

Green Organizational Culture as an Emerging Tren : A Bibliometric Analysis

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Informasi Artikel

Abstract

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Keywords : Green culture; Eco friendly; Organization performance; Sustaibility; Organizational change



Research aim : Conducting a literature review to examine the development of literature from the green culture variable so that a visual mapping is obtained that describes the interrelated relationship between green culture and environmental performance and other variables in several industrial sectors.

Method : This study employs a quantitative approach, utilizing time series data from the past decade along with bibliometric analysis. From the patterns and trends visualized, it can be known the relationship or correlation between various related factors.

Research Finding : Organizational culture still dominates as a fundamental aspect of green organizational performance, although recent trends point to the broader evolution of the concept of "green" when referring to sustainability missions. Regardless of where the organization is on their journey to sustainability, organizational culture remains key to ensuring that eco-friendly policies and practices can be successfully integrated within all elements of the organization.

Theoretical contribution/Originality : This study contributes to enriching the literature and improving understanding of how green culture affects organizational structures and processes.

Practitioner/Policy implication : The literature on green culture has not been widely researched, this may be because the practice of green cultural transformation is still limited in the field. However, this consensus has great potential to grow as attention to sustainability and environmental responsibility in various sectors, both profit and public sector

Abstrak

Tujuan Penelitian : Melakukan kajian pustaka untuk memeriksa perkembangan literatur dari variabel budaya hijau sehingga diperoleh pemetaan visual yang menggambarkan hubungan saling terkait antara budaya hijau dengan kinerja lingkungan serta variabel lainnya dalam literatur di beberapa sektor industri.

Metode : Penelitian ini menggunakan pendekatan kualitatif dengan memanfaatkan data time series dari 10 tahun terakhir yang kemudian dianalisis menggunakan analisis bibliometrik atau analisis sitasi. Dari pola dan tren yang divisualkan dapat diketahui hubungan atau korelasi antara berbagai faktor yang terkait.

Temuan Penelitian : Budaya organisasi masih mendominasi sebagai aspek fundamental dalam kinerja organisasi hijau, meskipun tren terkini menunjukkan evolusi konsep "green" yang lebih luas ketika merujuk pada misi keberlanjutan. Terlepas dari mana organisasi berada dalam perjalanan mereka menuju keberlanjutan, budaya organisasi tetap menjadi kunci untuk memastikan bahwa kebijakan dan praktik ramah lingkungan dapat diintegrasikan dengan sukses dalam seluruh elemen organisasi.

Kontribusi Teoritis/ Originalitas: Penelitian ini berkontribusi dalam memperkaya literatur dan meningkatkan pemahaman tentang bagaimana budaya hijau mempengaruhi struktur dan proses organisasi.

Implikasi Praktis : Literatur tentang budaya hijau belum banyak diteliti, hal ini mungkin karena praktik transformasi budaya hijau masih terbatas di lapangan. Namun, konsensus ini memiliki potensi besar untuk tumbuh seiring dengan perhatian terhadap keberlanjutan dan tanggung jawab lingkungan di berbagai sektor, baik profit maupun sektor publik

Introduction

In the 21st century, environmental degradation has emerged as a prominent issue discussed in global forums, given the increasingly concerning state of the environment. This condition is not only attributed to human behaviors that often modify habitats, but also exacerbated by industrial activities that have been progressively expanding over time [1]. Environmental degradation is inherently a real consequence of human civilization's development, resulting in habitat degradation, biodiversity loss, and conservation challenges. Human incapacity to preserve the environment further complicates or even creates new problems that can have social and economic impacts. A survey conducted by the Directorate General of Pollution Control and Environmental Damage of the Indonesian Ministry of Environment and Forestry revealed that Indonesia is blessed with abundant natural resources, but unfortunately, its waters are contaminated by plastic waste (36%), wood (24%), and rubber (13%), posing a threat to ecosystems and communities, particularly those relying on fishing [2]. The phenomenon of environmental damage also occurs in several developed countries such as Australia. Where, the impact of environmental degradation has also caused extreme climate change in Australia over the past five years, caused by past activities such as land clearing, pollution, and urban expansion [3]. Furthermore, the literature also shows that since the industrial reform began, environmental issues have become radical in the Asia-Pacific region, making it more vulnerable to disasters [4].

In addition, literature evidence captures discussions on environmental damage also emphasizes the role of industry considering that industrial innovation has a massive impact on society, creating interdependence and mutual benefit. However, at the same time, this innovation often has a negative impact on the environment. Over time, industry has indeed made a major contribution to economic development and technological progress. However, environmental impacts such as air pollution, ecosystem damage, and global warming cannot be ignored. So, it's very clear that the company has a responsibility for the environmental sustainability dimension [5]. But unfortunately, the polemic that is happening today is that many companies are just carrying out social responsibility only because of the insistence of stakeholders not pure awareness for the environment, given the increasing number of cases found [1].

Fundamentally, the awareness to run a sustainable business depends heavily on a number of factors, such as leadership and the demands of their stakeholders. A survey revealed that 88% of consumers appreciate businesses adopting environmentally friendly practices [6]. The literature evidence also reveals that, organizations require support from all members to implement sustainable programs since human resources are key to competitive advantage, thus affecting company performance [7]. Organizational theory posits that organizations must be flexible in responding to changing times due to rapid technological advancements, intense free market competition, and evolving consumer preferences [8]. Which means that awareness to run a sustainable business is not only influenced by external factors such as consumer demands or government regulations, but also by internal factors, namely organizational culture and support from all members.

The current implementation of green organization practices in various countries in general has received positive responses from the public. However, it remains uncertain whether all organizations adopt these concepts based on initiatives for change or simply to comply with government regulations and societal demands. The term "green practices" refers to

environmentally friendly and sustainable organizations that focus on environmental preservation in their operations [4]. Engaging in green business practices, organizations are not only fulfilling their social responsibilities but also taking proactive steps to invest in their future success. Furthermore, engaging in green practices often requires profound changes in organizational culture [7]. This includes not only changes in policies or procedures, but also involves changes in the way all members of the organization think and act.

Armed with the phenomena outlined above, the purpose of this study is to conduct a literature review to examine the development of the green culture variable so that a visual mapping was obtained that depicts the interrelated relationship between green culture and the environmental performance as well as other variables in several industry sectors. The results of this research are expected to help researchers who are interested in the same field to conduct research in the future.

Statement of Problem

The current implementation of green organizational practices across different countries has generally received positive feedback from the public. However, it is still uncertain whether all organizations adopt these concepts based on the initiative for change or merely to comply with government regulations and community demands. The modification of organizations and their processes to be environmentally friendly has attracted significant interest from academics for further examination, as the contingency effects of organizational culture often create heterogeneous responses due to external environmental pressures. Several pieces of empirical evidence in the last ten years have captured a positive correlation from the application of green culture, as demonstrated in research studies [9], [10].

As known, green organizational culture is defined as the collective belief in environmentally friendly practices held by the majority of organizational members. Despite this, green organizational culture remains a controversial topic and is widely debated among the general public and elite classes in society [11]. In other hand, the topic exhibits significant gaps in both empirical literature and practices concerning the development and evaluation of organizational factors that drive sustainable culture due to the limited number of investigated literature [12]. Similarly, Tahir et al [8] also revealed that green culture has inconsistencies in goals, effects, and solutions, often perceived differently by stakeholders, which may only serve to maintain a positive social image to deceive stakeholders. Chu et al [13] argued that inconsistencies can be attributed to differences in the implementation of culture between organizations, allowing variations in responding to customer demands for adopting green innovation practices.

Research Objectives

This study seeks to provide a holistic review of the literature on green performance that has not been extensively addressed, which may be useful for future researchers and help them identify research gaps. Additionally, it assists practitioners and managers in decision-making related to the benefits and impacts of green culture within organizations, enabling them to understand the overall effects of implementing a green culture. Through visual mapping that illustrates the interrelated relationship between green culture and environmental performance, the results of this study are expected to help researchers who are interested in the same field to conduct research in the future. Meanwhile, this research focuses on sustainability and human

resource management (HR), with an emphasis on the application of green culture in organizations. The results of this study are expected to help researchers who are interested in the same field to conduct research in the future.

Literatur Review

Organizational culture is documented as a crucial factor in a company's strategic implementation. Recognizing the current needs of organizations, many are restructuring their cultures to become environmentally friendly businesses. The term "green culture" has garnered attention from academics, considering that many organizations are beginning to adopt it. In Indonesia, the concept of environmental friendliness has been practiced by The Body Shop since its inception in 1989, remaining consistent in its campaign to protect the earth by using environmentally friendly and sustainable raw materials. Currently, businesses are facing public awareness of the importance of protecting their health and ecosystems. Interestingly, businesses are responding to public demand to set an example of environmental friendliness for their consumers [6]. Various terms to describe green organizational culture are found in the literature, such as eco-friendly culture, environment-friendly culture, sustainability-oriented culture, and others, all of which are based on behaviors, actions, procedures, policies, and the extension of green-oriented culture. According to Muisyo et al [14] "green" culture is depicted as employees' beliefs and behaviors related to environmental improvement. If employees understand that the cultural values of the organization include the obligation to act ecologically, this can significantly trigger positive environmental behavior on the part of employees [15]. Thus, when sustainability values are internalized in an organization's culture, employees are more likely to feel responsible and motivated to behave in accordance with eco-friendly principles in their daily lives at work.

Research development trends of Green Organizational culture

Empirical evidence regarding green organizational culture is summarized in this study to emphasize the broad acceptance of this concept over time, as depicted in Table 1 below :

Tabel 1

The Development of Research on Green Organizational Culture in the Last 10 Years

Author	Area Of Study	Industry	Key Finding
Zhaojun Yang, Jun Sun, Yali Zhang, Ying Wang (2016)	Green Information Systems, Green Innovation, Green Culture, Perceived Alignment	All Industry	Organizations can undertake cultural transformation to support sustainability through renewable green innovations. In practice, cultural transformation is closely tied to individual engagement, innovative works, and infrastructural support.
Hiba A Masri, Ayham A. M. Jaaron (2017)	GHRM, Green Culture Corporate	Manufacturing sectors (food, chemical, pharmaceutical)	Appropriate green and environmentally friendly HR practices (GHRM) in manufacturing organizations can support and strengthen a green and environmentally performance-oriented corporate culture.

Zhaofang Chu, Linlin Wang, Fujun Lai (2018)	Green innovation, Sustainability, Survey, Logistics services, Organizational culture	3PL (third-party logistics)/ Service	Organizational cultures oriented towards flexibility are claimed to significantly assist organizations in implementing green innovations as a response to environmental issues.
Chao-Hung Wang (2019)	Competitive advantage, Green innovation, Organizational green culture, Green performance	Manufacture	Organizational culture can be developed and disseminated as a set of values by the managerial team to guide the company's goals. OGC can direct employees to embrace green innovation as a fundamental organizational value, thereby making them more engaged in environmental issues.
Yasmeen Shamsi Rizvi and Raksha Garg (2020)	Environmental performance, Management, Green ability motivation opportunity, Transformational leadership, Culture, Resource-based view, Sustainability	Energy	Green Culture (GC) is considered a central aspect in enhancing organizational Environmental Performance (EP). To maximize green implementation, Green Transformational Leadership (GTL) is needed within the organization.
Paul Kivinda Muisyo, Su Qin (2021)	GHRM, Green innovation culture, Green performance	Manufacture	Companies that integrate Green Human Resource Management (GHRM) practices and green innovation culture have a higher correlation with green performance compared to companies that only practice Green Human Resource Management (GHRM).
Priyanka Aggarwala dan Tanuja Agrawala (2022)	Organizational culture, GHRM, Environmental performance	Public and privat sector	Organizations recognize that implementing green human resource practices facilitates the development of a Green Organizational Culture (GOC), which can help organizations gain strategic business advantages over competitors.
Jawaria Ahmad, Abdullah Al Mamun, Mohammad Masukujjaman, Zafir Khan Mohamed Makhbul, Khairul Anuar Mohd Ali (2023)	GHRM, Workplace behavior, Pro-environmental behavior	Manufacturing and service company	Organizational culture is shaped by employees' behaviors that are exhibited through their habits that are developed in performing their daily routine workplace tasks according to the organizational philosophy
Hien Thi Ngoc Huynh Ngan Thi Thanh Nguyen, Nhi Ngoc Y Vo (2024)	Knowledge management, Green organizational culture, Green transformational leadership, Green innovation, Sustainable performance of organization	Manufacture and service organization	An organization with strong green culture fosters employee engagement in environmental protection activities for themselves (Wang, 2019) and for workplace, exchanging cleaner practices, supporting green innovation and sustainable performance (Azeem et al., 2021; Shahzad et al., 2023).

Sumber : [16] ; [17]; [13] ; [18] ; [19] ; [14] ; [20] ; [12]; [21]

Green organizational culture and other variabel

Green organizational culture represents shared values embraced by members of the organization related to an environmentally friendly vision, and these collective values are often associated with several variables, particularly concerning the environment. Given that the environment is greatly influenced by production activities, consumption, and waste from production. In addition, recently, many academics have measured and analyzed the relationship between Green Organizational Culture and several variables, including:

1. **Consumer Behavior:** In the study by [11] ; [11] it is asserted that GOC is essentially a holistic internal marketing concept that can be implemented within corporate social responsibility (CSR) programs. In other words, CSR is an instrument of GOC that can influence employee values and commitment to food safety. These values are what customers will ultimately see and feel, thus influencing consumer purchasing intentions and behavior.
2. **Competitive Advantage:** A company must be able to respond to environmental issues to maintain sustainable competitive advantage. This can be achieved through the application of culture as an invisible asset, a unique value, and something not easily imitated by competitors [22]. Through the implementation of green culture, it is highly likely that a company will achieve superior environmental performance. Similarly, result of research Wang [18] asserts that OGC can stimulate competitive advantage among organizational members; this culture can guide them to accept and engage in environmentally friendly activities as core values.
3. **Workplace pro-environmental behavior (PEB) :** Workplace behavior has been examined for a long time in the human resource management literature because it is related to employee performance [12]. However, research examining environmentally friendly behavior in the workplace is still limited in developing countries. To study environmentally friendly behavior in the workplace, it can be explained through a psychological process through the framework of VBN Theory (*Value, Belief, Norm*). When individuals feel that their actions can have a positive impact on the environment and that they have values that support sustainability, then they will be more motivated to engage in environmentally friendly behaviors both personally and in an organizational context.

Method

In addition, this study utilizes both qualitative approaches with time series and bibliometric methods. The time series data used span the past 10 years with the intention of examining the consistency and trends of green culture in the area of environmental performance. Meanwhile, bibliometric methods involve statistical analysis that measures the quality and relevance of literature sources and identifies trends in novelty within each sector. Through the use of VOSviewer software, metadata can be transformed into visualizations that are easier to understand and analyze due to the graphical mapping of bibliometric data from sub-sectors in detail [23], which interprets relationships that can be explained among sub-sectors. Additionally, this study also utilizes secondary data in the form of articles or journals to support arguments and compare research according to topics based on their relevance.

Results and Discussion

Based on the VOSviewer mapping results using a number of relevant literature on Green Organizational Culture, it can be observed that :

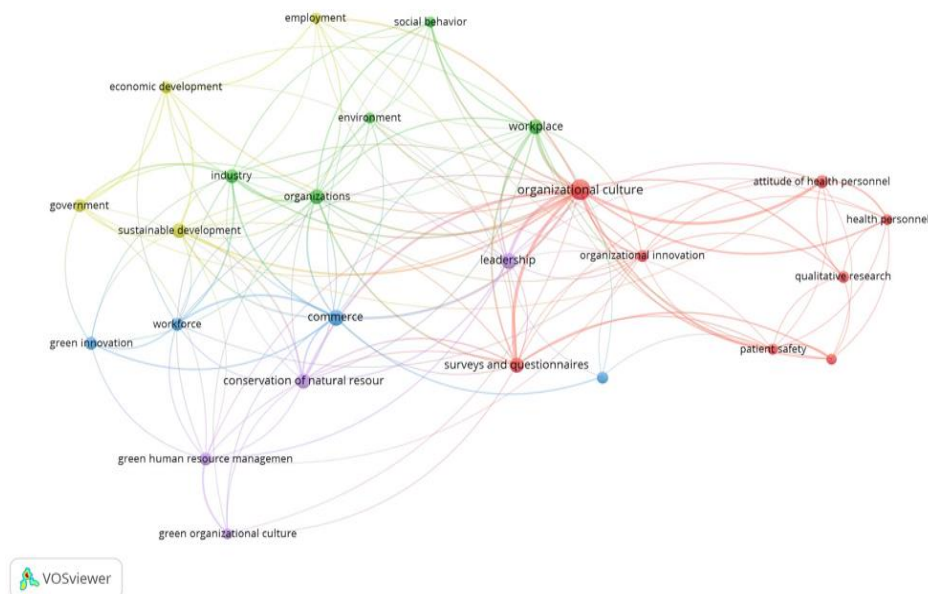
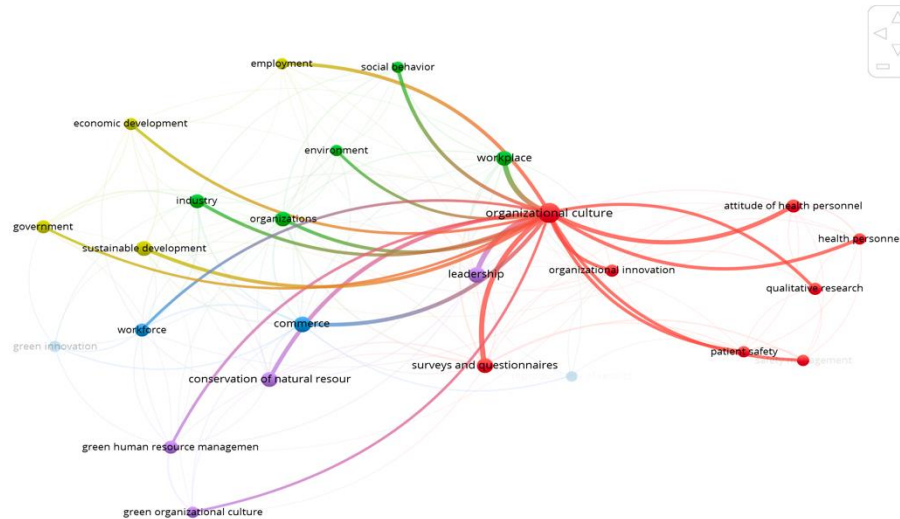


Figure 1. The visualization of the relationship between Green Organizational Culture and other keywords.

The visualization above illustrates clear patterns, both in terms of color and connecting lines between clusters. These colors reflect the outcomes of keyword grouping in the literature and journals utilized and inputted into VOSviewer. From this visualization, it can be inferred that there is a strong correlation between Green Organizational Culture and several keywords frequently appearing across various literature sources. However, it must be acknowledged that the center of the main cluster of the above visual form, namely Green Culture, shows that this concept is a very important element in research related to organization and sustainability. Green Culture became a focal point that connected various other keywords, reflecting how environmentally friendly organizational culture is a major theme in related discussions and research. This shows that sustainability and environmentally friendly practices are increasingly being paid attention to in the context of modern organizations.

Cluster 1: The Relationship between Green Organizational Culture and Organizational Culture



Figur 2. Visualization of clusters formed with Organizational Culture as the core of the cluster

Green Organizational Culture (GOC) today is considered one of the growing trends in the world of business and organizations today. This is due to the growing attention to environmental sustainability and climate change issues, which is driving many organizations to adopt green values in their cultures. Literature evidence suggests that implementing a green culture within the organizational environment practically signifies that organizations are not only responsive to customer demands [13]. It is well known that now businesses have placed a premium on the development of sustainability knowledge, skills, and competencies among their employees considering that this is important because it can encourage employees to increase their green abilities and foster green attitudes, which are claimed to be very important for the environmental performance of the organization [24]. Unfortunately, the literature evidence represented through Vosviewer's visualization states that research related to *green organizational culture* has not been widely researched in the last 10 years compared to organizational culture, which is indeed a well-established concept dalam teori organisasi [13] and widely used in various disciplines of management, psychology, and sociology.

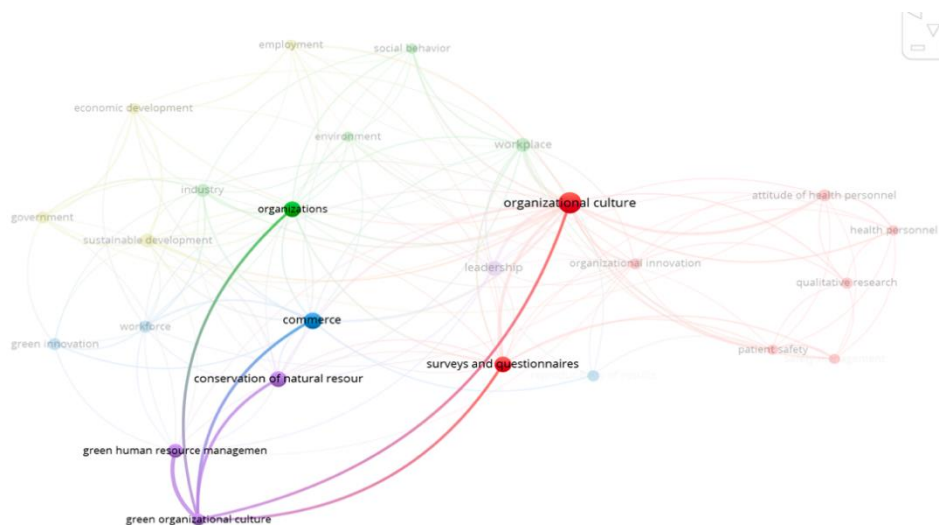
Administratively, every organizational culture has three components, including values, assumptions, and artifacts, which reflect the company's requirements and desires regarding how the company wants to be perceived. Evidence from previous literature reveals that organizational culture affects organizational sustainability and environmental performance [25], so that a culture oriented to environmental concern and conservation of natural resources can be referred to as a green organizational culture. Based on the above understanding, when a company is truly committed to sustainable practices, it is appropriate that upheld pro-

environmental values, trusted assumptions, and visible artifacts should all reflect the company's commitment to environmental sustainability [11].

The emphasis on the GOC concept is considered more specific because it only focuses on the application of sustainability principles and social responsibility. As such, it can be understood that research that discusses GOCs is more limited to companies or organizations that have a focus on environmental sustainability and often includes narrower elements, such as energy management, waste reduction, and social responsibility [11]; food safety [26].

In addition, from the visual Vosviewer with *organizational culture* as the core of the cluster, it is also known that there are other keywords such as *green human resource management* (GHRM) where the two have a relationship that affects each other. Where organizations that implement green human resource management practices can stimulate sustainability through the development of a green organizational culture to improve the company's environmental performance [26], and a green culture in organizations can be encouraged through strong green human resource management practices in the workplace [27].

Cluster 2 : The Relationship Between Green Organizational Culture and Organizations, Commerce



Figur 2 Visualization of a cluster formed with Green Organizational Culture as the core of the cluster

Modifying the organization and its processes to become more environmentally friendly and sustainable is called *greening* [28], this term is enough to describe a company's efforts to engage in pro-environmental activities that are expected to concretely provide significant benefits in terms of broader market support [11], grather impact on performance outcomes (increased performance, reduced waste etc.) of the organization [20], improve the financial and social performance of the company [13] ; [29] to create a competitive advantage [24].

In fact, being an environmentally friendly organization is not a must for companies, but the problem is that almost all companies that adopt sustainable practices do not actually do these practices wisely, even the use of the word "green" can be a marketing tool [15]. Hal ini menunjukkan bahwa konsep keberlanjutan kadang-kadang bisa terdistorsi atau dimanfaatkan hanya untuk kepentingan citra organisasi. Considering that some developing countries deliberately relax their environmental regulations in order to encourage foreign investment [4] and only meet the interests of stakeholders, as per the stakeholder theory [22]. In order to secure its image and reputation as an environmentally conscious company by paying attention to changing consumer behavior, it is important for companies to see this priority. Where this can later be strengthened through marketing and advertising [13].

From the existing literature evidence, it is known that implementing greening practices requires the support of the management team, especially leaders with all the influence, authority, intellect and skills they have [19] to influence people in the organization to have beliefs, values, principles and attitudes that support the implementation of green practices. All of this must be integrated into a strong and deep company culture, so that sustainability and environmental responsibility become part of the identity of the organization itself.

Implication

The perspective of organizational culture concerns basic things and is not identical, which means that modifying organizational culture towards sustainability is not a simple thing. This process involves many factors, such as changes in mindsets, values, habits, and ways of working that have been formed within the organization. This is in line with the results of research [14] which states that the implementation of green practices cannot be achieved simply by overhauling the production process to be more environmentally friendly, producing products with eco-friendly packaging, or using raw materials that are safe for human health and ecosystems but also all aspects must support the ongoing company culture, so that the company has sufficient attachment to sustainability. From this study, it can be seen that the literature on green culture has not been widely researched, this may be because the practice of green cultural transformation is still limited in the field. However, this consensus has great potential to grow as attention to sustainability and environmental responsibility in various sectors, both profit and public sector [20] In addition, the green transformation of an organization is practically impossible to realize without the support of human beings, in this case employees, as the opinion Yesilitas et al [15] which states that ensuring environmental sustainability depends on environmentally friendly employee behavior. Employees play a key role because they are the implementers of the green activity itself [8]. This seems plausible, given that organizations that implement effective environmental management and have an eco-friendly organizational culture tend to be more attractive to competent and motivated employees.

Conclusion

From the existing discussions, it can be understood that a green organizational culture can be seen as a challenge for organizations to not only respond to the demands of stakeholders who are increasingly focused on environmentally friendly values, but also to create sustainable and authentic changes in the way organizations operate. An organization's efforts to implement eco-friendly principles require a special emphasis to ensure that the steps taken do not just stop at a "blueprint" or plan on paper, but are also embodied in concrete actions that are deeply internalized in the organization's own culture.

Recomendation

The latest research can make a significant contribution to the development of knowledge about green culture, especially in the context of organization and sustainability management. With visual mapping that represents existing patterns and trends, this study can show that although green culture is starting to gain attention, the space for further exploration is still very open. This provides an opportunity for managers and practitioners to develop more innovative and relevant policies in creating an environmentally friendly organizational culture.

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