

Digital Companies: Smart Decision-Making and Knowledge Management for Adapting to Rapid Changes

Fateh Zaiter¹, Mounir Azouz²

Abstract. In the fast-paced digital transformation era, organizations must integrate smart decision-making and knowledge management (KM) to foster innovation and ensure adaptability to continuous change. Digital companies operate in a highly dynamic environment where the ability to process and utilize knowledge effectively determines competitive advantage. This paper explores the intersection of smart decision-making and KM, highlighting key frameworks, emerging technologies, and strategic implementations that enhance innovation and organizational agility. This study adopts a theoretical approach, utilizing descriptive and analytical methods to explore the relationship between smart decision-making, knowledge management, and adaptability in digital companies. By reviewing existing literature, this study aims to outline the current state of knowledge in these areas and identify the gaps that need further exploration. The results of the study indicate that despite the advantages, organizations face several challenges in integrating KM with decision-making processes: data silos, security and privacy concerns, and cultural resistance. Instead, several organizations have already successfully integrated smart decision-making with KM, including Google, Amazon and Microsoft. This study proposes a strategic model for knowledge-driven smart decision-making in digital enterprises. By leveraging advanced technologies (particularly artificial intelligence (AI), big data analytics, and cloud computing), organizations can not only enhance their decision-making capabilities but also sustain a competitive advantage in an increasingly digital marketplace. Making smart, data-driven decisions quickly can help digital companies stay ahead of competitors, adapt to market changes, and identify innovative solutions that drive business growth. However, while integrating these technologies shows great promise, exploring their practical implications further is crucial.

Received: 21 February 2025 | **Revised:** 5 March 2025 | **Accepted:** 8 March 2025 | **Published:** 30 March 2025

Keywords: smart decision-making, knowledge management, digital transformation, artificial intelligence, digital companies.

Suggested Citation

Zaiter, F., & Azouz, M. (2025). Digital Companies: Smart Decision-Making and Knowledge Management for Adapting to Rapid Changes. *Oblik i finansi*, 1(107), 144-151. [https://doi.org/10.33146/2307-9878-2025-1\(107\)-144-151](https://doi.org/10.33146/2307-9878-2025-1(107)-144-151)



This is an open access article under the terms of the Creative Commons Attribution-NonCommercial 4.0 License (<http://www.creativecommons.org/licenses/by-nc/4.0/>), which permits use and distribution in any medium, provided the original work is properly cited and the use is non-commercial.

© 2025 The Author(s).

¹ **Fateh Zaiter**, University Mohamed El Bachir El Ibrahimi of Bordj Bou Arreridj, Bordj Bou Arreridj, Algeria.
ORCID 0009-0002-4820-9113

² **Mounir Azouz**, University Mohamed El Bachir El Ibrahimi of Bordj Bou Arreridj, Bordj Bou Arreridj, Algeria.
ORCID 0009-0008-2171-8341
E-mail: mounir.azouz@univ-bba.dz (*Corresponding author*)

Цифрові компанії: розумне прийняття рішень та управління знаннями для адаптації до швидких змін

Анотація. В епоху швидкої цифрової трансформації організації повинні інтегрувати інтелектуальне прийняття рішень і управління знаннями (knowledge management / КМ), щоб сприяти інноваціям і забезпечувати адаптивність до постійних змін. Цифрові компанії працюють у дуже динамічному середовищі, де здатність обробляти та ефективно використовувати дані визначає конкурентну перевагу. Ця стаття має на меті дослідити перетин інтелектуального прийняття рішень і управління знаннями, висвітлюючи ключові механізми, нові технології і стратегічні рішення, які покращують інновації та організаційну гнучкість. Дослідження базується на теоретичному підході з використанням описових та аналітичних методів для вивчення зв'язку між розумним прийняттям рішень, управлінням знаннями та адаптивністю в цифрових компаніях. Аналізуючи попередні дослідження, автори окреслюють поточний стан знань у цих сферах і виявляють прогалини, які потребують подальшого вивчення. Результати дослідження свідчать, що, незважаючи на переваги, організації стикаються з кількома проблемами під час інтеграції КМ у процеси прийняття рішень: накопичення даних, проблеми безпеки та конфіденційності та культурний опір. Натомість кілька цифрових компаній вже успішно інтегрували інтелектуальне прийняття рішень із КМ, серед них Google, Amazon і Microsoft. Це дослідження пропонує стратегічну модель розумного прийняття рішень на основі знань у цифрових компаніях. Використовуючи передові технології (зокрема, штучний інтелект, аналітику великих даних і хмарні обчислення), організації можуть не тільки розширити свої можливості прийняття рішень, але й зберегти конкурентну перевагу на ринку, що стає все більш діджиталізованим. Швидке прийняття розумних рішень на основі даних може допомогти цифровим компаніям випереджати конкурентів, адаптуватися до змін ринку та знаходити інноваційні рішення, які сприятимуть розвитку бізнесу. Однак, незважаючи на те, що інтеграція цих технологій є багатобічною, подальше вивчення їх практичних наслідків має вирішальне значення.

Ключові слова: розумне прийняття рішень, управління знаннями, цифрова трансформація, штучний інтелект, цифрові компанії.

1. INTRODUCTION

In today's fast-paced and ever-evolving business environment, digital companies are under constant pressure to adapt to rapid changes, technological advancements, and shifting consumer expectations. The ability to make smart, informed decisions and effectively manage organizational knowledge has become a crucial factor in maintaining a competitive edge and fostering innovation. As digital transformation accelerates, companies increasingly rely on advanced technologies such as Artificial Intelligence (AI), Big Data, and Cloud Computing to optimize their decision-making processes and streamline knowledge management.

The evolution of digital companies has necessitated a paradigm shift in how knowledge is managed and leveraged for decision-making. Traditional decision-making processes often rely on hierarchical structures and historical data, which may not be sufficient for addressing modern business complexities (McNabb, 2006; Nonaka & Takeuchi, 1995). In contrast, digital enterprises require real-time insights, predictive analytics, and AI-powered recommendations to make informed choices (Alvarenga et al., 2020; Ordóñez de Pablos & Lytras, 2019). This paper examines how integrating smart decision-making with KM can drive innovation and enable

businesses to adapt to rapid market changes (Bučková, 2015; García-Holgado & García-Peñalvo, 2014).

This study explores the intersection of smart decision-making and knowledge management within digital companies, focusing on how these elements help organizations respond to the rapid pace of market and technological shifts. By examining the integration of AI, Big Data, and Cloud Computing, this research aims to provide insights into how these technologies support organizational agility and innovation, offering a framework for understanding their impact on strategic decision-making and overall business performance.

2. THE RELEVANCE OF THE STUDY

This study is of paramount importance in today's rapidly evolving business landscape, where digital companies face continuous pressure to adapt to fast-changing market dynamics. By exploring the critical relationship between smart decision-making and knowledge management, this research provides valuable insights into how companies can leverage technology to enhance their ability to make timely, data-driven decisions. Integrating AI, Big Data, and Cloud Computing is transforming the decision-making process, allowing digital companies to optimize their operations and stay ahead of the competition. Understanding how

these technologies work together to improve adaptability and foster innovation is crucial for organizations aiming to maintain a sustainable competitive edge. This study will contribute to bridging the gap between theoretical models and practical applications, offering valuable guidelines for companies to implement effective strategies and drive long-term success in an increasingly digital world. The findings can reshape how businesses approach decision-making and knowledge management, offering theoretical and practical value to researchers, managers, and industry leaders alike.

3. METHODOLOGY

This study adopts a theoretical approach, utilizing descriptive and analytical methods to explore the relationship between smart decision-making, knowledge management, and adaptability in digital companies. The descriptive method provides an in-depth understanding of the key concepts and theoretical frameworks surrounding decision-making processes, knowledge management systems, and the integration of advanced technologies like AI, Big Data, and Cloud Computing. By reviewing existing literature, this study aims to outline the current state of knowledge in these areas and identify the gaps that need further exploration.

The analytical method examines and interprets the theoretical models proposed in the literature, evaluating their applicability to real-world digital organizations. Through a systematic analysis of the existing data, this study explores how these models can be integrated to enhance decision-making capabilities and organizational adaptability in the face of rapid changes. The combination of descriptive and analytical methods provides a comprehensive view of the subject matter, offering both a theoretical foundation and an analytical framework for understanding the evolving dynamics of digital companies.

4. LITERATURE REVIEW

4.1. Theoretical Foundations of Knowledge Management and Decision-Making

Knowledge management involves the systematic process of acquiring, organizing, sharing, and utilizing knowledge to enhance organizational performance (McNabb, 2006; Nonaka & Takeuchi, 1995). Conversely, decision-making is a cognitive process that involves selecting the best course of action from multiple alternatives (Simon, 1977; Keeley, 2004). Integrating KM and smart decision-making provides a robust foundation for digital companies seeking to optimize their operations and drive innovation (Janssen et al., 2017).

4.2. Role of Digital Technologies in Knowledge Management and Decision-Making

4.2.1. Artificial Intelligence and Machine Learning in Digital Companies

Digital companies are at the forefront of economic transformation, leveraging technology to enhance scalability, efficiency, and value creation. Unlike traditional firms that rely on tangible assets, digital businesses operate through intangible resources such as

data, software, and customer networks, allowing them to scale globally with minimal costs (Govindarajan et al., 2018). The shift towards a digital economy has enabled firms to optimize operations through cloud-based services, artificial intelligence, and platform-driven business models (Borremans et al., 2018).

A defining characteristic of digital transformation is the transition from asset-heavy industries to platform-driven economies, where businesses optimize value chains and revenue streams through digital strategies (Teece & Linden, 2017). This evolution has also influenced financial reporting, as conventional accounting methods fail to accurately capture the value of intangible assets and network effects. As a result, digital firms often face challenges in demonstrating profitability despite their long-term growth potential (Hinings et al., 2018).

Beyond financial complexities, digital businesses must navigate regulatory and cybersecurity challenges. Issues such as data privacy, intellectual property protection, and cybersecurity risks continue to shape the operational landscape for digital firms (Maropoulos, 2003). Furthermore, advancements in artificial intelligence and automation are reshaping industries, compelling businesses to innovate continuously to maintain their competitive edge (Alenezi, 2023). AI-powered decision-support systems have revolutionized KM by enabling automation, pattern recognition, and predictive analytics (Iacuzzi et al., 2020; Chan, 2018). Machine learning models can process vast datasets to provide real-time insights, enhancing decision accuracy and efficiency (Shujahat et al., 2019; Ardolino et al., 2017).

In the digital age, companies increasingly use advanced technologies such as Artificial Intelligence (AI) and Machine Learning (ML) to enhance their knowledge management practices and decision-making processes. These technologies play a crucial role in data collection, analysis, and application, helping organizations manage and leverage information more efficiently and effectively. Artificial Intelligence (AI), through its various subsets like Natural Language Processing (NLP) and cognitive computing, enables organizations to process vast amounts of unstructured data from multiple sources such as emails, documents, social media, and customer interactions. AI systems can identify patterns, extract insights, and make recommendations that inform smarter decisions. For example, AI-powered decision support systems can help businesses in areas like demand forecasting, risk analysis, and customer segmentation, allowing companies to make faster and more accurate decisions.

Machine Learning (ML), a branch of AI, enables systems to learn from historical data without being explicitly programmed. ML algorithms can continuously improve decision-making models as they are exposed to new data, ensuring organizations remain adaptable to changing market conditions. In knowledge management, ML can help identify hidden insights within large datasets, improving the quality of knowledge sharing across departments. Additionally, ML helps personalize knowledge delivery by suggesting relevant content to employees based on their roles and past behaviours.

Together, AI and ML significantly enhance an organization's ability to manage its knowledge resources and make informed decisions. These technologies reduce decision-making time and enable more data-driven, strategic decisions by automating data analysis, identifying trends, and improving predictions. In industries where speed and agility are paramount, AI and ML serve as invaluable tools for maintaining competitiveness and driving innovation.

4.2.2. Big Data and Analytics

Big data analytics allows organizations to extract valuable insights from structured and unstructured data sources (García-Holgado & García-Peñalvo, 2014; Al-Mahruqi et al., 2019). By leveraging data-driven decision-making, companies can forecast trends, identify risks, and enhance operational agility (Bučková, 2015; Shujahat et al., 2019).

Big Data and Analytics have revolutionized how organizations manage knowledge and make decisions. In a world where data is generated at an unprecedented rate, these technologies enable companies to capture, store, and analyze vast volumes of data, turning raw information into valuable insights that drive better decision-making and enhance knowledge management practices.

Big Data refers to the massive volume of structured and unstructured data that organizations generate daily. With the increasing complexity and diversity of data sources – including social media, transactional data, customer interactions, and IoT devices – traditional data processing methods are often insufficient. Big Data technologies, such as Hadoop and NoSQL databases, allow organizations to store and process these large datasets efficiently. The ability to harness Big Data gives companies a clearer, more comprehensive view of their operations, customers, and market conditions.

Analytics is the process of examining data to uncover patterns, correlations, trends, and actionable insights that inform decisions. Advanced analytics tools, including predictive and prescriptive analytics, help organizations make more informed and timely decisions by identifying potential opportunities and risks before they become apparent. Predictive analytics, for example, uses historical data to forecast future trends, helping businesses anticipate customer behaviour, market shifts, and operational challenges. Prescriptive analytics, on the other hand, suggests the best course of action based on data-driven insights, offering decision-makers concrete recommendations for action.

Regarding knowledge management, Big Data and Analytics play a pivotal role by improving the organization's ability to capture, organize, and share critical knowledge. Organizations can uncover valuable insights that can be shared across teams and departments by analyzing patterns in employee behaviour, customer preferences, or market trends. This helps break down silos and encourages knowledge sharing, ensuring that employees have access to the right information at the right time. Additionally, analytics tools can help identify gaps and areas where further learning is needed, enhancing the organization's ability to continuously improve.

Together, Big Data and Analytics empower organizations to make data-driven, informed decisions at every level. By utilizing data insights in knowledge management and decision-making processes, companies can improve efficiency, drive innovation, and maintain a competitive advantage in a rapidly changing market landscape.

4.2.3. Cloud Computing and Knowledge Sharing

Cloud-based KM platforms facilitate seamless knowledge sharing and collaboration across organizations (Al-Mahruqi et al., 2019; McNabb, 2006). These platforms ensure that knowledge is accessible in real-time, reducing silos and improving decision-making processes (Ordóñez de Pablos & Lytras, 2019; Keeley, 2004).

Cloud Computing has become a fundamental component of modern business operations, offering organizations powerful tools for knowledge management, collaboration, and data-driven decision-making. By providing scalable, on-demand access to computing resources and storage, cloud technologies enable businesses to efficiently manage and share knowledge across geographic and organizational boundaries while also facilitating agile and informed decision-making processes. Cloud Computing offers a wide array of benefits that support both knowledge management and decision-making. First, cloud-based platforms provide centralized repositories where data, documents, and other knowledge assets can be securely stored and accessed by authorized users from anywhere at any time. This ease of access encourages collaboration, as teams can work together in real-time on shared projects or access relevant information without delays. Furthermore, cloud computing tools enable seamless integration with other digital technologies, such as Artificial Intelligence (AI), Big Data, and Machine Learning (ML), further enhancing decision-making.

Regarding knowledge sharing, cloud-based systems promote the efficient flow of information across departments and teams. Employees can easily contribute, update, and retrieve information as needed by utilizing cloud services such as document management systems, knowledge bases, and collaborative tools like wikis and cloud storage. This fosters a culture of continuous learning, where the knowledge of one team can be shared with others, and new insights are readily available across the organization. Additionally, cloud computing allows for the creation of dynamic knowledge ecosystems where real-time data and knowledge can be rapidly shared, updated, and leveraged for decision-making.

The cloud also provides the flexibility to scale resources up or down according to business needs, enabling organizations to manage costs and adapt quickly to changing circumstances. For instance, cloud platforms can support using analytics and AI models that process and analyze large amounts of data, providing decision-makers with valuable insights in real-time. Cloud computing also allows for faster decision-making, enabling organizations to leverage integrated data systems, artificial intelligence, and real-time analytics without needing heavy, on-premises infrastructure.

In summary, Cloud Computing empowers organizations to share and manage knowledge more effectively by breaking down traditional barriers to communication and collaboration. Cloud computing is crucial in improving decision-making processes and driving organizational adaptability in a rapidly changing business environment by facilitating easy access to data, enhancing collaboration across teams, and integrating with advanced technologies like AI and ML.

5. CHALLENGES IN IMPLEMENTING SMART DECISION-MAKING AND KM

Despite the advantages, organizations face several challenges in integrating KM with decision-making processes:

- **Data Silos**

Fragmented knowledge repositories hinder effective decision-making (Keeley, 2004; Janssen et al., 2017). One of the most significant challenges organizations face is the issue of data silos. These occur when data and knowledge are stored in separate, disconnected systems or departments, making it difficult for decision-makers to access all the relevant information they need in a unified way. Fragmented knowledge repositories result in incomplete or inconsistent data, undermining the quality of decisions. For instance, if customer feedback is stored in one system, sales data in another, and product performance in yet another, decision-makers may struggle to gain a holistic view of the business. This fragmentation delays decision-making and can lead to errors or missed opportunities, as important insights may be overlooked.

To address this issue, organizations must prioritize creating integrated systems to share data and knowledge across departments and teams. Implementing cloud-based platforms and enterprise resource planning (ERP) systems can help consolidate data into a single source of truth, allowing for more informed and timely decision-making.

- **Security and Privacy Concerns**

Protecting sensitive information remains a critical challenge (Shujahat et al., 2019; Alvarenga et al., 2020). Another significant challenge in implementing smart decision-making and knowledge management is ensuring the security and privacy of sensitive information. As organizations increasingly rely on digital platforms to store and share vast amounts of data, including customer details, financial records, and proprietary knowledge, the risk of data breaches and cyberattacks grows. This is particularly important in healthcare, finance, and government industries, where protecting sensitive data is legally required and crucial for maintaining customer trust.

Organizations must invest in robust cybersecurity measures, such as data encryption, multi-factor authentication, and regular security audits, to ensure their digital knowledge repositories remain secure. Additionally, companies need to have clear data governance policies in place to ensure that only authorized personnel have access to sensitive information, further minimizing the risk of data leakage or misuse.

- **Cultural Resistance**

Employees may be reluctant to share knowledge due to organizational barriers (Mungai, 2014; García-Holgado & García-Peñalvo, 2014). Cultural resistance within the organization is a significant barrier to successfully implementing knowledge management systems. Even with the best technologies in place, employees may be reluctant to share their knowledge and expertise for various reasons. This could be due to a lack of trust in the system, fear of losing power or job security, or a competitive organizational culture where knowledge is seen as a personal asset rather than a collective resource. Additionally, employees may be overwhelmed by the perceived complexity of using new digital tools, which can hinder engagement with knowledge-sharing platforms.

To overcome these challenges, organizations must foster collaboration and trust where employees feel comfortable sharing their knowledge and expertise. This can be achieved through leadership that actively encourages knowledge-sharing, provides incentives or recognition for collaboration, and ensures that knowledge management tools are user-friendly and integrated into employees' workflows. Training and development programs can also help employees understand the value of knowledge sharing and overcome any resistance related to new technologies.

6. CASE STUDIES AND EMPIRICAL EVIDENCE

Several organizations have successfully integrated smart decision-making with KM:

- **Google**

Google utilizes AI-driven analytics for knowledge sharing and innovation (Chan, 2018; Ardolino et al., 2017). Google is renowned for using advanced Artificial Intelligence (AI) and data analytics to drive both innovation and knowledge sharing. The company uses AI-driven analytics tools to process vast amounts of data and extract actionable insights, which support smarter decision-making across various departments. For example, Google leverages AI in its knowledge management systems to help employees easily find relevant information, research, and resources. AI algorithms analyze patterns in user queries and activities to recommend content and knowledge that can assist in real-time decision-making. This improves knowledge sharing by providing personalized knowledge recommendations based on an individual's role, past behaviour, and project needs.

Additionally, Google's innovation culture is strongly supported by the seamless exchange of ideas and expertise, as employees can collaborate through cloud-based tools, internal knowledge bases, and AI-powered systems that help match employees with specific areas of expertise. These systems help foster a highly collaborative environment where knowledge flows freely across teams and leads to the creation of new products and services.

- **Amazon**

Amazon employs machine learning algorithms for decision optimization in supply chain management

(Janssen et al., 2017; Alvarenga et al., 2020). Amazon is another prime example of how smart decision-making is integrated with knowledge management, particularly in the realm of supply chain management. Amazon employs machine learning algorithms to optimize its vast and complex supply chain operations, from inventory management to logistics. Machine learning helps Amazon accurately predict demand for products, ensuring that inventory levels align with customer needs and minimizing the risk of stockouts or overstocking. The company's smart decision-making systems leverage real-time data from various sources, such as sales data, customer preferences, and supply chain performance, to automate inventory replenishment, shipping routes, and delivery times.

Moreover, Amazon's knowledge management systems are interconnected with its decision-making platforms. This allows the company to share knowledge about supply chain best practices, operational challenges, and performance metrics across departments. Integrating AI and machine learning enables the company to continuously improve its supply chain efficiency and adapt to changing market conditions, enhancing overall decision-making processes.

- **Microsoft**

Microsoft leverages cloud computing for real-time knowledge exchange and smart decision-making (McNabb, 2006; Iacuzzi et al., 2020). Microsoft has effectively utilized cloud computing to enhance both knowledge management and decision-making across its global operations. The company's Azure cloud platform and other cloud-based tools enable real-time access to information, allowing teams and departments to share knowledge instantly, regardless of location. For instance, Microsoft Teams, a cloud-based collaboration tool, facilitates seamless knowledge sharing across teams by enabling real-time messaging, document sharing, video conferencing, and collaborative editing. This promotes a culture of knowledge exchange, where employees can easily collaborate on projects, share insights, and make informed decisions.

Furthermore, Microsoft integrates AI and data analytics within its cloud ecosystem to support smart decision-making. By analyzing large datasets in real-time, Microsoft can provide valuable insights to its customers, enabling them to make data-driven decisions. For example, businesses using Microsoft's cloud solutions can gain insights into customer behaviour, operational inefficiencies, and market trends, contributing to better decision-making. Microsoft's ability to leverage cloud computing for real-time knowledge exchange and smart decision-making has helped it stay at the forefront of innovation in the tech industry.

7. PROPOSED MODEL: SDM-KM-DC

Adopting digital strategies necessitates fundamental changes in corporate culture and institutional frameworks, where knowledge management is critical in enhancing organizational adaptability, investing in digital skills, and ensuring regulatory compliance for sustainable growth in the digital economy (Gobble, 2018).

Additionally, firms that effectively leverage artificial intelligence and automation can enhance efficiency and customer engagement by making smart decisions, ultimately strengthening their market presence (Hinings et al., 2018).

As digital companies continue to expand, innovation policies must evolve to support sustainable growth and maintain competitive advantage through intelligent decision-making processes (OECD, 2018). Governments and policymakers must address regulatory challenges while fostering an environment where digital firms can thrive in an ever-changing economic landscape (Ben-Ahmed et al., 2021). Ultimately, businesses that develop dynamic capabilities, integrate digital transformation strategies, and prioritize knowledge-driven decision-making will be best positioned for long-term success (Tillett et al., 2005).

This study proposes a structured model that combines AI, big data, and cloud computing to enhance knowledge-driven decision-making in digital companies. The model includes the following components (Ordóñez de Pablos & Lytras, 2019; Iacuzzi et al., 2020; Al-Mahruqi et al., 2019; McNabb, 2006; Shujahat et al., 2019; Keeley, 2004; Chan, 2018); Bučková, 2015; Janssen et al., 2017) – Figure 1.

The content of the model's elements can be outlined in the following points:

- **Smart Knowledge Acquisition: Implementing automated data collection and processing systems.** In digital companies, knowledge acquisition is enhanced through the use of AI and machine learning technologies that analyze data and provide meaningful insights. These technologies help to contextualize knowledge, identifying patterns and trends that might otherwise go unnoticed, leading to better smart decision-making. By automating this process, companies reduce the time and resources required to acquire knowledge, enabling more informed and timely decisions.

- **Smart Knowledge Processing: Utilizing AI and machine learning to analyze and contextualize knowledge.** In digital companies, knowledge processing is enhanced through the use of AI and machine learning technologies that analyze data and provide meaningful insights. These technologies help to contextualize knowledge, identifying patterns and trends that might otherwise go unnoticed, leading to better smart decision-making. By applying AI and ML, companies can transform raw data into actionable knowledge, improving decision-making accuracy and efficiency.

- **Smart Collaborative Knowledge Sharing: Establishing cloud-based knowledge management (KM) systems for real-time collaboration.** Digital companies promote collaborative knowledge sharing by establishing cloud-based knowledge management (KM) systems for real-time collaboration. These systems facilitate real-time access to information and enable employees across departments and locations to collaborate and share insights quickly, ensuring smart decision-making is based on the most up-to-date knowledge. The cloud-based infrastructure ensures seamless knowledge flow, which is crucial for improving overall business agility.

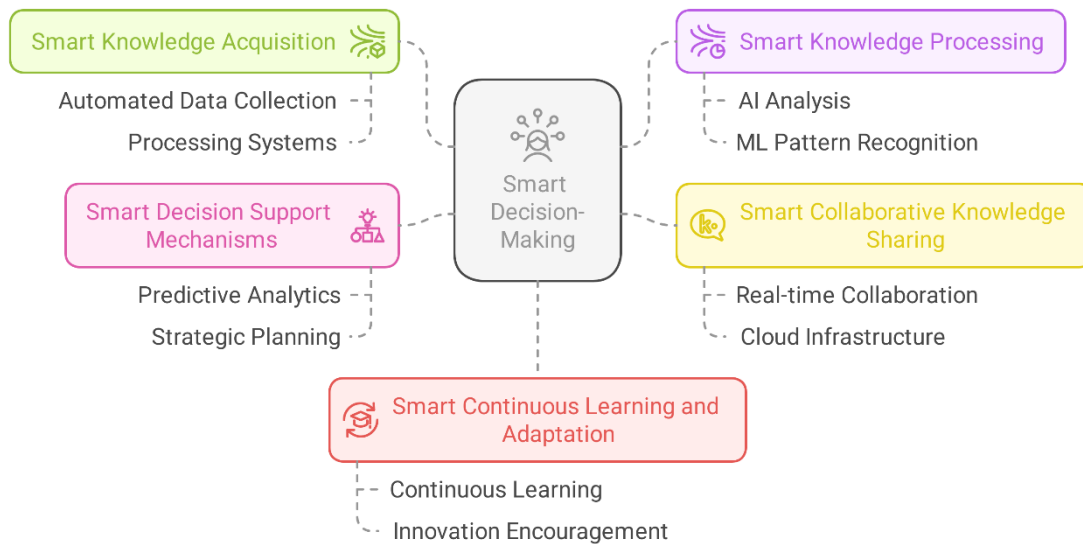


Figure 1. The Proposed Model

Source: Prepared by the researchers based on previous studies.

- **Smart Decision Support Mechanisms: Deploying AI-driven decision-support tools to optimize strategic planning.** AI-driven decision-support tools are vital in smart decision-making as they help digital companies optimize their strategic planning. These tools process large datasets and provide predictive analytics that inform high-level business decisions, such as resource allocation or market entry strategies. By integrating AI into decision-making processes, companies can streamline operations and make more accurate, data-driven decisions.

- **Smart Continuous Learning and Adaptation: Encouraging a culture of continuous learning and innovation.** For digital companies, fostering a culture of continuous learning is essential to maintaining competitiveness and adapting to changing environments. By encouraging employees to constantly innovate and share new ideas, companies support smart decision-making that is responsive to emerging trends and challenges. This culture of learning ensures that the organization is always evolving and making decisions based on the latest insights and knowledge.

8. CONCLUSION

Smart decision-making and knowledge management are not just beneficial but essential components for fostering innovation and adaptability in digital companies. Companies must constantly innovate and respond to market disruptions in today's fast-paced and ever-evolving business environment. Effective decision-making processes allow businesses to identify opportunities, mitigate risks, and navigate through uncertainties. On the other hand, knowledge management systems enable the organization to collect, store, share, and leverage valuable information, which is key to day-to-day operations and long-term strategic planning.

Integrating technologies such as Artificial Intelligence (AI), Big Data, and Cloud Computing can significantly enhance these capabilities. AI can be used to automate

decision-making processes, identify patterns in large datasets, and provide predictive insights that guide strategic decisions. By using Big Data, companies can analyze vast amounts of real-time data to better understand customer preferences, market trends, and operational inefficiencies, leading to more informed and timely decisions. On the other hand, Cloud Computing provides the infrastructure for scalable data storage and computing power, enabling organizations to process and analyze data more efficiently while ensuring flexibility and cost-effectiveness. By leveraging these advanced technologies, organizations can not only enhance their decision-making capabilities but also sustain a competitive advantage in an increasingly digital marketplace. Making smart, data-driven decisions quickly can help digital companies stay ahead of competitors, adapt to market changes, and identify innovative solutions that drive business growth.

However, while integrating these technologies shows great promise, exploring their practical implications further is crucial. Future research should focus on empirically validating the proposed decision-making and knowledge management models by conducting pilot implementations. These real-world trials can provide insights into how integrating AI, big data, and cloud computing works in practice and how companies can overcome any challenges during implementation. Additionally, longitudinal studies could track the long-term effects of these technologies on decision-making efficiency, organizational adaptability, and overall business performance, offering deeper insights into the sustainability of competitive advantage over time.

In conclusion, by focusing on empirical research and continuous evaluation, we can better understand the real-world impact of these technologies. This will ultimately enable digital companies to enhance their decision-making processes and sustain innovation in the face of constant change.

4 References

- Alenezi, M. (2023). Digital learning and digital institution in higher education. *Education Sciences*, 13(88). <https://doi.org/10.3390/educsci13010088>
- Al-Mahruqi, H. N., Bouazza, A., & Al-Suqri, M. N. (2019). Readiness of public and private sector organizations for knowledge management: A literature review. *Journal of Arts & Social Sciences*, 10(2), 25-42. <https://doi.org/10.53542/jass.v10i2.3496>
- Alvarenga, A., Matos, F., Godina, R., & Matias, J. C. O. (2020). Digital transformation and knowledge management in the public sector. *Sustainability*, 12(5824), 1-24. <https://doi.org/10.3390/su12145824>
- Ardolino, M., Rapaccini, M., Saccani, N., Gaiardelli, P., Crespi, G., & Ruggeri, C. (2017). The role of digital technologies for the service transformation of industrial companies. *International Journal of Production Research*, 55(6), 1-17. <https://doi.org/10.1080/00207543.2017.1324224>
- Ben-Ahmed, K., Ayadi, I., & Ben Hamad, S. (2021). COVID-19 impact on digital companies' stock return: A dynamic data analysis. *Finance Research Letters*, 46. <https://doi.org/10.1016/j.frl.2021.102340>
- Borremans, A. D., Zaychenko, I. M., & Iliashenko, O. Y. (2018). Digital economy: IT strategy of company development. *MATEC Web of Conferences*, 170. <https://doi.org/10.1051/mateconf/201817001034>
- Bučková, J. (2015). Knowledge management in public administration institutions. *Procedia Economics and Finance*, 34, 390-395.
- Chan, C. M. (2018). Singapore's smart nation initiative: Developing governance towards a digital economy. *Government Information Quarterly*, 35(4), 716-725.
- García-Holgado, A., & García-Peñalvo, F. J. (2014). Knowledge management ecosystem based on Drupal platform for promoting the collaboration between public administrations. In *TEEM '14 Conference Proceedings*, 619-622.
- Gobble, M. M. (2018). Digital strategy and digital transformation. *Research-Technology Management*, 61(5), 66-71. <https://doi.org/10.1080/08956308.2018.1495969>
- Govindarajan, V., Rajgopal, S., & Srivastava, A. (2018). Why financial statements don't work for digital companies. *Harvard Business Review*, 8, 2-6. Retrieved from <https://hbr.org/2018/02/why-financial-statements-dont-work-for-digital-companies>
- Hinings, B., Gegenhuber, T., & Greenwood, R. (2018). Digital innovation and transformation: An institutional perspective. *Information and organization*, 28(1), 52-61. <https://doi.org/10.1016/j.infoandorg.2018.02.004>
- Iacuzzi, S., Fedele, P., & Garlatti, A. (2020). Beyond coronavirus: The role for knowledge management in schools' responses to crisis. *Knowledge Management Research & Practice*, 18(4), 1-15. <https://doi.org/10.1080/14778238.2020.1838963>
- Janssen, M., Charalabidis, Y., & Zuiderwijk, A. (2017). Benefits, adoption barriers, and myths of open data and open government. *Information Systems Management*, 34(3), 256-268. <https://doi.org/10.1080/10580530.2012.716740>
- Keeley, E. J. (2004). Institutional research as the catalyst for the extent and effectiveness of knowledge-management practices in improving planning and decision-making in higher education organizations. Northcentral University.
- Maropoulos, P. G. (2003). Digital enterprise technology – Defining perspectives and research priorities. *International Journal of Computer Integrated Manufacturing*, 16(7-8), 467-478. <https://doi.org/10.1080/0951192031000115787>
- McNabb, D. E. (2006). Knowledge management in the public sector: A blueprint for innovation in government. Routledge.
- Mungai, G. C. N. (2014). Tacit knowledge management in public institutions in Kenya: A case of the Kenya Institute for Public Policy Research and Analysis (KIPPRA) Nairobi. University of South Africa.
- Nonaka, I., & Takeuchi, H. (1995). The knowledge-creating company: How Japanese companies create the dynamics of innovation. Oxford University Press.
- OECD. (2018). Innovation policies in the digital age. OECD Science, Technology, and Industry Policy Papers. Retrieved from <https://www.oecd.org/going-digital>
- Ordóñez de Pablos, P., & Lytras, M. D. (2019). Knowledge management, innovation, and big data: Implications for sustainability, policy making, and competitiveness. *Sustainability*, 10(6), 2073. <https://doi.org/10.3390/su10062073>
- Shujahat, M., Sousa, M. J., Hussain, S., Nawaz, F., Wang, M., & Umer, M. (2019). Translating the impact of knowledge management processes into knowledge-based innovation: The neglected and mediating role of knowledge-worker productivity. *Journal of Business Research*, 94, 442-450. <https://doi.org/10.1016/j.jbusres.2017.11.001>
- Teece, D. J., & Linden, G. (2017). Business models, value capture, and the digital enterprise. *Journal of Organization Design*, 6(8). <https://doi.org/10.1186/s41469-017-0018-x>
- Tillett, J., Yang, S. J., Rao, R., & Sahin, F. (2005). Application of particle swarm techniques in sensor network configuration. In *Unattended Ground Sensor Technologies and Applications VII* (Vol. 5796, pp. 363-373). SPIE. <https://doi.org/10.1117/12.606896>