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THE ROLE OF BPM IN ESG ADOPTION: TOWARD GREENER BUSINESS PROCESSES IN POLAND

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Purpose: The primary aim of this paper is to explore the integration of Business Process Management (BPM) with ESG principles, focusing on the role of BPM maturity (BPM M) in enhancing sustainability practices.
Design/methodology/approach: The article employs methods such as a literature review based on Web of Science and Scopus databases, as well as the desk research method focusing on Green BPM research.
Findings: The study revealed that organizations with higher BPM M levels integrate ESG principles more effectively, demonstrating greater environmental awareness, process monitoring, and use of green performance indicators. Integrating BPM with ESG requirements addresses growing regulatory and social pressures, enabling systematic environmental impact monitoring and operational efficiency optimization.
Research limitations/implications: The main research limitations stem from the use of findings presented in the report on Green BPM in Poland. These limitations primarily relate to the non-random sample of organizations that participated in the study.
Practical implications: In terms of practical implications, the article provides insights for management practitioners seeking concepts that integrate process management with the requirements imposed by ESG.
Social implications: The article highlights the potential of aligning BPM with ESG requirements to drive sustainable practices, contributing to broader societal goals such as environmental protection, social equity, and corporate transparency. By fostering more responsible business operations, it supports the creation of value not only for organizations but also for communities and stakeholders impacted by these processes.
Originality: The originality of this article lies primarily in its integrative perspective on BPM and ESG, with a particular focus on the operational dimension. It emphasizes the importance of adopting the key concept of the business process in ESG reporting, especially within organizations. Additionally, it highlights the critical context of BPM M and presents solutions aimed at simultaneously increasing BPM M level to more effectively achieve ESG objectives.
Keywords: BPM, ESG, Business Process Management, Green BPM, Green process.
Category of the paper: Conceptual paper.

1. Introduction

As diverse political ideologies and economic conditions complicate implementation of sustainable development (SD) practices across regions, the European Union (EU) emphasized a need for a unified global framework (Lapsley, Eggertsson, 2022). ESG (Environmental, Social, and Governance) principles have become a cornerstone of sustainable development in the global economy. The ESG is a framework that takes sustainability down from international level to micro level of companies and integrates sustainability into corporate practices and investment strategies (Zhong, 2023). ESG represents a shift from profit-oriented models to a broader focus on community and environmental stewardship, driven by globalization and industrialization (Lapsley, Eggertsson, 2022). The concept has become popular as businesses and investors have recognized the importance of environmental and social issues alongside traditional financial metrics (Bowley, Hill, 2024; Clark, Dixon, 2023). The implementation of ESG measures into a company's strategy and value chain is proved to be meaningful for development of sustainable business practices. Companies are often incorporating ESG policies into their core business strategies, due to stakeholder interests and risk management frameworks (Ingole, 2022). The focus on ESG is also driven by investor demand for sustainable practices, which in the end may lead to improvement of financial performance and reduction of risks (Saini et al., 2022). Companies that effectively integrate ESG factors not only improve their financial performance, but also transform value chain into sustainable direction. It is particularly important in industries like petrochemicals, where sustainable practices are crucial for long-term viability and therefore may enhance added value. To give an example, companies may assess the products' life cycle and maximize its sustainability and profitability by implementation of circular business model (Vechkasova et al., 2023).

Increasing stakeholder requirements for more sustainable services and products are driven by a variety of factors, including dynamic business environment, heightened competition, as well as the need for transparency, and trust. Organizations enhance their offerings to meet these evolving demands, necessitating a robust approach to requirements engineering. This involves understanding stakeholder needs and the integration of complex multi-stakeholder requirements into product-service systems (PSS) (Yin et al., 2020). Consumers are increasingly prioritizing eco-friendly considerations when selecting green products, driven by heightened awareness of environmental issues and a desire for sustainability solutions. Key factors influencing this shift include the demand for products with minimal environmental impact, such as those with reduced carbon footprints and sustainably sourced materials (Schandl, 2016). Assuming that the structure of customer needs is increasingly shaped by a focus on aspects that have not been strongly emphasized in the past—such as the green dimension of processes—it is essential to highlight a fundamental organizational category present in every enterprise: the business process (see Sliż, 2021). The business process strongly

underscores the necessity of addressing customer needs in generating added value within an organization (Grajewski, 2016). To elaborate further, in the context of the discussed issues, *BPM is not about improving the way individual activities are performed. Rather, it is about managing entire chains of events, activities, and decisions that ultimately add value to the organization, and its customers* (Dumas et al., 2018, p. 1). The evolution of BPM, as opposed to its initial developmental phases (see Bitkowska, 2019), has increasingly focused on Green Processes and Green BPM. This shift represents a natural progression driven by the changing business landscape and evolving customer expectations, emphasizing the need for sustainability and environmental responsibility.

Based on the literature review, a research gap was identified regarding the scarcity of publications that address BPM and ESG in an integrative manner, particularly in the context of BPM maturity (BPM M) growth within organizations**.** This gap highlights the need for studies that explore how organizations can enhance their process maturity to effectively meet ESG requirements. The identified research gap determined the research problem, which was formulated as the following research question (RQ):

RQ: *How can BPM evolve to effectively integrate ESG principles and maximize both sustainability and operational performance within organizations?*

To effectively address ESG requirements and maximize operational benefits, Business BPM must evolve into Green BPM by embedding sustainability into its core practices. This transformation necessitates integrating Environmental Performance Indicators (EPIs) to measure and manage environmental impacts, thereby enabling continuous improvement (Roohy, Indulska, 2020).

The research problem formulated in this way defines the main aim of the paper: to the explore the integration of Business Process Management (BPM) with Environmental, Social, and Governance (ESG) principles, focusing on the role of BPM Maturity in enhancing sustainability practices. The study seeks to assess how BPM frameworks can be adapted to address ESG requirements, improve process efficiency, and foster organizational transformation toward sustainable and responsible business operations.

2. ESQ requirements: from now to next

The integration of ESG principles into corporate strategies is becoming a pressing necessity. Companies face increasing pressure from consumers and investors to adopt sustainable practices that align with societal expectations (Warouw et al., 2024). This shift reflects a broader recognition of the importance of ESG frameworks in addressing environmental and social challenges within business operations. Adopting ESG principles is not only an ethical imperative but also a strategic necessity for ensuring long-term business viability and

competitiveness. Organizations that embed ESG considerations into their operations are better positioned to navigate evolving market dynamics and regulatory landscapes (Warouw et al., 2024). Organizations increasingly recognize that integrating ESG principles is vital for long-term success. The integration of ESG practices into organizational operations has enhanced efficiency, resilience, and long-term value creation. Companies such as Unilever and Microsoft demonstrate improved operational efficiency and cost savings by embedding ESG principles into their core operations (Blagova et al., 2024). This integration influences investment decisions and market dynamics, thereby fostering a more resilient business model (Warouw et al., 2024). Furthermore, aligning ESG with the United Nations' Sustainable Development Goals (SDGs) is particularly critical in emerging markets, where companies face unique challenges related to compliance and resource allocation (Markopoulos, Ramonda, 2022).

While the emphasis on ESG processes continues to grow, some argue that the focus on compliance might overshadow the ethical imperatives driving ESG initiatives. This perspective highlights the need for companies to not only meet regulatory requirements but also strive for authentic social and environmental impact.

Quality assurance in ESG reporting hinges on robust internal controls. The COSO guidelines outline the necessity of such frameworks to enhance the reliability and transparency of ESG processes (Uludag, 2023). Effective management of these processes is essential for maintaining stakeholder trust (Uludag, 2023). Technological innovations, particularly in artificial intelligence (AI), are revolutionizing ESG strategies. AI enhances data analysis and reporting capabilities, enabling real-time monitoring of sustainability metrics and providing actionable insights for improved decision-making (Rane et al., 2024). AI tools play a pivotal role in preventing greenwashing by ensuring the authenticity of ESG claims. These technologies enhance transparency and accountability, fostering trust among stakeholders and reinforcing the credibility of corporate sustainability initiatives (Rane et al., 2024). Artificial intelligence (AI) technologies are transforming ESG processes by enhancing data collection, analysis, and reporting capabilities. AI tools improve the accuracy and timeliness of ESG reporting, enabling informed decision-making. Additionally, AI-driven tools play a pivotal role in identifying ESG-related risks and mitigating greenwashing, thereby fostering greater transparency and accountability (Rane et al., 2024). Frameworks like the Balanced Scorecard, adapted to include ESG metrics, align sustainability with financial and operational goals (Michalski, 2024), while organizational learning and sustainability management further drive ESG performance (Xia, 2022; Bettley, Burnley, 2008). ESG also fosters stakeholder trust, enhances market competitiveness, and supports systemic resilience through interconnected frameworks like the ESGOR matrix (Leoni, 2024). Although critics highlight the complexity of ESG integration, its strategic adoption ensures environmental, social, and governance objectives contribute to enduring corporate success (Macneil, Esser, 2021; Li et al., 2024). The lack of established methodological frameworks for integrating ESG factors into business management presents significant challenges. This gap underscores the

need for further research and innovation to develop practical strategies for ESG implementation (Kozlova, 2023). Utilizing robust design methods can help organizations ensure compliance with standards while enhancing overall sustainability efforts (Lontsikh et al., 2022).

ESG reporting has evolved beyond its traditional role as a risk management tool. It now serves as a mechanism for creating business value, reflecting a company's commitment to sustainability and its ability to address emerging challenges effectively (Kostyuchenko et al., 2024). Robust ESG reporting practices contribute to improved competitiveness by demonstrating a company's dedication to sustainable development. Such practices enable organizations to differentiate themselves in a rapidly changing business environment, thereby securing a competitive advantage (Kostyuchenko et al., 2024). Despite the growing emphasis on ESG principles, the voluntary nature of many ESG initiatives can lead to inconsistent application across industries. This variability poses a challenge to achieving widespread environmental sustainability and limits the effectiveness of ESG frameworks in driving systemic change (Duarte, 2023).

The integration of ESG principles into corporate strategies and operations is essential for achieving sustainability and operational excellence. By leveraging technological advancements such as AI and adhering to robust internal controls, organizations can align their strategies with global sustainability goals. However, addressing the challenges posed by the lack of standardized frameworks and methodologies requires concerted efforts from stakeholders, researchers, and policymakers.

3. Integrative perspective on BPM and ESG

Integrating BPM with ESG factors offers a comprehensive approach to increasing the sustainability of an organization. Integrating these two frameworks can lead to improved sustainability performance by embedding ESG considerations into core business processes. This approach not only aligns with stakeholder expectations but also increases transparency and accountability (Aldowaish et al, 2022). Integrating ESG into BPM requires aligning company's vision, strategy, business models, and functions. It may cause evolutionary changes like enhancing process design, compliance, automation, and reporting to effectively address ESG requirements and optimize operational benefits for organizations (von Rosing et al., 2015). An integrated approach to BPM supports the creation of comprehensive models that encompass multiple business perspectives, including ESG factors. This approach bridges gaps in existing BPM languages and improves understanding across business domains (Letsholo et al., 2014). This evolution prevents reactive compliance actions and increases operational benefits by aligning management systems with economic, ecological, and social sustainability standards, supporting a proactive approach to ESG requirements (Rozman et al., 2015).

Integrating BPM with ESG principles is becoming a key element of the strategy of organizations striving for sustainable development. As Green BPM includes environmental aspects in the management of business processes, it also analyzes the environmental impact at each stage of the enterprise's value chain. The introduction of Green BPM requires redefinition of processes taking into account pro-ecological aspects and support from management staff. Implementation of Green BPM supports mandatory ESG reporting, enabling organizations to meet regulatory requirements and increase transparency of pro-ecological activities (Brajer-Marczak et al., 2024).

González et al. (2018) prove that the Green BPM, a connection of ESG and BPM, should start with actions of managers, whose main actions towards sustainability in process management should with emissions in processes, resources used, and its quality, good green practices introduced to processes, waste created and its quantity and purpose, as well as KEIs and EPIs for further actions. At the same time, González et al. (2018) researched that most of the scientific studies on Green BPM focus on defining the green goals in the life cycle. The research analyzed addresses all stages of a process's life cycle, with the greatest focus on design (52%), monitoring (45%), and improvement (45%). Implementation and operation stages receive comparatively less attention, addressed in 29% and 39% of studies, respectively. This distribution highlights the prioritization of stages critical to establishing and refining processes. The findings underscore the importance of design and monitoring in process management research. Unfortunately, the data indicates that the majority of studies place significant emphasis on the planning phase (89%) and the realization phase (64%). However, corrective actions, which are essential for achieving objectives and improving processes, receive comparatively less attention, with only 38% focusing on the "check" phase and 21% on the "act" phase. These corrective measures, despite their limited emphasis, are recognized as valuable for integrating ESG-BPM practices, such as fostering collaboration with more sustainable suppliers (Kuppusamy, 2015). According to this, Brajer-Marczak et al. (2024) shows some areas in which the integration of BPM and ESG can be done in a company (see in table 1).

Table 1.
The examples of green practices implemented across different processes to contribute to sustainability and reduce environmental impact

Processes	Examples of Implemented Process Practices
Customer Service	• **Digital communication**: Using email, chat, and online platforms for customer interaction to reduce paper usage. • **Energy-efficient equipment**: Use energy-efficient computers, headsets, and lighting in call centers.
Back-office Operations	• **Paperless processing**: Adopting electronic transaction processing, account management, and record-keeping. • **Cloud-based systems**: Using cloud computing to reduce demand for physical servers and save energy.

Cont. table 1.

Financial Reporting and Analysis	• **Digital reporting tools**: Using digital tools to create and share reports to minimize paper printing. • **Remote collaboration tools**: Implementing video conferencing and collaboration software to reduce travel to meetings.
IT and Technical Support	• **Virtualization**: Using server and desktop virtualization to reduce the number of physical machines. • **Energy-efficient data centers**: Implementing eco-friendly practices in data centers, such as efficient cooling systems and renewable energy sources.
Human Resources Management	• **Online recruitment processes**: Conducting interviews and assessments online to reduce paper usage and travel. • **E-training**: Offering digital training modules and e-learning options for employee development.
Regulatory Compliance Management	• **Electronic document management**: Digital management of legal documents and compliance records. • **Telecommuting options**: Enabling employees to work remotely to reduce emissions from commuting.
Data Management	• **Automated data processing**: Using software to automate data entry tasks, reducing paper demand. • **Energy-efficient device modes**: Ensuring computers and other devices are set to energy-saving modes when not in use.
Procurement and Supply Chain Management	• **Eco-friendly suppliers**: Choosing suppliers that use eco-friendly practices and products. • **Sustainable office materials**: Choosing office supplies made from recycled or sustainable sources.

Source: (Brajer-Marczak et al., 2024).

The integration between BPM and ESG can be also started with compering BPM M assessment with ESG, because traditional BPM M assessment models focus mainly on operational efficiency (see Szelągowski, Sliż 2024). The inclusion of ESG criteria allows a holistic assessment that considers environmental, social and governance impacts. Integrating ESG factors into the BPM M assessment in banks can improve risk management and regulatory compliance while promoting sustainable business practices (Mahaux, Dahlstedt, Wilmont, 2016). Integrating ESG factors into BPM maturity assessment involves expanding traditional BPM maturity models to incorporate sustainability considerations. Table 2. contains steps to approach this integration systematically.

Table 2.
Integrating ESG factors into BPM M assessment

1. Understand the BPM Maturity Framework • **BPM Maturity Models:** Familiarize yourself with existing BPM maturity models such as the Capability Maturity Model Integration (CMMI) or the BPM Maturity Model (BPMM). These frameworks typically assess process efficiency, standardization, and optimization. • **ESG Dimensions:** Identify how environmental, social, and governance factors align with BPM activities, such as resource management, stakeholder engagement, and compliance.
2. Define ESG-Specific Criteria for BPM Assessment • **Environmental Factors (**Assess the environmental impact of processes, e.g., energy usage, waste generation; Include metrics like carbon footprint reduction, renewable energy adoption, and resource efficiency). • **Social Factors (**Evaluate employee well-being, diversity, and community impact; Use metrics such as workplace safety incidents, employee satisfaction, and community investments). • **Governance Factors (**Examine compliance with regulations, ethical standards, and risk management; Include measures such as anti-corruption practices, data security, and transparency).

Cont. table 2.

3. Enhance Existing BPM Maturity Dimensions - Add ESG-related aspects to traditional BPM maturity dimensions such as: • **Strategic Alignment (**Ensure processes align with organizational ESG goals and sustainability strategies). • **Governance and Culture (**Foster a culture of sustainability and ethical behavior within BPM practices). • **Process Optimization (**Optimize processes for both operational efficiency and sustainability outcomes). • **Technology Use (**Leverage technologies that support ESG goals, such as energy-efficient systems or digital collaboration tools).
4. Develop ESG-Specific Assessment Questions - Create targeted questions for each BPM maturity level (e.g., initial, managed, defined, quantitatively managed, optimized) that focus on ESG factors. Examples include: • Initial Level: Are sustainability considerations part of any process planning or documentation? • Managed Level: Are there metrics in place to measure the environmental impact of key processes? • Defined Level: Is there a standardized approach to integrating ESG factors across all processes? • Quantitatively Managed Level: Are ESG outcomes consistently tracked and analyzed to guide decision-making? • Optimized Level: Are processes continuously improved to achieve superior ESG performance?
5. Incorporate ESG Metrics into Maturity Scoring • Assign weights to ESG criteria in the maturity assessment. • Use quantitative (e.g., emission reductions) and qualitative (e.g., policy compliance) indicators to score ESG integration.
6. Engage Stakeholders in the Assessment • **Internal Stakeholders (**Collaborate with sustainability teams, compliance officers, and process managers to ensure ESG factors are accurately represented). • **External Stakeholders (**Engage customers, regulators, and community representatives to validate ESG priorities and performance).
7. Leverage Tools and Frameworks • Use existing ESG reporting standards such as: o **Global Reporting Initiative (GRI):** For sustainability metrics. o **Sustainability Accounting Standards Board (SASB):** For industry-specific ESG factors. o **ISO 26000:** For social responsibility guidance. • Use BPM tools that allow integration of custom metrics, dashboards, and ESG reporting features.
8. Benchmark and Monitor Progress • Compare the organization's ESG-integrated BPM maturity with industry benchmarks. • Regularly reassess and refine the maturity model to adapt to evolving ESG standards and organizational goals.
9. Link ESG Integration to Business Outcomes - Demonstrate how ESG integration enhances BPM maturity by linking it to: • Reduced operational costs. • Improved compliance and risk management. • Enhanced brand reputation and stakeholder trust.

Source: based on (Mahaux et al., 2016).

Sustainable BPM aims to embed sustainability into business processes, extending beyond external reporting to internal operations. This includes integrating life cycle assessment (LCA) into BPM to effectively assess and improve sustainability performance (Fritsch et al., 2022). Vom Brocke et al., (2011) prove that the Sustainability-Oriented Process Analysis (SOPA) methodology integrates sustainability into the BPM lifecycle. SOPA is a methodology that extends the BPM lifecycle with life cycle LCA) and activity-based costing (ABC) to analyze and redesign processes with a focus on sustainability. Implementing SOPA enables organizations to identify and reduce the negative impacts of business processes on the

environment, supporting sustainable development goals. The integration of BPM and ESG perspectives enables organizations to not only improve operational efficiency but also meet increasing regulatory requirements and stakeholder expectations regarding sustainability (vom Brocke et al., 2011). Table 3. contains steps to incorporate SOPA framework demonstrates how BPM and ESG perspectives.

Table 3.
The six steps to incorporate SOPA framework to BPM and ESG perspectives

1. Understand the Process Scope and Context • **Identify the process (**Determine which business process or set of processes will be analyzed. Define its boundaries, inputs, outputs, and stakeholders.) • **Assess relevance to sustainability (**Analyze how the process impacts environmental, social, and governance (ESG) aspects. Focus on areas where the process has significant sustainability implications.)
2. Conduct a Sustainability-Oriented Analysis • **Life Cycle Assessment (LCA) (**Evaluate the environmental impact of each process step, such as energy use, material consumption, and waste generation; Identify phases of the process with the highest environmental burden.) • **Activity-Based Costing (ABC) (**Use ABC to allocate costs to activities based on their resource usage. Include sustainability costs (e.g., emissions, energy consumption) in the cost analysis.) • **Social Impact Analysis (**Assess the social implications of the process, including employee health and safety, community impact, and ethical considerations.)
3. Redesign the Process for Sustainability • **Define sustainability goals (**Set measurable objectives such as reducing carbon emissions, optimizing resource use, or improving social equity). • **Redesign process steps (**Replace resource-intensive activities with eco-friendly alternatives; Incorporate renewable energy or materials; Modify workflows to minimize waste and inefficiency). • **Use technology (**Implement digital tools and automation to improve efficiency and reduce unnecessary energy use).
4. Implement Changes • **Engage stakeholders (**Communicate the changes to all stakeholders, emphasizing the sustainability benefits). • **Train employees (**Educate team members on new processes and sustainability practices).
5. Monitor and Measure Outcomes • **Establish KPIs: (**Track key performance indicators (KPIs) related to sustainability, such as energy consumption, carbon footprint, and cost savings). • **Conduct regular reviews (**Continuously monitor the performance of the redesigned process and its impact on sustainability goals).
6. Iterate and Improve • **Identify new opportunities (**Revisit the process periodically to identify further areas for improvement). • **Incorporate feedback (**Use stakeholder feedback and data to refine the process further).

Source: based on (vom Brocke et al., 2011).

The changes in BPM may prioritize ESG factors, enhance data analysis capabilities, and foster sustainable practices, ultimately maximizing operational benefits and driving responsible business practices in payment services (Chandramouli, 2023). Those evolutionary changes may also focus on leveraging Information and Communication Technologies (ICT) tools to meet ESG requirements while improving operational efficiency and compliance. That can be done by further integration of BPM and ESG with Business Intelligence (BI) to enhance process sustainability (Kabra et al., 2018).

Gonzalez et al. (2018) propose to incorporate ESG indicators to software used for reporting. These authors based their idea on the concept of Process Greenability, understood as the degree of efficiency of executing the process is in terms of environmental impact, consumption of energy, use of ecological and/or recycled resources, allocation of the required amount of resources and their use, generation of emissions, and production of waste and its destination, in this way creating the KEIs or EPI associated with a sustainable processes (Table 4).

Table 4.
The examples of KEIs or EPI associated with sustainable processes

KEI/EPI	Description
Energy efficiency	Degree of efficiency with which the business process consumes energy when executed.
Resource use	Degree to which the exact amount of the resources required to execute a business process is allocated and used, to perform the business process functions in an optimal manner.
Minimization of environmental effects	Degree to which the execution of a business process reduces the effects on the environment.
Ecological and recycled resource use	Degree to which ecological and/or recycled resources are used in the execution of a business process.
Waste minimization	Degree to which the business process reduces the production of waste during its execution and whether the destination of that waste is defined.
Emission minimization	Degree to which the execution of a business process reduces emissions.

Source: (González et al., 2018).

Integrating BPM and ESG can bring benefits and improved decision-making, such as:

- An integrated ESG approach helps companies in sectors such as food and beverages measure their sustainability performance and meet stakeholder expectations. It provides a structured methodology for assessing ESG impacts, supporting strategic decision-making (Gallo et al., 2023).
- Integrating ESG factors into financial reporting increases transparency and accountability. Internal organizational factors such as governance and financial stability play a key role in effective ESG integration (Budiasih, 2024).
- Integrating sustainability into BPM prevents ad-hoc compliance activities (Rozman et al., 2015).
- Managerial trainings enhance adaptation to competitive business environments (Rozman et al., 2015).
- Development of enterprise sustainability reference content (von Rosing et al., 2015).
- Integration of sustainability into business process management (von Rosing et al., 2015).
- ESG metrics integration drives operational excellence and sustainability (Chandramouli, 2023).
- Strategic ESG integration is crucial for sustainable business practices (Chandramouli, 2023).
- Integrated BPM and BI enhance process sustainability (Kabra, 2018).

While integrating BPM and ESG offers numerous benefits, challenges remain, such as the lack of standardized methodologies and the complexity of matching different ESG factors to business processes. Addressing these challenges requires ongoing research and collaboration among stakeholders to develop a solid framework that supports sustainable business practices.

4. Green processes in Poland: results and discussion

The identification of the degree of implementation of green business processes has been extensively discussed in the report Green Processes in Organizations in Poland. Report 2024 (Berniak-Woźny et al., 2024). The study reflects the structure of the analyzed issue, as it simultaneously focuses on BPM Maturity as well as aspects related to ESG. This approach highlights the interconnectedness of these two constructs, emphasizing the need for their systematic integration. It underscores the association between the degree of BPM implementation and the focus on green processes. The study aimed to assess the extent of ESG principles integration with process management in the context of increasing non-financial reporting requirements. The MMPM2 process maturity model was applied, enabling the classification of organizations into five levels of process maturity—ranging from low process orientation to advanced process optimization. The study utilized the assumptions of the BPM Maturity Model (BPM MM)—MMPM (Sliż, 2018a) and MMPM2 (Sliż, 2021).

The obtained results can be divided into the following categories (Berniak-Woźny et al., 2024):

- **Environmental awareness and responsibility**
  - 66.57% of respondents stated that their organizations are aware of their environmental impact and take responsibility for it.
  - Larger companies demonstrated a higher level of awareness and responsibility compared to smaller entities.
- **ESG training**
  - Over 50% of respondents reported that employees receive training on environmental issues.
  - Larger companies are more likely to invest in employee competency development than smaller organizations.
- **Process monitoring (KPIs) for environmental impact**
  - 44.76% of organizations declared that they systematically analyze their processes in terms of environmental impact.
  - Companies with higher process maturity levels are more likely to implement monitoring and reporting mechanisms.

- **Use of environmental indicators**
  - 36.28% of organizations incorporate “green” indicators into process definitions.
  - However, a significant proportion of companies have not yet implemented such indicators.
- **ESG certification and audits**
  - 27.12% of organizations hold ESG certifications or undergo regular audits, primarily among companies operating in international markets.
  - Smaller organizations show less engagement in formal certification processes.

Furthermore, the report highlights that organizations with higher levels of process maturity implement ESG principles more frequently and effectively. However, significant gaps in awareness and engagement, particularly among smaller companies, were identified. The authors of the report emphasized the following recommendations (Berniak-Woźny et al., 2024):

- increasing investments in ESG education and training for management and employees,
- developing process monitoring mechanisms and implementing environmental performance indicators,
- promoting continuous process improvement instead of a project-based approach,
- formulating policies to support the adoption of ESG principles in small and medium-sized enterprises.

The presented report (Berniak-Woźny et al., 2024) serves as a foundation for a broader discussion on the integration of BPM and ESG principles, with particular emphasis on the role of processes and process management, conceptualized through BPM M. This, in turn, raises a critical question regarding the necessity of incorporating ESG considerations into methodologies for BPM implementation within organizations.

- **The role of BPM in ESG implementation -** the BPM maturity model (MMPM2) applied in the study highlights that the development of organizations from a functional to a process-oriented structure (Level 5) is associated with greater capabilities for monitoring environmental impacts and systematically reporting results. Organizations with higher maturity levels demonstrate stronger engagement in analyzing the environmental impact of their activities and implementing mechanisms to optimize environmental efficiency.
- **The rationale for integrating BPM and ESG** - integrating BPM with ESG requirements addresses the growing regulatory and social pressures related to non-financial reporting. BPM facilitates the identification, modeling, and optimization of processes, which supports the elimination of inefficiencies, enhances transparency, and enables systematic monitoring and reporting of ESG activities.

It is also worth emphasizing that, based on the summarized findings presented in the report (Berniak-Woźny et al., 2024), conclusions can be drawn regarding the surveyed group of Polish organizations. These insights, supported by prior research on BPM Maturity in Poland

(see e.g., Bitkowska, 2013, 2019; Sliż, 2018b, 2021; Kalinowski, 2019), pertain specifically to enterprises operating in Poland.

Challenges for organizations in Poland:

- **Low BPM M Level**– The report indicates that a significant portion of organizations in Poland operate at lower levels of BPM M.
- **Lack of awareness and resources** – Nearly 42% of organizations are unsure whether they hold ESG certifications or undergo audits, while only 27% confirmed their presence. This highlights the need for education and support in ESG implementation.
- **Ad-hoc approach to ESG** – ESG activities are often carried out on an ad-hoc and project-based basis rather than being embedded in an integrated process strategy.
- **Deficiencies in monitoring and reporting** – Only 38.6% of organizations systematically monitor processes for their environmental impact, indicating gaps in accountability and oversight mechanisms.
- **Insufficient training programs** – The lack of comprehensive educational programs hampers the development of ESG competencies among employees, particularly in smaller organizations.

This analysis underscores the need for systematic efforts to build process maturity, improve awareness, and develop ESG-oriented strategies and tools to address current challenges and promote sustainable development.

5. Conclusion

The issues discussed in this article highlight the intersection of BPM and ESG frameworks, necessitating the search for a common ground where these domains converge. While the concept of green BPM aligns with this inquiry, the ongoing evolution of ESG reporting requirements calls for dynamic adjustments to its structural frameworks. This dynamic shift implies that ESG aspects should be considered not only at the BPM level but also during the design phase of business processes.

This consideration extends beyond production processes and carbon footprint generation to a broader spectrum of components influencing ESG reporting. At the level of business process architecture, organizations may face managerial dilemmas. These include whether to integrate ESG considerations into the design of new processes or projects that enable the collection, analysis, and reporting of source data, or whether to embed mechanisms in every process to dynamically measure and report ESG-related Key Performance Indicators (KPIs). Additionally, organizations must address how to regulate employee empowerment levels, enabling them to improve processes or propose enhancements based on ESG requirements.

The response to these dilemmas may depend on several factors, such as whether the organization is mandated to report ESG metrics or does so voluntarily. Nevertheless, the two components outlined in this discussion appear complementary. On one hand, it is essential to design processes with a green context in mind. On the other hand, it is equally important to implement processes or projects in which all KPIs are analyzed and incorporated into ESG reporting.

It is also worth emphasizing the research gap identified in this article. The limited number of publications addressing the discussed issues, especially empirical studies, suggests that many proposed solutions remain conceptual and require further evaluation for operational feasibility. At the same time, this research gap highlights numerous avenues for future studies, focusing on the interplay between BPM and ESG, along with extending this scope to include processes, projects, and ESG integration.

Moreover, the direction of change also pertains to incorporating a green context within the BPM Life Cycle, as outlined in this article. It raises the need to examine how this approach will influence core BPM elements, such as the reconfiguration of the six core elements (Rosemann, vom Brocke, 2015). These identified research directions also underscore the limitations of this publication, particularly in terms of its reliance on desk research. The presented study was conducted using a non-random sample selected based on convenience, limiting the generalizability of its findings to only those who voluntarily participated in the research.

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