

The Role of Organizational Culture on Knowledge Management and Green Innovation in Private Universities



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ABSTRACT: Innovation for sustainability in private universities has emerged as a crucial area of research globally. The existing literature highlights the significance of organizational culture, knowledge management, and green innovation in achieving sustainability goals. This study aims to determine the influence of organizational culture on knowledge management and green innovation in private universities located in LLDIKTI Region II. A cross-sectional research design was employed, with data collected via questionnaires from a sample of 305 respondents from private universities in LLDIKTI Region II. The data were analyzed using the Smart PLS structural equation model to test the proposed hypotheses. The findings of this research align with human resource-based theory, which posits that organizational sustainability is determined by the strength of its internal resources. The results confirmed that organizational culture significantly influences knowledge management (Hypothesis 1) and green innovation (Hypothesis 2) in private universities within the specified region. The study also underscores that private universities function as quasi-public organizations that blend business principles with a social approach to meet community needs while maintaining high competitiveness in a globalized world. This research contributes to the body of knowledge by examining the multidimensional relationship between knowledge management processes, organizational culture, and green innovation in private universities. By exploring these interconnections, the study provides valuable insights for enhancing sustainability and competitiveness in higher education institutions. The study concludes that a strong organizational culture is essential for fostering effective knowledge management and promoting green innovation in private universities. Future research could expand the sample size and incorporate additional variables, such as organizational commitment, to deepen the understanding of the dynamics at play.

KEYWORDS: Organizational Culture, Green Innovation, Knowledge Management

I. INTRODUCTION

Private universities (PTUs) in many regions operate under specific organizational structures determined by their organizing bodies, which can take the form of foundations, associations, unions, or other non-profit legal entities. The management and governance of these institutions are guided by regulatory frameworks that outline their autonomy, governance patterns, and public accountability in the development of resources. According to Article 21 of Government Regulation Number 4 of 2014 concerning the Implementation of Higher Education and Management of Higher Education, private university management regulations must encompass aspects of autonomy, governance, and public accountability (Permen UU 16 2018).

Knowledge management is broadly defined as the systematic search, arrangement, and maximum utilization of an organization's assets through the creation and maintenance of knowledge. According to (North & Kumta, 2018), KM involves developing new knowledge and preserving beliefs that are supported by accurate and reasonable information drawn from evolving situations. This perspective emphasizes the dynamic nature of knowledge and the importance of continuously adapting to new information and contexts. Wiig, (1993), further expands on the concept by describing KM as part of a systematic and explicit effort to update and apply knowledge within an organization. His definition underscores the goal of KM as maximizing the effectiveness of an organization's knowledge and restoring its knowledge assets. This viewpoint highlights the need for a structured approach to managing knowledge, ensuring that it remains relevant and valuable over time. Meanwhile Parikh, (2001), provides a more process-oriented definition of KM, describing it as encompassing both formal policies and informal methods that facilitate the capture, distribution, creation, and application of knowledge within an organization. This definition focuses on the

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mechanisms through which knowledge is managed and utilized for decision-making purposes, emphasizing the interplay between structured frameworks and more adaptive, flexible approaches.

While existing research has extensively examined the individual components of organizational culture, knowledge management, and green innovation, studies often isolate these elements, focusing either on how organizational culture influences knowledge management or how green innovation is adopted within organizational contexts. However, there is a gap in the literature when it comes to examining the interplay between all three components together. Addressing this gap, the present study provides a more holistic perspective by integrating these three critical elements, thereby offering a comprehensive contribution to the existing body of knowledge. The focus on private universities in LLDIKTI Region II is particularly important because these institutions exhibit organizational culture characteristics that may differ significantly from those of public universities or private institutions in other regions. Factors such as leadership styles, decision-making processes, resource allocation, and institutional priorities are shaped by local contexts and regulatory environments, which can directly impact the effectiveness of knowledge management practices and the adoption of green innovation strategies.

The development of hypotheses in this research is grounded in the Resource-Based View (RBV) theory, which provides a framework for understanding how organizational culture can serve as a strategic resource that enhances an organization's ability to manage and utilize knowledge effectively. According to Mahoney & Pandian, (1992). Building on the RBV framework, this research hypothesizes that organizational culture significantly influences knowledge management. Previous empirical studies provide strong support for this hypothesis. For example, Allameh et al., (2011), found that organizational culture positively impacts knowledge management practices. Their findings suggest that a supportive and well-aligned culture fosters an environment conducive to knowledge sharing, creation, and utilization, thereby enhancing the overall effectiveness of knowledge management systems. Further support for this hypothesis comes from Lam et al., (2021), who argued that organizational culture makes a significant contribution to the successful implementation of knowledge management. They emphasize that the values, norms, and behaviors embedded within an organization's culture can either facilitate or hinder the flow of knowledge, affecting how knowledge is captured, shared, and applied within the organization. A culture that promotes openness, trust, collaboration, and continuous learning is particularly effective in creating a knowledge-friendly environment.

The relationship between organizational culture and green innovation has been increasingly explored in recent research, highlighting how an organization's culture can serve as a foundational element for driving sustainable practices. According to Schein, (2018), organizational culture is a critical factor that influences how innovation is perceived, adopted, and implemented within an organization. Building on this theoretical foundation, recent studies Tepe Kuçukoglu & Pinar, (2016) demonstrate that organizational culture positively impacts green innovation, reinforcing the idea that a supportive cultural environment is essential for fostering sustainability initiatives. Similarly Shahzad et al., (2020), discuss the critical role that organizational culture plays in the development of knowledge management, indicating that the norms, values, and behaviors embedded in an organization's culture can significantly impact how knowledge is created, shared, and utilized. In contemporary organizational settings, green innovation has become one of the most discussed topics, particularly in relation to the knowledge management process. Studies by Hussain et al., (2022) and M. li et al., (2022), explore this intersection, demonstrating that effective knowledge management practices can facilitate green innovation by enabling organizations to leverage their intellectual capital for sustainable development. These studies underscore the importance of an integrated approach that combines a supportive organizational culture with robust knowledge management processes to drive green innovation. This research makes important contributions to the existing literature by offering both theoretical and practical insights into how organizational culture, knowledge management, and green innovation interact to promote sustainability. Theoretically, the study enriches the understanding of how an organization's cultural foundation can serve as a catalyst for green innovation and effective knowledge management. Practically, the findings offer actionable strategies for private universities, particularly those in LLDIKTI Region II, to enhance their efficiency and sustainability. By fostering a culture that emphasizes collaboration, environmental responsibility, and continuous learning, these institutions can better navigate the challenges of globalization and sustainability.

II. LITERATURE REVIEW

Organizational culture within private universities is a critical factor that significantly influences multiple dimensions of institutional operations. Organizational culture encompasses the shared values, beliefs, norms, and behaviours that dictate how members of the institution interact and collaborate. The unique culture within each university shapes its academic environment, impacting everything from decision-making processes to stakeholder satisfaction. Understanding and actively managing organizational culture is crucial for fostering a positive and effective academic setting that supports the institution's goals and objectives. Organizational culture, as defined by Cameron and Quinn, (2011) and Schein, (2018), involves the underlying values, assumptions, expectations, and definitions that guide behaviour within an organization. In the context of private universities, a

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well-defined and aligned organizational culture serves as a foundation that guides the behaviours and attitudes of faculty, staff, and students. Schein's (2018) model of organizational culture suggests that effective management of culture involves understanding its three levels: artifacts (visible organizational structures and processes), espoused values (strategies, goals, and philosophies), and underlying assumptions (unconscious beliefs and values). emphasize that organizational culture is pivotal in defining the institution's effectiveness, impacting its ability to innovate, adapt to change, and achieve its mission. For private universities, a strong and cohesive culture is integral to maintaining academic quality, driving institutional performance, and enhancing the institution's reputation among students, faculty, and other stakeholders. Empirical studies across various organizational settings have further validated the importance of a well-aligned organizational culture. Research by Adeinat and Abdulfatah, 2019, demonstrates that a supportive and collaborative organizational culture positively influences knowledge sharing, innovation, and overall organizational performance. In the context of higher education. Imran et al., (2021), found that universities with a strong, positive culture are more likely to achieve high levels of academic excellence and stakeholder satisfaction. These studies underscore the idea that culture is not just a passive backdrop but an active force that can drive institutional success. In private universities, where competition and the need for differentiation are often high, aligning organizational culture with the institution's strategic goals is key to attracting and retaining talented faculty and students, securing funding, and achieving academic excellence.

Knowledge Management (KM) is a critical organizational process that involves capturing, organizing, storing, and utilizing an organization's collective knowledge to achieve its strategic objectives. Defined by and Wiig, (1993). KM encompasses the systematic management of information, expertise, and intellectual assets to enhance decision-making, foster innovation, and improve overall organizational performance. In the context of private universities, the implementation of effective knowledge management practices is increasingly recognized as essential for enhancing competitiveness, improving the quality of education, and contributing to societal and industrial development. For private universities, knowledge management plays a pivotal role in supporting development and sustainability. The higher education sector is characterized by intense competition, rapid changes in technology, and evolving societal needs. To navigate these challenges, private universities must leverage KM to enhance their competitiveness and differentiate themselves from other institutions. Effective KM practices facilitate the sharing of best practices, improve academic quality, and foster innovation in teaching, research, and administration. Research by Shahzad et al., (2020) supports the idea that KM is a fundamental driver of organizational learning and innovation, which are critical for maintaining a competitive edge. Allameh et al., (2011), also emphasize the positive impact of KM on organizational performance, particularly in enhancing decision-making processes and optimizing resource use. Furthermore, Al Saifi, 2015, highlights that a culture conducive to knowledge sharing significantly improves organizational learning and adaptability, crucial for private universities aiming to thrive in a dynamic educational landscape. The effective implementation of KM practices in private universities is not only beneficial for the institutions themselves but also has broader implications for societal and industrial development. Universities serve as hubs of knowledge creation and dissemination, playing a crucial role in educating future professionals and leaders. By fostering an environment where knowledge is actively managed and shared, private universities can enhance their contribution to the development of society and industry. This aligns with Dash & Padhy, (2021), findings, which suggest that KM practices can lead to the generation of new knowledge that supports innovation and development across various sectors.

Green innovation goes beyond traditional innovation by focusing on solutions that minimize environmental impact and promote sustainability. This involves the development of new products, processes, or practices that contribute to the reduction of waste, energy consumption, and carbon footprints, while also optimizing resource utilization. According to Ahmed, (2017), green innovation fosters a culture of sustainability within organizations, driving the continuous exploration and integration of eco-friendly technologies and practices. As organizations engage in green innovation, they inherently generate new knowledge and expertise related to sustainable practices. Research by Gürlek and Tuna, (2018), highlights that the process of innovating green solutions involves collaborative efforts across various departments and external stakeholders, leading to the creation of new knowledge assets. These assets, in turn, become a source of competitive advantage when effectively managed and integrated into the organization's broader knowledge base. Knowledge management plays a crucial role in facilitating and maximizing the benefits of green innovation. KM practices, such as capturing, storing, sharing, and applying knowledge, help ensure that the insights and expertise gained from green innovation efforts are accessible and useful to the organization. Newell et al., (2009), emphasize that KM systems are vital for codifying and disseminating the knowledge generated from green innovation projects, thus enabling other parts of the organization to learn from these experiences and apply them to their contexts. Naveed et al., (2022), further argue that an integrated KM approach can help organizations build a knowledge-sharing culture that supports continuous learning and improvement. By leveraging KM practices, organizations can enhance their ability to innovate sustainably, improve decision-making processes, and respond more effectively to environmental challenges. Effective KM ensures that green innovations are

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not isolated incidents but are integrated into the organization's strategic framework, thereby reinforcing sustainability goals. Empirical research supports the positive relationship between green innovation and knowledge management. Maldonado et al., (2021), found that organizations that actively engage in green innovation tend to have more robust KM systems, which help capture the complex and interdisciplinary knowledge generated during green innovation processes. Similarly, Shahzad et al, (2020), demonstrate that organizations with strong KM practices are better positioned to drive sustainable innovation, as they can systematically build on previous knowledge and avoid redundant efforts. Sahoo et al., (2023), argue that the interplay between green innovation and KM contributes to organizational agility, enabling organizations to adapt more quickly to changes in environmental regulations, market demands, and technological advancements. This dynamic interaction between KM and green innovation fosters an environment of continuous improvement and sustainable growth.

III. HYPOTHESIS DEVELOPMENT

The Resource-Based View (RBV) theory posits that an organization's internal resources and capabilities are critical for achieving a sustainable competitive advantage. In this context, organizational culture can be viewed as a strategic resource that shapes the organization's ability to manage and leverage knowledge effectively. As highlighted by Rai, (2011), organizational culture forms the foundation for knowledge initiatives by fostering an environment where members are motivated to learn and share new information. Several studies provide empirical support for the relationship between organizational culture and knowledge management, (Allameh et al., 2011). found that a positive organizational culture significantly influences knowledge management practices, enhancing the ability of organizations to capture, share, and utilize knowledge effectively. Similarly, Lam et al., (2021) emphasized that organizational culture contributes significantly to the successful implementation of knowledge management systems. This alignment between culture and knowledge practices is further supported by Balthazard & Cooke, (2004); Ajmal & Helo, (2010); Donate & Guadamillas, (2010); Allameh et al., (2011); Al Saifi, (2015); Ahmady et al., (2016). who found consistent positive impacts of organizational culture on knowledge management. Based on this extensive body of literature, it can be hypothesized that: H1: Organizational culture has a positive effect on knowledge management at LLDIKTI Region II Private Universities.

Organizational culture is increasingly recognized as a critical driver of green innovation, which refers to the development and implementation of new, sustainable practices, products, or processes that reduce environmental impact. Research conducted by Gürlek & Tuna, (2018) and Aina et al., (2022) demonstrates that a positive organizational culture can significantly influence an organization's ability to adopt green innovation. This relationship is further reinforced by studies such as those by Roespinoedji et al., (2019; Nassani et al., (2022); which highlight that an organizational culture oriented towards sustainability tends to be more conducive to the implementation of green innovation initiatives. The theoretical foundation supporting this hypothesis is grounded in the concept of "green organizational culture," which extends the traditional view of organizational culture by incorporating sustainability values. Research by Büschgens et al., (2013); Handayani et al., (2018); Krishnakumar, (2017); Sadegh Sharifirad & Ataei, (2012) supports the idea that an organizational culture that prioritizes sustainability and environmental consciousness is more likely to encourage and facilitate green innovation. This reflects a shift in research focus from general organizational culture to green organizational culture, emphasizing the increasing importance of cultural factors in the development and implementation of sustainable practices. Based on these insights, it can be hypothesized that: H2: Organizational culture has a positive effect on green innovation in LLDIKTI Region II Private Universities.

IV. RESEARCH METHOD

This research examines the dynamic relationships between organizational culture, green innovation, and knowledge management within Private Universities (PTS) under the Region II Higher Education Service Institutions (LLDIKTI Region II). Specifically, the study explores how organizational culture can serve as a foundation that influences both green innovation and knowledge management. In turn, both green innovation and knowledge management have the potential to reinforce and strengthen an organizational culture that supports sustainability. Understanding these interdependencies is crucial for designing comprehensive and structured research that provides a deeper insight into the synergistic effects of these concepts. The identification of key subsections within this research enables a systematic exploration of how an organizational culture focused on sustainability can drive green innovation initiatives and effective knowledge management practices, while also considering the feedback loop where these practices further embed sustainability within the organizational culture. By breaking down the research into specific subsections focusing on organizational culture, knowledge management, and green innovation in Private Universities (PTS) under LLDIKTI Region II, it becomes possible to understand the multifaceted influences and interactions among these elements. This approach allows for a more granular analysis of the factors that shape and are shaped by these concepts, providing valuable insights into fostering a culture of sustainability through strategic organizational practices.

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This research employs a non-probability sampling method with a purposive sampling technique. Purposive sampling is a method of selecting a sample based on specific considerations and predefined criteria, ensuring that the chosen sample aligns closely with the research objectives. As described by Cooper & Schindler, (2014), purposive sampling involves selecting sampling units deliberately to ensure they possess the desired characteristics that are relevant to the study. This approach allows for the careful selection of participants or cases that are most likely to provide insightful and relevant data, thereby enhancing the depth and specificity of the research findings. The use of purposive sampling in this study enables the identification of individuals or groups within Private Universities (PTS) under the Region II Higher Education Service Institutions (LLDIKTI Region II) who have significant experience or knowledge related to organizational culture, green innovation, and knowledge management. By focusing on these specific criteria, the research aims to gather rich, context-specific data that can provide a deeper understanding of the interplay between these concepts.

The sample for this research consists of 61 private universities (PTS) within the Region II Higher Education Service Institutions (LLDIKTI Region II) that have varying levels of accreditation, including "Very Good," "Good," "B," "Not Accredited," and "PT New" statuses. A total of 305 respondents were selected from these universities, representing key managerial positions responsible for policy and decision-making processes that influence the progress of their institutions. The respondents include individuals holding positions such as Rector, Deputy Rector, Chairman, Head of the Quality Assurance Unit (SPM), Head of the Research and Community Service Unit (LPPM), Information and Communication Technology (ICT) managers, and Library managers. These criteria ensure that the sample consists of individuals with significant authority and insight into the strategic operations, organizational culture, and innovation practices within their respective institutions. By targeting these specific roles, the study aims to gather in-depth data on how organizational culture impacts green innovation and knowledge management in the context of private universities.

V. RESULTS AND DISCUSSION

This section presents the results of the research instrument testing, descriptive statistical analysis, and data analysis using Structural Equation Modeling-Partial Least Squares (SEM-PLS). The reliability of the research instrument is assessed by examining the loading factor values, which indicate how well each item measures the construct it is intended to measure. Items with high loading factor values are considered reliable, demonstrating that they effectively capture the underlying construct. The statistical results are presented in detail, providing insights into the robustness of the measurement model. In addition to testing the validity of each item for the three main variables—organizational culture, green innovation, and knowledge management—validity testing for the constructs was conducted using the Average Variance Extracted (AVE) analysis. The AVE analysis helps assess convergent validity, ensuring that the items that are supposed to measure a specific construct are indeed correlated and capture the construct adequately. Furthermore, by conducting validity tests for both individual items and the overall constructs, the research confirms the reliability and validity of the instruments used to measure the relationships between organizational culture, green innovation, and knowledge management within the context of Private Universities (PTS) in Region II Higher Education Service Institutions (LLDIKTI Region II).

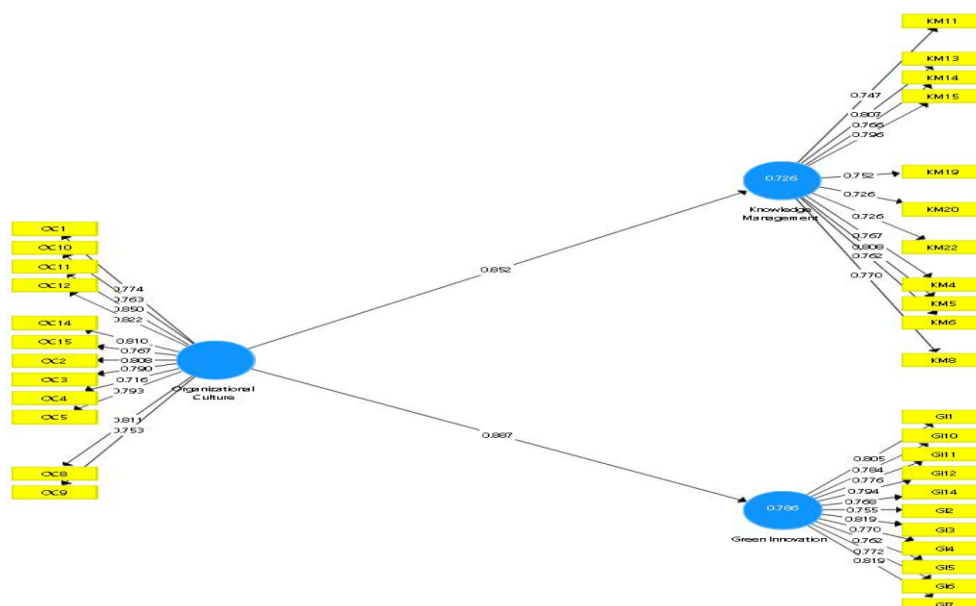


Figure 1. Model Output

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This section provides an overview of the research results, including instrument testing, descriptive statistical analysis, and the application of Structural Equation Modeling-Partial Least Squares (SEM-PLS) for data analysis. The reliability of the research instruments was first assessed to ensure that each item effectively measured its respective construct. Descriptive statistical analysis was then employed to summarize the data, providing insights into the central tendencies, dispersion, and overall patterns observed among the key variables. Additionally, the validity of each item associated with the three main variables organizational culture, green innovation, and knowledge management was tested using Average Variance Extracted (AVE) analysis. The AVE values for all items exceeded the required threshold, confirming that all items are valid measures of their respective constructs. This step ensures that the constructs in the study are accurately represented by their corresponding items, thereby reinforcing the robustness and reliability of the research findings.

Table 1. Item Variabel the Average Variance Extracted (AVE)

No	Item Variable	Number of items	AVE	Decision
1	Organizational Culture (OC)	12	0.622	Valid
2	Knowledge Management (KM)	11	0.588	Valid
3	Green Innovation (GI)	11	0.615	Valid

The research results presented in Table 1 indicate that the three variables examined—organizational culture, knowledge management, and green innovation achieved satisfactory Average Variance Extracted (AVE) scores, each exceeding the recommended threshold of 0.70. This finding demonstrates that the constructs have good convergent validity, meaning that the items within each construct are well correlated and effectively measure the underlying theoretical concept. Furthermore, the factor loading values for the individual measures within each variable (e.g., items for flexible organizational culture, green innovation, and knowledge management) were all above the threshold of 0.7. These high factor loading values confirm that each item is a valid indicator of its respective construct, providing further support for the reliability of the measurement model. In conclusion, these results reinforce the validity of the measurement model employed in this research. Ensuring validity is crucial, as it confirms that the measurement accurately reflects the constructs of interest, allowing for meaningful interpretations and conclusions to be drawn from the data (Baron & Kenny, 1986) dan (Hair et al., 2017)

Table 2. The Reliability Calculation Decision

No	Item Variable	Cronbach's Alpha	Composite Reliability	Decision
1	Organizational Culture (OC)	0.945	0.952	Reliable
2	Knowledge Management (KM)	0.930	0.940	Reliable
3	Green Innovation (GI)	0.937	0.946	Reliable

The reliability of the constructs for the variables examined in this study is presented in Table 2. The Cronbach's Alpha values for the variables range from 0.952 for Organizational Culture, indicating a high level of internal consistency. Additionally, the composite reliability values for the constructs range between 0.940 and 0.946, further confirming the reliability of the measurement model. These values exceed the commonly accepted threshold of 0.7, demonstrating that the items used to measure each construct are consistently reliable and provide stable and accurate representations of the variables being studied. High reliability is essential in research as it ensures that the constructs are measured consistently across different items, thereby enhancing the overall credibility and robustness of the study's findings.

Table 3. The Summarize of Hypothesis Estimation

Variable	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values	Decision
Organizational Culture → Knowledge Management	0.852	0.853	0.022	37.892	0.000	H1: Accepted
Organizational Culture → Green Innovation	0.887	0.888	0.019	45.941	0.000	H2: Accepted

Based on the results presented in Table 3, hypothesis H1 of this study is accepted, demonstrating that organizational culture has a significant influence on knowledge management in Private Universities under LLDIKTI Region II. The results indicate that the

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relationship between organizational culture and knowledge management is statistically significant, as evidenced by a p-value of 0.000, which is below the alpha threshold of 0.05 (5%). This finding confirms that a supportive organizational culture enhances the effectiveness of knowledge management practices in these institutions. Similarly, hypothesis H2 is also accepted, providing evidence that organizational culture significantly affects green innovation in Private Universities within LLDIKTI Region II. The analysis shows that the influence of organizational culture on green innovation is statistically significant, with a p-value of 0.000, again below the 0.05 (5%) alpha level. These results suggest that a strong organizational culture that emphasizes sustainability and innovation can drive the adoption of green innovation initiatives in these universities.

CONCLUSION

The research results demonstrate that organizational culture significantly influences knowledge management in private universities within LLDIKTI Region II. This finding suggests that the values, norms, and practices established and upheld by all members of an organization shape how knowledge is managed. A positive and supportive organizational culture fosters an environment that promotes effective knowledge management practices, such as information sharing, collaboration, and innovation. Conversely, an organizational culture that lacks support or alignment with these goals can impede the processes of knowledge management, creating barriers to effective knowledge flow and utilization. These results underline the critical role that organizational culture plays in enhancing or hindering knowledge management efforts. Therefore, this research highlights the necessity for private universities to focus on cultivating a positive and conducive organizational culture that supports the strategic goals of knowledge management. By doing so, universities can leverage their organizational culture to better facilitate the sharing of information, collaboration among members, and the overall innovative capacity of the institution.

The findings of this study confirm that the first hypothesis (H1) is supported, demonstrating that organizational culture significantly influences knowledge management in private universities within LLDIKTI Region II. This result aligns with empirical evidence from prior research Balthazard & Cooke, (2004); Ajmal & Helo, (2010); Donate & Guadamillas, (2010); Allameh et al., (2011); Al Saifi, (2015); Ahmady et al., (2016) which underscores the critical role of organizational culture in fostering effective knowledge management practices. The dimensions of organizational culture as proposed by (Schein, 2018) provide a useful framework for understanding how cultural values and norms shape knowledge management approaches within organizations. This framework is further supported by research from Adeinat & Abdulfatah, (2019), who emphasize the interplay between cultural values and knowledge management strategies in organizational settings. Similarly, Rai (2011) highlights that a strong organizational culture serves as the foundation for knowledge initiatives, encouraging information sharing and collaboration among members. These studies collectively reinforce the conclusion that a supportive organizational culture is fundamental to successful knowledge management. The consistency between the findings of this research and those of previous studies suggests that cultivating positive cultural values is essential for enhancing knowledge management practices in organizations.

The findings of this study are further supported by previous research that highlights the positive impact of organizational culture on knowledge management. For example, Allameh et al., (2011), found that a strong and supportive organizational culture positively influences knowledge management practices within organizations. Similarly, (Lam et al., 2021) emphasize that organizational culture can make a significant contribution to the successful implementation of knowledge management systems and practices. A well-established organizational culture facilitates knowledge creation both within teams and across the organization, which can lead to a reduction in the level of specialization in specific roles or units. This cultural approach encourages a more dynamic organizational structure where authority is delegated to subordinates and professionals, enhancing flexibility and responsiveness. Such a culture is effective in both stable and dynamic environments, as seen in Private Higher Education institutions under LLDIKTI Region II. These insights demonstrate that a conducive organizational culture not only promotes the sharing and management of knowledge but also supports adaptive organizational structures that empower employees, thus driving organizational effectiveness and innovation.

Enhancing the knowledge management process has a positive impact on fostering high levels of collaboration among group members within an organization. The active exchange of knowledge and information leads to increased mutual trust among members, thereby strengthening the overall organizational fabric. This dynamic not only facilitates the creation of new knowledge but also helps establish a robust foundation for a strong organizational culture. A strong organizational culture, in turn, plays a crucial role in creating a sustainable, long-term competitive advantage, particularly in the context of Private Higher Education institutions under LLDIKTI Region II. By promoting an environment where knowledge is freely shared, and collaboration is encouraged, institutions can build a culture that supports innovation, adaptability, and continuous improvement key elements for maintaining a competitive edge in an ever-evolving educational landscape.

While Adeinat & Abdulfatah, (2019) offer a perspective that emphasizes the role of knowledge in enhancing organizational alignment between a modified competitive values framework and a knowledge creation and conversion framework, they argue

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that organizations with a dominant cultural style are better positioned to facilitate knowledge creation and conversion processes. This perspective suggests that aligning organizational culture with knowledge management frameworks is essential for fostering effective knowledge practices. Conversely, Donate & Guadamillas, (2010) present a different viewpoint, asserting that to build close interactions within an organization, it is crucial to focus on establishing a knowledge management system that supports seamless knowledge transfer and connectedness among members. Their approach highlights the importance of creating mechanisms and processes that facilitate the smooth exchange of knowledge across various levels of the organization. These differing perspectives underscore the complexity and diversity of approaches to managing knowledge within the organizational contexts of private universities in LLDIKTI Region II. Both views reflect the multifaceted nature of knowledge management, where different organizational cultures and strategic priorities may dictate varied paths to achieving effective knowledge utilization and organizational success.

The findings of this study reinforce the validity of the second hypothesis (H2), demonstrating that organizational culture has a significant impact on green innovation within Private Universities under LLDIKTI Region II. These results are consistent with empirical findings from prior research (Tepe Küçükoglu & Pinar, 2016; Gurlek & Tuna, 2018; Roespinoedji et al., 2019; Nassani et al., 2022; Aina et al., 2022; Wang, 2023) further confirms the influence of organizational culture on green innovation. A culture that values sustainability, adaptability, and continuous improvement is more likely to foster green innovation initiatives, thereby enhancing an organization's ability to respond to environmental challenges and achieve long-term sustainability goals.

This research specifically focuses on green innovation by drawing on established concepts from previous studies (Bhaduri, 2007; Chang & Chen, 2013; C.-H. Wang, 2019; Abbas, 2020) and the concept of organizational culture (Schein, 2010; Cameron & Quinn, 2011b; Hofstede, 2011). These theoretical frameworks offer a robust basis for understanding how organizational culture shapes the adoption and implementation of green innovation strategies. The alignment of this study's findings with prior research (Tepe Küçükoglu & Pinar, 2016; Gurlek & Tuna, 2018; Roespinoedji et al., 2019; Nassani et al., 2022; Aina et al., 2022; Wang, 2023) which confirms that there is an influence of organizational culture on green innovation.

Schein (2010) explains that organizational culture consists of a set of shared, implicit assumptions that are accepted by a group. These underlying assumptions shape the group's perceptions, thoughts, and responses to various environmental contexts. The results of this study align with those of Chang & Chen (2013), who demonstrated that organizational culture significantly influences green innovation. This finding suggests that the identity of an organization is closely tied to the level of green innovation it can achieve, as the cultural foundation influences how sustainability initiatives are adopted and implemented. Moreover, the extent to which an organization can foster green innovation is influenced by its cultural orientation and the shared values of its members (Gürlek & Tuna, 2018b; Roespinoedji et al., 2019; Tepe Küçükoglu & Pinar, 2016). A culture that emphasizes environmental responsibility and sustainability creates a conducive environment for green innovation, enabling organizations to develop strategies that support long-term ecological goals and competitive advantage. These insights underscore the importance of cultivating an organizational culture that aligns with sustainability objectives, as it directly impacts the organization's capacity for innovation and adaptation in an increasingly eco-conscious global market.

J. Wang, (2023) highlights that organizational culture, defined by foundational underlying assumptions, has a positive impact on green innovation. Specifically, Wang's research indicates that organizations that adopt a clan culture approach characterized by a family-like atmosphere of trust, collaboration, and shared values are more likely to succeed in implementing green innovation initiatives and achieving a competitive advantage. Clan culture fosters an environment where members feel committed and involved, thereby promoting sustainable practices. Furthermore, research emphasizes the significance of clan culture in effectively managing knowledge within organizations. In a business environment built on trust and openness, members are strongly encouraged to engage in knowledge exchange activities through formal and informal networks (Aina et al., 2022; Nassani et al., 2022; J. Wang, 2023). This environment facilitates continuous learning and collaboration, which are essential for generating innovative ideas and solutions aligned with sustainability goals. By leveraging a clan culture that emphasizes community, collaboration, and open communication, organizations can enhance their capacity for both green innovation and effective knowledge management, thereby gaining a sustainable competitive edge.

Based on several previous studies, the findings of this study support the notion that organizational culture influences green innovation. This influence is reinforced by the fundamental assumptions that form the foundation of organizational culture, which can be further strengthened through a clan culture approach. The mean results for this dimension are lower than those of other dimensions, which may amplify its influence. This also underscores the idea that the impact of organizational culture on green innovation can be better understood by focusing on the green innovation management dimension. Efforts to enhance this dimension are expected to advance Private Higher Education Institutions (PHEIs), ensuring that they are not left behind in terms of management innovation within the PHEI sector in LLDIKTI Region II.

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The importance of supporting organizational culture, particularly the Basic Underlying Assumptions, becomes more apparent in the context of private universities influenced by the environment in LLDIKTI Region II. This highlights that reinforcing the organizational culture's foundational assumptions could be pivotal for successfully navigating change and fostering innovation within higher education environments. However, the limitations of this research suggest that future studies could benefit from incorporating additional variables or expanding the scope to include a broader sample of public organizations.

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