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Exploring the Role of Knowledge Management and Digital Literacy in Shaping Academic Performance in Higher Education

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Abstract: This study explores the interrelationship between Knowledge Management (KM), Digital Literacy, and Academic Performance in higher education, with a qualitative approach focusing on the experiences of students and lecturers. KM plays a vital role in reducing information redundancy, ensuring quick access to relevant knowledge, and fostering a culture of knowledge sharing within academic environments. Meanwhile, Digital Literacy equips students with the skills to efficiently process, analyze, and utilize data through appropriate digital tools, expanding opportunities for collaboration via online platforms, academic forums, and professional networks. The integration of KM and Digital Literacy not only enhances academic efficiency and productivity but also strengthens innovation and collaborative capabilities, preparing students to adapt to technological advancements and curriculum changes. Furthermore, this synergy equips graduates with the competencies required to thrive in a knowledge-based economy and face the demands of the digital era. Findings reveal that institutions embracing both KM practices and Digital Literacy development achieve higher levels of academic engagement, collaborative innovation, and adaptive learning. The study underscores the need for higher education to integrate KM frameworks and digital competency programs to optimize academic performance and graduate employability in an increasingly competitive and technology-driven landscape.

Keywords: *Knowledge Management; Digital Literacy; Academic Performance.*

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I. INTRODUCTION

Higher education today stands at a critical crossroads between academic tradition and the dynamics of a rapidly evolving digital era. Students and academics are expected not only to master their respective disciplines but also to effectively apply knowledge and leverage digital technologies to enhance academic performance [1], [2]. Moreover, systematic approaches such as knowledge management have become a crucial foundation in revitalizing educational and research practices within universities. Through strategic knowledge management—including acquisition, storage, dissemination, and utilization—higher education institutions can improve efficiency, the quality of learning, and innovation within academic environments.[3]–[5]

Globally, digital transformation has reshaped the higher education paradigm: learning materials are now widely accessible online, collaborative learning through digital platforms has become increasingly prevalent, and data analytics is utilized to map academic performance. Digital literacy has emerged as a core 21st-century competency—not only for students but also for educators and institutional administrators [6], [7]. Universities across various countries have integrated digital literacy training and knowledge management systems to support virtual learning processes, curriculum adaptation, and academic performance monitoring.[8], [9]

In Serang City, Banten Province, universities face similar challenges: limited access to digital resources, varying levels of competence among faculty and students, and the need to enhance academic quality. Implementing knowledge management within Serang's higher education institutions has become a strategic imperative to harness collective knowledge, improve learning systems, and foster a culture of sharing among lecturers and students. By systematically managing local scientific repositories, teaching best practices, and students' academic experiences,

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institutions can establish a more adaptive and innovative learning ecosystem.

Digital literacy has been proven to play a pivotal role in students' academic achievement. Those with the ability to critically filter information, access credible sources, and collaborate digitally tend to achieve better academic outcomes [10]. In Indonesia, research by Holm Patrik (2025) found that digital literacy competence strongly correlates positively with academic success in online science courses.[11] These findings indicate that digital literacy is not merely a supplementary skill but rather a fundamental element of the modern digital education ecosystem.

Previous studies have shown that digital literacy and knowledge management are instrumental in enhancing students' academic performance. Research by Wekerle et al. (2022) confirmed that the ability to access, evaluate, and utilize digital information positively influences learning outcomes [12]. Akbar and Amir (2024) further revealed that digital literacy also fosters students' entrepreneurial intentions. At the global level, Zakir et al. (2025) highlighted the role of digital literacy mediated by informal learning and self-efficacy [13], while Sari et al. (2024) emphasized the synergy between digital literacy and knowledge management in driving process innovation [14]. However, studies that simultaneously integrate these two factors within the higher education context—particularly in Serang City—remain limited, indicating the need for further investigation.

Although several studies have examined the impact of digital literacy on academic performance, most are quantitative and conducted at the national scale. Few have explored how knowledge management practices and digital literacy influence academic outcomes in a localized context—especially within universities in Serang, Banten. Furthermore, qualitative approaches that delve into the experiences of stakeholders (lecturers, students, and administrators) are still scarce, leaving the nuanced practices and challenges in the field largely unexplored.[15], [16]

This study aims to explore the role of knowledge management and digital literacy in shaping students' academic performance in higher education—specifically within Serang City, Banten Province—through an in-depth qualitative approach. The primary research questions are: (1) How do knowledge management practices within universities affect students' academic performance? (2) How does students' digital literacy contribute to their academic achievement? (3) How do these two variables interact within the local higher education context?

II. LITERATURE REVIEW

A. Digital Literacy in the Academic Context

Digital literacy in the academic sphere refers to an individual's ability to access, evaluate, create, and communicate information effectively and ethically through digital technologies.[17]–[20] defines digital literacy as a set of skills enabling individuals to use technology critically, creatively, and safely. Similarly, The ALA's Digital Literacy Task Force defines digital literacy as "the ability to use information and communication technologies to find, evaluate, create, and communicate information, requiring both cognitive and technical skills [21]. In the context of university students, digital literacy encompasses competencies such as technological understanding, digital communication skills, information literacy, as well as ethical awareness and online safety. These competencies are highly relevant in supporting distance learning, technology-based research, and cross-border academic collaboration. Strong digital literacy enables students to manage information efficiently, actively engage in the global academic community, and enhance the quality of their learning outcomes.

B. Academic Performance in Higher Education

Academic performance in higher education is influenced by various internal and external factors, including learning motivation, learning strategies, environmental support, and access to adequate learning resources [22]–[24]. According to Guterman (2022), academic performance reflects the degree to which students achieve predetermined learning objectives, typically measured through grades, GPA, or other academic success indicators [25]. The role of knowledge management (KM) and digital literacy in academic achievement is highly significant, as both provide the foundational knowledge, skills, and strategies that assist students in comprehending course materials, fostering innovation, and adapting to modern learning challenges. Research by Silamut et al. (2021) demonstrated that integrating KM with digital literacy enhances information accessibility, accelerates the learning process, and promotes better academic outcomes [26]. Therefore, the synergy between KM and digital literacy becomes a decisive factor in improving students' academic quality.

C. Theoretical Framework

The theoretical framework of this study draws upon the Knowledge-Based View (KBV), which posits that knowledge is a primary strategic resource for organizations, including higher education institutions [27]–[29]. Ávila (2022) views knowledge as a unique and inimitable asset, making its management critical for creating competitive advantage [30]. Additionally, this study adopts the Digital Competence Framework (DigComp) developed by the European Commission to map students' digital literacy competencies [31]. DigComp comprises dimensions such as information and data literacy, communication and collaboration, digital content creation, safety, and problem-solving [32]–[34]. By integrating KBV and DigComp, this research positions KM and digital literacy as strategic variables that directly contribute to enhancing academic performance in higher education.

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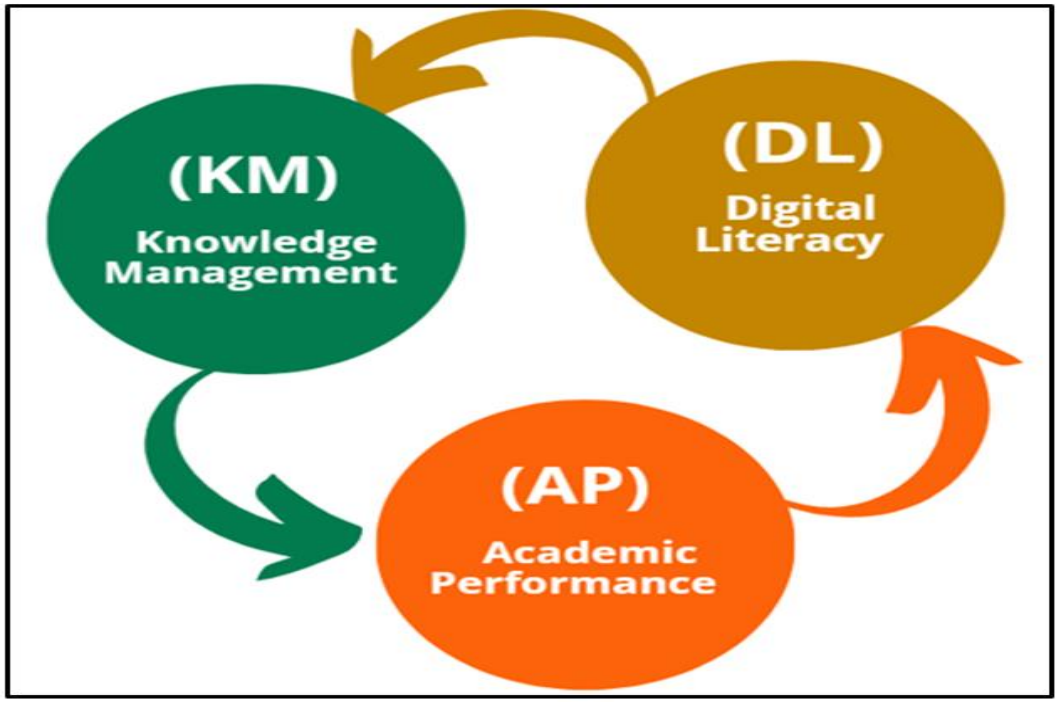

Fig 1 Knowledge-Based View (KBV) & Digital Competence Framework

The figure illustrates the theoretical framework depicting the cyclical relationship between Knowledge Management (KM), Digital Literacy (DL), and Academic Performance (AP) in higher education. KM facilitates the effective management, storage, and dissemination of knowledge, which in turn strengthens students' digital literacy capabilities in accessing, evaluating, and utilizing information appropriately. Strong digital literacy subsequently supports optimal academic performance through the effective use of digital resources and innovative learning strategies. Improved academic performance, in turn, reinforces the need to update and expand knowledge management practices, creating a sustainable, mutually reinforcing cycle. This framework aligns with the principles of the Knowledge-Based View and the Digital Competence Framework, emphasizing that knowledge management and digital literacy are two foundational pillars for academic success in the digital era.

III. RESEARCH METHODOLOGY

This study employed an exploratory qualitative approach aimed at gaining an in-depth understanding of the respondents' insights, experiences, and perceptions related to the research topic [35], [36]. This approach was chosen because it is particularly suitable for identifying complex and underexplored phenomena, thereby enabling the researcher to capture nuances, meanings, and contextual factors that cannot be adequately revealed through quantitative methods [37], [38]. The exploratory qualitative design is inherently flexible and adaptive, allowing the researcher to refine the focus of inquiry as data collection progresses in the field [39], [40]. The data collection process was conducted with an openness to new information, which enriched the understanding of the phenomenon under investigation. Consequently, the design of this study not only produced in-depth data but also contributed to the development of new theories or conceptual models within the relevant field.

Participants were selected using purposive sampling based on criteria aligned with the study's objectives: active involvement in academic activities in higher education, experience in utilizing digital technology for learning, and willingness to openly share perspectives. A total of 10–15 respondents participated, comprising lecturers, students, and academic staff from various study programs. The participants represented diverse backgrounds in terms of age, educational level, field of expertise, and years of experience, thereby providing a comprehensive perspective on the issue under examination. Data were collected through in-depth interviews to explore personal experiences using semi-structured questions; focus group discussions to capture interaction dynamics and differences in viewpoints reflecting the social aspects of the phenomenon; and participatory observations to gain contextual insights into behaviors, habits, and interaction patterns within the academic environment. This multi-method approach was designed to enhance the credibility, depth, and validity of the research findings, while enriching the analysis of the role of knowledge management and digital literacy in academic performance in higher education.[40], [41]

Data analysis was conducted iteratively by continuously comparing new data with previously identified themes to ensure consistency and accuracy in interpretation, thereby capturing the complexity of qualitative data and producing well-structured findings. Ethical considerations were addressed from the outset through the provision of informed consent forms to all respondents, detailing the research objectives, procedures, potential risks, and benefits, along with assurances of data confidentiality through the use of codes or pseudonyms. Data were securely stored on password-protected media accessible only to the researcher, and participants were granted the right to withdraw from the study at any time without negative consequences. These measures ensured that the research adhered to core ethical

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principles, including respect for privacy, protection of confidentiality, and the safeguarding of participants' rights.

IV. RESULTS AND DISCUSSION

A. Results

- *Implementation of Knowledge Management Enhances Information Access and Learning Efficiency*

The implementation of Knowledge Management (KM) in higher education environments has demonstrated a significant impact on improving information access for both students and lecturers. Through a structured knowledge management system, a wide range of information resources—such as lecture materials, research outputs, and academic support data—can be systematically organized and accessed at any time. This ease of access not only reduces the time required to search for information but also minimizes the risk of losing critical data that could hinder the learning process. Faster and more targeted access to information provides students with greater opportunities to explore materials in depth, thereby enriching their understanding of the topics under study.

Furthermore, the adoption of KM contributes to greater efficiency in the learning process. With an integrated platform or knowledge repository, students can access materials and references without relying solely on face-to-face interactions. This enables learning to take place flexibly, even beyond formal lecture hours. Lecturers also benefit from the ability to update and share the latest materials in real time, ensuring that the information received by students remains relevant and up to date. This efficiency not only optimizes instructional time but also allows both lecturers and students to focus their efforts on critical discussions and the development of analytical skills.

In addition, KM fosters a collaborative and adaptive learning ecosystem. By providing various resources within a single integrated system, students can more easily collaborate on group projects, share research findings, and provide feedback on peers' academic work. Such accessibility accelerates task completion and enhances the quality of outputs, as each team member can contribute valid and timely information. The collaboration facilitated by KM also promotes a more open and supportive academic culture, which ultimately contributes to higher learning achievement.

In conclusion, the implementation of KM in higher education not only improves information access but also enhances learning efficiency and quality. This system enables lecturers and students to make optimal use of their time, reduces barriers in data retrieval, and strengthens academic collaboration. These positive impacts demonstrate that effective knowledge management is a key driver in creating a learning environment responsive to the demands of the digital era and 21st-century competencies.

- *Digital Literacy Promotes Online Collaboration Skills and Innovation*

Advancements in digital literacy skills have encouraged students to engage more actively in online collaboration, both within the classroom and through broader academic communities. Proficiency in various digital platforms—such as Learning Management Systems (LMS), online discussion forums, and cloud-based collaborative applications—facilitates the rapid and effective exchange of ideas. This process not only accelerates group project completion but also allows students to receive feedback from diverse perspectives, thereby enriching the quality of academic outputs.

Strong digital literacy also fosters innovation in academic settings. Students are able to leverage technology to develop new learning methods, integrate multimedia into presentations, or even create creative solutions to challenges they encounter. Examples include the use of virtual simulations, AI-based data analysis, or augmented reality technologies for research purposes. With such skills, students are no longer confined to conventional methods but can introduce more interactive and contemporary approaches to learning.

Moreover, digital literacy grants students easier access to global resources, such as international journals, certified online courses, and cross-national professional networks. This access allows them to adopt best practices from various institutions, thereby promoting continuous innovation. International collaboration also becomes more feasible, enabling students to work jointly on projects with peers from overseas universities without being constrained by geographical distance or time zones.

Overall, digital literacy has proven instrumental in strengthening online collaboration skills and fostering innovation among students. This has positive implications for enhancing the quality of academic outcomes and preparing them to meet the challenges of the digital era, while also expanding their opportunities to contribute at the global level.

- *Relationship between Knowledge Management (KM), Digital Literacy, and Academic Performance*

- *Integration of Knowledge Management (KM) and Digital Literacy*

The integration of Knowledge Management (KM) and Digital Literacy within the context of higher education establishes a strong synergy for enhancing the quality of learning and academic outcomes. KM provides the infrastructure, mechanisms, and systematic procedures for managing academic knowledge, both in explicit forms—such as lecture materials, scientific journals, and learning modules—and in tacit forms, such as lecturers' experiences and academic discussions. Conversely, Digital Literacy serves as an essential skill that enables both students and faculty members not only to access and retrieve information but also to assess the credibility of sources, interpret data, and apply such information critically within academic contexts. Without sufficient digital literacy skills, knowledge

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managed through KM systems may remain underutilized. Therefore, their integration ensures that structured knowledge is accessible, comprehensible, and effectively employed to support the learning process.

The complementary relationship between KM and Digital Literacy forms the foundation for a sustainable learning ecosystem in higher education. KM enriches learning content by collecting, organizing, and maintaining relevant and accessible information for the entire academic community. At the same time, Digital Literacy equips students with the skills to operate devices, platforms, and digital technologies effectively, thereby enabling them to leverage diverse resources. This process not only improves the efficiency of information retrieval but also broadens students' perspectives by integrating multiple global viewpoints. Consequently, these two elements generate a positive cycle: the richer the KM content available, the more refined students' digital literacy skills become in utilizing it, ultimately enhancing the quality of learning.

The implementation of KM–Digital Literacy integration directly contributes to the development of 21st-century skills, such as critical thinking, collaboration, creativity, and effective communication. Through KM, students gain access to knowledge sources that stimulate critical thinking and novel ideas. Meanwhile, Digital Literacy enables them to present ideas effectively, collaborate virtually, and employ digital media to communicate their findings. This combination expands learning from mere theoretical understanding to solving real-world problems through knowledge- and technology-based approaches. In today's rapidly evolving digital transformation era, the collaboration between KM and Digital Literacy makes students more adaptive and competitive in the global job market.

In conclusion, integrating KM and Digital Literacy is a strategy that not only improves knowledge accessibility and utilization in higher education but also strengthens students' academic and professional competencies. KM provides a rich and organized informational foundation, while Digital Literacy ensures its intelligent, critical, and effective application. Together, they foster a dynamic, inclusive, and future-oriented learning environment, serving as a key driver of optimal academic performance in the digital age.

- *Direct Impact on Academic Performance*

The direct impact of Knowledge Management (KM) on academic performance in higher education is evident in the improved availability of structured and easily accessible learning materials. An effective KM system facilitates the systematic management of academic resources, ranging from e-books and scientific journals to repositories of student theses. With well-managed knowledge, lecturers can easily update learning content, while students gain broad access to high-quality learning materials. This availability not only accelerates the learning process but also encourages academic collaboration across disciplines and universities, thereby enriching the learning experience and improving academic achievement.

Meanwhile, Digital Literacy plays a pivotal role in determining the extent to which students can utilize resources provided through KM. Students with high levels of digital literacy can search for, identify, evaluate, and critically integrate information from multiple sources. This capability enhances their comprehension of course materials, strengthens data analysis skills, and improves problem-solving abilities when addressing academic challenges. Adequate digital literacy also enables students to avoid invalid or irrelevant information, resulting in more focused, effective, and in-depth learning.

The synergistic interaction between KM and Digital Literacy creates a conducive learning environment for student innovation and creativity. KM provides the foundation of organized knowledge as material for exploration, while Digital Literacy facilitates the transformation of such knowledge into tangible outputs, such as innovative research projects, creative solutions to social problems, or in-depth analytical assignments. This combination not only improves students' academic performance but also prepares them to become adaptive, innovative graduates ready to face the demands of a knowledge- and technology-driven job market.

Overall, the direct impacts of KM and Digital Literacy on academic performance are mutually reinforcing and inseparable. KM ensures that knowledge is available in relevant and structured formats, while Digital Literacy ensures that this knowledge is processed into practical skills that enhance academic achievement. The synergy between them builds a learning ecosystem that not only improves student academic outcomes but also fosters a sustainable, collaborative, and innovation-driven learning culture.

Accordingly, investing in strengthening KM and Digital Literacy is a strategic priority for higher education institutions aiming to improve the quality of education in the digital era.

- *Enhancing Academic Efficiency and Productivity*

Enhancing efficiency and productivity in higher education increasingly depends on the optimal integration of Knowledge Management (KM) and Digital Literacy. KM functions as a system capable of organizing, storing, and distributing information and knowledge in a structured manner, thereby reducing information redundancy—a common obstacle in the learning process. Through effective KM implementation, students and lecturers can swiftly access relevant knowledge sources, such as lecture materials, previous research findings, or the latest academic references, without engaging in repetitive searches. Such direct and targeted access not only shortens learning time but also allows for greater focus on deep analysis and the generation of new ideas.

Meanwhile, Digital Literacy acts as a catalyst for accelerating the use of organized knowledge. Strong digital literacy skills enable individuals to process data and information efficiently using various digital tools—from data processing software and online collaboration platforms to

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statistical analysis applications. Students with high digital literacy can optimize technology to perform targeted information searches, filter relevant content, and visualize data effectively. Ultimately, this helps them save time, avoid misinterpretation, and produce more accurate and higher-quality academic outputs.

The synergistic interaction between KM and Digital Literacy fosters a more productive academic environment. KM provides the framework that ensures knowledge is stored and readily accessible, while Digital Literacy enables that knowledge to be processed and applied creatively and efficiently. The impact is evident in the acceleration of the learning cycle, whereby students can more quickly grasp concepts, generate ideas, and complete academic tasks with improved quality. The resulting efficiency benefits not only individual academic performance but also collective performance in group projects or research collaborations.

In summary, the efficiency and productivity gains resulting from KM–Digital Literacy integration demonstrate that both are not merely supportive elements but strategic pillars for achieving academic success in the digital age. By reducing information access barriers and maximizing technology use, higher education institutions can create an adaptive, responsive, and innovative learning ecosystem. This combination provides a competitive advantage for students and lecturers alike, while advancing the overall quality of education amid global change.

- *Strengthening Collaboration and Innovation*

Strengthening collaboration and innovation in academia is closely tied to the effective implementation of Knowledge Management (KM). KM fosters a culture of knowledge sharing among students and lecturers by providing platforms that facilitate the exchange of ideas, research findings, and practical experiences. This process not only accelerates information dissemination but also deepens collective understanding of various topics. With a well-structured KM system, every individual can contribute to the enrichment of shared knowledge, creating a more participatory and collaborative learning environment. This aligns with the view that academic innovation often emerges from interactions and cross-perspective discussions enabled by effective knowledge management.

On the other hand, Digital Literacy plays a crucial role in expanding the scope of such collaboration. The ability of students and lecturers to utilize digital platforms, online academic forums, and professional networks allows for the exchange of ideas across regions and even countries. Strong digital literacy helps individuals navigate communication technologies, manage information effectively, and avoid technical barriers that could hinder smooth collaboration. Through various online collaboration tools—such as shared documents, video conferencing platforms, and cloud-based discussion spaces—academic interactions become faster, more efficient, and more responsive to evolving knowledge trends.

The synergy between KM and Digital Literacy results in a collaborative ecosystem that fosters innovation. Knowledge stored in KM databases or repositories can be readily accessed and further developed through dynamic digital interactions. For instance, students' creative ideas can be immediately discussed with lecturers via collaborative platforms and refined with relevant data or literature from the KM system. This combination enables the creation of solutions that are not only original but also relevant to academic and practical challenges. In the long term, collaboration grounded in KM and Digital Literacy has the potential to create a sustainable innovation culture in higher education.

Overall, strengthening collaboration and innovation through KM–Digital Literacy integration significantly enhances the quality and relevance of academic achievements. KM ensures that knowledge is stored, structured, and optimally utilized, while Digital Literacy broadens access and accelerates interaction in virtual spaces. Together, they form a robust foundation for innovation emerging from cross-boundary collaboration—in terms of geography, disciplines, and teaching methods. This integration not only increases academic productivity but also equips students and lecturers with essential 21st-century skills for navigating global challenges.

- *Readiness to Face the Challenges of the Digital Era*

The integration of Knowledge Management (KM) and Digital Literacy forms a crucial foundation for preparing students to meet the ever-evolving challenges of the digital era. KM offers a systematic framework for managing, storing, and distributing knowledge, enabling students to access relevant information quickly and accurately. Meanwhile, Digital Literacy empowers them to maximize technology use—from information retrieval and data analysis to the utilization of collaborative software. The synergy between these two aspects equips students with adaptive competencies that go beyond mastering academic content to include the skills needed to navigate rapid technological advancements and dynamic curriculum changes.

Within higher education learning contexts, students proficient in both KM and Digital Literacy have a competitive edge in utilizing technology-based learning resources. They can swiftly adapt to changes in teaching methods, the adoption of new Learning Management Systems (LMS), or the integration of emerging technologies such as Artificial Intelligence in academic processes. These skills also prepare them to address academic challenges requiring creative problem-solving, critical thinking, and the ability to synthesize information from multiple disciplines. Thus, KM and Digital Literacy serve as strategic foundations for cultivating adaptive and resilient graduates amid digital disruption.

Furthermore, readiness for the digital era is closely linked to students' ability to position themselves for the future, particularly in the knowledge-based economy. The contemporary labor market demands graduates who possess not only academic qualifications but also competencies in

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knowledge management, cross-platform digital collaboration, and technology-driven innovation. The integration of KM and Digital Literacy ensures that students can identify opportunities, adapt to market changes, and leverage technology to enhance productivity and competitiveness. This readiness positions them to enter and thrive in complex, competitive global work environments.

In conclusion, strengthening KM and Digital Literacy is a key strategy in preparing students for the demands of the digital era. Their synergy not only enhances academic capabilities but also equips students with adaptive, innovative, and competitive skills essential for the modern job market. With these capabilities, graduates will occupy a more strategic position in navigating technological advancements and global economic dynamics, thereby making significant contributions to knowledge-based development.

B. Discussion

- *Comparison with Previous Studies Emphasizing the Role of Digital Literacy in Academic Performance*

Previous studies have consistently highlighted digital literacy as a key determinant of student academic success in the era of digital transformation. Lacka (2021) emphasized that students' ability to access, evaluate, and utilize digital information directly contributes to the effectiveness of their learning[42], while Wenjie (2023) found that strong digital literacy enhances critical thinking skills and learning autonomy [43]. Similarly, Ahmed (2021) reported a positive correlation between digital literacy and academic performance through the optimal use of online learning platforms [8]. The findings of the present study align with these results, demonstrating that students with high levels of digital literacy exhibit more effective online collaboration skills, creativity in completing assignments, and adaptive resilience in adopting new learning technologies. This congruence underscores that digital literacy is not merely a technical skill but also a foundational element in developing more productive and contextually relevant learning strategies.

However, a notable distinction between this study and several previous works lies in the focus of investigation. While earlier research often concentrated on the technical aspects of digital literacy—such as proficiency in software or e-learning platforms—this study emphasizes the collaborative and innovative dimensions that emerge from such literacy. In this context, digital literacy is conceptualized not solely as an individual competence but as a form of social capital that facilitates cooperation between students and lecturers. This perspective aligns with the principles of connectivism, which posit that knowledge is constructed through networks of collaboration and interaction. Consequently, this research expands the understanding of digital literacy as a driver for creating interconnected and dynamic learning ecosystems.

This comparison also reveals a shift in the research focus from merely utilizing technology to examining how technology shapes more adaptive and creative academic behaviors. Whereas digital literacy was previously regarded as an additional competency, the present findings affirm that it has now become a core competence in higher education. With a strong digital literacy foundation, students can adapt more easily to changes in teaching methods, integrate global learning resources, and develop academic innovations that have a tangible impact on the quality of education.

- *Analysis of KM's Contribution to Building a Knowledge-Sharing Culture*

Knowledge Management (KM) plays a strategic role in fostering a knowledge-sharing culture within higher education institutions. Based on this study's findings, KM implementation not only streamlines the distribution of information but also strengthens mutual trust and openness among members of the academic community. Students and lecturers engaged in KM systems tend to participate more actively in discussion forums, share teaching materials, and provide constructive feedback. Ultimately, this knowledge-sharing culture creates a collaborative and participatory learning environment in which all parties share collective responsibility for enhancing educational quality.

In practical terms, KM facilitates the creation of easily accessible knowledge repositories, thereby reducing reliance on limited learning resources. The documentation of knowledge—whether in the form of lecture notes, research findings, or practical experiences—becomes more structured and systematically managed. As a result, the flow of information and ideas accelerates, positively impacting the efficiency of learning processes. This condition reinforces the argument that KM is not merely about data storage technologies, but also about cultivating an ecosystem that encourages active participation from all members of the academic community.

Moreover, effective KM implementation helps embed knowledge-sharing as a core value in learning. When students and lecturers are accustomed to exchanging knowledge, they become better equipped to overcome academic challenges, identify research opportunities, and design innovative teaching strategies. This culture not only enhances learning outcomes but also prepares students to enter a professional world that demands interdisciplinary collaboration. Accordingly, KM's contribution to building a knowledge-sharing culture stands as one of the key pillars in the transformation of knowledge-based higher education.

- *Implications for Curriculum Design and Higher Education Policy*

The findings of this study carry direct implications for curriculum design in higher education. First, the integration of digital literacy and KM should become a core component of both compulsory courses and interdisciplinary learning activities. An adaptive curriculum must be designed to develop students' abilities to manage knowledge, utilize collaborative technologies, and generate innovations relevant to the needs of industry and society. Project-based learning that leverages digital platforms can serve as an effective strategy to cultivate these skills in a practical and measurable manner.

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Second, higher education policy should provide structural support for the adoption of KM and digital literacy. This can be achieved through the provision of adequate technological infrastructure, continuous training for lecturers, and incentives for students and faculty members who actively contribute to knowledge-sharing initiatives. With clear policy backing, the implementation of KM and digital literacy will not remain a sporadic initiative but will become part of a long-term institutional strategy. This approach aligns with the principles of good governance in higher education, where transparency, accountability, and collaboration are core values.

Third, curriculum and policy design must allow flexibility to adapt to the rapid pace of technological development. The digital landscape evolves dynamically, and competencies relevant today may become obsolete within a few years. Therefore, universities should establish mechanisms for periodic evaluation and revision of curricula, ensuring that digital literacy and KM remain aligned with labor market demands, research advancements, and global trends. These implications underscore that integrating technology into education is no longer optional but a strategic necessity to ensure graduate competitiveness in the digital era.

V. CONCLUSION

The findings of this study demonstrate that Knowledge Management (KM) practices in higher education institutions, particularly in Serang City, Banten Province, play a strategic role in enhancing students' academic performance. Structured KM enables the processes of searching, storing, and distributing information to operate effectively, allowing students to access relevant knowledge quickly and accurately. This facilitates deeper conceptual understanding, strengthens critical thinking skills, and supports problem-solving in academic contexts. The study also reveals that digital literacy makes a significant contribution to students' academic achievement. The ability to access, evaluate, and process digital information effectively fosters learner autonomy, optimizes the utilization of online resources, and promotes active participation in collaborative learning. Digital literacy not only impacts quantitative academic outcomes but also enriches the quality of learning through improved scientific communication skills and enhanced creativity in the presentation of academic work.

The interaction between KM and digital literacy has been shown to create a complementary and adaptive learning ecosystem responsive to technological developments. KM strengthens the foundation of well-managed knowledge, while digital literacy maximizes its application across various digital platforms. The synergy between these two elements not only improves academic performance but also prepares students to face the challenges of the digital era, including adaptation to new technologies, utilization of learning management systems (LMS), and the development of interdisciplinary virtual collaboration skills.

Based on these results, it is recommended that higher education institutions integrate KM strategies with systematic digital literacy enhancement programs through project-based curricula, technology training for faculty, and the provision of adequate digital infrastructure. This approach will cultivate students not merely as recipients of knowledge but as knowledge managers and innovators capable of responding to contemporary demands. For future research, it is suggested to expand the scope by incorporating additional variables such as creativity, learning motivation, and digital entrepreneurship skills to obtain a more comprehensive understanding. Furthermore, policymakers at both the institutional and governmental levels should promote policies that strengthen KM and digital literacy as part of a national strategy to improve the quality of higher education. Through such measures, the integration of KM and digital literacy is expected to contribute optimally to producing highly competent human resources capable of competing at the global level.

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