

PAPER

Interactive Mobile as a Strategic Catalyst for Digital Innovation: A Theory-Building Bibliometric Analysis of Organisational Integrity and Public Sector Performance

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ABSTRACT

Mobile technologies have become essential for digital public sector transformations. Existing studies treat these technologies as mobile communications technologies. This research uses a theory-building bibliometric approach to reposition Interactive Mobile as a strategic catalyst for digital innovation, organisational integrity, and public sector performance. Interactive mobile is applied to 1,528 Scopus documents published from 2021 to 2025 and is analyzed using bibliometric performance analysis and science mapping. For publication performance analysis, Microsoft Excel was used, and for co-authorship, keyword co-occurrence, bibliographic coupling, and co-citation analyses, VOSviewer (Version 1.6.20) was used. The results show a clear departure from technology-based mobile communications research and analyses to research in a multidisciplinary area of digital innovation, digital governance and smart public services, organizational capability, and citizen engagement. Science mapping also shows increased intellectual convergence of interactive mobile, digital innovation, organizational capability, and public sector governance. Using science mapping and a theory-building approach, the research proposes the Interactive Mobile Strategic Capability Framework. Interactive mobile is the primary capability that enables digital innovation, organizational integrity, and public sector performance. While bibliometrics is primarily a descriptive science mapping, using a capability-based approach to public administration, this study extends the boundaries of public sector research and provides a strong theoretical basis for the future empirical research of digital public sector initiatives, innovations, and organizational transformations.

KEYWORDS

interactive mobile, digital innovation, organizational integrity, public sector performance, theory-building bibliometric analysis, public administration, strategic capability

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1 INTRODUCTION

Public sector entities face new challenges. Tech continues to become more advanced. People expect more from the services they pay for. They want them to be more efficient. They want more transparency. They want responsiveness. The need for the digital transformation of services is pushing governments to adapt. Mobile technologies of an interactive nature have developed new dimensions beyond simple cellular communication. They have developed into digital platforms that support the communication of government to citizens, businesses, and all other stakeholders in the ecosystem and back. AI, cloud computing, the Internet of Things (IoT), 5G, blockchain, interactive technologies, and digital identity systems provide the advanced infrastructure for the interactive mobile technologies that continue to support public services, collaborative governance, and the administration of mobile technologies and public sector transformation and innovations.

“Interactive mobile” means more than just flexible technologies for digital innovation [1]. “Digital innovation” refers to transformative changes that improve public services through new techniques enabled by digital technologies [2]. Interactive mobile technologies enable public organizations to innovate by supporting participatory citizen services, facilitating real-time communication, collaboration, and service co-creation between governments and citizens [3]. These technologies strengthen citizen participation by empowering individuals to contribute to public decision-making and service improvement [4]. They also provide new mechanisms for interagency coordination, knowledge sharing, and digital communication, enabling public organizations to respond more effectively to changing societal needs while enhancing service accessibility, efficiency, and responsiveness [5]. Figure 14 illustrates the evolution of the intellectual structure of interactive mobile research through the co-citation network of cited references.

This strategic capability has become increasingly important as governments adopt digital-first strategies to improve service quality, organizational adaptability, and sustainable public sector innovation [6] [7] [8] [9] [10] [11]. Interactive mobile technologies have become essential enablers of digital transformation by supporting integrated service delivery, mobile governance, citizen-centric innovation, and data-driven public management. As demonstrated in Figure 13, the keyword co-occurrence network indicates that interactive mobile research has progressively converged with digital transformation, smart governance, citizen engagement, artificial intelligence, and public service innovation, reflecting its growing strategic role within contemporary public administration.

To fill the identified voids, a theory-building bibliometric method has been applied in this study for researching the evolution of thought related to Interactive Mobile in the 1,528 Scopus-indexed publications for the years 2021 to 2025. Unlike the majority of the studies where the focus has been on descriptive analyses that rely on the science of logic modeling, this study aims to develop an integrated interactive mobile strategic capability framework by articulating interactive mobile research concepts. The framework positions interactive mobile as the primary strategic capability that enables digital innovation, augments organizational integrity, and bolsters public sector performance.

This study adds to the public administration literature and provides a capability-based explanation of digital transformation by extending bibliometric analysis from descriptive knowledge mapping to theory building. This study creates a solid conceptual basis for future empirical studies of digital governance, organizational innovation, and public sector performance.

2 METHODOLOGY

This study used a theory-building bibliometric approach to investigate the intellectual evolution of interactive mobile research and construct an integrated strategic capability framework for public sector organizations. Most bibliometric studies describe trends in publications and citations. This study goes beyond standard bibliometric performance analysis by integrating science mapping to examine the intellectual, conceptual, and social structures of the research domain. This approach is particularly important because knowledge remains fragmented regarding how interactive mobile functions as a strategic capability that drives digital innovation, strengthens organizational integrity, and enhances public sector performance [12] [13] [14].

Data were gathered from the Scopus database, which is recognized as one of the most comprehensive sources of peer-reviewed literature for bibliometric and science mapping research [15]. The search was restricted to publications published between 2021 and 2025 using the keywords “Interactive Mobile” and related digital innovation terms within the public sector and government context. After applying the inclusion and exclusion criteria, 1,528 publications were selected for analysis. Figure 1 presents the systematic search strategy and article selection process. In addition to journal articles, the dataset included conference papers, book chapters, reviews, editorials, and other scholarly documents.

Using Microsoft Excel, a comprehensive bibliometric performance analysis was conducted to identify publication characteristics, including document types, annual publication trends, leading journals, prolific authors, institutions, countries, funding sponsors, and the most cited publications. The second stage employed VOSviewer Version 1.6.20 to perform science mapping through co-authorship, keyword co-occurrence, bibliographic coupling, and co-citation analyses [16] [17] [18]. Figures 10–14 present the respective bibliometric networks, illustrating collaboration patterns, major research themes, intellectual structures, and emerging knowledge gaps that collectively explain the evolution of interactive mobile research.

This study relies on the bibliometric data and adopts a theory-building approach by combining the results of both the performance assessment and the scientific mapping to create the Integrated Interactive Mobile Strategic Capability Framework. The framework treats the bibliometric data as descriptive results and the interactive mobile as the basic organizational capability that enables digital innovation and strengthens organizational integrity, which in turn enhances public sector performance. This capability-based approach places the focus of bibliometric analysis from descriptive research in knowledge domains to the realm of theory construction in public administration and digital governance.

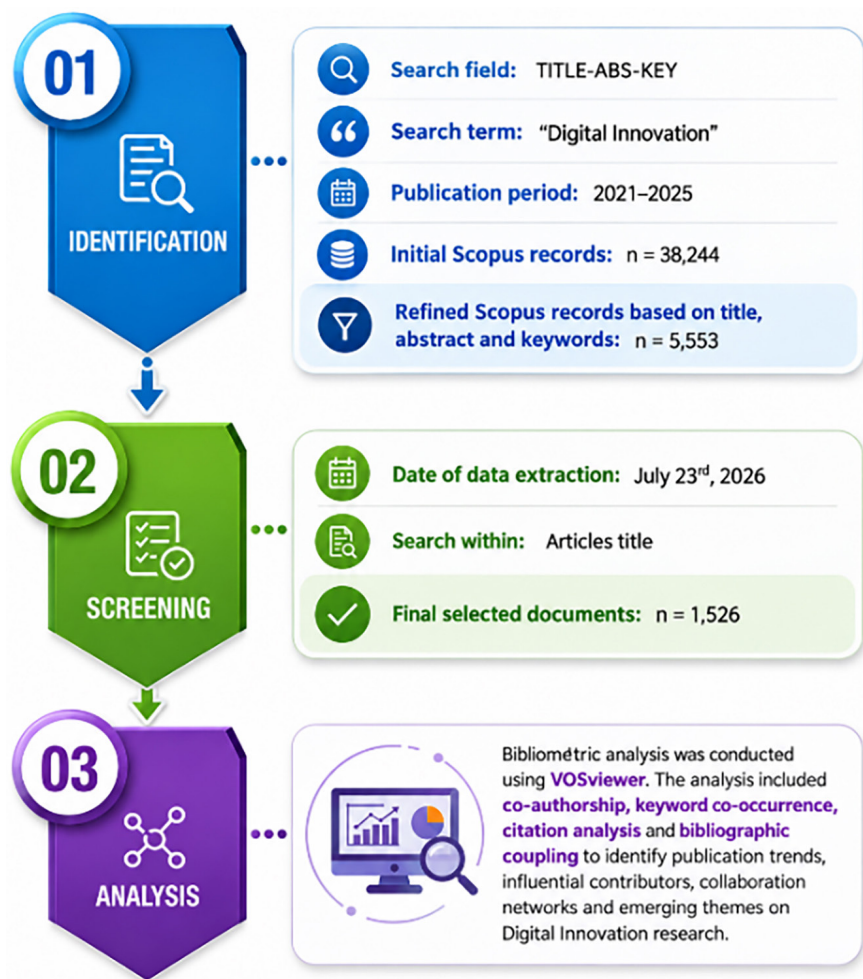


Fig. 1. Flow diagram of the search strategy

3 RESULTS AND ANALYSIS

3.1 Document profile

The document profile presents the evolution of interactive mobile research within the broader digital innovation landscape in the public sector. A total of 1,528 Scopus-indexed publications published between 2021 and 2025 were analyzed. The findings indicate that interactive mobile is an emerging, rapidly expanding, and multidisciplinary research domain. The predominance of journal articles, conference papers, and book chapters demonstrates that the field has progressed beyond its exploratory stage into a more established area of scholarly inquiry. Furthermore, the concentration of publications across business, management and accounting, computer science, social sciences, engineering, and economics reflects the convergence of technology, management, and governance, highlighting interactive mobile as a strategic capability that supports organizational transformation and public sector innovation [19] [20] [21]. Figures 2–4 summarize the distribution of document types, leading publication sources, and subject areas that characterize the research landscape.

The annual publication trend further confirms the growing importance of interactive mobile research. The number of publications increased steadily from 183 in 2021 to 562 in 2025, representing more than a threefold increase within

five years. This growth corresponds with the widespread adoption of integrated mobile platforms, artificial intelligence, cloud computing, and digital government initiatives across public organizations. Consequently, interactive mobile is increasingly recognized not merely as a mobile communication technology but as a multidisciplinary strategic capability that enables digital transformation, innovation, and citizen-centered public service delivery [22] [23] [24]. Figure 5 illustrates the sustained growth in scientific publications, demonstrating the expanding scholarly interest and maturity of the field.

The maturity and multidisciplinary nature of the field is also reflected in the leading publication sources. Journals like *Sustainability* and *Technological Forecasting and Social Change* and conference proceedings like those at the *Annual Hawaii International Conference on System Sciences* are some of the prominent sources for research on digital innovation and interactive mobile. Their popularity suggests that more of the contemporary research is looking at interactive mobile in the context of digital ecosystems, sustainable development, and digital governance. The documents also suggest that Interactive mobile research is within the field of digital innovation and has significant influence on public sector research.

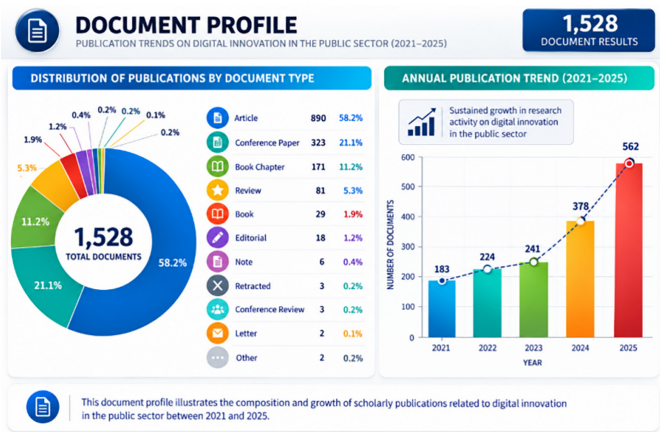


Fig. 2. Distribution of publications by document type
Source: Scopus database, Elsevier (2026).

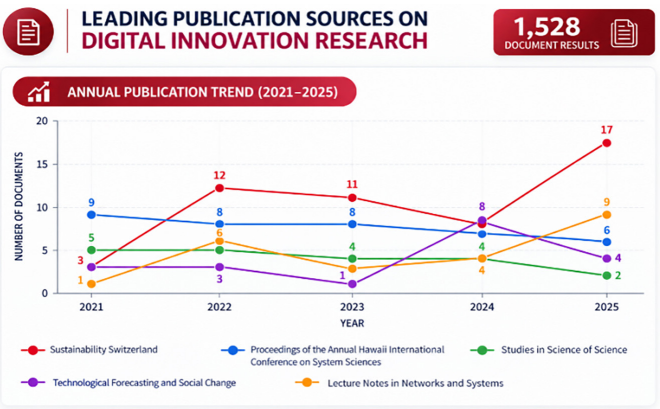


Fig. 3. Leading publication sources on digital innovation research
Source: Scopus database, Elsevier (2026).

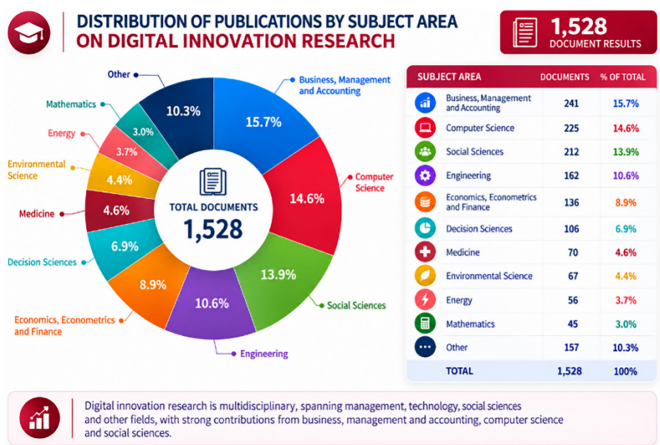


Fig. 4. Distribution of publications by subject area
Source: Scopus database, Elsevier (2026).

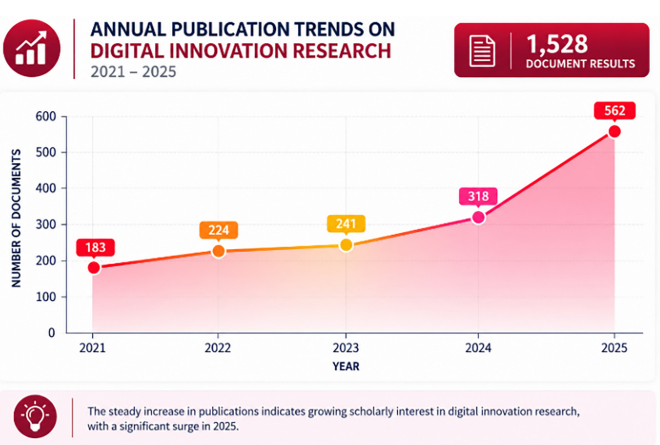


Fig. 5. Annual publication trends on digital innovation research, 2021–2025
Source: Scopus database, Elsevier (2026).

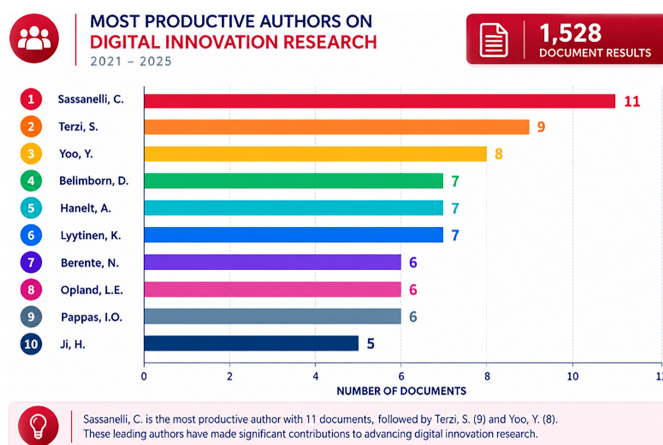


Fig. 6. Most productive authors on digital innovation research, 2021–2025

Source: Scopus database, Elsevier (2026).

3.2 Global research landscape

The geographical distribution of interactive mobile research demonstrates its growing international recognition and global relevance. China leads the field in terms of publication output, followed by major contributors such as the United States, the United Kingdom, Germany, Italy, India, Malaysia, and Indonesia. The active participation of both developed and developing countries indicates that digital innovation has become a strategic priority across diverse economic and administrative contexts. Governments are increasingly investing in interactive mobile technologies, artificial intelligence, and digital platforms to improve public service delivery, strengthen governance capabilities, and accelerate public sector innovation [25] [26] [27]. Figure 8 illustrates the global distribution of scientific publications, while Figure 11 presents the international collaboration network, highlighting the strong cross-country partnerships that continue to shape the evolution of interactive mobile research. Most productive authors on digital innovation research are listed in Figure 6, and the most productive institutions on digital innovation are listed in Figure 7.

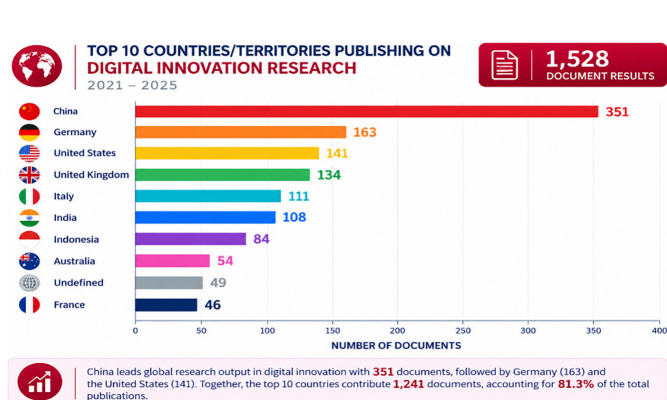


Fig. 7. Most productive institutions on digital innovation research, 2021–2025

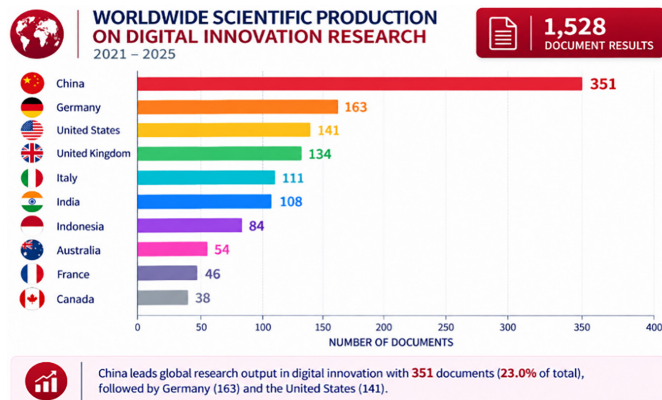


Fig. 8. Worldwide scientific production on digital innovation research, 2021–2025 indexed by scopus

3.3 Impact of research: funders and leading citations

The National Natural Science Foundation of China and the European Commission are key funding agencies for digital innovation research. National funding agencies uphold the role of government funding as a critical driver for research in this domain. The government funding of research in Interactive mobile technologies reflects governments’ understanding of the economic and public service transformational value of these technologies. This is evidenced through research and development integration in highly cited articles. Collectively, these studies have pioneered the field of digital innovation and provided a basis for theories around the capability and transformation of organizations in the digital era. The interactive mobile research domain is well supported and established through intense international funding, cross-disciplinary research collaboration, and growing intellectual capital. Figure 9 visualizes the most active funding sponsors on digital innovation research.

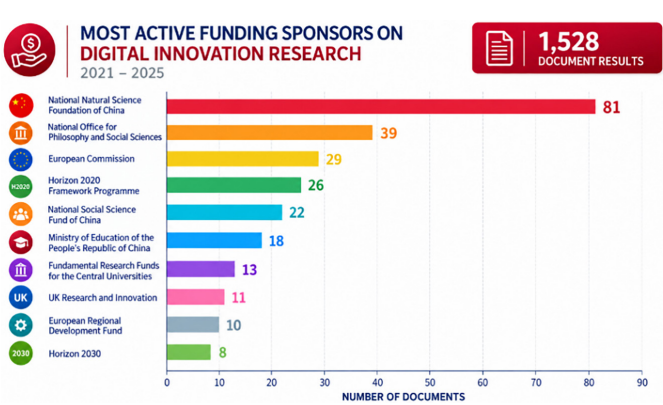


Fig. 9. Most active funding sponsors on digital innovation research, 2021–2025



Fig. 10. Most cited articles on digital innovation research, 2021–2025

3.4 Science mapping analysis

By showing the connections between scholars, institutions, countries, and research themes, science mapping provides the ability to analyze the intellectual, conceptual, and collaborative structure of interactive mobile research. Compared to bibliometric performance indicators, which only measure publications and their productivity, science mapping is concerned with the progression of research and the identification of research communities, as well as the relevant theories that contribute to the emergence of a research domain. Through co-authorship, keyword co-occurrence, bibliographic coupling, and co-citation analyses, it is shown that research on interactive mobile interdisciplinary studies has transitioned from fragmented, technology-centered studies to a cohesive, integrated multidisciplinary domain on digital innovation, organizational capability, and the transformation of the public sector.

The country co-authorship network reveals extensive international research collaboration, with China, Germany, the United States, and the United Kingdom serving as major global knowledge hubs. Strong collaborative relationships are also evident among Malaysia, Indonesia, India, and Australia, demonstrating that interactive mobile research has evolved into a globally interconnected field. Such international collaboration facilitates the exchange of knowledge, technology, and research expertise, thereby accelerating digital innovation and strengthening public sector transformation. These collaborative patterns further indicate that interactive

mobile is increasingly recognized as a strategic organizational capability that supports organizational learning, cross-border knowledge sharing, and digital public sector collaboration rather than merely serving as a communication technology [28] [29] [30]. Figure 11 illustrates the country co-authorship network and the global collaboration structure within the field.

The conceptual development of interactive mobile research is reflected in the keyword co-occurrence analysis. Digital innovation, digital transformation, digital technologies, artificial intelligence, data analytics, sustainability, and innovation emerge as the dominant research themes, demonstrating that the field has expanded well beyond its technological origins. These findings suggest that interactive mobile increasingly functions as the enabling technological layer for organizational innovation, collaborative governance, digital ecosystems, and intelligent public service delivery. The convergence of technology, organizational capability, and governance also indicates that successful digital transformation depends on integrating technological advancement with organizational and managerial capabilities [31] [32] [33]. Figure 12 presents the keyword co-occurrence network, illustrating the major conceptual clusters and emerging research directions.

The intellectual maturity of the field is further confirmed through the bibliographic coupling and co-citation analyses. Bibliographic coupling reveals strong convergence around digital innovation, strategic management, organizational capability, and digital ecosystem research, while the co-citation network identifies influential scholars such as Lyytinen, Yoo, Teece, Feldman, Majchrzak, and Song as the intellectual foundations of interactive mobile research. These foundational works integrate information systems, innovation management, organizational theory, and strategic management into a coherent body of knowledge, demonstrating that interactive mobile has evolved into a mature and interdisciplinary research domain [34] [35]. The integration of findings from the science mapping analyses indicates that interactive mobile should be viewed as an organizational capability rather than merely a technological application. The convergence of international collaboration, dominant research themes, and shared theoretical foundations provides strong evidence that interactive mobile serves as a catalyst for digital innovation within public organizations. Accordingly, this study proposes an integrated capability-based framework in which interactive mobile drives digital innovation, strengthens organizational integrity, and ultimately enhances sustainable public sector performance. Figures 13 and 14 collectively illustrate the bibliographic coupling, co-citation networks, and intellectual structure that underpin the proposed theoretical framework.

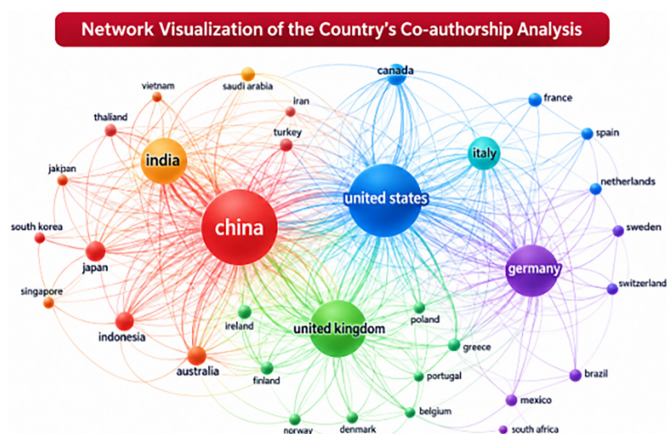


Fig. 11. Network visualization of the country's co-authorship analysis

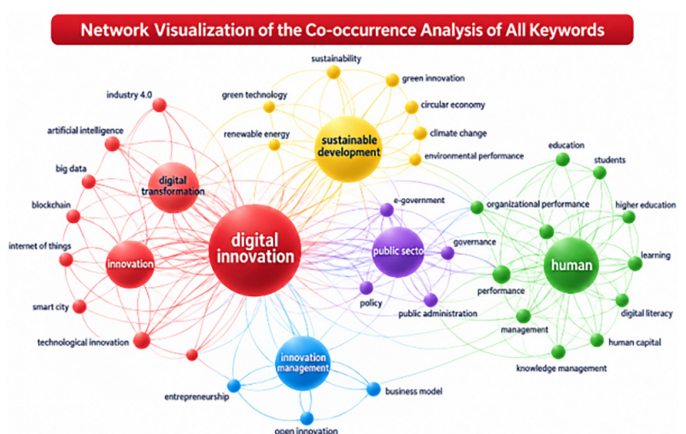


Fig. 12. Network visualization of the co-occurrence analysis of the all keywords

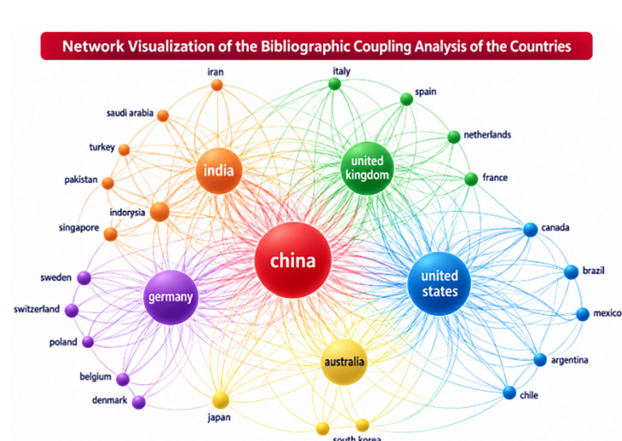


Fig. 13. Network visualization of the bibliographic coupling analysis of the countries

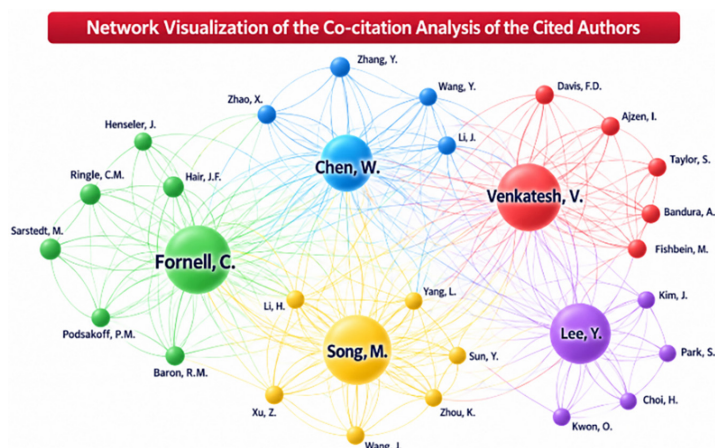


Fig. 14. Network visualization of the co-citation analysis of the cited sources

4 DISCUSSION

4.1 Interactive mobile as a strategic capability

The bibliometric evidence demonstrates a clear intellectual shift in interactive mobile research between 2021 and 2025. Contemporary studies have moved beyond focusing solely on mobile devices, communication applications, or technology adoption toward conceptualizing interactive mobile as a strategic organizational capability that drives digital innovation and organizational transformation. The substantial growth in publications, together with the multidisciplinary contributions from business and management, computer science, engineering, and public administration, as well as increasing international collaboration, indicates that interactive mobile has become a significant research domain within digital government and public sector innovation. These findings suggest that mobile technologies create greater organizational value when integrated into broader digital transformation initiatives rather than functioning as standalone communication tools [5] [16] [17]. Figures 5, 8, and 11 collectively demonstrate the sustained growth of the field, its global research distribution, and the expanding international collaboration network.

The science mapping analyses further reinforce this interpretation. The keyword co-occurrence network identifies digital innovation, digital transformation, artificial intelligence, data analytics, and sustainability as the dominant research themes, while the country co-authorship network highlights China, Germany, the United States, and the United Kingdom as the principal global collaboration hubs. Together, these findings indicate that Interactive Mobile has become embedded within broader digital transformation ecosystems, where technological capability is closely integrated with organizational learning, collaborative governance, and institutional innovation. Consequently, Interactive Mobile should be recognized as a foundational organizational capability that enables continuous innovation, adaptive governance, and more responsive public administration [19] [20] [21]. Figures 11 and 12 illustrate these collaborative and conceptual developments, providing empirical support for the capability-based perspective proposed in this study.

4.2 Digital innovation and organizational integrity

The findings further demonstrate that interactive mobile creates organizational value primarily through digital innovation. Digital innovation emerges as the most prominent theme in the keyword co-occurrence network, accompanied by strong linkages with artificial intelligence, digital technologies, and organizational transformation. This pattern indicates that interactive mobile is increasingly serving as the technological foundation for redesigning organizational processes, integrating public services, enabling collaborative decision-making, and supporting data-driven governance. These findings are consistent with dynamic capabilities theory, which argues that sustainable competitive advantage depends on an organization's ability to continuously adapt, reconfigure resources, and leverage technological innovations in response to environmental change [17] [25] [27]. Figure 12 illustrates these conceptual relationships by highlighting the central position of digital innovation within the interactive mobile research landscape.

Despite the central role of digital innovation, the bibliometric analysis also reveals an important conceptual gap. Although transparency, accountability, ethical governance, and institutional trust are fundamental objectives of public administration, organizational integrity remains relatively underexplored within the interactive mobile literature. This study addresses that gap by proposing organizational integrity as the organizational capability that transforms digital innovation into sustainable governance outcomes. In the proposed capability sequence, Interactive Mobile provides the technological foundation, Digital Innovation enhances organizational processes, and Organizational Integrity institutionalizes these innovations through ethical governance and accountable public administration, ultimately improving Public Sector Performance. This integrated capability perspective extends existing research, which has largely concentrated on technology adoption and innovation implementation rather than the organizational capabilities required to sustain digital transformation in the public sector [3] [5] [28].

4.3 Proposed integrated theory-building framework

In line with the bibliometric data, we present in this study an integrated interactive mobile strategic capability framework that delineates how interactive mobile impacts organizational changes in the public sector. The framework sees interactive mobile as the foundational technology for digital innovation, which results from improved connectivity and the exchange of information, collaborative interactions, and integrated digital services. The embedding of digital innovation in the routine functions of the organization builds organizational integrity through improvements in transparency, accountability, and consistency in processes and evidence-based governance. The complementary organizational capabilities then improve public sector performance by providing better services and operational effectiveness, improved trust in the institutions, and the generation of sustainable public value.

The framework builds upon the Resource-Based View and Dynamic Capabilities Theory by showing that the strategic importance of interactive mobile is not concerned with the technology per se, but with the integration of interactive mobile in conjunction with complementary organizational capabilities. Differing from previous works that analyzed interactive mobile, digital innovation, organizational integrity, and public sector performance in isolation, this work describes the interrelated capability-building sequences of the concepts through a single theoretical framework. Consequently, it moves beyond the descriptive science mapping of bibliometric

research and shows advances in the capacity integration of bibliometric research for public administration.

4.4 Practical implications

The results have significant implications for public policymakers and public managers aiming to promote the digital transformation. Public organizations should not see interactive mobile as an operational communication technology. Instead, they should embed mobile platforms within integrated digital innovation frameworks that strengthen organizational learning, governance, and performance of the institution. Organizational investments in mobile technologies should be integrated with reforms and the generation of organizational digital capabilities, cybersecurity, and governance frameworks that enhance transparency, accountability, and integrity in the decision process.

Combining capability-based and technology-focused approaches offers a more comprehensive pathway for achieving sustainable public value, enhancing service delivery, and strengthening organizational performance in the digital era [29] [30] [31]. By integrating technological capabilities with organizational, governance, and strategic capabilities, public sector organizations can improve their capacity to respond to evolving citizen needs while sustaining long-term digital transformation.

The proposed framework should be validated through quantitative, longitudinal, and cross-national studies involving diverse public sector contexts. Future research should also examine how emerging technologies, including Artificial Intelligence, Generative AI, Blockchain, and Big Data Analytics, that interact with interactive mobile capabilities influence digital innovation, organizational integrity, and public sector performance under different institutional and governance settings [32] [33] [34]. Such investigations would provide stronger empirical evidence for the proposed capability-based framework and further advance theory development in digital public administration.

5 CONCLUSION

This research builds on the interactive mobile jurisprudence by going beyond the boundaries of descriptive science mapping in bibliometric studies and delving into the construction of theory. The study uses 1,528 Scopus-indexed works published 2021–2025. The results show that the interactive mobile jurisprudence evolved from a technology-centric orientation of mobile communication to a multidisciplinary field of digital innovation, organizational capability, and public sector governance. Based on bibliometric evidence, this research develops the Integrated Interactive Mobile Strategic Capability Framework that situates Interactive Mobile as the primary organizational capability that enables digital innovation, strengthens organizational integrity, and increases public sector performance. By combining bibliometric performance assessment with science mapping, the author builds a theoretical contribution of a capability-based digital transformation and illustrates the worth of bibliometric research as a theory construction framework in public administration. The framework provides a solid conceptual base for further empirical investigation and serves as practical input to decision makers in the public sector and to public administration on how to construct ongoing digital innovations, enhance rational governance, and further improve public sector performance by using interactive mobile technologies.

6 DECLARATION OF GENERATIVE AI AND AI-ASSISTED TECHNOLOGIES IN THE WRITING PROCESS

Everyone listed as a report author has used generative AI in the following ways: Generative AI helped the authors in the bibliometric drafting stage of the report, as it allows users to write, rephrase, and curate more refined drafts of the results conclusively. The authors wish to clarify in this report that all responses given by ChatGPT were evaluated and revised by each contributor. The authors take full responsibility and accountability for the original and accurate content in the report.

7 CONFLICT OF INTEREST DECLARATION

All authors of this report have stated that there are no conflicts of interests.

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