



Knowledge Management: A Strategic Driver of Competitive Intelligence

^{1,*}Ibtihal ZERHOUNI, ²Ibrahim ASSABANE, ³Bouchra EI IDRISSE

^{1,2,3}School of Information Sciences (ESI), Morocco

E-mail: ¹ibtihal.zerhouni@esi.ac.ma, ²Email: iassabane@esi.ac.ma, ³Email: bel-idrissi@esi.ac.ma,

*Corresponding Author: Ibtihal ZERHOUNI, (Email: ibtihal.zerhouni@esi.ac.ma)

Abstract- Today, competitive intelligence and knowledge sharing are recognized as essential intangible assets for gaining a competitive advantage. According to Johnson (2010), competitive intelligence involves collecting and analyzing complex data to support strategic decision-making, while Kent (1949) and Spender (1996) highlight its role in advanced decision-making processes. These concepts have been developed to shape organizational strategy (Bratianu & Murakawa, 2004; Porter, 1985). Simultaneously, knowledge management—whether in creation, sharing, or utilization—plays a pivotal role in corporate competitiveness (Bratianu, 2007, 2022; Nonaka, 1994). This research explores the interaction between these two concepts and their influence on strategic advantage, aiming to deepen our understanding of their impact on organizational competitiveness.

Keywords: Competitive Intelligence, Knowledge Management, Information, Strategic Advantage, Decision Making.

I. Introduction

In an increasingly complex and interconnected economic environment, companies face growing competition, rapid market changes, and heightened volatility. In this context, competitive intelligence (CI) has become an essential strategic lever, enabling organizations to collect, analyze, and utilize information about their competitors and the external environment. However, for a competitive intelligence strategy to be fully effective, it must rely on a key intangible asset: knowledge management (KM). The historical evolution of knowledge management, highlighted by thinkers such as Peter Drucker (1993), shows that knowledge has progressed from being merely a tool to becoming a fundamental strategic resource that drives innovation and productivity. Following the world wars, management theories emphasized the importance of applying knowledge to enhance productivity, with figures such as Taylor, Fayol, and Mayo contributing to this perspective (Drucker, 1993).

This study aims to explore the importance of knowledge management as a strategic lever for competitive intelligence. In a dynamic and constantly evolving environment, understanding the mechanisms that link these two elements is crucial for helping companies differentiate themselves and maintain long-term competitiveness. Despite the challenges posed by COVID-19, the ICT sector continues to grow, supported by global data from the OECD and UNCTAD (OECD, UNCTAD, 2021). In this context, competitive intelligence and knowledge management are essential for sustaining a competitive edge and fostering innovation.

The article is structured into three sections: (i) The first section presents a literature review, defining key concepts and discussing previous research. (ii) The second section outlines the methodology adopted and the research results, highlighting the contribution of knowledge management to competitive intelligence. (iii) The third section concludes the study by summarizing the main findings, discussing research limitations, and suggesting directions for future studies.

II. Literature review

2.1 The Emergence of Competitive Intelligence

2.1.1 In Anglo-Saxon Countries

Many authors (Harbulot & Baumard, 1999; Moinet, 2010) trace the origins of economic intelligence back to Sun Tzu's work (500 BC). Despite the apparent divide between warfare and economic environments, numerous parallels exist, particularly in information processing. Sun Tzu's teachings have significantly influenced managerial thinking and practices (Hirigoyen, 2005).



This idea is reflected in the dual meaning of the term "intelligence." In its Anglo-Saxon sense, it refers to "intelligence gathering," while its Latin roots emphasize the ability to connect previously separate elements. This dual perspective arises from a concept shaped by Anglo-Saxon influences and the growing complexity of information exchanges.

Competitive Intelligence (CI) first emerged in the United States in the early 1970s. However, it was only two decades later, as American companies faced declining global market competitiveness, that monitoring competitors became a strategic necessity.

2.1.2 In Francophone Countries

The Francophone concept of intelligence économique seeks to encompass three Anglo-Saxon terms related to information practices (Prescott, 1999).

- **Business Intelligence:** Rooted in Aguilar's (1967) work, business intelligence involves gathering information about a company's environment to support top management. Its goal is to develop an information system that facilitates tactical decision-making. This approach, influenced by advancements in computing and data storage, is frequently referenced by Mintzberg (1984), who highlights the central role of information in decision-making. Later research (Greene, 1966; Cox & Good, 1967) introduced the idea of ranking information by interpretation levels, a concept later formalized by Fuld (1995) in the intelligence cycle.
- **Competitive Intelligence:** This field evolved significantly under the influence of Porter (1980), who challenged the traditional military-inspired approach to information gathering. He emphasized the importance of strategically analyzing collected information rather than merely accumulating it for tactical purposes. This perspective led to the development of internal organizational structures dedicated to analyzing the competitive environment and providing insights to decision-makers. Researchers such as Sammon et al. (1984) explored how collected data can be transformed into strategic meaning, while Vella & McGonagle (1987) examined the impact of IT tools on information retrieval.

2.1.3 Competitive Intelligence Perspectives

Competitive intelligence aims to enhance performance, which is a measurable outcome achieved in a competitive environment. In a corporate setting, performance reflects the extent to which a company meets its objectives. A high-performing company must be both effective—by achieving its set goals—and efficient—by minimizing the resources required to reach them. Performance is assessed using both qualitative and quantitative indicators: effectiveness represents the ratio of achieved results to targeted objectives, while efficiency reflects the ratio of achieved results to resources utilized (Harbulot & Baumard, 1999; Moinet, 2010).

To comprehensively evaluate a company's performance, it must be measured across multiple dimensions: financial, economic, social, organizational, and societal. Economic performance, in particular, focuses on competitiveness, which includes two key aspects. Price competitiveness refers to a product's ability to attract customers based on pricing, determining the company's market position. Non-price competitiveness, on the other hand, is based on factors such as quality, innovation, service, and design (Mintzberg, 1984).

2.2 Knowledge Management Approaches

The concept of knowledge capitalization is shaped by several schools of thought. Alexandre Patchulski (2000) identified three primary currents that have influenced this concept:

2.2.1 Economic and Managerial Approach

This perspective played a crucial role in the emergence of knowledge capitalization, evolving through three phases:

- **Resource-Based View of Strategy:** Edith Penrose (1959) introduced a paradigm shift in corporate strategy with her book *The Theory of the Growth of the Firm*. She argued that when a skilled employee leaves a company, it results in the loss of intellectual capital, much like losing a material resource. Her work laid the foundation for an economic theory that places knowledge at the core of wealth creation.
- **Organizational Knowledge and Routines:** Nelson and Winter (1982) conceptualized knowledge within organizations as routines, defining competencies as the ability to

coordinate sequences of actions to achieve specific goals. These routines serve as the repository of an organization's knowledge.

- Organizational Changes for Knowledge Capitalization: Drucker (1993), Prahalad & Hamel (1995), and Nonaka & Takeuchi (1995) emphasized the need for companies to facilitate connections among employees to foster knowledge creation. These connections can occur at the individual, team, or organizational level.

2.2.2 Artificial Intelligence Approach

Artificial intelligence (AI) introduced the concept of knowledge into computing, which was previously limited to data processing. AI redefined programming by incorporating knowledge as a primary component:

- Ganascia (1990) explained that AI techniques shifted from procedural programming to building knowledge bases, enabling problem-solving through domain-specific knowledge.
- Alan Newell and Herbert Simon (1972) provided a structured framework for AI knowledge studies, aligning it with cognitive sciences rather than opposing them.

2.2.3 Information Systems Engineering Approach

Arsac (1970) distinguished between information and knowledge, stating that information is a written or recorded formula that conveys knowledge. This distinction clarifies the difference between knowledge engineering and information systems engineering:

- Information systems are designed to inform.
- Knowledge engineering goes further by structuring and formalizing knowledge for communication and manipulation.

2.3 Competitive intelligence & Knowledge management

Knowledge Acquisition and Management in Competitive Intelligence: The creation, capitalization, and sharing of vast amounts of knowledge remain central concerns in today's world. In this context, two key concepts are immediately relevant to this evolution: monitoring, which refers to the informational process through which a learning organization listens to its environment, and Knowledge Management (KM), which ensures the availability and sharing of internal knowledge.

Competitive Intelligence (CI) and Knowledge Management (KM) are closely intertwined concepts that significantly contribute to an organization's ability to adapt, innovate, and maintain a competitive edge. CI involves the systematic process of gathering, analyzing, and disseminating information about competitors, market trends, and the business environment to support decision-making (Porter, 1980; Fuld, 1995). This process is crucial for identifying opportunities and threats, thereby shaping strategic decisions. On the other hand, Knowledge Management (KM) focuses on the systematic handling of knowledge within an organization, ensuring its creation, sharing, and utilization to enhance organizational performance and innovation (Nonaka & Takeuchi, 1995; Davenport & Prusak, 1998). KM emphasizes the importance of both tacit and explicit knowledge, where tacit knowledge is often shared through personal interactions, and explicit knowledge is codified in systems and documents (Polanyi, 1966).

The integration of CI and KM ensures that organizations not only collect valuable external intelligence but also effectively manage and leverage their internal knowledge resources for strategic advantage (Alavi & Leidner, 2001). The synergy between these two domains fosters a culture of learning, collaboration, and continuous improvement, which is essential for achieving long-term competitive success.



Source: (El Fadili et al, 2017)

Resource-based theory emphasizes that firms differentiate themselves through their resources, with knowledge assets serving as a key competitive advantage. Organizational performance depends on how effectively a company manages its intangible resources, making knowledge management essential for value creation. Competitive intelligence and knowledge management complement each other by transforming information into actionable knowledge for decision-makers. Competitive intelligence relies on internal insights provided by knowledge management tools, while knowledge management benefits from strategic intelligence. This synergy enhances decision-making and contributes to overall firm performance (El Fadili et al., 2017).

III. Materials and Methods/ Methodology

This study employs a multidisciplinary, qualitative approach that combines various analytical methods to examine the role of knowledge management in competitive intelligence strategies. The methodologies used in this research are designed to explore how these two fields can complement and integrate effectively.

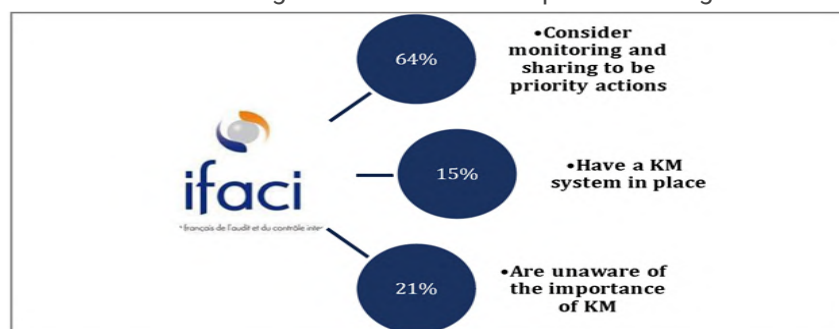
- **Literature Review:** An extensive review of existing research on knowledge management, competitive intelligence, and the impact of knowledge management on competitive intelligence. This analysis identified key issues, challenges, and success factors that influence the integration of these two fields.
- **Case Studies:** Several case studies across diverse organizations were analyzed to understand how knowledge management is implemented in different contexts and its direct or indirect impact on the core pillars of competitive intelligence. These case studies involved a sample of 10 organizations from various industries, allowing us to explore the practical application and outcomes of knowledge management in competitive intelligence. Three hypotheses were tested based on the case study findings.
- **Interviews with Experts and Practitioners:** Primary data was collected through interviews with 15 strategic managers, 8 knowledge management experts, and 10 key competitive intelligence professionals. These interviews provided insights into the challenges faced when integrating knowledge management into competitive strategies and the potential solutions to address these challenges.

IV. Results and Discussion

The shift from competitive intelligence to knowledge management highlights a paradigm change in how companies manage information and knowledge. Integrating the two practices is crucial for strengthening organizational agility and maintaining a competitive position in the marketplace. It is therefore important to ask the following question: What impact does knowledge management have on the competitive intelligence process? Based on the identified problem, the following hypotheses are formulated:

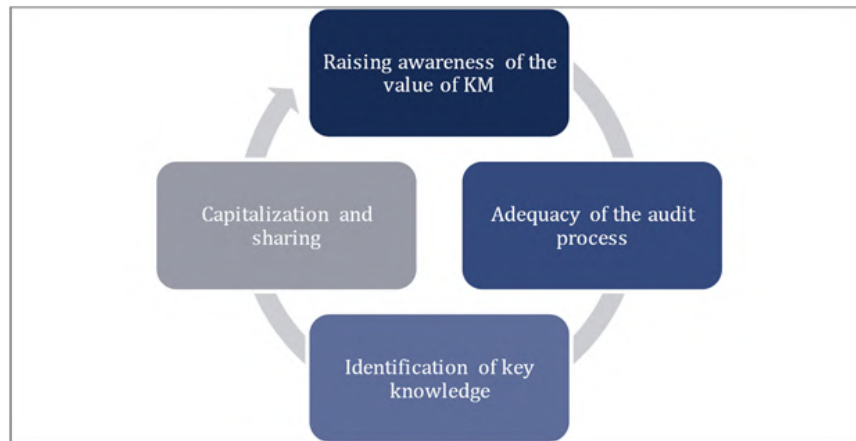
- Hypothesis 1: Efficient data management enhances competitive intelligence.
- Hypothesis 2: Effective knowledge sharing reinforces competitive advantage.
- Hypothesis 3: Knowledge management fosters organizational performance and drives innovation.

★ Result 1: Efficient data management enhances competitive intelligence



Source: Edited by Author

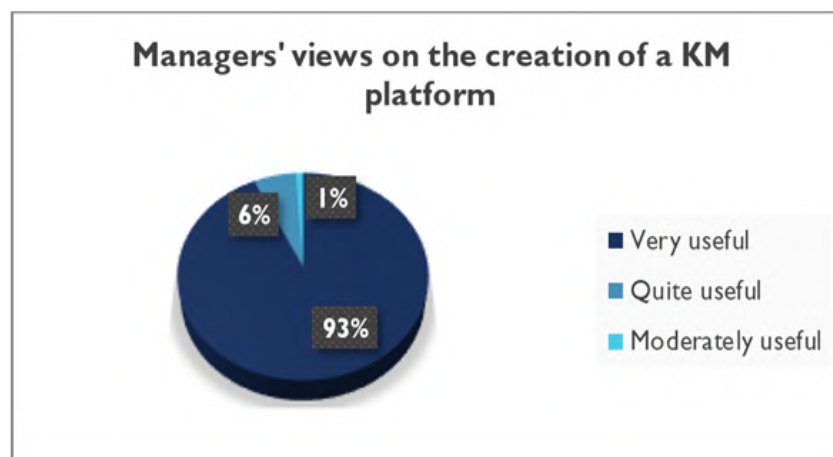
According to a survey of 186 executives conducted by IFACI, 64% consider information monitoring and sharing to be priority actions for their organization. However, only 15% have a knowledge management (KM) system in place, while 21% are unaware of the importance of KM. These results highlight a gap between the recognition of the importance of information sharing and the implementation of effective knowledge management systems (IFACI, 2021).



Source: Edited by Author

This situation underscores the need for better capitalization and more systematic sharing of knowledge within organizations, as well as a more precise alignment of audit processes to identify key knowledge. These elements are essential for enhancing the effectiveness of competitive intelligence and optimizing the use of strategic knowledge (IFACI, 2021).

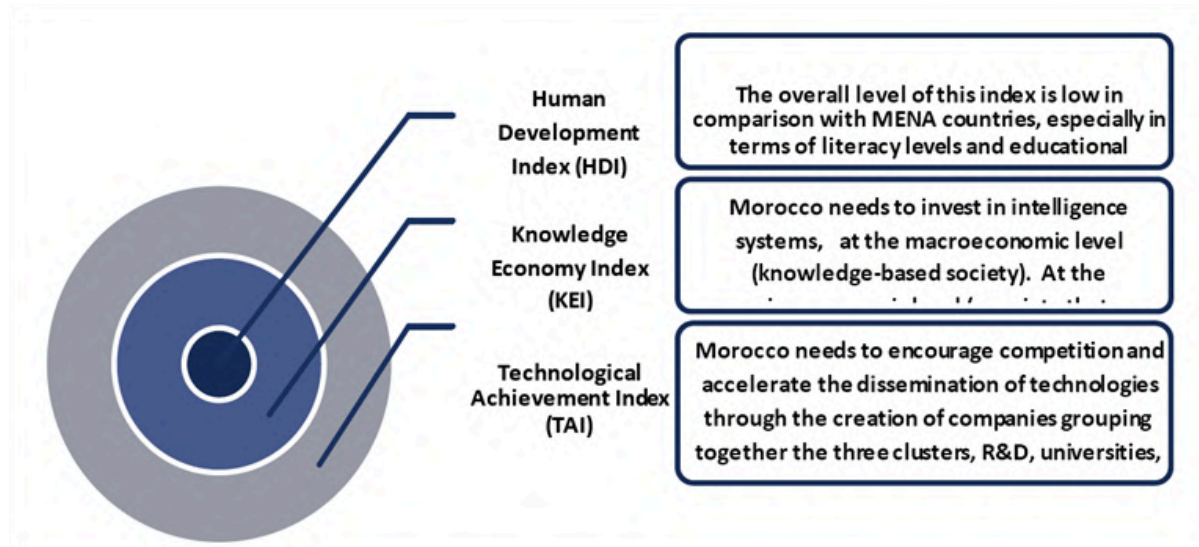
★ Result 2: Effective knowledge sharing reinforces competitive advantage



Source: Edited by Author

The launch of the knowledge management (KM) project and the creation of a platform within Poste Maroc reflect a strategic intent to integrate competitive intelligence into the organizational model. By facilitating the collection, storage, and sharing of knowledge, this initiative enables the company to capitalize on strategic information, enhancing its ability to adapt to future challenges. This platform supports the company's strategic decisions and boosts its competitiveness, allowing it to better meet market demands while aligning its efforts with its vision of excellence. This project demonstrates how knowledge management can serve as a key lever for innovation and agility, both nationally and internationally.

★ Result 3: Knowledge management fosters organizational performance and drives innovation



Source: Edited by Author

The results indicate that although Morocco has improved its Human Development Index (HDI) through gains in life expectancy and education, it still lags behind some MENA countries, particularly in terms of literacy and school enrollment. These shortcomings affect knowledge management and hinder the development of an innovation culture essential for competitive intelligence. While the country is progressing toward a knowledge-based economy, this transition remains slower compared to other nations. Moreover, Morocco's performance in research, development, and ICT—sectors crucial to competitive intelligence—remains behind countries like Jordan and Turkey, highlighting the need to enhance infrastructure and skills to overcome these structural challenges (Driouchi & Zouag, 2006). In this context, Mr. Youssef Guerraoui Filali, Director of CMGM, emphasizes the importance of the information economy and knowledge management in ensuring the competitiveness of companies and nations. In his view, information has become a significant competitive advantage, especially with the transition to Industry 4.0 and the rise of smart technologies. He notes that companies are increasingly investing in business intelligence and strategic intelligence to better understand consumer behavior and make informed decisions. Regarding knowledge management, he sees it as a sustainable competitive advantage, as demonstrated by Google, whose customer data management generates substantial long-term profits (Guerraoui Filali, 2024).

V. Conclusion

Through this work, we have highlighted several significant advancements. The results of IFACI's survey of 186 executives reveal a substantial gap between the recognition of the importance of knowledge management (KM) and its actual implementation. Although 64% of executives consider information intelligence and sharing to be strategic priorities, only 15% have implemented a KM system, and 21% do not recognize its critical role. This indicates an under-utilization of knowledge management capabilities, which limits the competitive potential of companies. Poste Maroc's initiative to launch a KM project and create a knowledge-sharing platform represents a proactive approach to integrating competitive intelligence into corporate strategy, with the goal of enhancing agility and competitiveness.

However, the results also reveal that, despite significant progress in improving the Human Development Index (HDI), Morocco still lags behind some MENA countries in terms of education and research. This situation restricts the development of an innovation culture, which is essential for strengthening competitive intelligence. Furthermore, Mr. Youssef Guerraoui Filali's comments emphasize the importance of knowledge management as a sustainable strategic lever, citing the example of Google, where customer data management generates a competitive advantage.

The originality of this article lies in its exploration of knowledge management (KM) and competitive intelligence (CI) as essential strategic drivers for enhancing corporate competitiveness in an increasingly information-driven environment. It presents an integrated approach to these two



concepts, underscoring not only their individual importance but also their complementarity in building an agile and innovative organization. By focusing on how KM systems can improve business intelligence and optimize decision-making, the article provides valuable insights for companies seeking to leverage data and information to anticipate market trends and consumer behavior. Additionally, it discusses practical examples of implementation in various organizational contexts, contributing valuable research on the impact of KM and CI on long-term corporate performance.

In conclusion, the strategy of an economy based on knowledge management is a key factor in the development and value creation within organizations. It relies on the exploitation and optimization of knowledge as a strategic lever to improve performance, innovation, and competitiveness. This approach is structured around several fundamental dimensions:

- Knowledge and culture, forming the foundation for knowledge creation.
- Sharing, learning, and exchange, which facilitate the transmission and capitalization of skills.
- Innovation and feedback, enhancing adaptability and continuous improvement.
- Valorization, communication, and mobilization, which drive collaboration and stakeholder engagement.
- Best practices and technological infrastructure, ensuring the effective structuring and dissemination of knowledge.

The ultimate objective is to create a dynamic of collective intelligence, enabling individuals to develop specific skills and optimize decision-making processes. Therefore, effective knowledge management not only contributes to organizational performance but also fosters the emergence of a sustainable competitive advantage.

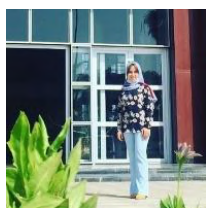
References

1. ABAH, Mercy; Asiedu, Nasir Koranteng; and Dei, DeGraft Johnson, "KNOWLEDGE MANAGEMENT STRATEGIES IN LIBRARIES: A SYSTEMATIC REVIEW" (2022). Library Philosophy and Practice (e-journal). 6779. <https://digitalcommons.unl.edu/libphilprac/6779>.
2. AL-HASHEM ADEL ODEH. THE MEDIATION ROLE OF ORGANIZATIONAL MEMORY BETWEEN KNOWLEDGE SHARING SYSTEMS AND THE COMPETITIVE INTELLIGENCE, Journal of Theoretical and Applied Information Technology 31st May 2024. Vol.102. No. 10.
3. Budeanu, N.A.S., 2024. Knowledge Sharing in Business and Competitive Intelligence: a Bibliometric Analysis. Oradea Journal of Business and Economics, 9(2), pp.71-82, <http://doi.org/10.47535/1991ojbe197>.
4. Chiu, D.K.W. and Ho, K.K.W. (2023), "Editorial: Advances in information and knowledge management", Library Hi Tech, Vol. 41 No. 4, pp. 993-1005. <https://doi.org/10.1108/LHT-08-2023-588>. Editorial: Advances in information and knowledge management | Emerald Insight.
5. Dieng, et al.. Méthodes et outils pour la gestion des connaissances : une approche pluridisciplinaire du knowledge management. Dunod, pp.372, 2001, Informatiques - Série Systèmes d'information, 2-10-006300-6. (hal-01145755).
6. Driouchi, N. Zouag, 2006«Eléments pour le Renforcement de l'Insertion du Maroc dans l'Economie de la Connaissance», Prospectives Maroc 2030, Haut-commissariat au Plan et PNUD, Avril 2006. Health care planning & marketing: HCP&M.
7. Egena Ode & Rajenthyan Ayavoo. The mediating role of knowledge application in the relationship between knowledge management practices and firm innovation, Journal of Innovation & Knowledge Volume 5, Issue 3, July–September 2020, Pages 210-218. The mediating role of knowledge application in the relationship between knowledge management practices and firm innovation - ScienceDirect.
8. Egena Ode & Rajenthyan Ayavoo. The mediating role of knowledge application in the relationship between knowledge management practices and firm innovation, Journal of Innovation & Knowledge 5 (2020) 209–217. The Mediation Effect of Strategic Leadership in the Relationship between Knowledge Management, Competitive Intelligence and Business Strategy Formulation | The journal of contemporary issues in business and government.
9. F SOSSI ALAOUI & al. 2013, Knowledge management et gouvernance IT, Cas de Poste Maroc, Institut des Études Africaines - Laboratoire d'Études et de Recherches Interdisciplinaires sur l'Afrique (LERIA), Université Mohamed V - Souissi – Rabat.
10. Farooq, R. (2024), "A review of knowledge management research in the past three decades: a bibliometric analysis", VINE Journal of Information and Knowledge Management Systems, Vol. 54 No. 2, pp. 339-378. <https://doi.org/10.1108/VJIKMS-08-2021-0169>. A review of knowledge management research in the past three decades: a bibliometric analysis | Emerald Insight.



11. Goswami, A.K., Sinha, A., Goswami, M. and Kumar, P. (2024), "Explicating the mapping between big data and knowledge management: a systematic literature review and future directions", *Benchmarking: An International Journal*, Vol. ahead-of-print No. ahead-of-print. <https://doi.org/10.1108/BIJ-09-2022-0550>.
12. Guide d'interview avec Youssef Guerraoui Filali, Directeur du Centre Marocain pour le Gouvernance et le Management 2024.
13. Jean-Louis Ermine. *Management et ingénierie des connaissances : modèles et méthodes*. Jean-Louis Ermine. Hermes Science Publications-Lavoisier, pp.359, 2008, IC2, Management et gestion des STIC, 978-2-7462-1945-8. fffhal-00986764f.
14. L'Institut Français de contrôle d'audit interne, une démarche de management des connaissances dans une direction d'audit interne. 2021.
15. L'OCDE, *TECHNOLOGIES DE L'INFORMATION ET DES COMMUNICATIONS, Perspectives des technologies de l'information de l'OCDE*. 2021.
16. Manisha Paliwal & al. 2024, *Evolution of Research in Knowledge Management and Competitive Advantage*, *Evolution of Research in Knowledge Management and Competitive Advantage* | SpringerLink.
17. Meenu Chopra, Past, present, and future of knowledge management for business sustainability Author links open overlay panel, *Journal of Cleaner Production* Volume 328, 15 December 2021, 129592. Past, present, and future of knowledge management for business sustainability - ScienceDirect.
18. Nathalie Coutinet. *La mesure de l'économie de l'information*. Société de l'information: Approche économique et juridique, L'harmattan, pp.26-38, 2006. fffhalshs-00199030.
19. Rehman, S.U., Bresciani, S., Ashfaq, K. and Alam, G.M. (2022), "Intellectual capital, knowledge management and competitive advantage: a resource orchestration perspective", *Journal of Knowledge Management*, Vol. 26 No. 7, pp. 1705-1731. <https://doi.org/10.1108/JKM-06-2021-0453>. Intellectual capital, knowledge management and competitive advantage: a resource orchestration perspective | Emerald Insight.
20. Rina Suryani Oktari. Knowledge management practices in disaster management: Systematic review Author links open overlay panel, *International Journal of Disaster Risk Reduction* Volume 51, December 2020, 101881. Knowledge management practices in disaster management: Systematic review - ScienceDirect.
21. S EL MOUSTAFID. 2016, THESE Pour l'obtention doctorat EN SCIENCES DE GESTION, LA GESTION DE LA CONTINUITE DES CONNAISSANCES DANS LES ORGANISATIONS PUBLIQUES. GROUPE INSTITUT SUPERIEUR DE COMMERCE ET D'ADMINISTRATION DES ENTREPRISES, Centre des Etudes Doctorales en Gestion Laboratoire de Recherche en Management.
22. Salima El Fadili et al.; *Saudi J. Bus. Manag. Stud.*; Vol-2, Iss-6 (Jun, 2017):614-620
23. Xin Hu & al. Opportunities and challenges of ChatGPT for design knowledge management, *Procedia CIRP* Volume 119, 2023, Pages 21-28. Opportunities and challenges of ChatGPT for design knowledge management - ScienceDirect.

Author's biography



Ibtihal ZERHOUNI obtained his bachelor's degree in economics and management from the University of Oujda. She then obtained a master's degree in competitive and strategic intelligence from the School of Information Sciences in Rabat, as the first master's degree in Morocco specializing in this field. She is currently preparing her doctorate in economic intelligence. Her specializations include data management, business intelligence and competitive intelligence. she has also obtained professional qualifications from several top-quality institutions. She has worked as a data and intelligence analyst in several consultancies. Her current research interests include business intelligence, strategic analysis and data management.