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The Role of Technological Media, Knowledge Sharing, and Organizational Culture in Promoting Sustainable Development in the Workplace: A Structural Equation Modeling Approach

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Abstract

This study investigates the interconnected roles of technological media (TM), knowledge sharing (KS), and organizational culture (OC) in driving sustainable development (SD) within organizations. Data were gathered from workers in several major Indonesian cities using a survey-based method, and 356 valid answers were examined using partial least squares structural equation modeling (PLS-SEM). The results show that while technological media does not directly influence sustainable development, it significantly enhances knowledge sharing and organizational culture, which, in turn, positively impact sustainable development initiatives. The study emphasizes the significance of organizational culture in influencing sustainability results and the function of knowledge exchange as a major mediator in the interaction between technological media and sustainable development, suggesting that organizations must foster a culture of collaboration and sustainability to achieve long-term success. The results offer valuable insights for managers and policymakers seeking to integrate digital tools and foster organizational culture to support sustainability in the workplace.

Keywords: technological media, knowledge sharing, organizational culture, Sustainable Development (SD) Within Organizations

1. Introduction

One of the most important issues of the twenty-first century is sustainable development (SD), which calls for the active involvement of many society sectors to handle its complex character.As a human-centered concept, SD fundamentally requires the engagement and empowerment of individuals and organizations to drive transformative change across economic, cultural, and environmental dimensions (Abbaszadeh et al., 2019; Lal, 2021). In parallel, The scope and influence of new technical media (TM), which have been brought about by the quick development of information and communication technology (ICT), are greater than those of traditional media. These platforms, including chat rooms, online forums, and collaborative tools, have significantly reshaped communication, knowledge dissemination, and decision-making processes in organizational and societal contexts (Pan et al., 2021; Sharifi et al., 2024). However, while TM has demonstrated its potential as a tool for empowerment and innovation, its role in achieving workplace SD remains underexplored, particularly through mechanisms such as knowledge sharing (KS) and organizational culture (OC).

Prior research has highlighted the contributions of good governance (GG), women's empowerment, and traditional media in fostering SD (Bayeh, 2016; Kardos, 2012; Spitzer, 2023). Yet, empirical investigations into the direct and indirect impacts of TM on SD are relatively scarce, with existing studies often neglecting the mediating roles of workplace dynamics such as KS and OC (Ghermandi et al., 2023; Russo et al., 2022). This disparity is especially noteworthy in light of the increasing awareness of workplaces as critical arenas for sustainability initiatives, where TM can facilitate collaboration, align organizational values, and empower employees to contribute to SD goals (Ahmed & Anifowose, 2024). Moreover, while institutions of higher learning are increasingly tasked with preparing future leaders to address SD challenges, the perceptions and practices of employees in diverse industries remain an underexamined area of research.

In order to fill in these gaps, this study suggests and evaluates a conceptual framework that views KS and OC as mediating factors in the connection between TM and workplace SD. By doing so, it offers novel insights into how TM can serve as both an infrastructure and a tool to promote collaboration, foster inclusive organizational cultures, and align workplace

practices with sustainability objectives. The study's specific objectives are to: (1) investigate how TM directly affects workplace SD, (2) analyze the mediating role of KS in this relationship, (3) evaluate OC's mediating function, and (4) explore the combined effects of KS and OC in enhancing the efficacy of TM as a driver of workplace SD. By filling in the "knowledge gap" of how TM might be used to promote sustainability in corporate settings, the findings will add to the expanding corpus of literature on SD (Russo et al., 2022). Through its focus on employees across diverse industries, This study emphasizes how crucial workplaces are as engines of sustainable transformation and highlights the essential impact of TM in fostering an empowered and informed workforce. By integrating insights from previous studies with empirical evidence, it seeks to offer actionable recommendations for organizations striving to embed sustainability into their core practices and values.

2. Literature Review

2.1 Technological Media in the Workplace as Modern Communication

Technological media have transformed workplace communication by shifting from traditional to digital platforms. In the traditional era, communication relied on one-way tools such as printed newsletters, office memos, and radio broadcasts, which were centralized and lacked real-time interaction (Sharifi et al., 2024). However, since the mid-1990s, the rise of internet-based tools and media culture has reshaped how information is shared in professional settings. The digital era integrates tools like blogs, video conferencing platforms (like Zoom), collaboration platforms (like Slack and Microsoft Teams), and microblogs (like Twitter), enabling faster and more interactive communication (Olsen & Christensen, 2015). Advanced infrastructures such as satellite networks, fiber optics, and cloud-based services support these tools, alongside end-user devices like smartphones, laptops, and tablets, ensuring accessibility and efficiency in workplaces (Abbaszadeh et al., 2019). These innovations enable seamless networking, enhanced collaboration, and real-time problem-solving among employees, fostering a more connected and responsive organizational environment.

From a theoretical perspectiveThe advancement of theory of media clarifies how technological media might help match workplace communication with more general organizational objectives. Just as the theory suggests media should support governmental policies in developing nations, workplace media should prioritize content that enhances employee productivity, supports organizational culture, and promotes socioeconomic objectives (Okunna & Omenugha, 2012). Platforms must provide tools that address the diverse needs of the workforce, including knowledge sharing, skill development, and team collaboration, while adapting to the evolving priorities of the organization (Sharifi et al., 2024). Workplace technological media that prioritizes development-driven material not just expedites processes but additionally fosters long-term expansion, creativity, and employee engagement.

2.2 Workplace Sustianable Development

Sustainable development (SD) in the workplace is a crucial element of global efforts to attain long-term equilibrium across economic, social, and environmental dimensions. Rooted in the concept of intergenerational justice, SD highlights how crucial it is to satisfy current demands without sacrificing the capacity of future generations to satisfy their own (Schopfel, 2014). This philosophy has evolved since the 1980s into a guiding framework for organizations, governments, and societies, requiring practical strategies that integrate economic growth, social equity, and environmental stewardship (Shi et al., 2019). Within the workplace, SD is particularly relevant, as organizations operate at the intersection of these three dimensions, making them vital actors in advancing sustainability. Economic sustainability (EcS), social sustainability (SS), and environmental sustainability (EnS) are interconnected, according to the UN's 2030 Agenda, which states that tackling these factors in a balanced and integrated way is necessary to achieve meaningful SD.

Workplace SD involves aligning operations and policies with sustainability principles to ensure organizational practices are economically viable, socially inclusive, and environmentally responsible. EcS is realized through operational efficiency, innovation, and resilience, enabling economic growth while conserving resources (Basiago, 1999). SS emphasizes equity, empowerment, and inclusivity, fostering a workplace culture that promotes fair wages, professional development, and diversity while addressing social challenges such as poverty alleviation and accessibility (Basiago, 1999). EnS, meanwhile, entails minimizing ecological impacts by reducing waste, conserving natural resources, and adopting green technologies to operate within the carrying capacity of the environment (Basiago, 1999). Workplaces can become transformative agents of sustainability by incorporating these sustainability dimensions into organizational strategies and cultivating a culture of accountability, innovation, and collaboration. This will achieve long-term economic stability while also promoting environmental conservation and societal well-being.

2.3 Knowledge Sharing

In corporate settings, when people actively participate in helping and learning from one another to acquire new competencies, knowledge sharing is an essential process. Senge (1998) emphasizes that true learning involves digesting, absorbing, and applying knowledge, making it an iterative and impactful process. This concept finds empirical support in Baum and Ingram's

(1988) longitudinal study on the Manhattan hotel industry, which revealed that sharing experiences across hotel chains significantly improved daily operations. This practice, driven by industry norms, aligns with Sveiby's (2001) assertion that knowledge interflow among individuals enhances their competencies and fosters the generation of new knowledge. Unlike tangible resources that depreciate with use, knowledge appreciates in value through sharing, as it not only transfers expertise but also creates opportunities for collaborative innovation (Bornemann & Sammer, 2003). However, challenges to effective knowledge sharing remain, particularly concerning the quality and completeness of shared knowledge. Goh (2002) stresses the importance of sharing the full context of a case to avoid misinterpretation or knowledge gaps. Ellis (2001) adds that individuals, such as salespeople, may exhibit selective sharing behaviors, preferring to share successes rather than critical details, which could hinder collective learning. Incomplete or distorted knowledge transfer, as Hansen (2002) warns, risks introducing redundancy or inaccuracy, leading to organizational inefficiencies. Argote (1999) describes this phenomenon as "knowledge depreciation" or "organizational forgetting," where critical information is lost due to misunderstandings, filtering, or intentional withholding. For organizations to thrive, it is essential to cultivate an environment where knowledge sharing is normalized and valued, as this not only enhances individual learning but also drives overall organizational performance and resilience.

2.4 Organizational Culture

One of the main factors influencing employee behavior and workplace dynamics is organizational culture. It alludes to the common ideals, principles, and customs that shape how workers relate to one another and approach their jobs. Fostering corporate Citizenship Behavior (OCB), which entails selfless deeds that go above and beyond official job requirements and enhance the organization's overall efficacy, depends heavily on a positive corporate culture (Khan et al., 2020). Employee OCB is greatly increased when an organization's culture is marked by trust, inclusion, fairness, and support. This encourages employees to take initiative, assist one another, and show organizational loyalty, among other behaviors (Parray, 2020). Employees feel appreciated in these settings and are more inclined to act in a way that advances the organization's overall objectives. Additionally, a great corporate culture fosters a strong sense of commitment and belonging, which motivates staff to go above and beyond for the benefit of their teams and the company overall (Sabella et al., 2016). Employees are more likely to display behaviors that support organizational performance when they believe their workplace culture is encouraging and inclusive (Siswadi et al., 2023). Consequently, these actions lead to better overall performance, lower attrition, and higher job satisfaction (Tran, 2023). In order to ensure long-term success and sustainability, companies can cultivate a work culture that improves employee well-being and organizational outcomes by establishing an atmosphere that not only recognizes but actively supports OCB.

3. Research Design and Method

3.1 Defining Variables

Technological Media (TM) refers to digital tools and platforms like the internet and social media that facilitate information exchange. Sustainable Development (SD) focuses on growth that meets current needs without harming future generations. Mediating variables explain independent and dependent variables' connection. Knowledge Sharing (KS) is the voluntary exchange of information and expertise to foster learning and collaboration. Organizational Culture (OC) is used to describe common beliefs and customs that impact corporate performance and employee conduct.

Research hypotheses

The research hypothesis of this study is below :

1. H1: TM significantly influences SD directly in the workplace
2. H2: TM positively influences KS
3. H3: TM positively influences OC
4. H4: KS positively influence SD in the workplace.
5. H5: OC positively influence SD in the workplace.

3.2 Sampling and Data Collection Methodology

Participants were recruited using a non-random sampling technique which was chosen for its affordability and practicality particularly due to the lack of an established sampling frame (Anwar, 2024). The survey tool was originally constructed in English after it underwent a careful translation into Indonesian. A back-translation into English was carried out to ensure the precision and equivalence of the content across languages. The final version of the survey was administered by an individual fluent in the local language to reduce potential biases and improve the clarity of the questionnaire as presented in table 1. Before taking part, participants received a comprehensive briefing on the survey's aims and assured of data confidentiality to mitigate non-response bias. Thirty people participated in an initial test to evaluate the reliability nand coherence of the survey before full deployment. Participants were sourced from various large cities in Indonesia and the survey was made accessible through both online and face-to-face methods.

Table 1. Questionare

Variable	Questionare
Technological Media in Organizations	Our organization effectively uses technological media for communication.
	Technological tools enhance productivity in our organization.
	The technology provided meets our work needs.
Knowledge Sharing	I regularly share knowledge with colleagues.
	Knowledge is easily accessible across teams.
	The organization encourages knowledge sharing.
	Technology supports effective knowledge exchange.
	Training promotes continuous learning and sharing.
Organizational Culture	Collaboration is encouraged within the organization.
	Leadership fosters a supportive work environment.
	Innovation is a core part of our culture.
	Organizational values align with employee growth.
	Diversity and inclusivity are prioritized.
Sustainable Development	Sustainable practices are part of daily operations
	Sustainability goals are integrated into planning.
	Employees are encouraged to adopt eco-friendly practices.
	The organization collaborates on sustainability initiatives.
	Sustainability efforts are regularly reviewed and improved.

Source: Author's own work

3.3 Statistical Technique

The dataset underwent thorough scrutiny to detect and resolve any anomalies or missing entries and ensured the assumptions of normality were preserved. The Statistical Package for Social Sciences (SPSS) was utilized to examine the demographic profiles of participants. Following this, the dataset was analyzed using SmartPLS 4.0 which applies partial least squares structural equation modelling (PLS-SEM) to evaluate the hypothesized relationships and overall model adequacy (Joseph Hair & Alamer, 2022). SEM's strength in concurrently estimating multiple associations makes it highly suitable for research with numerous constructs and variables (Sarstedt et al., 2017). The preference for PLS-SEM in this study is justified by two main reasons: its superior predictive capabilities in complex or exploratory models and its capacity to handle smaller sample sizes more effectively than covariance-based structural equation modelling (CB-SEM) (Joe Hair et al., 2017). PLS-SEM iteratively refines model parameters and facilitates the analysis of more intricate models (Joe F Hair et al., 2020). Prior to testing the structural model and proposed correlations using bootstrapping techniques, the measurement model was assessed for reliability, convergent validity, and discriminant validity (Joe F Hair et al., 2024).

4. Results and Findings

4.1 Sample Characteristics

Table 2. Sample characteristics

Demographic	Category	Frequency	Percentage (%)
Gender	Female	211	59.4
	Male	145	40.6
Age	25–30	211	59.2
	31–40	136	38.3
	41–50	9	2.5
Duration of Work	< 2 Years	178	50.0
	3-5 Years	162	45.5
	>5 Years	16	4.5

Source: Author's own work

Among the 400 questionnaires distributed, 356 were filled out and sent back, yielding an 89.0% response rate. Analysis of the respondent demographics revealed that 59.4% were female and 40.6% were male. The age group of 21–30 years old accounted for 59.2% of the sample, while the age group of 31–40 years old made up 38.3%. Table 2 displays comprehensive demographic data.

4.2 Common Method Bias

According to the quantitative approach used in this study, two well-established methods were used to evaluate possible common method bias issues: the first was the use of Harman's single-factor test, which showed that the primary factor explained 31.71% of the variance and is significantly lower than the generally accepted 50% threshold, indicating that

common method bias was unlikely to be a significant issue in the analysis; the second was the use of collinearity diagnostics, which produced variance inflation factor (VIF) values between 1.000 and 1.088, which were well below the threshold of 3.3. These findings add credence to the conclusion that common method bias was not a major concern in this study (Babin et al., 2016; Podsakoff et al., 2003).

4.3 Measurement Model

The evaluation of the measurement model involved a thorough examination of both reliability and discriminant validity (Sarstedt et al., 2017). Outer loadings, Cronbach's alpha and composite reliability (CR) were scrutinized to assess the reliability of the constructs. Table 2 highlights that indicators with outer loadings greater than 0.7 were retained and signify acceptable reliability at the item level. The minimum Cronbach's alpha and CR values recorded were 0.761 and 0.918 respectively. Hair et al. (2024) suggest that the measurement instrument is considered to possess strong internal consistency and reliability when these values exceed 0.70. Convergent validity was evaluated using the average variance extracted (AVE) with Table 3 which showed that all AVE values exceeded the 0.5 threshold and affirmed the constructs' convergent validity (Hair et al., 2020). Discriminant validity was verified through multiple approaches. First, the Fornell–Larcker criterion was applied and required the square root of AVE for each construct to be higher than its correlation with any other construct (Hair et al., 2019). Table 4 illustrated that this requirement was consistently met. Furthermore, the heterotrait-monotrait ratio of correlations (HTMT) was applied and HTMT values should be significantly below 1. As presented in Table 3, all HTMT values were below 1 and indicated that discriminant validity was not compromised in this research.

Table 3. Factor Loadings, Composite Reliability and Average Variance Extracted

Variables	Factor Loading	CA	CR	AVE
Technological Media		0.761	0.858	0.669
TM1	0.855			
TM2	0.818			
TM3	0.779			
Knowledge Sharing		0.864	0.902	0.649
KS1	0.718			
KS2	0.840			
KS3	0.796			
KS4	0.800			
KS5	0.867			
Organizational Culture		0.855	0.896	0.634
OC1	0.845			
OC2	0.821			
OC3	0.789			
OC4	0.762			
OC5	0.759			
Sustainable Development		0.888	0.918	0.691
SD1	0.855			
SD2	0.880			
SD3	0.789			
SD4	0.803			
SD5	0.825			

Source: Author's own work

Table 4. Hetero-trait Mono-trait (HTMT)

Variables	Knowledge Sharing	Organizational Culture	Sustainable Development	Technological Media
Knowledge Sharing	0.796			
Organizational Culture	0.628	0.806		
Sustainable Development	0.774	0.707	0.831	
Technological Media	0.424	0.660	0.454	0.818

Source: Author's own work

4.4 The Second Stage, Testing the Structural Model

To evaluate the structural model, several critical indicators were analyzed to gauge both model fit and predictive accuracy. Firstly, the Standardized Root Mean Square Residual (SRMR) was recorded at 0.062 (Table45), which is below the acceptable threshold of 0.08 for model fit as specified by Hair et al. (2020). The R-square value was also assessed to

measure the extent to which the endogenous construct is explained by the exogenous construct, with values ranging from 0.10 to 0.76. This range signifies a moderate to strong explanatory power and predictive capability of the model. Additionally, the significance of path coefficients was evaluated to understand the strength and direction of the relationships between variables. Overall, the structural model exhibits a satisfactory fit and predictive performance, offering valuable insights into the interactions among constructs within the research framework.

Table 5. SRMR and R Square

SRMR	0.062
R2 Knowledge Sharing	0.180
R2 Organizational Culture	0.435
R2 Sustainable Development	0.680

Source: Author's own work

When examining the f^2 effect size matrix, it is crucial to assess how independent variables influence the dependent variable within the model. The f^2 value measures the proportion of variance in the dependent variable explained by each independent variable, with thresholds generally classified as small (0.02), medium (0.15), and large (0.35) (Hair et al., 2020). By analyzing the f^2 value matrix, one can determine the strength of each independent variable's impact on the overall model. A higher f^2 value signifies a stronger effect of the independent variable on the dependent variable, reflecting a significant contribution to explaining the variance in the model (Hair et al., 2017). The matrix of f^2 values is provided in Table 6.

Table 6. Matrix of f^2 values

	Knowledge Sharing	Organizational Culture	Sustainable Development	Technological Media
Knowledge Sharing			0.562	
Organizational Culture			0.194	
Sustainable Development				
Technological Media	0.220	0.771	0.002	

Source: Author's own work

Table 7. Path analysis – PLS-SEM results

Path Analysis	T statistics	P values
Technological Media -> Sustainable Development	0.279	0.962
Technological Media -> Knowledge Sharing	3.438	0.000
Technological Media -> Organizational Culture	2.775	0.005
Knowledge Sharing-> Sustainable Development	3.273	0.012
Organizational Culture-> Sustainable Development	4.782	0.000

Source: Author's own work

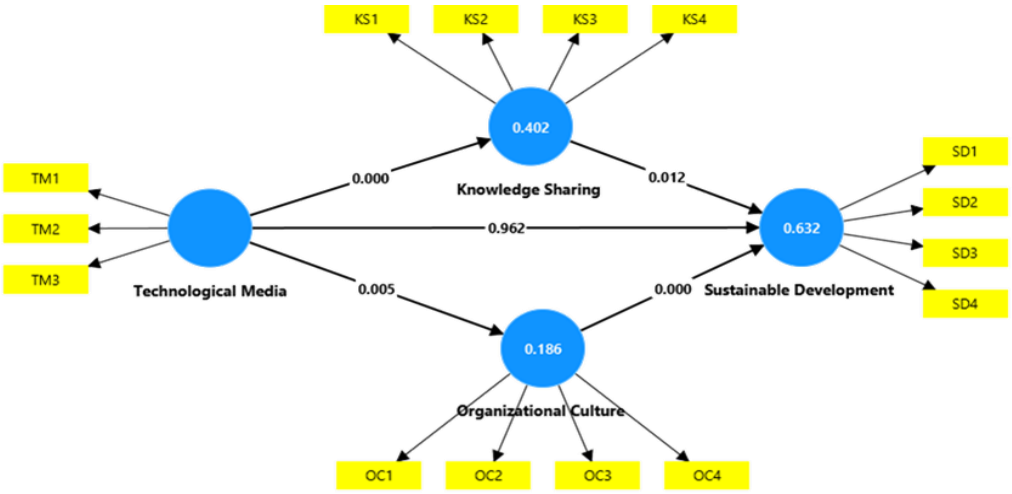

Figure 2. Path Analysis

Source: Bootstrapping results

In analyzing the proposed hypotheses and the relationships among constructs, bootstrapping was used to compute path coefficients, t-values, and p-values. Detailed results are presented in Table 7 and Figure 2, providing insights into the hypothesized relationships. Hypothesis H1 indicated that Technological Media does not influence Sustainable Development. Additionally, Hypothesis H2 validated the significant positive effect of Technological Media on Knowledge Sharing. Hypothesis H3 showed that Technological Media significantly influences Organizational Culture. Furthermore, hypothesis H4 confirmed that Knowledge Sharing significantly influences Sustainable Development. Finally, hypothesis H5 confirmed the significant positive effect of Organizational Culture on Sustainable Development.

5. Discussion

The study's conclusions provide insight into the complex interrelationships among organizational culture (OC), knowledge sharing (KS), technological media (TM), and sustainable development (SD) in the workplace. By providing fresh perspectives on the ways in which these constructs interact and affect organizational outcomes, these findings add to the expanding corpus of literature. Notably, the study highlights the importance of knowledge sharing and organizational culture in promoting sustainability measures, while demonstrating the more nuanced and indirect function that electronic media plays in this process.

5.1 The Role of Technological Media in Facilitating Knowledge Sharing

Technological media, including digital tools and platforms, have long been recognized for their capacity to enhance communication and information exchange (Davenport & Prusak, 2000). The findings of this investigation confirm that TM is essential for encouraging sharing of knowledge inside organizations, aligning with past research that emphasizes the significant influence of digital platforms on collaborative behaviors (Olsen & Christensen, 2015). In today's digital age, the ability to quickly disseminate information and access expertise is critical for organizations striving to remain competitive and innovative. By enabling easier communication across geographical and temporal boundaries, TM fosters a dynamic environment where employees can share insights, solutions, and best practices, which is crucial for the adoption of sustainable practices (Sharifi et al., 2024). Moreover, as organizations increasingly rely on digital tools for everyday operations, the role of TM in enhancing KS is not just limited to practical advantages but also to the creation of an environment where knowledge is more fluid, diverse, and integrated into the organizational fabric. This is especially crucial when considering sustainability, as organizations that encourage knowledge exchange are more likely to tap into diverse perspectives, leading to innovative solutions to complex sustainability challenges (Senge, 1998).

5.2 Technological Media and Organizational Culture: A Symbiotic Relationship

While technology-based media is crucial for promoting the sharing of knowledge., its impact on organizational culture appears to be equally critical. The study reveals that TM influences OC, suggesting that digital tools are not merely functional instruments but also agents of cultural transformation within organizations. This aligns with recent literature, which posits that the integration of digital technologies can reshape organizational values, norms, and behaviors, particularly when these technologies support transparency, inclusivity, and collaboration (Abbaszadeh et al., 2019). Organizational culture, as a dynamic force that shapes employee behavior and performance, is crucial in fostering an environment conducive to sustainability. A supportive culture that prioritizes sustainability and collaboration is more likely to see successful implementation of sustainable development practices (Khan et al., 2020). The findings suggest that TM can act as a catalyst for cultural change by reinforcing the values of openness and collaboration, which are foundational to sustainable practices. This relationship underscores the importance of not only investing in digital tools but also aligning these tools with broader organizational goals, including fostering a culture that champions sustainability and long-term value creation (Sharifi et al., 2024).

5.3 Knowledge Sharing as a Critical Mediator

One of the most striking findings of this study is the significant mediating role of knowledge sharing in the relationship between TM and sustainable development. This reinforces the view that knowledge sharing is not just a byproduct of digital technology but an essential driver of organizational performance, especially in the context of sustainability. As organizations increasingly embrace digital platforms for KS, the flow of information becomes central to addressing sustainability challenges (Ellis, 2001). Knowledge sharing enables organizations to disseminate best practices, innovative solutions, and critical information related to sustainability across all levels of the organization. The results of this study are consistent with those of Sabella et al. (2016), who contend that companies that actively promote knowledge sharing lay the groundwork for ongoing learning and improvement, two things that are critical to long-term sustainability. The way that KS affects SD supports the idea that sustainability is a dynamic process that necessitates ongoing learning and adaptation rather than a fixed objective. Organizations can continuously develop and modify their sustainability strategies to meet new possibilities and challenges by fostering a culture of open information sharing (Senge, 1998).

5.4 Organizational Culture's Role in Sustainable Development

The substantial beneficial impact of culture in organizations on sustainable development is another important finding of this research. This result corroborates the view that organizational culture is a powerful determinant of sustainability performance (Khan et al., 2020; Parray, 2020). A strong organization's basic principles that values sustainability can align individual and collective actions with the broader sustainability goals of the organization, facilitating the successful implementation of sustainability practices. Employees are more likely to engage with sustainability initiatives when these initiatives are embedded within the organization's basic principles. Moreover, the findings support the argument that culture influences behavior at both the individual and organizational levels. As organizations embed sustainability into their culture, it becomes ingrained in the daily operations, decision-making processes, and long-term strategies of the organization. This fosters a unified approach to sustainability that is both top-down and bottom-up, with leadership setting the tone for sustainability and employees contributing to its realization through everyday actions (Khan et al., 2020). The significant effect of OC on SD in this study suggests that organizations should prioritize the development of a culture that not only supports sustainability but also actively drives it through clear communication, shared values, and consistent practices.

5.5 The Complex Interactions Between Technological Media, Knowledge Sharing, and Sustainable Development

The study also highlights the intricate interactions between the constructs, suggesting that technological media does not directly drive sustainable development. Instead, its influence is mediated through knowledge sharing and organizational culture. This insight challenges the view that technological media alone can propel sustainability efforts and reinforces the value of using a more comprehensive strategy that takes into account both technology and human factors. While digital tools are indispensable, their full potential is only realized when coupled with organizational culture and practices that promote collaboration, openness, and the exchange of information (Siswadi et al., 2023). This finding supports the notion that organizations must adopt a systems thinking approach to sustainability—one that recognizes the interconnectedness of various elements, including technology, culture, and human behavior. As organizations invest in digital tools, they must simultaneously foster a culture that values knowledge sharing and sustainability, ensuring that technology serves as an enabler rather than an isolated solution (Senge, 1998). In this sense, the study underscores the need for a strategic alignment between technological initiatives and organizational culture to achieve sustainability goals effectively.

6. Conclusion

This research contributes significantly to the understanding of how technological media, knowledge sharing, and organizational culture interact to promote sustainable development in the workplace. While technological media alone may not directly drive sustainability, its role in facilitating knowledge sharing and shaping organizational culture makes it a key enabler of sustainable development. The findings suggest that organizations seeking to foster sustainability should leverage digital tools to enhance collaboration and knowledge exchange, while also prioritizing the development of a culture that supports sustainability. Businesses can foster an atmosphere in which sustainability is not just an objective but also an ongoing, dynamic process that is ingrained in the very fabric of the company. Future studies should look into further variables that might affect how sustainable practices are integrated into companies as well as the dynamic interactions between these components.

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Authors contributions

Dr. R. Agoes Kamaroellah, M.Si and Dr. Moh. Muhlis Anwar, M.E were responsible for study design, revising, data collection, drafting and revising.

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Data sharing statement

No additional data are available.

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