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Zhang Qin,
PhD student,
Simon Kuznets Kharkiv National University of Economics

A HOLISTIC APPROACH TO IMPLEMENTING AN INTEGRATED SUSTAINABILITY MANAGEMENT SYSTEM

In an era defined by escalating environmental challenges, heightened social expectations, and the need for long-term economic resilience, sustainability has emerged as a central tenet of organizational strategy. Businesses today face increasing pressure from stakeholders, including regulators, investors, customers, and communities, to adopt practices that address the interconnected dimensions of sustainable development: environmental protection, social equity, and economic viability. However, many organizations struggle to operationalize these principles due to the complexity of integrating sustainability into existing management systems and practices.

An integrated sustainability management system (ISMS) offers a structured approach to aligning an organization's operations, strategies, and culture with the principles of sustainability. By harmonizing environmental, social, and economic objectives within a unified framework, an ISMS enables businesses to address diverse stakeholder expectations, improve operational efficiency, and build resilience in the face of global challenges. The implementation of such systems often requires a shift from fragmented, reactive measures to a holistic approach that recognizes the interconnectedness of sustainability dimensions.

This paper examines a holistic approach to implementing an ISMS, emphasizing the need for systemic integration across all organizational levels and functions. The discussion explores key principles, methodologies, and tools that facilitate the seamless adoption of sustainability management practices, ensuring that enterprises not only comply with regulatory requirements but also derive competitive advantages. By presenting a framework that integrates sustainability into decision-making, performance

measurement, and organizational culture, this study aims to contribute to the theoretical and practical understanding of sustainable management systems.

The concept of sustainability has evolved over the past decades, transitioning from an environmental focus to a multidimensional framework encompassing economic, social, and environmental pillars. In response to these developments, the idea of an Integrated Sustainability Management System (ISMS) has gained traction as an effective approach to embedding sustainability into organizational strategies and operations.

Integrated sustainability management systems are rooted in systems theory, which emphasizes the interdependence of various components within an organization. Systems theory aligns well with sustainability goals, as it underscores the need for a coordinated approach to managing economic, social, and environmental dimensions. Elkington's Triple Bottom Line (TBL) framework (1997) [2] has been particularly influential, advocating for the integration of "people, planet, and profit» in organizational decision-making. This theory has inspired businesses to look beyond financial performance and address broader sustainability objectives.

In addition to TBL, stakeholder theory has also played a significant role in shaping ISMS. Freeman (1984) [3] argues that businesses must address the needs and expectations of all stakeholders, including customers, employees, suppliers, and communities. This approach aligns with the goals of ISMS, as it fosters inclusivity and long-term value creation.

Several frameworks have been proposed for implementing ISMS, each with unique methodologies and focus areas:

ISO Standards (ISO 14001 and ISO 26000): ISO 14001 focuses on environmental management, while ISO 26000 provides guidelines for social responsibility [5, 6]. These standards, when combined, offer a foundation for developing an ISMS that integrates environmental and social objectives with business operations.

Global Reporting Initiative (GRI): The GRI framework emphasizes transparency and accountability in sustainability reporting, encouraging organizations to measure and disclose their impacts on economic, social, and environmental dimensions [4]. While not

a management system per se, GRI complements ISMS by providing tools for performance assessment.

UN Sustainable Development Goals (SDGs): The SDGs serve as a global roadmap for sustainable development. Many organizations align their ISMS with relevant SDGs to demonstrate their commitment to global sustainability priorities [12].

Balanced Scorecard (BSC) for Sustainability: Kaplan and Norton's Balanced Scorecard has been adapted to include sustainability dimensions, offering a strategic tool for integrating sustainability into performance management systems [8].

While these frameworks provide valuable guidance, they often address specific aspects of sustainability rather than offering a truly integrated approach. This limitation has spurred the development of customized ISMS models tailored to the unique needs of individual organizations.

To implement a holistic Integrated Sustainability Management System (ISMS) model, it is advisable to employ the Deming Cycle – Plan-Do-Check-Act (PDCA) – which encompasses the following stages: policies and principles, planning, implementation and operation, performance assessment, improvement, and management review. This method is widely recognized by scholars as an effective approach for integrating management systems and technologies [1, 7, 10, 13].

The PDCA cycle is inherently compatible with continuous improvement processes, making it particularly suitable for implementing the proposed ISMS model. Furthermore, it aligns seamlessly with risk management practices, which play a critical role in ensuring the model's successful application. The process approach, an integral aspect of this method, addresses all processes and systems within an enterprise, focusing on the interactions between policies, objectives, and resources. This approach facilitates effective monitoring and mitigation of risks.

By treating the enterprise's processes as a unified system, the process approach identifies interrelationships between individual processes, with the outputs of one process serving as inputs to the next. This interconnected management framework enhances operational efficiency, maximizes business value, and contributes significantly to achieving desired organizational outcomes.

The proposed PDCA cycle for implementing an ISMS is illustrated in Fig. 1.

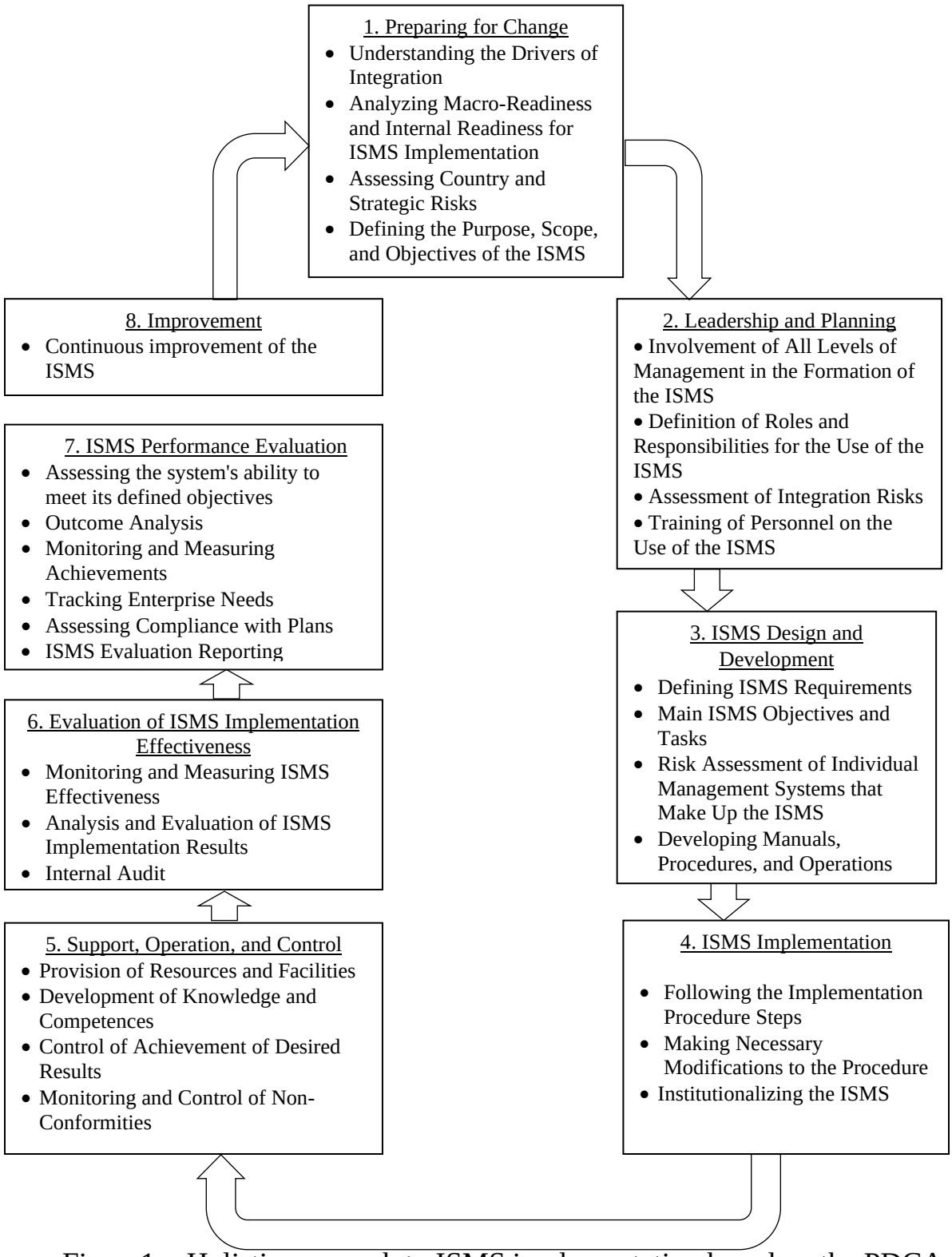

Figure1 – Holistic approach to ISMS implementation based on the PDCA cycle

Source: compiled by the author

The framework is designed to integrate eight stages, each contributing to the harmonization of systems and processes into a cohesive structure. This structured approach enables the organization to function as a unified entity with clearly defined, aligned objectives [9].

Stage 1: Preparing for Change.

This initial stage in the development of an Integrated Sustainability Management System (ISMS) focuses on laying the groundwork for its successful implementation. It begins with identifying, analyzing, and understanding the driving forces and motivations that facilitate the integration of specialized management systems within the organization. These driving forces may include both internal factors – such as organizational goals, resources, and competencies – and external factors – such as technological advancements, market dynamics, regulatory changes, and societal expectations. A thorough understanding of these factors is critical to ensuring the ISMS is tailored to the organization's specific needs and external conditions.

Furthermore, this stage necessitates a comprehensive evaluation of the organization's internal and external environment. Analyzing internal environmental factors, such as available resources, organizational competencies, and cultural aspects, provides insight into the organization's potential to adopt and sustain the ISMS. At the same time, a forward-looking assessment of external environmental factors, including technological, economic, social, political, regulatory, cultural influences, and market trends, helps predict the changes and challenges the organization may face during implementation.

In addition, this stage involves assessing both the macro-readiness of the country in which the organization operates and the internal readiness of the enterprise to adopt and utilize the ISMS. This includes evaluating the regulatory environment, national sustainability policies, and the organization's own capacity to manage the system.

Following this, it is essential to identify and assess the risks associated with both the country and the organization's strategic objectives. Country risks may relate to

political instability, regulatory changes, or economic downturns, while strategic risks could stem from shifts in market conditions, technological disruption, or competitive pressures. Once these risks are identified, a comprehensive response plan should be developed to mitigate potential threats, ensuring that the ISMS implementation process remains resilient to challenges.

Country risks are assessed based on the Global Risks Report by the World Economic Forum (WEF) [11]. This report relies on data from the Global Risk Perceptions Survey, which collects input from a diverse range of stakeholders, including academics, business leaders, government officials, civil society representatives, and opinion leaders. The 2022–2023 survey, structured into six sections, provides a comprehensive analysis of global risks and their potential impacts.

1. Outlook for the World – in this section, respondents were asked to describe their outlook for the world in both the short-term (two years) and long-term (ten years). They evaluated five potential scenarios: 1) Gradual turning points and persistent crises leading to catastrophic consequences; 2) Persistent instability in economies and sectors with multiple shocks and divergent trajectories; 3) Moderate instability with occasional local shocks; 4) Limited volatility with relative stability; 5) Restoring stability with global resilience restored. The results from the short-term perspective revealed that 69% of respondents anticipated a state of continued instability, with economies and industries experiencing multiple shocks and divergent trajectories.

2. Currently Manifesting Risks – this section focused on respondents' assessment of the top five risks, out of 14 pre-selected risks, based on their perceived global impact in 2023. Respondents rated the risks, and the final ranking was calculated as an average, weighted by the number of respondents selecting each risk. The risks evaluated included ongoing waves of COVID-19, the cost-of-living crisis, cyberattacks on critical infrastructure, debt crises, catastrophic deployment of chemical and biological weapons, nuclear weapons use, disruptions in global non-food supply chains, energy supply crises, failure to meet national targets, food supply crises, rising inflation, structural failures in

health systems, human rights violations, and the use of economic policies as weapons, such as sanctions and trade controls.

3. Global Severity 2 Years and 10 Years – in this section, respondents assessed the likely severity of 32 global risks over a two-year and ten-year period, using a scale from 1 to 7 (1 being a low threat and 7 being a high threat). The evaluation considered the potential impact on the population, GDP, and environmental resources on a global scale.

4. Global Risks Consequences – respondents were asked to assess the potential consequences of risks in order to create a network map of the global risk landscape. They were presented with 10 randomly selected global risks out of 32 and were required to identify five additional global risks that could be triggered by the realization of each of the selected risks.

5. Risk Preparedness and Governance – this section evaluated the current effectiveness of risk management strategies in countries, considering mechanisms for preventing the occurrence of risks and preparing for their mitigation. Respondents assessed the management effectiveness of 10 randomly selected global risks on a five-point scale, ranging from «very ineffective» to «very effective». They were also asked to identify up to three stakeholders who could effectively manage the most influential risks. The options for stakeholders included local governments, national governments, multinational corporations, regional organizations, international organizations, businesses, and public-private partnerships.

6. Future Outlook for the World – respondents were asked to predict the trajectory of global cooperation over the next ten years. They had three options to choose from: 1) A broad convergence towards a multilateral order; 2) Gaps between competing economies consolidating into blocs, with new structures for cooperation; 3) A large-scale division of economies into competing blocs with differing standards, values, and paradigms, leading to limited cooperation.

This comprehensive framework offers valuable insights into global risk perceptions and the challenges organizations and countries face in preparing for and responding to these risks. It serves as an essential tool for assessing country-specific risks and aligning them with the strategic objectives of organizations implementing an Integrated Sustainability Management System.

The purpose of implementing the Integrated Sustainability Management System (ISMS) must be clearly articulated and communicated to all stakeholders. This is crucial not only for ensuring the effective engagement of stakeholders but also for minimizing resistance to change, particularly among employees. A clear and shared understanding of the ISMS's purpose fosters cooperation and facilitates the alignment of organizational efforts towards common goals. Following this, the next step is to define the scope of the ISMS, ensuring that it aligns with the scale of the enterprise, whether large, medium, or small, as well as with the complexity of its operations, such as regional, national, or international business activities. The nature of the specialized management systems required by the enterprise must also be considered when determining the scope. The primary objective in the formation of an ISMS is to ensure that the results meet the expectations of all stakeholders while contributing to the achievement of sustainable development goals.

Stage 2: Leadership and Planning.

Effective leadership is paramount during the implementation of the ISMS. Senior management must demonstrate commitment and provide appropriate leadership across the organization. Strong leadership that ensures long-term support within the organization is essential for the successful development, implementation, and ongoing maintenance of the ISMS. In this regard, it is necessary to establish and implement an integration policy that is fully aligned with the enterprise's purpose, scale, environmental considerations, and strategic direction. The formulation of clear and actionable objectives for the ISMS is a critical task at this stage. Furthermore, a coherent strategy must be developed to guide the implementation process. Concurrently, integration risks

should be identified and evaluated, with corresponding measures designed to manage these risks effectively. Based on the strategy developed, responsibilities and authorities must be clearly allocated to the relevant individuals involved in the management process. The active and effective involvement of personnel is a key component of successful ISMS implementation. To support this, appropriate training programs should be provided, and teamwork should be encouraged to facilitate the smooth adoption of changes across the organization.

Stage 3: Design and Development of the ISMS.

The design of the ISMS must be tailored to ensure that it effectively integrates and addresses the needs, interests, and objectives of all stakeholders. A thorough identification of risks and opportunities specific to the enterprise is essential, and the ISMS objectives should be developed in response to these identified factors. At this stage, clear and measurable goals should be set for relevant departments, levels, and processes, ensuring that they are aligned with the overarching ISMS policy. These objectives must be measurable and contribute directly to the organization's broader sustainable development efforts. Additionally, guidelines, procedures, operations, and work instructions necessary for the effective implementation of the ISMS must be developed. This structured approach ensures that the system is operationalized in a way that supports consistent and sustainable outcomes across all facets of the enterprise.

Stage 4: ISMS Implementation.

The implementation of the Integrated Sustainability Management System (ISMS) must translate the planned principles, procedures, and operations into actions that contribute to the achievement of sustainable development goals. This stage involves the practical application of the newly developed system, the implementation of associated guidelines and procedures, and the gradual integration of sound management practices into the organization’s operations. A critical component of ISMS implementation is the continuous assessment of actual performance against the planned operations. Any discrepancies between the planned and actual outcomes should be identified, and the

system should be adjusted as necessary to enhance the likelihood of achieving the desired transformation. Once the processes, procedures, and documentation have been assessed and deemed effective, they should be formally approved and standardized to ensure consistency across the organization.

The institutionalization of the ISMS is essential for embedding the organization's vision, mission, policies, and objectives into actionable principles that guide the daily activities of those engaged with the system. This stage aims to integrate the core values and strategic goals of the ISMS into the culture and operational structure of the organization. By doing so, the system becomes an intrinsic part of the organization's functions, fostering a unified approach to achieving sustainability objectives.

Stage 5: Support, Operation, and Control of the ISMS.

At this stage, senior management plays a crucial role in identifying and providing the necessary resources – such as human, financial, and infrastructural capital – required to establish, implement, maintain, and continually improve the ISMS. The allocation of appropriate resources is a fundamental factor that determines the success of the system. Additionally, the development of knowledge and competencies is central to the change management process, which is vital for enhancing the productivity of personnel involved in the implementation of the ISMS. This development process supports the effective application of the ISMS and fosters an environment of continuous improvement.

To achieve the desired results, the enterprise must plan, implement, and control processes that align with the ISMS's objectives and meet its performance requirements. The effective management of these processes ensures that the interests of all stakeholders are addressed and that the system operates efficiently. Standard operating procedures should be developed to clearly outline the core elements of the ISMS, including the sequence of operations, as well as the forms and documents to be used throughout the system. Additionally, the procedures for identifying, creating, reviewing, approving, distributing, accessing, updating, and maintaining documented information must be explicitly defined.

The establishment of a unified procedure for documentation ensures that all users adhere to a consistent format, which enhances the efficiency of the system and minimizes the potential for bureaucratic inefficiencies. Furthermore, key controls should be developed to monitor compliance with stakeholder requirements, ensuring that the ISMS continues to meet its objectives and adapt to changing organizational needs. By embedding these controls and procedures, the enterprise can maintain a high level of operational coherence and ensure that the ISMS remains effective and aligned with sustainability goals over time.

Step 6: Assessing the Effectiveness of the ISMS.

Monitoring and measuring results are essential to determine the effectiveness of the implemented Integrated Sustainability Management System (ISMS). The criteria to be evaluated include processes, products or services, applied management methods within the chosen specialized technologies, and risk management approaches. It is imperative that the methods for monitoring, measuring, analyzing, and evaluating the ISMS be clearly defined and communicated to all relevant stakeholders. Monitoring should be conducted at planned intervals to generate reliable information regarding the alignment of the ISMS with the organization’s objectives and stated requirements. This process serves as a key source of information for evaluating the adequacy of the ISMS and its overall impact on the efficiency and performance of the enterprise.

Monitoring also provides crucial insights that allow for the identification of areas in need of improvement, offering guidance on adjustments necessary to achieve optimal performance. Structured monitoring reports should be produced regularly and presented to management to facilitate informed decision-making. These reports will serve as a basis for initiating actions that support the continuous improvement of results, ensuring that the ISMS evolves in response to emerging challenges and opportunities. Additionally, these reports are instrumental in identifying the need for changes that can enhance the system’s effectiveness.

Step 7: Assessing the Conformity of the ISMS.

The conformity assessment evaluates the relevance, effectiveness, efficiency, and sustainability of the adopted model for integrating specialized management systems into a comprehensive ISMS. This process involves determining whether the system adheres to the established standards and requirements while addressing the evolving needs of the organization and its stakeholders. Detailed reports documenting the outcomes of the conformity assessment should be prepared, and the associated information must be retained for future reference, ensuring that the process is transparent and can be reviewed over time. The conformity assessment ensures that the ISMS remains aligned with the organization's strategic goals and continues to drive sustainable development and operational excellence.

Step 8: Improving the ISMS.

The continuous improvement of the ISMS is a vital aspect of its long-term success. Opportunities for improvement should be identified through the analysis of operational indicators, including customer satisfaction, sales volume, changes in market share, defect rates, accident frequencies, employee satisfaction, and other relevant factors. These indicators provide essential data that inform the decision-making process regarding potential system enhancements. Procedures must be established to support corrective actions that are seamlessly integrated into the ISMS, ensuring that any issues or inefficiencies are addressed promptly and effectively.

To maintain the ISMS's alignment with industry standards and ensure its ongoing relevance, the system must be periodically reviewed and improved. This continuous refinement process ensures that the ISMS supports both sustainable development and business excellence, driving the organization toward its long-term objectives. By maintaining a focus on continuous improvement, the ISMS will remain adaptable to changes in the internal and external environment, ensuring that the organization's sustainability goals are consistently met.

The proposed procedure for implementing the ISMS involves a series of structured steps: setting objectives that balance stakeholder interests and sustainable development goals, aligning resources, functions, organizational structure, and culture, developing integrated policies, plans, and defining authorities and responsibilities.

The first stage, «Planning» is enhanced by an in-depth analysis of both macro-readiness and internal readiness for the implementation of the ISMS. This includes a comprehensive assessment of country-specific risks and strategic risks that may affect the successful integration and operation of the system. In addition, the «ISMS Design and Development» stage is expanded to incorporate a thorough evaluation of risks within each individual management system within the ISMS. This approach ensures that potential challenges and vulnerabilities are identified at both the macro and micro levels, facilitating a more robust and resilient system design and implementation process.

The continuous process of monitoring, measuring, analyzing, and improving the ISMS will contribute significantly to achieving sustainable development goals while enhancing the enterprise's efficiency. This structured approach ensures that management functions, procedures, and operations are effectively coordinated, leading to increased organizational effectiveness and the realization of long-term sustainability objectives.

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