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e-IPH
e-International Publishing House Ltd., United Kingdom

**The 6th International Conference of Information Science**
**Avillion Port Dickson, Negeri Sembilan, Malaysia, 27-28 Jan 2025**
Organiser: School of Information Science, College of Computing, Informatics and Mathematics, Universiti Teknologi MARA, Shah Alam, Malaysia

# Information Policy Management for Effective Governance of Information Resources in Institutions

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**Abstract**
Information policy is a critical component of the information governance framework, particularly in managing organizational information resources. However, its presence within organizational structures remains underdeveloped, largely due to limited research in this area. This gap has hindered practical, methodological, and theoretical understanding. To address this, examining how information policy operates in real-world settings is essential, making the case study approach particularly appropriate. Investigating formal and informal organizational initiatives—alongside human and technological resources—can reveal how policies governing the creation, storage, use, and dissemination of information are developed and how they influence information management practices.

Keywords: Information management, Information policy, Information management policy, information governance


DOI: https://doi.org/10.21834/e-bpj.v10iSI27.6832

## 1.0 Introduction

Information governance (IG) is recognized as a "super-discipline" (Smallwood, 2014), encompassing processes, policies, roles, metrics, and standards that guide organizations in achieving their objectives through the effective management of information-related resources (Information Governance Initiative, 2018). IG establishes accountability at both organizational and individual levels for the creation, organization, security, maintenance, use, and disposal of information in compliance with internal policies and external regulatory requirements. For a governance structure to be effective, its implementation must be governed by well-defined policies addressing relevant information matters. Information policy, as highlighted by Orna (1999) and Faccioli et al. (2023), serves as a critical mechanism for controlling, regulating, and supporting organizational activities within the IG framework. Scholars such as Weingarten (1996), McClure (1996), and Goodyear (1993) have offered varying definitions of information policy, indicating its conceptual diversity. These policies may comprise a range of regulatory instruments including laws, rules, regulations, directives, norms (Weingarten, 1996; McClure, 1996), and strategic plans and actions (Orna, 1999)—that collectively govern access to, dissemination of, and storage of information. Such policies are vital in supporting the use of scientific and technical information within organizational settings, particularly concerning research and scientific activities.


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Information, like other key organizational assets, must be governed and managed through appropriate legislation, regulations, standards, and institutional norms. These policy instruments uphold the value of information across business, administrative, infrastructural, and educational domains (Nafziger & Schumacher, 2013). The creation, curation, and access of both functional and operational information are vital to organizational effectiveness and thus require clear regulatory oversight (Ekbia & Evans, 2009). Information management policy serves as a core mechanism within the broader information governance (IG) framework, aligning information-related practices with strategic goals while ensuring compliance, transparency, accountability, and integrity. This study examines the regulatory role of information management policy in guiding the implementation of information processes within an organization's IG structure. Despite its importance, both theoretical and empirical foundations remain limited. Existing studies (Saulles, 2007) provide only partial insights, with minimal attention given to policy through the lens of the information lifecycle at the organizational level. This study, therefore, aims to explore the operational reality of information management policy by examining information management initiatives within selected organizations. It seeks to assess the extent to which efforts are made to regulate, control, support, or restrict the use of information, the underlying drivers of these initiatives, and their organizational impacts. The findings are intended to assist governments, organizations, and policymakers in evaluating key elements of information policy, particularly those concerning human resources, information systems, and information assets that influence the structure and effectiveness of information governance within organizations.

## 2.0 Literature Review

Literature reviews reveal the evolving development of information policy and its relationship with the use and management of information over time. Scholarly discourse has predominantly focused on the structural, conceptual, and practical dimensions of information policy, highlighting its inherent complexity, the uncertainty surrounding its implementation, the various factors influencing its evolution, its impact on the information management lifecycle, and the limited maturity of existing research tools and methodologies.

Interest in information policy can be traced back to the 1970s, with early foundational work by Porat (1977), later refined by Duff (2004). During the 1980s and 1990s, literature diversified to cover a range of domains, including industrial policy, scientific and technical information, federal and government policy and the optimization of national resource utilization (Hanekom, 1987). Conceptual advancements also emerged, including frameworks on policy matrices, hierarchies, dimensions, and classifications (Trauth, 1986). From the 2000s onward, the scope of research expanded to include the implementation and influence of information policy across various sectors and disciplines. Studies increasingly examined the impact of information policy on organizational performance (Kasymova & Usmanova, 2015; Kang & Park, 2024), system development (Alsmadi & Zarour, 2015), transparent management and decision-making (Tseng, 2022; Faccioli et al., 2023), and the successful implementation of information governance frameworks (Muhammad et al., 2021; Mullon & Ngoepe, 2019).

### *2.1 Descriptive information policy vs Practical information Policy*

Despite extensive scholarly attention, three overarching themes define the complexity of information policy. First, it remains conceptually and empirically ambiguous, often described as nebulous due to its multifaceted, interdisciplinary nature. Second, it encompasses a diverse array of regulatory instruments—including laws, rules, standards, procedures, and professional codes—that influence, regulate, support, or constrain information use and management across sectors and hierarchical levels. Third, information policy functions within a dynamic cause-and-effect framework, simultaneously shaping and responding to its broader economic, technological, and social environment. Therefore, information policy should not be viewed solely through its legislative or procedural dimensions. Instead, its analysis must consider both conceptual uncertainties and the range of its practical impacts across disciplines and institutional contexts (Braman, 1989; Rowlands, 1996; Law et al., 2014). The field has evolved toward greater multidisciplinary integration, though its features remain inconsistently defined and comprise interrelated, often overlapping components (Namdarian et al., 2021; Muir & Oppenheim, 2017). Scholars such as Weingarten (1996), McClure (1996), and Orna (1999) describe it as encompassing formal and informal elements including norms, operational plans, and institutional directives that guide access, dissemination, and storage of information in support of organizational functions.

Beyond structural ambiguity, the value and impact of information policy are increasingly assessed through its influence on organizational effectiveness, governance, and broader societal outcomes. Research has highlighted its role in supporting information use (Ovrutsky, 2020), interdisciplinary collaboration (Rowlands, 1996), social development (Zawiyah et al., 2010), and sustainable governance (Faccioli et al., 2023; Abdullahi, 2015). Within organizational settings, information policy is recognized as a critical element of information governance, reinforcing the strategic treatment of information assets. It enables the application of standards, controls, and procedures to ensure responsible and systematic management of information across institutions (Muhammad et al., 2021, 2022; Wang & Zhao, 2022).

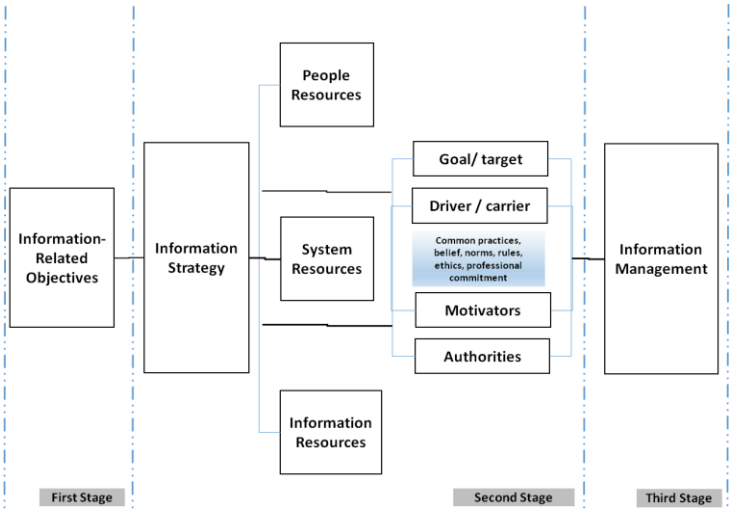
### *2.2 Information Management Policy Framework*

Without an established framework, this study draws upon the propositions of prominent scholars to derive key principles and components that inform the construction of a conceptual framework for information management policy. The proposed framework integrates elements deemed critical to the subject matter of the research. Weingarten (1996) offers a foundational perspective by defining information policy as the collection of public laws, regulations, and policies that govern, encourage, or inhibit the creation, use, storage, and communication of information. These encompass both formal and informal rules that directly or indirectly shape the flow of information. In alignment with this view, Goodyear (1993) emphasizes that policies concerning the creation, collection, storage, use, and dissemination of information

serve as the cornerstone of information policy. McClure (1996, p. 214) further articulates this position by defining information policy as "a set of interrelated principles, laws, guidelines, rules and regulations, directives, procedures, judgments, interpretations, and practices that guide the creation, management, access, and use of information." These definitions collectively illustrate both the instruments of policy and the range of information activities they address—elements essential for conceptualizing information policy, even though existing methodological tools remain underdeveloped. This scholarly foundation supports the development of a comprehensive framework tailored to the empirical exploration of information management policies in organizational contexts.

Rowlands (1996) proposed five methodological strands for studying information policy, notably emphasizing process-oriented research and case studies. This approach enables in-depth exploration of policy formulation, motivation, implementation, and outcomes within specific contexts, uncovering key explanatory variables. Faccioli et al., (2023) highlights how organizational, cultural, political, technical, and human factors shape policy development. Such methodologies guide research design, including units of analysis, fieldwork strategies, and tool selection. However, earlier studies often lacked robust policy frameworks, prompting refinement for this study. Complementing Rowlands, Orna (1999) introduced a multidimensional model that integrates human and system resources, offering a foundational lens for practical information management policy and its role in broader information governance. Figure 2 illustrates the interrelationships among these components, which collectively underpin the proposed framework for information management policy.

*Figure 2. The Organizational Information Management Policy Conceptual Framework.*




*Source: Adoption from Orna (1990), Weingertan (1996), and Tsuji and Choe (2004)*

| Information-related objectives | Information Strategy | Information Management |
|---|---|---|
| This stage involves identifying the agencies' statements of intent, particularly concerning the role of information within their functions and organizational hierarchies. The following elements are examined, though the list is not exhaustive:<br>1. General Objective Statements: These statements, often found at the organizational level, outline broad goals, guidelines, roles and are sourced from official documents or websites.<br>2. Explicit and Implicit Acknowledgements: Both overt and tacit declarations regarding the significance of information resources and the related actions involving their storage, dissemination, and use in agency operations. These serve as indicators of the agency's evolving information policy.<br>3. Operational Indicators of Intent: Intent is further reflected in job descriptions, departmental targets, and key performance indicators (KPIs), which are frequently shaped by professional responsibilities, individual commitment, and the pursuit of personal or organizational fulfillment. | The information strategy is comprehensively framed based on the following criteria:<br>1. It reflects the organization's strategic direction and commitment to managing its information resources in alignment with its overarching goals and objectives. This is achieved through the deliberate configuration of resources in response to dynamic internal and external environments, ensuring stakeholder needs and expectations are adequately addressed.<br>2. It is operationalized through organizational and departmental action plans, which guide personnel in achieving defined objectives and targets within specific timeframes.<br>3. The strategy encompasses people, systems, and information resources, which require a strategic plan and policy, regulations, standards, and actions to improve information management, facilitate effective information use, and strengthen employee practices to support the organization's information-related aims.<br>4. Information strategy may exist in two forms: one that is explicitly articulated, and another that emerges implicitly or in derivative form through organizational behaviors and practices. | 1. Information management broadly refers to the implementation of an information strategy aimed at achieving defined information objectives within the constraints of available resources.<br>2. It encompasses a wide range of actions, initiatives, and efforts undertaken at organizational, departmental, and individual levels. These activities span various stages of the information lifecycle, including creation, storage, use, and dissemination.<br>3. Certain initiatives may be context-specific, unique, or independent; therefore, they are thematically categorized based on their relevance to the specific organizational or operational setting. |

The proposed framework incorporates a range of additional factors that influence the scope and effectiveness of information management within organizations, thereby shaping the nature of information management policy. As highlighted by Weingarten (1996) and Goodyear (1993), these factors include both formal incentives and organizational "push" forces (e.g., Kang & Park, 2024; Kasymova & Usmanova, 2015; Nafziger & Schumacher, 2013), which serve as policy instruments with regulatory authority over information practices. Often informal or invisible, such drivers can facilitate or hinder the flow, use, and governance of information. While technology provides the infrastructure, human-centered variables such as information needs, user behavior, personal norms, and professional commitment are critical to ensuring policy adherence (Safa et al., 2016). This study posits that both information strategies and management practices are influenced by a constellation of enabling and constraining elements.

Moving beyond the boundaries of formal documentation, the study emphasizes the interaction between formal authority and widely accepted informal practices. It argues that information management policy also comprises interpretive components—such as cultural norms, professional ethics, and behavioral expectations—that emerge through organizational routines. Together, these elements form a comprehensive ecosystem that more accurately reflects how information management policy is enacted and sustained in practice.

## 3.0 Methodology

A qualitative research approach was selected over a quantitative one due to the complex and context-dependent nature of the factors influencing each case. The current study acknowledges that, both practically and conceptually, information policy is perceived and understood subjectively, shaped by individual experiences and the specific organizational environment in which it operates. Accordingly, a case study strategy was employed to provide a comprehensive understanding of the phenomenon, drawing on multiple data collection methods (Yin, 2003). This approach enables the exploration of the practical dimensions of information management policy within organizations, while also establishing the contextual foundation of individuals' experiences and their interpretations of reality (Merriam, 1988).

Table 3. *The Rationale for Selecting Different Categories of Professionals for Data Collection*

| Types of Participants | Nature of Evidence Sought |
|---|---|
| Information Professional | The term information professional refers primarily to individuals such as librarians responsible for managing the acquisition, organization, storage, retrieval, and dissemination of information resources within organizations. The investigation examined their role in policy implementation, strategic alignment, and decision-making that supports efficient information delivery. It also explored how these professionals influence the development of information management policy through initiatives related to information provision and organizational outcomes. Additionally, the study assessed the institutional support provided to these roles, aiming to highlight the critical importance of information resources in shaping operational efficiency and strategic direction. |
| Policy Maker | Senior personnel with policy-making authority were included to examine their role in shaping information-related directives. The study focused on their priorities, awareness, and support to assess how information management policy is developed, positioned, and institutionalized within the organization. |
| Information Users | Research scientists, the primary users of information and system resources, were selected as participants due to their central role in fulfilling organizational objectives. The study explored their experiences with information use and the infrastructure supporting research activities. Their direct engagement and workflow-enhancing initiatives provided valuable insights into the practical implementation and influence of the organization's prevailing information management policy. |

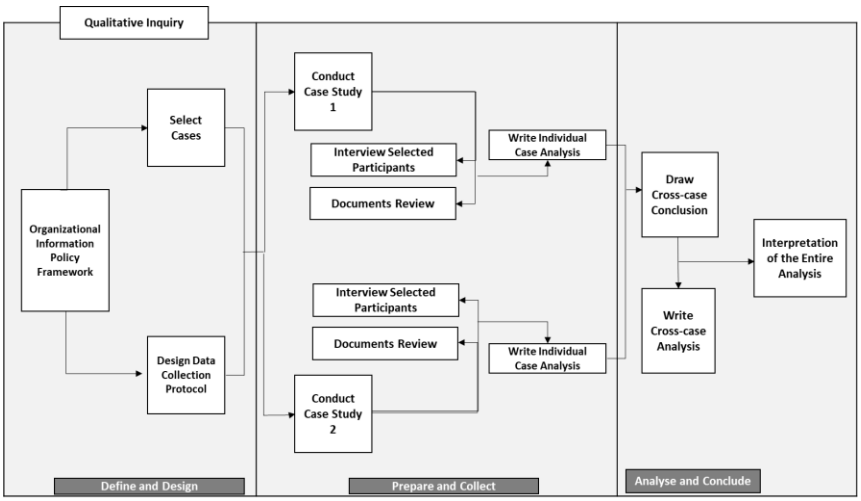



*Figure 3. Data collection techniques based on case studies in organizations (Adapted from Yin, 2003)*

Data was collected to build a background understanding of the following key aspects:

1. Information-related objectives – including both explicit and implicit expressions regarding the significance of information resources and the associated activities related to their storage, dissemination, and use in supporting agency functions.

2. Information management strategies – which reflect the agency's direction and commitment toward managing its information resources in alignment with its broader organizational goals.
3. Implementation of information management strategies – encompassing the practical actions and initiatives taken to execute these strategies within the organizational context.

A multiple case study approach, focusing on two government research institutes, was purposefully selected based on predefined criteria, particularly those related to the presence of provisions for managing information resources. This methodological choice proved valuable for validating the findings of the initial case while enabling the identification of both convergences and divergences across cases, thereby enhancing the analytical generalizability of the results (Merkens, 2004).

Data collection centered on examining specific organizational plans, decisions, actions, and underlying motivations that influenced the mobilization of human, system, and information resources for effective information management (Orna, 1999; Weingarten, 1996). Semi-structured, face-to-face interviews were conducted to allow for in-depth engagement, affording the interviewer flexibility to guide the discussion while remaining open to emergent themes within the scope of the study. This method facilitated probing and clarification, encouraging participants to elaborate on their responses and reveal nuanced insights (Chua, 2016).

Table 3 exhibits the list of respondents and the rationale for their selection and Figure 3 illustrates the processes involved in the qualitative inquiry of the research design.

## 4.0 Findings

The development of the Jing cultural heritage knowledge base has resulted in visually compelling knowledge graph visualizations across multiple dimensions, including graphical representation, descriptive text retrieval, knowledge extensiveness, and topical associations.

The findings of the present study are derived through thematic analysis, wherein codes were systematically identified and grouped into clusters. The development and interpretation of themes were closely guided by the predefined dimensions and elements that established the initial conceptual framework. This process led to the formulation of an analysis template in which many of the thematic relationships were hypothesized at the outset, thereby facilitating a more efficient and focused initial coding phase.

### *4.1 Key Characteristics of Information Management Policy*

Information management policy is manifested through a series of authoritative initiatives undertaken by organizations to acknowledge and institutionalize the role of information and its resources within their hierarchical structures and core operational functions. It encompasses both formal and, at times, informal sets of interrelated principles, laws, guidelines, rules, regulations, directives, procedures, judgments, interpretations, and practices that collectively govern the management and utilization of information, particularly across the information lifecycle, including creation, access, collection, storage, and dissemination. These elements may be explicitly stated or tacitly embedded within organizational objectives, goals, and functional components. In pursuing these aims, organizations demonstrate their commitment by establishing and supporting various initiatives, strategies, and structures that legitimize and operationalize the governance and use of information as a critical asset.

### *4.2 The Context of Information Management Policy in Organizations*

Information management policy is often perceived as a nonentity within organizational settings. While such a characterization may appear reactionary, it underscores the inconsistent interpretation and acceptance of the information policy concept. The findings of the current study reveal that, in practice, information policy is predominantly constituted by general, unwritten regulatory and normative measures, including shared beliefs, informal practices, and professional norms among various groups involved in the use, creation, storage, and dissemination of information. Formal, written provisions governing information management are limited, typically lacking coherence, structure, and permanence, often developed on an ad hoc basis. Although certain written rules do exist, they are loosely framed and, in many cases, insufficiently recognized or communicated to relevant stakeholders. A formally documented, agency-wide information management policy is not evident as a management priority. In the absence of a comprehensive and integrated organizational policy framework, agencies tend to adopt a more flexible, decentralized approach, customizing information management practices to the specific needs of different disciplines or units. This informal strategy relies on operational best practices, localized initiatives, and available resources to guide information-related activities.

Despite not being explicitly labeled as "information policy" by participants, these practical efforts have had a significant impact on the flow and governance of information within the organization. In line with Orna (1999) and Chaffey (2005), such applications, decisions, and actions—grounded in the strategic use of information, systems, and human resources—can be considered as de facto information policy, as they play a crucial role in shaping and regulating information management behaviors and outcomes.

### *4.3 Critical Resources in Information Policy Development*

The development of information policy within an organization is shaped by the regulated and interdependent interactions among three core resource domains: human resources, information resources, and system resources.

#### *4.3.1 People Resources*

In the absence of a formal written policy, the creation, curation, and dissemination of both functional and administrative information were largely sustained by professional and personal commitment. These processes were enabled by IT infrastructures, including internal networks, portals, and websites. Scientists and researchers were responsible for producing information and ensuring its dissemination

is adhering to standards and regulations, while information and IT professionals supported this work by managing the systems that enabled practical and accessible information storage and delivery. Factors such as performance evaluations, work nature, best practices, intrinsic motivation, and professional responsibility significantly influenced information management. Though not all roles centered on information management, many tasks inherently involved it, encouraging the responsible handling of information aligned with field-specific norms.

*4,3,2 Information and System Resources*

Information resources are considered the lifeblood of the organization, with supporting infrastructures serving as the operational lifeline. Their strategic importance is reinforced by the integration of ICT initiatives into the organization's overarching blueprint. Both departmental and organizational levels demonstrate openness to adopting emerging information-related technologies that enhance efficiency and add value, such as knowledge management tools that promote internal information and knowledge sharing. These infrastructures have significantly shaped how information is managed and used, becoming central to digital operations. Functioning as the backbone of information activities, the systems—comprising software and hardware—operate within an ecosystem defined by user commands, system requirements, and embedded protocols, facilitating effective storage, retrieval, access, and use of information across the organization.

## 5.0 Conclusion

Within organizations, it is crucial to address prevailing misconceptions surrounding information policy, particularly regarding its form, purpose, and the roles and responsibilities of individuals in its development and implementation. Clarifying these aspects enables organizations to better align their objectives and functions with information provision outcomes through well-defined strategies and effective management involving people, information, and technology resources. When properly understood and implemented, information policy serves as a powerful mechanism to regulate and support the management of information activities, as recognized by users, managers, and policymakers alike. A comprehensive understanding of the characteristics and dynamics of information management policy within an organization is essential for the development of informed and effective policies. These policies should reflect a nuanced appreciation of the core components of information governance, including the factors that influence the creation, utilization, storage, and dissemination of information. To realize a meaningful and functional information management policy, organizations must undertake targeted initiatives with focused attention on the following key areas: (1) leadership and the establishment of priorities, (2) clear and coherent policy provisions, (3) the adoption of a pragmatic and context-sensitive approach to information management, (4) the formal structuring of information management functions, (5) the explicit assignment of responsibilities, and (6) the empowerment and support of human resources in their information-related roles.

## Acknowledgment

Funding for this research was provided by the DUCS-F grant 600-UiTMSEL (PI. 5/4) (012/2022). Thank you to Universiti Teknologi MARA Selangor Branch for the financial support and to The Office of Research and Innovation at the College of Computing, Informatics & Mathematics, UiTM for the provision of the training and resources in publication initiatives.

## Paper Contribution to Related Field of Study

This research-based project contributes to the information policy and information governance fields of study. The outcome of the study can enhance the understanding of the concept and dimensions of information policy within the structure of the organizations.

## References

Abdullahi, J. (2015). Policy framework on social welfare information management and services for Nigerian public libraries: Promoting sustainable development. Library Management, 36(4/5), 281-288.

Alsmadi, I., & Zarour, M. (2015). Building an Islamic financial information system based on policy management. Journal of King Saud University-Computer and Information Sciences, 27(4), 364-375.

Chaffey, D. & Wood, S. (2005). Business information management: improving performance using information systems. England: Pearson Education Limited

Chua, Y. P. (2016). Mastering research methods. McGraw-Hill Education.

Duff, A. S. (2004). The past, present, and future of information policy, towards a normative theory of the information society. Information, Communication & Society, 7(1), 69-87.

Ekbia, H. R., & Evans, T. P. (2009). Regimes of information: Land use, management, and policy. The Information Society, 25(5), 328-343.

Faccioli, M., Zonneveld, S., Tyler, C. R., & Day, B. (2023). Does local Natural Capital Accounting deliver useful policy and management information? A case study of Dartmoor and Exmoor National Parks. Journal of Environmental Management, 327, 116272.

Goodyear, M. L. (1993). Information policy for electronic information resources. The Public-Access Computer Systems Review, 4(6), 23-31

Information Governance Initiative (2018), "IGI state of the industry report volume III", available at:https://iginitiative.com/download-the-state-of-information-governance-report-volume-iii-6/ (accessed 29 July 2018).

Kang, D., & Park, M. J. (2024). Performance management and policy evaluation of information and communication technology graduate program for developing countries. Evaluation and Program Planning, 103, 102401.

Kasymova, N., & Usmanova, K. (2015). Information Policy in Central Asian Countries. Himalayan and Central Asian Studies, 19(3/4), 194.

McClure, C. R. (1996). Libraries and Federal Information Policy. The Journal of Academic Librarianship, 22, 214-218.

Merkens, H. (2004). Selection Procedures, Sampling, Case Construction. In A companion to qualitative research. London: Sage Publications.

Merriam, S. B. (1988). Case study research in education: A qualitative approach. San Francisco: Jossey-Bass.

Muhammad, J. S., Miah, S. J., Isa, A. M., & Samsudin, A. Z. H. (2021). Investigating the importance and key factors for information governance implementation in Nigerian universities. Education and Information Technologies. https://doi.org/10.1007/s10639-021-10817-4

Muhammad, J. S., Miah, S. J., Isa, A. M., & Samsudin, A. Z. H. (2022). Investigating the importance and key factors for information governance implementation in Nigerian Universities. Education and Information Technologies, 1-21.

Mullon, P. A., & Ngoepe, M. (2019). An integrated framework to elevate information governance to a national level in South Africa. Records Management Journal, 29(1/2), 103-116.

Nafziger, J., & Schumacher, H. (2013). Information management and incentives. Journal of Economics & Management Strategy, 22(1), 140-163.

Orna, E. (1999). Practical information policies. Gower Publishing, Ltd.

Ovrutsky A.V. (2020). Information Policy as a Communication Concept. Theoretical and Practical Issues of Journalism, vol. 9, no. 2, pp. 307–324. DOI: 10.17150/2308-6203.2020.9(2).307-324. (In Russian).

Rowlands, I (1996). Understanding information policy: Concepts, frameworks, and research tools. Journal of Information Science, 22(1), 13-25.

Saulles, M. D. (2007). Information literacy amongst UK SMEs: An information policy gap. Aslib Proceedings, 59(1), 68-79.

Safa, N. S., Von Solms, R., & Furnell, S. (2016). Information security policy compliance model in organizations. Computers & Security, 56, 70-82.

Smallwood, R. F. (2014). Information governance: Concepts, strategies, and best practices. Wiley.

Trauth, E. M. (1986). An integrative approach to information policy research. Telecommunication Policy, 10(1), 41-50.

Tseng, T. Y. (2022). Influences of Taiwan's corporate social responsibility report management policy on the information transparency of its capital market. Borsa Istanbul Review, 22(3), 487-497.

Weingarten, F. W. (1996). Technological change and the evolution of information policy. American Libraries, 27 (11), 45-47.

Yin, R. K. (2003). Case study research (Vol. 5). Thousand Oaks, California.

Zawiyah, Y., Basri, M., & Zin, N. A. M. (2010). Classification of issues underlying the development of information policy. Information Development, 26(3), 204-213.

Wang F, Lv J and Zhao X (2022) How do information strategy and information technology governance influence firm performance? Front. Psychol. 13:1023697. doi: 10.3389/fpsyg.2022.1023697