DIGITALIZATION IN MANAGEMENT CONSULTING: A BIBLIOMETRIC ANALYSIS

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Abstract. *Digitalization has become a central theme in the scientific literature dedicated to management consulting, correlated with the transformation of business models, process optimization and adopting new technologies. This article aims to perform a bibliometric analysis on recent research on digitalization in consulting, using the data extracted through the Bibliometrix interface of the RStudio software. The analysis is based on the analysis of 1,342 filtered works in the economic field, out of 3,120 results generated by the Web of Science database, using the search criteria. The research highlights the main thematic trends, prolific authors, relevant sources, and the relationships between concepts. The results show an increasing focus on integrating digital technologies, artificial intelligence, and digital strategies into advisory structures. The article provides an overview of emerging research directions and proposes recommendations for future research in the field.*

Keywords*: digitalization, digital transformation, management consulting, bibliometric analysis, RStudio, Bibliometrix,*

JEL: L84, M13, O33, O38, C89, C80, C87, C88

1. Introduction

Digital transformation is redefining the operating models of management consulting firms and generating significant changes in service delivery, customer relationships and growth strategies. Recent literature emphasizes that digitalization is not only about adopting technological tools but involves a profound change in business paradigms (Nguyen, 2022; Trischler, 2022). In this context, bibliometric analysis is the optimal tool for understanding the evolution of scientific research in this field and identifying emerging areas of interest.

Digitalization is one of the most important drivers of transformation in the service sector, especially in the management consulting industry. The integration of digital technologies in the activity of consulting firms determines not only a change in the delivery of services but also a profound redefinition of business models, organizational structures, and customer interaction (Nguyen, 2022; Hyvönen, 2018). In the last decade, the scientific literature has reflected a significant increase in interest in these transformation processes, especially in the transition to consulting 4.0, based on

artificial intelligence, SaaS platforms and automation.
In this context, a rigorous bibliometric analysis is needed, which identifies the dynamics of scientific production, emerging themes, influential authors, and collaborative relationships in research on digitalization in management consulting.
This research is structured in five chapters, including a brief introduction, review of the main works in the scientific literature, the proposed objectives for the research, the methodology used, the main results obtained, and the conclusions reached after the elaboration of this study.

2. Relevant scientific literature

Through bibliometric analysis, we have identified authors who significantly contributed to the development of digitalization in management consulting, especially between 2015 and 2024.
From the previous period, the contribution of Cotet (2007) is remarkable, bringing a valuable applicative perspective on the use of collaborative digital platforms in training, consulting and product development processes, essential elements for understanding digitalization in technical-managerial environments. By developing and integrating Internet/Intranet/Extranet systems into the CESICED platform, the author anticipates the current digital transformations in the consulting sector, promoting virtual working models and networked knowledge exchange. His most cited work, which describes the architecture of these systems in a context of virtual product development, provides a technological framework that can be extended and adapted to modern digital ecosystems in the management field (Cotet, 2007).
One of the most prolific and influential authors in this field is Volker Nissen, whose work (2015–2018) was instrumental in conceptualizing the virtualization of consulting services. Nissen (2015) proposed a decision-making model for adopting virtual consulting, assessing the benefits, risks, and organizational impact. Subsequently, in the collective volume "*Digital Transformation of the Consulting Industry*", Nissen (2018a, 2018b) published several studies on selecting appropriate technologies for digital consulting, crowd work, platform models, and the evolution of online services. This research provides an integrated view of the digital transformation of consulting firms and defines the critical parameters of the process: modularity, interoperability, scalability, and customization of services.
Another major contributor is Michael Bode, who developed a series of concepts applicable in digitized IT consulting between 2019 and 2024. His 2022 paper proposes a formalized ontology—DITCOS—which enables the semantic modelling of digital consulting services, facilitating their standardization in distributed architectures (Bode, 2022). In 2024, Bode introduced the DITCOS-DPM model, a tool for assessing the maturity of the digitalization of consultancy through progressive phases (Bode, 2024). His approach centres on systems engineering and integrating digital standards into value delivery processes.
In collaboration with Bode, M.J. van Sinderen contributes to expanding and validating these models. Van Sinderen (2022, 2023) co-authored several papers that visually describe consulting services through graphic tools, such as the DITCOS-DN editor. It also proposed platform-oriented architectures and participated in their empirical validation through focus groups (Van Sinderen, 2021). His contributions bridge theoretical modelling and practical applicability in real organizational environments.
Hans Seifert is another author active from 2015 to 2018. He collaborated with Nissen to substantiate the process of selecting consulting virtualization technologies, emphasizing the functional requirements of digital platforms and how they influence user behavior (Seifert, 2018a, 2018b). His works highlight the importance of technological and cultural compatibility in transforming professional services, bringing more depth to the analysis of human-technology interaction.
On a more technological level, but with the potential to transfer to consultancy, C. Borst and M. Mulder (2016–2022) addressed topics such as human-automation interaction, decision transparency and the design of ecological interfaces, especially in air navigation. Although they do not fall strictly within the scope of management consulting, the principles developed in these works are relevant for designing digital

platforms that assist decision-making in a consultative context (Borst, 2017; Mulder, 2020).
Krasteva (2021) highlights the value of using convolutional neural networks (CNNs) to optimize automated analysis processes in complex environments, contributing to developing robust and efficient digital solutions. These convolutional neural networks are AI models capable of extracting and understanding complex data patterns, frequently used in image, signal or text recognition. The model proposed by Krasteva (2021) validates an advanced digital approach that can be transferred to other areas, such as digital consulting, where working with large volumes of data or automated decisions is done under conditions of uncertainty. (Krasteva, 2021). Jekova (2023) also emphasizes the impact of integrating deep learning strategies into digital systems analysis, providing an adaptable algorithmic framework for increasing accuracy in dynamic contexts (Jekova, 2023). Although the research of the two authors is anchored in the medical field, the proposed methods, such as automation, filtering, pattern recognition and decision optimization, are transferable to the field of digitized consulting, AI-assisted management and autonomous diagnostic or decision platforms.
In conclusion, the thematic evolution of the analyzed authors' research reflects a clear transition from theoretical foundations to tools applicable in the digital transformation of consulting, with a strong trend of formalization, virtualization, and platform-centric orientation. This orientation confirms the field's maturation and provides a solid basis for future research in artificial intelligence applied in consulting, autonomous services, and human-algorithmic collaboration.

3. Objectives and Methodology

The main objective of this study is to identify the most important works on digitalization in management consulting relevant to a systematic analysis of the literature in the field, highlighting the major research directions and emerging trends for the coming years.
The objectives are to assess the temporal evolution of scientific production from 1981 to 2024, identify the authors and sources with the most significant influence, extract the most frequent themes and key concepts, explore co-authorship and institutional collaboration networks, and map the field using thematic maps.
The achievement of these objectives represents the basis for a future systematic analysis of the literature in the field, which will deepen the main concepts and trends of research.
Bibliometrics is a constantly expanding field, which plays an essential role in the organization, hierarchy, and evaluation of scientific production. Bibliometrics is applicable at the institutional, national, and global levels, helping to stimulate research and innovation (Rădulescu, 2019). Most researchers consider bibliometric analysis the starting point in researching to identify relevant authors and significant works in the literature (Prioteasa, 2023). Another essential element in bibliometrics is the choice of database. We selected the Web of Science (WoS) database because it is the most extensive, covering studies published in the last 44 years of research (Pranckutė, 2021).
Therefore, the bibliographic data were extracted from the Web of Science database and processed with the help of the *Bibliometrix package* from RStudio (Aria & Cuccurullo, 2017). The query used for data extraction is ("digital*" OR "automat*" OR "IT adoption" OR "information technology adoption") AND ("consulting" OR "advisory" OR "consultancy"). This query generated 3120 results from the period 1981 – 2024, from which, following the filters, we extracted 1342 articles that we analyzed bibliometrically, using the Bibliometrix software (version 4.1.2) through the Biblioshiny interface in R Studio. The selection criteria included: publications between 1981 and 2024, in English, containing terms such as digitalization, digital transformation, automatization, IT adoption, information technology adoption, management consulting, advisory or consultancy. In some cases, we have used an asterisk at the base of the keywords to cover various possible keyword formulations. We included articles, proceedings articles, and early access research papers. The bibliometric analysis file was exported in Excel (.xlsx) and processed to identify key bibliometric indicators. Following the filtering of the bibliometric corpus, the 2025 papers and those in the biomedical field were excluded, which, although they use terminologies like those in consulting, such as "evaluation", "automation",

"optimization", do not fall thematically within the scope of business consulting or digital services. Therefore, the analysis focused on authors actively researching the digital transformation of consulting services, virtualization of consultant-client interaction, and architectural modelling of value delivery through digital platforms.
The information was analyzed from the perspective of annual productivity, influential authors and sources, keywords, collaborative networks, and emerging themes. The bibliometric indicators extracted included: number of articles per year, total number of citations, h-index, co-citations, co-authorship, and frequency of terms. To analyze the main concepts, 1139 relevant scientific papers were selected, published between 2015 and 2024, addressing topics related to digitalization and consulting.

4. Results

This section presents the results obtained from the bibliometric analysis, highlighting the main research directions, the dominant thematic structures, and the existing collaboration networks in the field of digitalization of management consulting.

4.1. General information about data

The descriptive analysis of the bibliometric corpus reveals an accelerated dynamic of scientific production in digital transformation, consulting, and information technologies applied in management. Between 1981 and 2024, the literature recorded an average annual growth of 11.8%, suggesting increased academic concerns over the past two decades. The average age of the analyzed documents is about 10 years, indicating a significant concentration of research on recent topics, with a strongly current character.
The final bibliometric corpus comprises 1,339 documents published in 1,076 distinct scientific sources, reflecting a multidisciplinary distribution. As for the typology of papers, articles published in journals predominate (589), followed by papers presented at scientific conferences (641), which underlines the field's technological, applicative, and innovative nature. Other forms of contributions include reviews, book chapters, and early access articles, which, although fewer in number, add diversity and conceptual depth to the analysis (Table 1).

Table 1. General information about the dataset

Main information about the data			
Timespan	1981:2024	Authors collaboration	
Sources (journals, books, etc)	1076	Single-authored docs	194
Documents	1339	Co-authors per doc	3.3
Annual growth rate %	11.8	International co-authorships %	15.61
Document average age	9.94	Document types	
Average citations per doc	10.98	Article	589
References	37776	Article, book chapter	29
Document contents		Article: early access	15
Keywords plus (id)	1344	Article: proceedings paper	43
Author's keywords (de)	4160	Proceedings paper	641
Authors	4042	Review	22
Authors of single-authored docs	190		

Source: author's elaboration after Biblioshiny Report

Another important aspect is related to the degree of collaboration between authors. In total, 4,042 researchers contributed to the papers, and the average number of co-authors per paper is 3.3, indicating a high level of scientific collaboration. However, the proportion of international collaborations is 15.61%, a moderate percentage that suggests a still-developing global openness. Approximately 14.5% of the articles are signed by a single author, confirming a significant share of

individual contributions in parallel with collective research.
The documents' content includes 37,776 references and 4,160 keywords defined by the authors, compared to 1,344 automatically generated terms (Keywords Plus). This gap highlights researchers' tendency to particularize and refine their work's theme, thus contributing to a more sophisticated and contextualized thematic structuring of the field.
Overall, the data highlight an active process of consolidation and diversification in the area characterized by a steady increase in the scientific volume, robust academic collaboration, and high thematic density. These characteristics confirm the progressive maturation of digitalization and management consulting research, consolidating its status as a strategic area for both the academic and practical environments.

4.2. Evolution of scientific production

Scientific production experienced an irregular evolution between 2010 and 2020, followed by a sustained increase since 2021. The most prolific year was 2024, with 121 articles published, accounting for 9% of the total (Figure 1).

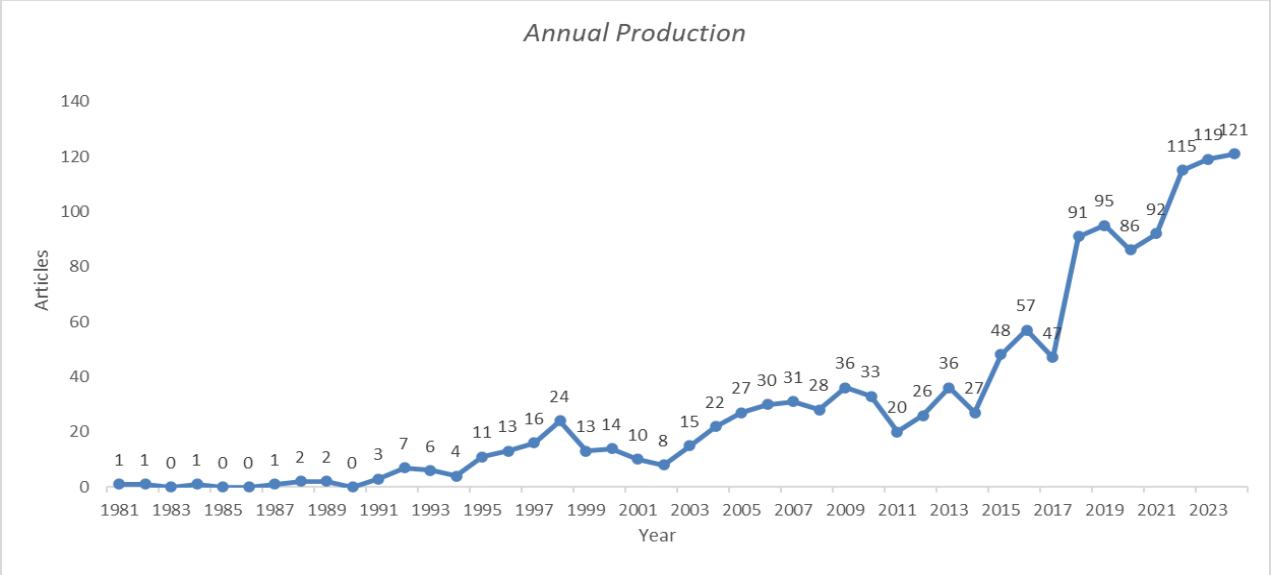

Figure 1. Evolution of annual scientific production
Source: Authors based on data extracted from Bibliometrix

The average annual growth rate is 11.8%, which indicates an intensification of scientific interest in digitalization in consulting, especially in the post-pandemic period.

4.3. Prolific and influential authors

The authors with the most publications in the field are Trischler M.F.G. (4 articles), Hyvönen J. (3 articles), and Audrin B. (3 articles). By the total number of citations, Nguyen K. is the most influential author, with 85 citations in the analyzed corpus.
The authors with the highest number of publications are Jekova (10 articles), Krasteva (9 articles) and Nissen V (8 articles) (Table 2).

Table 2. Most Prolific Authors and Scientific Impact (Top 10)

Authors	Articles	Articles Fractionalized
Jekova I	10	3.50833333
Krasteva V	9	2.50833333
Nissen V	8	3.58333333
Bode M	7	3
Didon JP	7	1.50833333
Borst C	6	1.53333333

Seifert H	6	2.83333333
Van Sinderen MJ	6	2
Mulder M	5	1.2
Cotet CE	4	1.03333333

Source: Authors, with Bibliometrix

The most influential authors by total number of local citations are Jekova and Krasteva, with 24 citations, and Dido, Nissen, and Seifert, each with 18 citations (Figure 2).

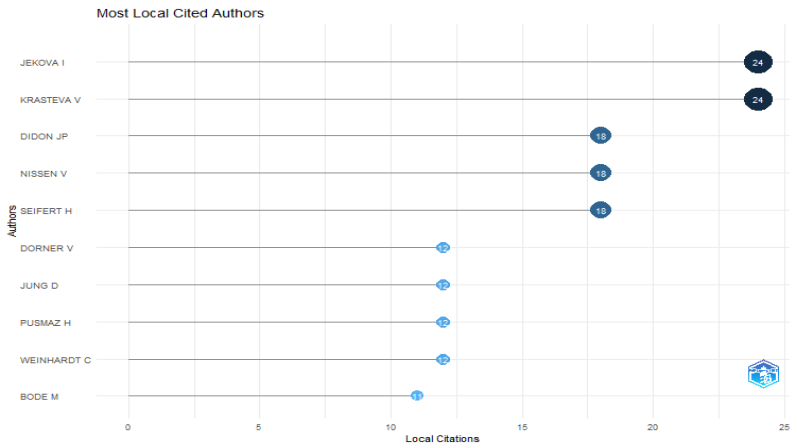

Figure 2. Most locally cited authors

Source: Authors, with Bibliometrix

The authors' production over time places Jekova, Krasteva, and Nissen in the first three places. The first two are also the longest-lived, having been involved in scientific research for 20 years. The digitalization of consulting companies has been an active concern since 2005 (Figure 3).

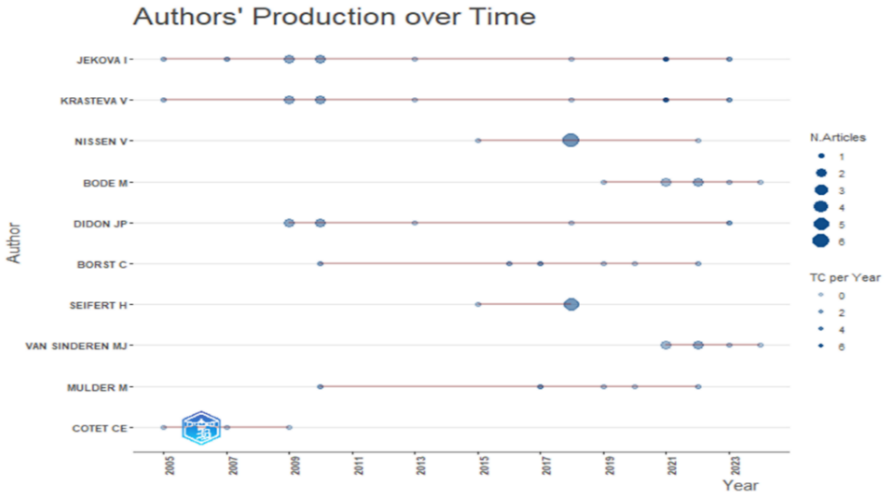

Figure 3. Authors production over time

Source: Authors with the help of Bibliometrix

The analysis of authors relevant to digitalization in consulting highlights the significant contributions of researchers such as Volker Nissen, Michael Bode, M.J. van Sinderen and Hans Seifert. Nissen (2015, 2018a, 2018b) was one of the pioneers of research in the virtualization of consulting services, proposing theoretical frameworks and technological solutions for adapting traditional models to digital reality. Next, Bode (2022, 2024) developed the DITCOS (Digital IT Consulting Ontology for Services) ontology and the DITCOS-DPM phasing model, providing a formalized and scalable approach for the digitalization of IT consulting services. The research of van Sinderen (2021, 2023),

in collaboration with Bode, has made important contributions to the visual and architectural description of digital services. The DITCOS model, developed by Michael Bode and his collaborators, brings a series of methodological and technological innovations in the digitalization of IT consulting services, addressing the need for standardization, formalization and interoperability in a context where consulting is increasingly delivered through digital platforms.
In turn, Seifert (2018a, 2018b) addressed selecting the right technologies for digital consulting and their impact on human-technology interaction. Together, these authors trace a clear evolution of research, from conceptual foundations to applicable models, toward automated, virtualized, and digitally assisted consulting.

4.4. Relevant sources

The most productive journals are "Digital transformation of the consulting industry: extending the traditional delivery model" (14 articles), "Sensors" (11 articles) and "IFAC Papersonline" (9 articles). These are also the most cited sources, confirming their relevance in the field (Figure 4).

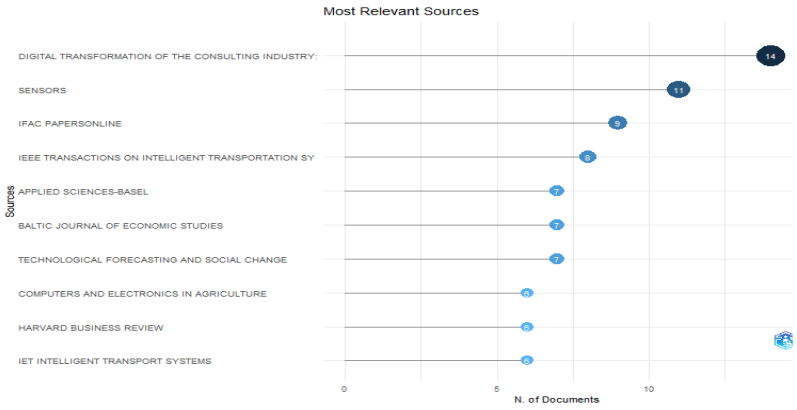

Figure 4. The most cited sources in the field
Source: Authors via the Bibliometrix interface

"Digital Transformation of the Consulting Industry" stands out as the primary source of publication in consulting digitalization, with 14 articles, highlighting a thematic concentration and a core of specialized authors. Other relevant sources, such as "Technological Forecasting and Social Change", "Harvard Business Review", and "Expert Systems with Applications", support the interdisciplinary nature of the research, integrating visions from business, innovation, and artificial intelligence. The consistent presence of journals in the medical field, smart transport and digital agriculture indicates the expansion of concerns related to digitalization in applied sectors, suggesting opportunities for methodological transfer in management consulting.

4.5. Emerging keywords and themes

The term "digital transformation" clearly dominates the analysis, with 49 appearances, signalling the central concern of researchers for the systemic transformation processes generated by digital technologies. Alongside this, terms such as 'artificial intelligence' (34), 'digitalization' (26), 'automation' (25) and 'innovation' (21) confirm the orientation of research towards emerging technologies and their impact on business and consulting models.
Terms such as "machine learning", "deep learning", "blockchain", and "robotic process automation" indicate specific technical directions of this transformation. In contrast, notions such as "knowledge management", "decision support system", and "trust" reflect concerns about the integration of technology into decision-making processes and organizational trust.
The presence of the concepts "digital twin", "ontology", and "simulation" suggests an interest in digital modelling of organizational reality and the development of formal and predictive systems in consulting. Also, terms such as "fintech", "education", and "sustainability" confirm the extension to specific sectoral areas, illustrating the applied and interdisciplinary nature of recent research (Table 3).

Table 3. Frequency of keywords used by authors

Words	Occurrences	Words	Occurrences
digital transformation	49	digital twin	12
artificial intelligence	34	education	12
digitalization	26	trust	12
automation	25	Decision support system	10
innovation	21	industry 4 0	10
deep learning	19	optimization	10
machine learning	19	sustainability	9
consulting	15	decision making	8
fintech	15	digitalizing	8
blockchain	13	ontology	8
knowledge management	13	robotic process automation	8
digital technologies	12	simulation	8

Source: Authors via the Bibliometrix interface

Trend topics provide a chronological analysis of the standard terms used in the scientific literature, including the frequency of their occurrence and the quartile values (Q1, Median, Q3) regarding the year of first use (Q1), the median and the thematic extension (Q3). This chronological perspective allows us to understand the evolution of scientific interest in certain concepts in digitalization, consulting, and associated technologies.

In the current literature, robo-advising is associated with optimizing decisions, reducing costs, and scaling consulting services through technology (Nissen, 2018; Warner & Wäger, 2019). A term specific to intelligent transport and sustainability, eco-driving reflects the integration of digital systems that optimize driving behaviour to reduce emissions, fuel consumption and environmental impact. Eco-driving relates to consultancy in fleet management, green logistics and sustainable mobility policies (IFAC, 2020–2023). An established term recently reinterpreted in the key of digitalization, sustainability is explored in the context of responsible digital transformations in which technologies such as AI, blockchain or RPA can reduce waste, increase resource efficiency or support ecological decisions. In consulting, sustainability becomes an integrated component in strategic planning, impact assessment and ESG reporting (Figure 5).

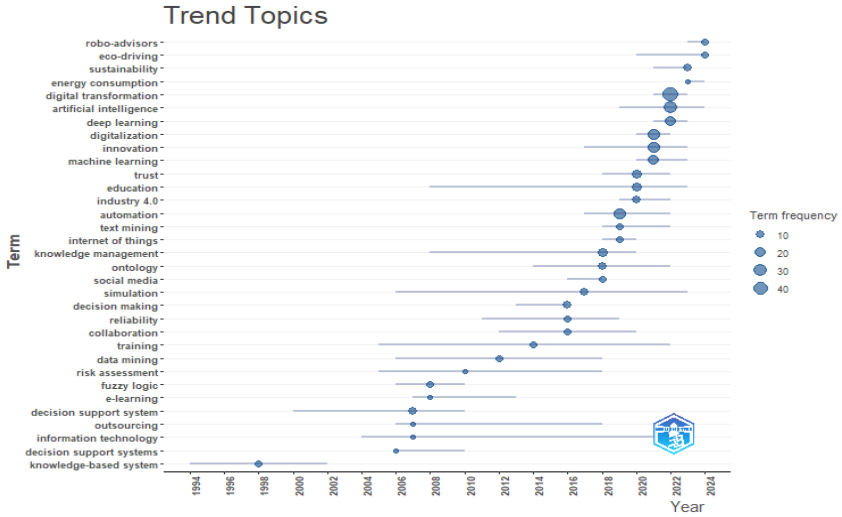

Figure 5. Trend topics

Source: Authors via the Bibliometrix interface

The terms 'digitalization' (26), 'automation' (25), 'innovation' (21), 'industry 4.0' (10), 'trust' (12) and 'text mining' (7) have seen a recent emergence (Q1 > 2017) and the Q3 value (2022–2023) shows that they are in thematic expansion and constitute the current core of research in the digitalization of organizational processes. This reflects a clear orientation towards, smart technologies (automation,

IoT, industry 4.0), data analysis (text mining), ethical and organizational aspects (trust) and paradigm shifts in consulting (digitalization, innovation).
Concepts such as "decision support system", "fuzzy logic", "data mining", "reliability", "collaboration" and "simulation" are themes that have had a constant appearance in the literature between 2006 and 2016, but whose average use has stagnated or expanded moderately in recent years. They have reached a maturity phase, now integrated as technical or methodological foundations in newer research.
Terms such as "knowledge-based system" (Q1 = 1994), "outsourcing", "e-learning", and even "information technology" are concepts that appear early in the literature (between 1994 and 2007) and have not experienced significant expansion recently. These indicate concerns about the early stages of digitalization but are no longer at the heart of the current research agenda.
Terms such as 'knowledge management' (13), 'decision making' (8) and 'ontology' (8) have medians placed around 2018, suggesting that they link the technological side to applicability in decision-making, consulting strategies and information infrastructure.

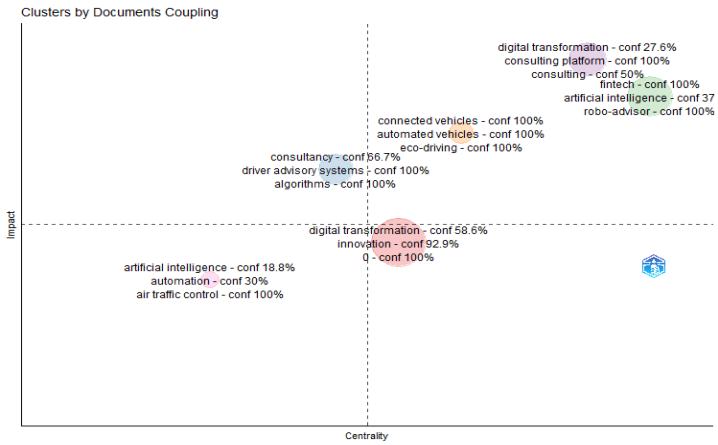

Figure 6. Thematic period
Source: Authors using Bibliometrix

The coupling of documents by theme highlights the existence of six large clusters: digital transformation in accounting and auditing, virtualization, and automation of consulting, fintech & robo-advising, formal models and digital infrastructure, intelligent transport and sustainability, ergonomics, and human-machine interaction. Cluster 1 reflects research on the digital transformation of traditional professions (accounting, auditing, consulting), focusing on redefining professional roles, adapting to digital platforms and the emergence of robo-consulting. There are concerns about automating decisions in professional services firms and integrating technology into internal control. Cluster 2 is focused on **consulting 4.0 and the virtualization of consulting services**. This cluster highlights using **ontologies, artificial intelligence, automation, and SaaS platforms** to rebuild the consultant-client relationship. It is the methodological and architectural core of modern digital consulting. Cluster 3 explores the application of AI and analytics in robo-advising, digital financial markets, investor behaviour, and the role of automated platforms in financial advisory. It also addresses ethical and algorithmic challenges in fintech digital services. Cluster 4 focuses on developing formal models and digital architectures (such as DITCOS) for consulting services. Interoperability, service virtualization and digital maturity of consulting firms through semantic standardization and technology integration are discussed here. Cluster 5 investigates applied consultancy in sustainable transport, eco-driving, autonomous vehicles, and the optimization of driving behaviour through intelligent systems. It is associated with the application of AI in infrastructure decisions and green mobility strategies. Cluster 6 focuses on the interface between cognitive factors and digital technologies, addressing how users interact with digital consulting platforms, focusing on usability, cognitive ergonomics, and decision-making certainty in semi-automated processes.

4.6. Co-citation network and institutional collaboration

Cluster 1 "Digital Transformation and Strategic Management,, has as its central authors Vial (2019), who is the most influential in defining the concept of digital transformation, Teece (2007, 1997), Eisenhardt (1989, 2007), Bharadwaj (2013), Matt (2015) and Miles (1994). Their main themes are related to theories and models on strategic management, dynamic capabilities, and digital transformation. The cluster underpins the understanding of how technology alters organizational structure and strategies.

Cluster 2 is poorly connected, aimed at the adoption of technologies in organizations, and it includes Katsaros (2011) and Wan (2016), who focused on the implementation of new technologies in specific contexts such as education, Human Resources (HR), and administration.

Cluster 3 "Information Technologies and User Behaviour" focuses on Davis (1989), who is the initiator of the TAM model, and Fornell (1981), Chin (1998), Venkatesh (2003), Belanche (2019), Bhatia (2020), and Jung (2018–2019). They analyzed patterns of technology acceptance, user satisfaction and evaluation of information systems. This cluster is the theoretical core of human-technology interaction and digital behaviour.

Cluster 4 directly targets digital consultancy, architectural models, and research methodologies. The central authors are Werth (2016), Hevner (2004), Peffers (2007), Christensen (2013), Bode (2021–2024), Nissen (2015, 2018) and Cerruti (2019). They looked at formal models, digital business models, digital consulting, and design science research. This is the technological and methodological cluster of modern consulting.

In cluster 5, there are isolated or niche studies in a digital context. It includes Kerber (1997), De Gauna (2008) and Irusta (2009), who have contributed to specific themes, but without a "pivot" role in the network (Figure 7).

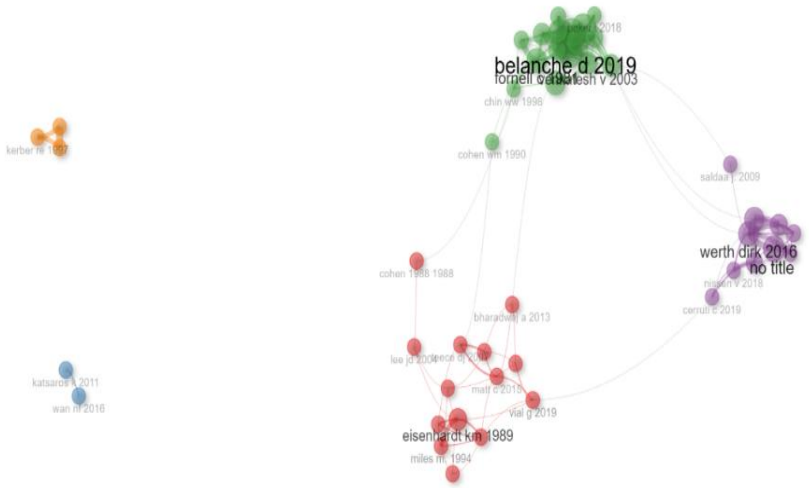

Figure 7. Co-citation network
Source: Authors, with Bibliometrix

The map of international collaborations reflects an intense polarization around the major global players, the US, China, the UK, and France, with a growing international openness, including from emerging countries. Cross-border cooperation is a key factor in the evolution of research in digital transformation, and the geographical diversity of partnerships shows the apparent trend of globalization of scientific knowledge.

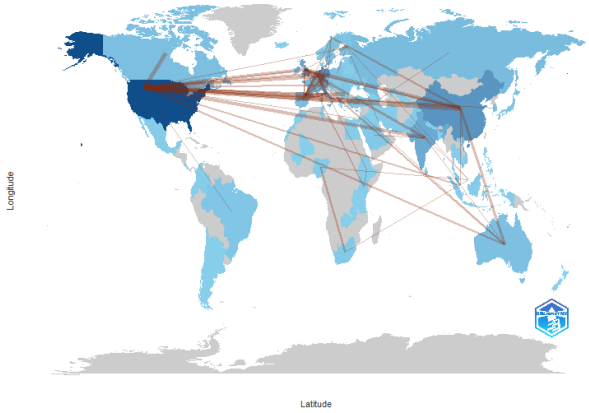

Figure 8. Country collaboration map
Source: Authors, with Bibliometrix

The US is the most active actor in this system, establishing multiple partnerships with over 20 countries, including China (12 collaborations), Canada and France (7 each), Germany, India, and the United Kingdom, each with more than five bilateral connections. The United Kingdom is asserting itself as an essential European node, with intense links in Europe and the non-EU space, especially with India, Australia, and Kenya. Germany and France support a wide, extensive collaborative network in Central Europe, Asia, and North Africa. China is growing open to the Global South, with partnerships with Vietnam, South Africa, Tunisia, and Qatar.

4.7. Thematic maps and conceptual evolution

The thematic map made with the Callon algorithm highlights four major themes: motor, emerging, basic, and niche.

Motor themes underpin the current scientific structure and act as "engines" of development. "Business", "perceptions", and "big data" are the key topics for digitalization, data analysis and managerial transformation. At the same time "management", "model", "technology", "framework", and "optimization" are theoretical and applicative foundations of digital transformation in consulting and industry.

Basic themes are important, but they are being strengthened. They offer a broad base of interest but require further study. While "design", "integration", "risk", "behavior", "future internet" are up-and-coming topics for the development of "digitalized consultancy", "classification", "algorithm" and "system" are fundamental concepts in AI applied in business, but they are in a consolidation stage.

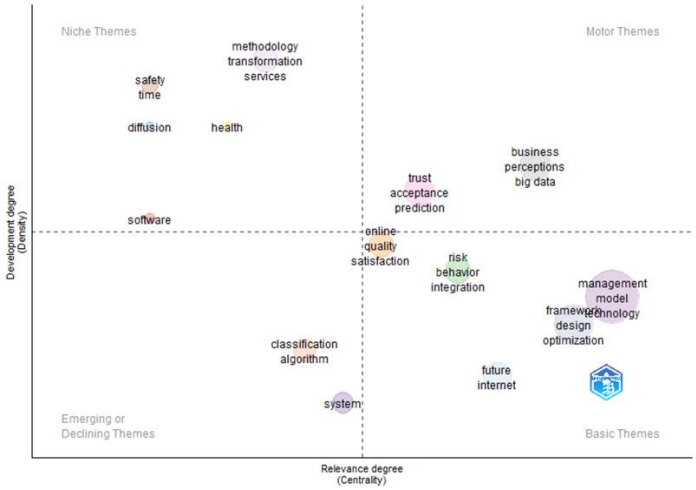

Figure 9. Thematic map – Callon Centrality vs. Density
Source: Authors, with Bibliometrix

Niche Themes are well-developed but have limited relevance to other areas. They are specialized and applicable in specific contexts regarding the digital transformation methodology in sectors such as health services.
Declining Themes are emerging and are in the early stages of development or have been abandoned. Some concepts, such as those related to "software", "system", "classification" and "algorithm", can indicate future directions, especially if they relate to AI and big data.

5. Conclusions

The bibliometric analysis carried out in this article highlights the growing academic interest in the digitalization of management consulting, a field located at the intersection of technological innovation and business transformation. The research reveals the importance of digital transformation, automation, and artificial intelligence, reflecting a structural shift in how advisory services are delivered, personalized, and scaled in the digital economy. The thematic and concept maps indicate an evolution from fundamental technological terms to integrated approaches, including redesigning business models, digital platforms, and hybrid consulting solutions.
The model of international collaboration and the emergence of dedicated research clusters, such as those focused on the architecture of IT consulting, robo-advisory or Industry 4.0, demonstrate that the digitalization of consulting has become a global priority in scientific research. The cross-sectoral influence of digitalization, visible in related fields such as accounting, transport, or agriculture, supports the trans-disciplinary nature of innovation in this space. In addition, the transition to automated and virtualized consulting models underlines the need for up-to-date skills and adapted digital infrastructures in the professional consulting ecosystem.
Regarding research limitations, the analysis was based exclusively on documents indexed in the Web of Science (WoS) database. Therefore, some relevant papers from other databases, such as Scopus or Google Scholar, may have been omitted. Also, the inclusion of only publications written in English could affect the overall representativeness of the results. Using a specific set of keywords is another limitation, as some relevant studies using different terminology may not have been identified. At the same time, the study did not include a qualitative evaluation of the extracted documents, which would have allowed a deeper understanding of the theoretical contributions and methodological rigor. However, I consider that these limitations have little impact on the robustness of the conclusions.
An in-depth content analysis on the most influential studies identified through the bibliometric process is recommended as a future research direction. This would facilitate a more detailed understanding of the conceptual framework and application models used in the digital transformation of consultancy. Also, comparative case studies of consulting firms adopting different digitalization strategies can highlight success factors, resilience patterns, and organizational impact. Extending the analysis to regional and sectoral contexts could further enrich the understanding of how digital innovation is reshaping the consulting industry globally.
From a theoretical perspective, this article fills an existing gap in the literature by systematizing the main currents of thought and emerging research directions in the field. From a practical point of view, the study provides a valuable knowledge base for consulting professionals, business leaders and decision-makers interested in accelerating the digital maturity of consulting services. As digital ecosystems evolve, the intersection of technology and consulting will require continuous adaptation, strategic vision, and collaborative innovation.

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