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Research Article

Does Organizational Culture and Digital Leadership Style Improve Sustainability Perfomance in The Digital Era?

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ABSTRACT

Introduction: In the era of Smart Society 5.0, organizational sustainability performance (OSP) has become a critical concern, requiring the integration of advanced management control systems (MCS), strategic management accounting (SMA), digital leadership styles (DLS) and organizational culture (OC).

Objectives: This study aims to investigates the impact of management control system (MCS), strategic management accounting (SMA), digital leadership styles (DLS) on the with organizational culture (OC) with culture serving as a moderating variable.

Methods: The research employs a quantitative method with sequential explanatory design, using questionnaires and interviews to gather primary data from Google forms distributed to all Indonesian industries (energy, basic materials, industrials, consumer non-cyclicals, infrastructure, consumer cyclicals, property and real estate, and healthcare) both registered in IDX IC.

Results: The results received a total of 870 responses and 381 were checked after removing data that did not match industry criteria and outliers. The study indicates that MCS, SMA, and DLS have a positive impact on OSP. OC moderates the positive influence of SMA on organizational sustainability performance (OSP), but cannot strengthen the positive influence of MCS and DLS on OSP.

Conclusions: This study enhances OSP research by incorporating digitization in DLS and OC, and providing empirical evidence on the role of OC as a moderation variable. This study highlights the importance of ISO 27000 for digitalization in Indonesia, guiding the implementation of OSP and ensuring effective global and international competition for industries. The study's limited sampling, subjectivity, and respondent biases.

Keywords: Organizational Sustainability Perfomance, Organizational Culture, Digital Leadership Style, Strategic Management Accounting, Management Control System

INTRODUCTION

In the era of Smart Society 5.0, organizational sustainability performance (OSP) has become a critical concern, requiring the integration of advanced management control systems (MCS), strategic management accounting (SMA), digital leadership styles (DLS) and organizational culture (OC) Dillon & Manz (2016); Lisnawati, et al. (2024). The shift towards digitalization has significantly transformed business operations, emphasizing the role of Internet of Things (IoT), big data, and artificial intelligence (AI) the in achieving sustainable financial and non-financial performance. Despite the rapid global digital transformation, Indonesian industrial firms are still lagging, with only 6% fully integrating digitalization into their operations *Innovative Indonesia Transformation* (2020). Digitalization has become a key factor in organizational sustainability. However, Indonesia lags behind other countries in adopting digitalization *Innovative Indonesia Transformation* (2020). If this trend continues, industrial companies in Indonesia will struggle to maintain their global competitiveness. Therefore, this study is crucial in exploring the role of digital leadership and digital OC in enhancing OSP. Thus, this research is not only academically relevant but also provides practical solutions for industrial companies to become more adaptive in addressing digitalization challenges.

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Research Article

This study investigates how operations digitalization of MCS, SMA, and DLS to influence OSP, with OC as a moderating factor. OC plays a crucial role in aligning digital leadership and management systems with corporate sustainability goals. Prior studies have examined MCS Baird et al. (2019), SMA Cadez & Guilding (2012), and DLS (Decuypere & Schaufeli, 2020). Independently, yet limited research has explored their combined effects in the presence of OC as a moderator.

This study differs from previous research, particularly Dillon & Manz (2016) on leadership style and Quinn & Cameron (2017) on OC. Dillon & Manz (2016) focused on transformational leadership in multinational corporations, whereas this study examines digital leadership in industrial companies. Additionally, their research was conducted in European countries, while this study focuses on Indonesia's industrial sector. The development of digital technology abroad is more massive and advanced; however, Indonesia has only reached around 10% of the digitalization level compared to other countries. If Indonesia cannot develop and adopt digital transformation as rapidly as other countries, its industrial companies will struggle to compete globally, and sustainable performance will not be achieved. This situation highlights the importance and motivation behind conducting this research. The motivation of the study lies in the differences of the study with previous studies, in particular Dillon & Manz (2016) on leadership styles and Quinn & Cameron (2017) on OC.

This study investigates the factors influencing sustainable organization performance, focusing on industrial companies listed on IDX IC Indonesia, and aims to understand the relationship in previous studies (Baird et al., 2019; Bititci et al., 2004; Cadez & Guilding, 2012; Höpfl & Höpfl, 1994; Munck et al., 2020; Nuhu et al., 2019; Quinn & Cameron, 2017; Rays et al., 2022); Lisnawati, et al. (2024) etc.

This study seeks to answer several key research questions related to OSP. Specifically, it examines whether the MCS, SMA, and DLS influence an organization's sustainability performance. Furthermore, this research explores whether OC reinforces the influence of these three factors, there are MCS, SMA, and DLS on the sustainability performance of organizations.

OBJECTIVES

Stakeholder Theory

Introduced by Freeman (1984) and improved by Deegan (2014), stakeholder theory emphasizes that organizations must create value not only for internal interests but also for external stakeholders such as creditors, suppliers, society, and government. This theory highlights the importance of aligning managerial decisions with stakeholder expectations to maximize organizational performance (Wicks & Harris, 2017). In this study, Stakeholder Theory provides a foundation for understanding the relationship between independent, moderating, and dependent variables in driving sustainable organizational performance.

Resource-based view theory (RBV)

Proposed by Wernerfelt (1984), RBV asserts that a firm's competitive advantage depends on its ability to make effective use of tangible and intangible resources. Tangible resources, such as machinery, land, and buildings, are tangible, while intangible resources, such as expertise, culture, and perception, are intangibl. (Barney, 1986). The theory supports this research by explaining how MCS, SMA, DLS, and OC contribute to improving organizational efficiency and sustainability perfomance.

Transformative Learning Theory

Transformative learning theory was first introduced by Mezirow (1997), describing how individuals and organizations critically reflect to reshape their worldview. In the context of Industry 5.0, rapid technological advancements necessitate transformative learning for organizations to adapt to digital evolution effectively. Within this framework, MCS and SMA play a crucial role in digital transformation, ensuring structured adoption through strategy control, operational monitoring, and innovation management (Narayanan & Boyce,2019). By incorporating this perspective, the study enhances existing theories, linking Stakeholder theory and RBV to provide a comprehensive framework for sustainable organizational performance.

Hypothesis development

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Research Article

This study explores the impact of MCS, SMA, and DLS on OSP, with OC as a moderating variable.

The Influence of Management Control System on Organizational Sustainability Performance

MCS plays a crucial role in ensuring that organizational resources are used efficiently and effectively Baird et al., (2019). The MCS is a control system that aims to integrate company systems and prevent fraud and system deficiencies. It is used when a company's internal parties misuse the system's sophistication to maximize performance, ensuring the overall success of the organization. Stakeholder theory and transformative learning theory may support this hypothesis because MCS ensures that organizational operations are aligned with stakeholder interests by increasing transparency, accountability, and resource efficiency. An effective control system improves financial stability and regulatory compliance, meeting the expectations of internal and external stakeholders. Previous studies by (Baird et al., 2019; Cadez & Guilding, 2012; Munck et al., 2020; Nuhu et al., 2019) have found a positive influence of the MCS on the OSP, consistent with previous research. This study's first hypothesis is based on the provided explanations:

H1: *Management Control System has a positive influence on Organizational Sustainability Performance*.

The Influence of Strategic Management Accounting on Organizational Sustainability Performance

SMAS significantly influences OSP by integrating financial and non-financial data, fostering innovation, supporting ESG initiatives, and enhancing stakeholder trust. Organizations that adopt SMA as a core strategic function are better positioned to achieve long-term sustainability and maintain competitive advantage in a rapidly evolving business environment. SMAS also supports organizational learning by continually refining cost structures, performance evaluation, and sustainability reporting, helping companies adapt to emerging market and environmental demands.Prior research (Cadez & Guilding , 2012; Rashid et al. 2020) suggests that SMAS improves operational efficiency, leading to sustainable organizational growth. Previous studies by Cadez & Guilding (2012) Mohamed (2016); Windsor (2015); Arunruangsirilert (2017); Chinquini (2010) have found a positive influence of the SMA on the OSP. The second hypothesis developed in this study is based on the provided explanations:

H2: *Strategic Management Accounting has a positive influence on Organizational Sustainability Performance*.

The Influence of Digital Leadership Styles on Organizational Sustainability Performance

According to Quinn & Cameron (2017) define leadership style as a consistent pattern of behavior by company leaders that influences members within an organization, shaping their leadership style. They emphasize the need for digitization in leadership in the current era. Stakeholder theory and resource-based view theory may support this hypothesis because DLS encourage innovation and transparency, ensuring that organizations are aligned with stakeholder demands for digital transformation and responsible leadership in the digital economy. A strong DLS enables organizations to leverage digital resources, such as AI, big data, and cloud computing, to improve decision-making, increase efficiency, and drive sustainable competitive advantage (Dillon & Manz, 2016).

Research by (Bititci et al., 2004; Dillon & Manz, 2016; Höpfl & Höpfl, 1994; Quinn & Cameron, 2017), shows that leadership style affects organizational performance by fostering internal control from superiors to subordinates. The third hypothesis developed in this study is that effective leadership leads to increased company performance:

H3: *Digital Leadership Styles has a positive influence on Organizational Sustainability Performance*.

The Moderating Role of Organizational Culture

According to Zuki (2016) defines OC as a system of assumptions, values, and shared beliefs that govern individuals within an organization. It determines how a group reacts to a diverse environment and is closely related to how employees perceive the characteristics of an organization's culture, rather than their personal preferences.

OC's have role in strengthening influence of the relationship between MCS, SMA, DLS and OSP. A strong OC enhances the adaptability of MCS, making control systems more flexible in response to technological and market changes. OC's role in strengthening the relationship between SMAS and OSP because OC encourages a data-driven decision-making culture, ensuring that SMA contributes to long-term sustainability. The last OC's Role in

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Research Article

Strengthening the Relationship between DLS and OSP because A digitally oriented OC supports digital leadership by promoting innovation and the effective adoption of new technologies.

Several studies have examined the relationship between OC, MCS, SMA, DLS and OSP research from research that has been conducted (Baird et al., 2019; Bititci et al., 2004; Cadez & Guilding, 2012; Höpfl & Höpfl, 1994; Munck et al., 2020; Nuhu et al., 2019; Rays et al., 2022). Therefore, the following hypothesis is proposed:

H4: *Organizational culture reinforce the influence of management control systems on organizational sustainability performance***.**

H5: *Organizational culture reinforce the influence of strategic management accounting on organizational sustainability performance***.**

H6: *Organizational culture reinforce the influence of digital leadership styles on organizational sustainability performance***.**

METHODS

Design and Procedures

This study used a quantitative empirical approach. The design of this study is a survey study. The researcher utilized a Google Form questionnaire distributed to all manufacturing companies in Indonesia listed on the Stock Exchange Industrial Classification Indonesia. E-questionnaires were distributed from October 2024 until February 2025.

The email sources were gathered from company data profiles, business cards, and referrals from professional networks. After the focus group discussions (FGD), questionnaire data collection, and in-depth interviews with managers in primary managers. Deepth interviews were conducted with representatives from various industrial sectors to further validate and confirm the questionnaire responses. The interview questions were identical to the questionnaire items and were used to confirm whether the responses provided were accurate and appropriate, along with the participants' reasoning behind their answers.

Selection of Samples

Selection of samples in this research designed by Purposive sampling whose characteristics met the requirements of this study (Sugiyono,2017). This study also included screening questions to ensure that respondents met the criteria as samples and could continue to fill out the survey. Respondents are middle to upper-level managers from each company, with a minimum diploma degree and at least 3 years of experience.

Measurements

To evaluate the variables in this study, statement items from previous studies were adapted. Perceived uniqueness was adapted from (Arunruangsirilert & Chonglerttham, 2017; Baird et al., 2019; Bititci et al., 2004; Cadez & Guilding, 2012; Dillon & Manz, 2016; Höpfl & Höpfl, 1994; Munck et al., 2020; Nuhu et al., 2019; Quinn & Cameron, 2017; Ramawickrama et al., 2017; Rays et al., 2022). All variables from previous research measurements were measured with their respective dimensions and indicators. Measurements using a likert scale of one to six are (1) strongly disagree, (2) disagree, (3) less agree, (4) quite agree, (5) agree, (6) strongly agree.

Analysis Methods

Data analysis involves processing and examining collected information. This study employs Structural Equation Modeling (SEM) using AMOS, which is preferred over PLS and LISREL for its detailed statistical outputs, graphical interface, and ability to handle complex models (Ghozali, 2021). AMOS evaluates relationships between latent variables and confirms theoretical models through goodness-of-fit indices (Ghozali, 2021).

RESULTS

Based on Table 1, it can be seen that 381 respondents have filled out questionnaires from 870 respondents who were given questionnaires. Based on the survey results, 381 respondents met the criteria. The sample consisted of eight clasification of industrials.

Journal of Information Systems Engineering and Management
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Research Article

Table 1 Respondents' Profile

Classification of Industrials IDX IC	**Total**	**Frequency**
Basic Materials	81	21.26%
Industrials	34	8.92%
Consumer non-Cyclicals	80	21.00%
Infrastructures	24	6.30%
Consumer Cyclicals	53	13.91%
Energy	32	8,40%
Property and Real Estate	61	16.01%
Healthcare	16	4.20%
	381	100.00%
Last Education		
Diploma (D3)	16	4.20%
Bachelor (S1)	308	80.84%
Master (S2)	53	13.91%
PhD (S3)	4	1.05%
	381	100.00%
Position		
Owner	24	6.30%
Manager	147	38.58%
Supervisor	150	39.37%
Head of Division	60	15.75%
	381	100.00%
Years of Experience		
3-10 Years	266	69.82%
10-15 Years	73	19.16%
15-20 Years	27	7.09%
20-25 Years	9	2,36%
>25 Years	6	1,57%
	381	100.00%

Source: Respondent survey

Assessment of the Measurement Model

The measurement model was assessed using AMOS 26.0, and the results in Table 2. showed that the validity and reliability values met the criteria. The variance extracted value was higher than the cutoff value of 0.5 Hair et al.,(2019) demonstrating good convergent validity of the constructs. Additionally, the Construct Reliability value met the criteria of higher than 0.6, while the CR value met the threshold for consistency. The CA, and CR values are detailed in Table 2.

Table 2 Validity and Reliability Values

	Average Variance Extracted (AVE)	**Construct Reliability**
OSP	0.755	0.607
MCS	0.932	0.775
SMA	0.908	0.665
DLS	0.949	0.675
OC	0.949	0.725
IA	0.906	0.618
JS	0.877	0.641

Journal of Information Systems Engineering and Management
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Research Article

Note: OSP: Organizational Sustainability Perfomance, MCS: Management Control System, SMA: Strategic Management Accounting, DLS: Digital Leadership Styles, OC: Organizational Culture, IA: Innovation Activities, JS: Job Satisfaction

Factor loadings for all constructs in the study values were significant at 0.5 or higher, and ideally 0.7 or higher (Hair et al.,2019) indicating that the items used in this study achieved discriminant validity and reliable too.

Fit Models

Table 3 reveals that there are nine criteria that meet the (Fit) requirements. The other 2 criteria are in a marginal fit position, which means that they almost meet the criteria with a difference value not far from the standard criteria.

Table 3 Model Fit Criteria

Criteria	Cut-off	Result	Conclusion
Chi-Square	Minimize	941.303	Fit
Prob	>0.05	0.008	Fit
Cmin/df	<2	1.965	Fit
GFI	>0.9	0.89	Marginal Fit
AGFI	>0.9	0.839	Marginal Fit
NFI	>0.9	0.932	Fit
RFI	>0.9	0.905	Fit
IFI	>0.9	0.965	Fit
TLI	>0.9	0.951	Fit
CFI	>0.9	0.965	Fit
RMSEA	0.05-0.08	0.06	Fit

Coefficient of Determination Test

Table 4 displays the study's coefficient of determination results.

Table 4 Square Multiple Correlations

Description	Estimate
Square Multiple Correlations	0.832

The value of square multiple correlations (MSC) as shown in Table 4.12 above of 0.832 indicates that 83.2% of the variability or variation in the independent variable to dependent variable. The remaining 16.8% were influenced by other factors outside the research model.

Structural Model Testing

The result of hypothesis testing are presented in Table 5. MCS had a positive influence on OSP (CR=1.989>1.65; $p < 0.05$), thus supporting H1, supporting H2, supporting H3. However, OC did not have reinforce to influence, thus rejecting H4, supporting H5. and rejecting H6.

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Research Article

Table 5 Hypothesis Testing Results

Path	Hypothesis	Estimate	C.R	p-Value	Decision
MCS → OSP	+	0.086	1.989	0.024*	H1 Supported
SMA → OSP	+	0.278	6.442	0.000***	H2 Supported
DLS → OSP	+	0.097	2.560	0.025**	H3 Supported
MCS*OC → OSP	+	0.000	-0.286	0.388	H4 Not Supported
SMA*OC → OSP	+	0.003	4.379	0.000**	H5 Supported
DLS*OC → OSP	+	0.000	0.374	0.355	H6 Not Supported
OC → OSP		0.080	1.651	0.065*	
IA → OSP		0.222	3.558	0.000***	
JS → OSP		-0.025	-0.580	0.281	

Note: OSP: Organizational Sustainability Perfomance, MCS: Management Control System, SMA: Strategic Management Accounting, DLS: Digital Leadership Styles, OC: Organizational Culture, IA: Innovation Activities, JS: Job Satisfaction

Sig < 0.01*** | Sig < 0.05**. Sig < 0.1*

Sensitivity Test

Sensitivity test is an additional test performed in this study. Sensitivity tests were conducted to check the robustness or reliability of the results of models involving novelty (model 1) and without novelty (model 2).

Table 6 Sensitivity Test

Path of Variable	Model 1 (Without Novelty)		Model 2 (With Novelty)	
	Estimate	P (1-tailed)		
MCS → OSP	0.086	0.024**	0.073	0.046**
SMA → OSP	0.278	0.000***	0.270	0.000***
DLS → OSP	0.097	0.025**	0.158	0.023**
MCS*OC→ OSP	0.000	0.388	0.000	0.267
SMA*OC → OSP	0.003	0.000***	0.002	0.000**
DLS*OC → OSP	0.000	0.355	0.000	0.452
OC → OSP	0.080	0.065*	0.087	0.065*
IA → OSP	0.222	0.000***	0.223	0.000***
JS → OSP	0.025	0.281	-0.031	0.237

Note: OSP: Organizational Sustainability Perfomance, MCS: Management Control System, SMA: Strategic Management Accounting, DLS: Digital Leadership Styles, OC: Organizational Culture, IA: Innovation Activities, JS: Job Satisfaction

Sig < 0.01*** | Sig < 0.05**. Sig < 0.1*

This study employs the primary test using the existing measurement framework for each dimension of OC while conducting an expansion test on the new measurement framework for OC. The expansion test is also applied to the new measurements of OC, specifically digital culture and legal culture.

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Research Article

DISCUSSION

The Influence of Management Control System on Organizational Sustainability Perfomance

The study reveals that MCS have a significant positive impact on OSP (*P*-value = 0.024). This supports the application of stakeholder theory and transformative learning theory, indicating that effective MCS can help organizations meet stakeholder expectations and achieve sustainability goals across economic, social, and environmental dimensions. The research highlights that organizations with clear ethical codes, active interaction between operational and senior management, and sustainability-focused performance measurement systems tend to perform better in sustainability efforts. Survey and interview findings show that integrating MCS with sustainability-oriented practices enhances transparency, accountability, and stakeholder engagement. However, some organizations still struggle to design MCS capable of identifying strategic uncertainties, particularly in the context of Industry 5.0. These findings align with prior studies (Baird et al. (2019); Cadez & Guilding (2012); Munck et al. (2020); Nuhu et al. (2019), which emphasize the strategic role of MCS in supporting sustainability. Mechanisms through which MCS contribute include risk management (ESG-related), data-driven decision-making via sustainability-focused KPIs, and enhanced accountability through diagnostic and interactive control systems. Moreover, MCS helps foster a sustainability-oriented OC, aligning employee behavior with strategic goals. In the long term, MCS contributes to competitive advantage, stakeholder trust, and operational efficiency making it a foundational tool for achieving sustainable development.

The Influence of Strategic Management Accounting on Organizational Sustainability Perfomance

The findings indicate that SMA have a significant positive effect on OSP (*P*-value= 0.000***). This supports stakeholder theory and transformative learning theory, emphasizing SMAS as a tool that enables organizations to balance financial, social, and environmental dimensions in decision-making. SMAS facilitates the provision of comprehensive data beyond financial metrics to support sustainability initiatives and align with stakeholder expectations, The study highlights that organizations using SMAS for integrated cost planning, environmental and social performance measurement, and strategic analysis are better positioned to improve sustainability outcomes. Questionnaire responses show high agreement on the need for integrated systems that help monitor and manage sustainability metrics, such as carbon emissions and social contributions. However, some challenges remain, particularly in environmental performance measurement, due to technological limitations in certain regions. Supporting prior studies (Cadez & Guilding, 2012); Oanh et al., 2023), SMA enhances data-driven strategic planning, helps identify sustainability opportunities, improves resource allocation through cost-benefit analysis, and strengthens organizational accountability and reputation. By fostering a culture of strategic insight and continuous learning, SMA empowers organizations to develop resilient sustainability strategies amid increasing external pressures and evolving stakeholder demands.

The Influence of Digital Leadership Styles on Organizational Sustainability Perfomance

The third hypothesis test confirms that DLS has a positive and significant effect on OSP (*P*-value = 0.025). This finding aligns with stakeholder theory and the RBV. Digital leaders drive sustainability by leveraging internal resources and digital technologies to align organizational goals with stakeholder expectations and environmental demands. Digital leadership enables efficient operations, fosters innovation, and integrates sustainability into business strategies through digital platforms (Iqbal et al., 2023; Nuhu et al., 2019). Leaders who adopt adaptive and technology-based approaches can respond effectively to dynamic regulatory and environmental changes. High agreement in the survey responses highlights leaders' roles in facilitating digital transformation, particularly in the context of Industry 5.0 (Khajeh, 2018). Supporting earlier studies (Bititci et al., 2004; Dillon & Manz, 2016), digital leadership was found to enhance OSP through cloud computing, big data analytics, and other technologies that reduce carbon footprints and improve resource efficiency (Eduzor, 2024). Furthermore, digital leaders foster innovation in sustainable products and processes and enable collaborative, cross-functional teams, even across geographic boundaries (Anthonius, et al., 2025);(Sulej & Qaisar, 2023).

Digital leadership also incorporates three critical dimensions: leadership development, spiritual leadership, and ethical leadership. Leaders who continuously enhance their digital competencies drive innovation and accelerate

sustainable transformation. Spiritually oriented leaders tend to adopt a holistic view, emphasizing social and environmental responsibility. Ethical leadership ensures transparent, accountable decision-making that balances long-term stakeholder impact with economic outcomes (Al-Khaled & Fenn, 2020; Anyigba & Lartey, 2024). In summary, digital leadership plays a pivotal role in aligning technology-driven innovation with sustainability objectives, fostering responsible business practices, and enhancing organizational resilience in a rapidly changing digital era.

The Effect of Management Control Systems on Organizational Sustainability Perfomance

The fourth hypothesis test shows that OC does not significantly strengthen the positive effect of MCS on OSP (*P*-value = 0.388). This result contradicts stakeholder theory and the RBV, which suggest that OC should enhance the implementation of MCS in alignment with internal stakeholder interests. The inconsistency may stem from differing internal cultures across industries, which may prioritize financial efficiency and short-term targets over sustainability, particularly in the Indonesian context. The lowest-rated indicator ("employees are actively involved in decision-making") suggests a lack of participatory culture in MCS implementation. Moreover, cultural resistance to innovation and lack of support for digital transformation further weakens the role of MCS in driving sustainability. In summary, without alignment between OC and sustainability values, MCS alone cannot significantly influence sustainability performance.

The Effect of Strategic Management Accounting on Organizational Sustainability Perfomance

The fifth hypothesis test confirms that OC significantly strengthens the positive relationship between SMA and sustainability performance (*P* value = 0.000***). This supports previous research and aligns with stakeholder theory and the RBV, indicating that culture enhances the transparency, accountability, and long-term orientation necessary for sustainability. A strong OC fosters employee empowerment, legal compliance, ethical conduct, and cross-functional collaboration, enabling effective SMA implementation. It also supports the use of data-driven decisions, ESG compliance, and sustainability innovation such as circular economy practices. Thus, a supportive culture enhances SMA contribution to achieving sustainability goals.

The Effect of Digital Leadership Styles on Organizational Sustainability Perfomance

The final hypothesis test reveals that OC does not strengthen the effect of digital leadership on sustainability performance (*P* value = 0.355). This contrasts with existing literature and theoretical expectations. The lack of alignment between existing culture and the values of digital leadership, such as innovation, collaboration, and data-driven decision-making limits the potential of leaders to promote sustainability. Findings also indicate the absence of digital systems for monitoring employee well-being, reflecting a gap in cultural readiness. Additionally, short-term profit orientation and low legal adaptability hinder the influence of digital leadership on sustainability outcomes. In essence, even with progressive digital leadership, an unsupportive culture can obstruct the achievement of sustainable performance.

CONCLUSION

This study aims to analysis and discussion, this study concludes that MCS positively influence OSP. A well-designed MCS significantly impacts the organization's ability to sustainability performance. A well-structured MCS enables organizations to effectively monitor, evaluate, and adjust their performance, ensuring sustainable operational efficiency.

The integration of real-time data monitoring, performance measurement tools, and adaptive management strategies strengthens an organization's ability to maintain long-term sustainability. Similarly, SMA has a positive influence, highlighting its importance in enhancing OSP. The findings indicate that SMA enhances decision-making by providing detailed financial and non-financial insights. By adopting advanced financial analytics, cost control mechanisms, and long-term investment strategies, organizations can improve their sustainability performance. DLS also plays a crucial role in improving OSP, indicating that leaders who adopt digital leadership approaches can positively influence organizational outcomes.

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Research Article

Implications, Limitations and Future Research

This study contributes to theoretical perspective, this study extends the leadership and OC framework by incorporating digitalization, ethical leadership, and sustainability principles. This study introduces three new dimensions in DLS and two new dimensions in measuring OC. The new measurement dimensions have previously been discussed with the owners (directors), managers, supervisors, and heads of departments from representatives of industrial companies, as well as the chairman of the Indonesian Institute of Management Accountants (West Java region). Based on the processing of statistical data, the results demonstrate validity and reliability, confirming their suitability for use in new measurements of DLS and OC.

On a practical level, these results offer valuable insights for industry leaders and policymakers aiming to enhance digital leadership competencies and corporate sustainability practices. Organizations should integrate digital and ethical leadership development programs and cultivate a strong digital culture to improve long-term. The implications of DLS for managers, supervisors, and all leaders in industrial management are deemed essential, as the study results indicate that DLS significantly enhances OSP. The newly introduced dimensions—Digital Leadership and Ethical Leadership—can serve as key references for leadership practices that should be implemented.

Regulation contribution to implications for the National Standardization Agency of Indonesia and the Indonesian Management Accountants Association suggest that the findings of this study can be used as a guideline for measuring OSP. The study emphasizes the importance of ISO 27000 for digitalization, ensuring that Indonesian industries can compete at a global and international level. The implementation of ISO 27000, which relates to digitalization, is essential to enable industrial companies across Indonesia to compete effectively on a global and international scale.

This study has several limitations. First, the interpretation of data was derived from questionnaire responses and interviews, which may introduce respondent subjectivity. Since some surveys were conducted via email without direct guidance, respondent biases may have influenced the responses. Second, although 870 responses were initially collected, only 381 valid responses were used due to exclusion criteria and outlier data. Future research should refine data collection methods to minimize biases and ensure a more comprehensive representation of the study population.

Future research is recommended to improve the data collection process by increasing the proportion of guided questionnaire sessions with respondents, compared to this study. This can help reduce bias and ensure better understanding. Additionally, providing key terminologies and explanations related to the research topic and variables may enhance respondents' comprehension and engagement. Future studies may consider adopting new dimensions and indicators for measuring DLS and OC. These improvements could help strengthen their influence on OSP.

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