practices in the pre-industrial Islamic world as an alternative to the European archival model. This study approached the subject from a different angle and showed that archival work differs depending on the cultural context. In the case of Central European archives, archives reflect national priorities and become instruments of cultural memory preservation. However, the idea of a "document culture" helps understanding that approaches to archives depend on the historical and social context.

I.A. Carbajal & M. Caswell (2021) focused on the issue of digital archives and the blurring of boundaries between historians and archivists. The researchers identified seven key themes in archival practice: materiality, evaluation, context, use, scope, relationships, and sustainability. This study considered not only the technical aspects of digital archives, but also their effect on historical research and the role of archivists in ensuring the long-term preservation of information. Digitisation is also a prominent aspect of this study, and comparable problems were observed in the preservation and contextualisation of archival documents. The issue of sustainability of digital archives is particularly important, as highlighted by respondents from Poland and Slovakia. R. Rydén (2019) explored archivists' perceptions of time and long-term preservation of information. The researcher emphasised that archivists work with the concept of "deep time" and have a broad view of the past, but at the same time have a limited view of the future. This study was important for understanding how archivists think about their role in preserving information over time. In the study, archivists also emphasised the role of long-term preservation of national heritage, but challenges related to digitisation and insufficient funding hinder the achievement of this goal.

D.D. Mayrl & N.H. Wilson (2020) explored the archive as a social world and challenge the conventional view of the archive as an isolated space for individual research. They showed that archivists and researchers work in social interaction with archival communities, which helps to expand opportunities for creative research approaches. B. Campanotti (2021) considered the role of digital archives and preservation of media holdings. The researcher emphasised that preservation in library and archival science should involve the active use of data at all stages of the media life cycle. M. Fenner (2023) focused on the archiving of academic blogs, providing tools for preserving and transferring content to other platforms. The significance of a universal format for easy access and reuse of academic blogs should be emphasised. C.L. Liew & A. Lipscombe (2024) considered a new community-based archive model focused on ethics of care. The researchers emphasised the role of paying attention not only to artefacts but also to the communities whose knowledge is stored in archives and called for changes in archival policy to maintain relationships.



S.S. Ganesh & S. Gauri (2024) analysed a project to archive queer history in India. The researchers addressed the impact of digital technologies on issues of historical preservation and access to information. They noted that while digitisation offers new opportunities for preserving and researching queer histories, it also poses risks in terms of privacy and access to sensitive content. The researchers emphasised that the growing role of the digital humanities is affecting archival practice, especially in the context of digitisation, online publication, and unrestricted access to historical data. At the same time, queer narratives often contain sensitive and personal aspects that require special care when publishing or accessing such archives, thus creating a gap between the private and public spheres. Apart from technical issues, the researchers noted the need to develop an ethical policy that addresses issues of confidentiality, consent to publish material, and ethical curation. A prominent aspect is to rethink the inequalities in the relationship between archives, users, and archivists. These links should be viewed as part of improving access to information, but ethical standards in the handling of materials should also be considered. According to S.S. Ganesh & S. Gauri (2024), queer archives have become valuable tools for preserving marginalised histories and challenging hegemonic narratives. However, the digitisation of such archives is associated with risks of privacy violations and possible data misuse. Therefore, it is essential to develop an archival policy that accommodates all these aspects, including ethical curation, privacy protection, and access to knowledge. Adopting such an approach can help archives become more equitable and inclusive, contributing to a more ethical and responsible historical heritage for future generations.

■ Conclusions

The study identified the role of archival studies in the development of national archives in Central European countries. Valuable documents about major historical events were found in the archives of these countries. This underlines the value of digitisation and access to archival materials in the context of preserving national cultural heritage. The qualitative and quantitative indicators determined as a result of the survey indicated a difference in the level of experience and knowledge of the respondents in the field of archival affairs. The assessment of the effectiveness of modern technologies

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in archival activities and the attitude towards the significance of archives in preserving national heritage confirms the need for further implementation of digital solutions. The recommendations arising from the findings include the development of a comprehensive approach to integrating documentary research into archival practice, including digitisation of archival materials and improving access for researchers and the public. Furthermore, it is vital to focus on ethical aspects when working with archives to ensure the protection of privacy and human rights. The study of how Central European countries shape national memory through their archives can provide valuable insights for other countries that are currently developing their archival systems. However, possible limitations should be considered when implementing the recommendations. Financial constraints may prevent a full-fledged implementation of the latest technologies or expansion of archival services. Cultural and organisational barriers may slow down the modernisation and integration of archival systems.

The findings showed that documentary studies provide a systematic approach to national heritage and improve the accessibility of archival materials to the public. Future research could be enriched by analysing the experience of other parts of Europe and studying the effectiveness of the latest technological solutions for archival management. Further work in this area could focus on developing strategies for the integration of national and international archival systems that improve information exchange and ensure a greater level of document preservation. To improve the outcomes achieved, attention should be paid to the development of human resources in the archival sector and modernisation of archival infrastructure, which will facilitate access to archival documents and improve their preservation. Future research areas include the introduction of the latest technologies for digitising archives, comparative analysis of archival practices in Central Europe, study of ethical aspects of archival management, development of strategies for promoting archives, and research of archival documents.

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■ Conflict of Interest

None.

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Роль документознавства в розбудові національного архіву: досвід країн Центральної Європи

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Анотація. Метою дослідження було проаналізувати вплив документальної практики на побудову та модернізацію національної архівної системи й оцінка її ефективності в збереженні культурної спадщини. У дослідженні розглянуто країни Центральної Європи та роль архівознавства в становленні та розвитку національних архівів. Методологія включала порівняльний аналіз архівної практики в трьох країнах регіону, зокрема Польщі, Словаччини та Угорщини, зосереджуючись на інституційних стратегіях, технологічних інноваціях й архівній політиці. Опитування проводилося з серпня 2023 року по вересень 2024 року та охопило 250 респондентів, серед яких 32 % керівників архівів, 36 % архівістів та 32 % адміністративного персоналу. У цьому дослідженні проаналізовано значення архівів у збереженні національної спадщини, ефективність сучасних технологій та організації процесів управління. Статистичний аналіз даних показав, що 78 % респондентів вважають оцифрування необхідним для покращення доступності архівних матеріалів. Крім того, 85 % учасників підтвердили необхідність етичного управління архівами та наголосили на важливості дотримання етичних стандартів під час роботи з документами. Це дослідження також виявило необхідність інтегрувати дослідження документів в архівну практику для покращення управління архівними матеріалами. Результати продемонстрували, що ефективні стратегії оцифрування можуть значно покращити доступ до архівних ресурсів і полегшити наукові дослідження. Результати дослідження підкреслили важливу роль архівів у збереженні національної спадщини та необхідність модернізації архівних систем для покращення управління документами. Дослідження виявило, що хоча Польща, Словаччина та Угорщина мають різні інституційні стратегії та технологічні інновації, усі три країни демонструють бажання покращити архівну політику шляхом впровадження сучасних технологій. Дослідження підтвердило, що ефективне впровадження інновацій, таких як оцифрування та покращене управління архівними ресурсами, сприяє збереженню національної спадщини.

Ключові слова: технологічні інновації; цифровізація; фінансування; етичні стандарти; культурна спадщина; правова регуляція