

The Role of AI in Accelerating UN Efforts to Achieve the Sustainable Development Goals

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Abstract. *The United Nations' Sustainable Development Goals (UN SDGs) are an important global framework for achieving sustainable and equal development; Artificial intelligence (AI), as transformative technology, can have the potential to achieve these goals. This research explores the potential of AI in advancing the SDGs and highlights the critical role of AI technologies in enhancing organizational processes and decision-making. Also, the study addresses the challenges organizations in aligning their activities for the SDGs and achieving progress at the required steps. The study aims to analyze the role of AI in accelerating the achievement of the SDGs, with the secondary objective focusing on the current state of using AI, organizational factors affecting AI efficiency, and the identification of AI-driven innovations and technologies. The research employs qualitative secondary data analytical techniques. Review adhering to organization documents as the foundation of reports, complemented by analysis to identify trends and patterns in AI and SDG-related research. The tools identify organizational activities with specific SDGs, while analytical insights are synthesized to address the research questions. The methodology ensures the investigation of the intersection of AI and SDGs provides valuable understandings about the current landscape of AI in relation to the SDGs. It identifies critical organizational considerations that influence the effectiveness of AI, the speed and significance of AI-enabled innovations, and the best AI technologies and applications. The findings underline the opportunities AI has for solving the SDGs issues, however, there are challenges and limitations, so, the research emphasizes the role of organizational structure, innovation and technology management, alongside the use of ethical AI in achieving AI's impacts to progress the SDGs.*

Keywords: Sustainable Development Goals (SDGs), Artificial Intelligence (AI), United Nations (UN), ethics, organizational sustainability, innovation and technology management.

Introduction

Achieving the SDGs needs innovative approaches, and AI plays a key role in this aim. This research investigates the transformative potential of AI for achieving the SDGs by focusing on the challenges organizations face in aligning their actions with these goals and achieving progress at the

DOI: 10.2478/picbe-2025-0007

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required methods. Therefore, the study aims to analyze the role of AI in achieving the SDGs, by focusing on the state of SDGs, effective organizational aspects, the identification of efficient innovations and technologies, and ethical and responsible AI. To address these aims the study uses Qualitative Secondary Data Analysis (QSDA) of United Nations reports and related documents that the analysis identifies trends and patterns in AI and SDGs-related research to present the potential and limitations of AI for achieving the sustainable future. Integrating AI into organizational operations provides remarkable opportunities for enhancing the implementation of the UN SDGs, so AI technologies help organizations make the processes more efficient, improve decision-making, and develop new approach models according to the principle of sustainability. The key point made in some recent reviews is that AI transforms commercial practices by facilitating the accomplishment of several SDGs by improving operational efficiencies with the help of real-time data analysis and automation (Peng et al., 2023). In addition, AI can promote selective dissemination of information, which is key to transmitting relevant data to the right stakeholders in managing sustainability projects. From transforming knowledge management to influencing knowledge creation in many sectors, AI has had several impacts, including construction (Anumba & Khallaf, 2022). The development of AI-powered innovation management involves multiple methods for organizations that are transforming through the usage of technologies to reach sustainable goals, so technology is essential for helping achieve the SDGs by promoting better decision-making for sustainable organizations (Füller et al., 2022). AI has become a revolutionary technology and can substantially or solely pave the way toward accomplishing these aims (Kulkov et al., 2024). Organizations can implement AI to use resources better, improve decision-making, and find solutions for climate change, poverty, and inequality. Thus, research could help improve the processes and accelerate SDGs in organizations (Serena Clark et al., 2022).

Goals such as poverty, inequality, environmental issues, and so on are global challenges that the UN's SDGs are committed to solving by 2030. However, many organizations in various domains face difficulties connecting their activities with the goals and at the required speed. AI is a powerful technology for solving challenges, AIs include machine learning, predictive analytics, automation, and natural language processing, which could automate processes, create fresh solutions, and provide data-driven decision-making skills in the sustainability sector. Therefore, a clearer understanding of how AI can unlock organizational potential to achieve the Goals is needed. Without awareness, many organizations will struggle with slow efforts, lack of progress, and unmarked potential in tracking sustainable development through AI. According to the reviews, AI has a high potential for some Goals such as Good Health and well-being (SDG3), Affordable and Clean Energy (SDG7), and Sustainable Cities and Communities(SDG11); hence, the experts believe that AI will affect all SDGs (Bankhwal et al., 2024).

The study's objective is to analyze AI's role in speeding up the attainment of the UN-SDGs in an organization. Hence, it studies the use of AI in practice and estimates its effectiveness in achieving international sustainability goals and objectives. Investigating organizational factors that influence AI effectiveness in achieving SDGs. Investigating the frequency and impact of AI-based innovations in organizations. Investigating effective AIs that can enhance organizational performance in achieving the SDGs. The objectives will be accomplished by answering a set of research questions; hence, the present paper addresses the following questions:

1. How can AI be effectively leveraged to achieve the SDGs within organizations?
2. What is the current state of AI utilized to progress toward SDGs in organizations?
3. What organizational factors can enhance or reduce AI's effect in achieving SDGs?
4. What are the most effective AI methods that organizations can use to achieve the SDGs?

The scope of the study is grounded in uncovering practical, data-driven approaches to power AI innovations, continuing the wide discussion on sustainable development and innovation management.

Literature review

Artificial Intelligence (AI) has changed life and presented opportunities to advance the SDGs; as AI applications extend within sustainable development, ethical considerations have become most important, hence, this research leverages the Ethical AI frameworks to systematically access and address the ethical concept of deploying AI for tracking the SDGs. The literature illustrates that AI has the potential to enhance efficiency, optimize resource allocations, and accelerate progress toward several SDGs (Vinuesa et al., 2020). However, the studies available are lacking consideration ethical implications and possible biases as well as the issues of governance changes resulting from AI solitons. Hence, the research aims to cover these gaps by looking at how organizational aspects and policy actions can enable responsible and equitable AI use about to sustainable development, also, as AI becomes more all-over in society, it will infect organizational area, especially about responsibility and sustainability. As organizations try to evaluate and publicly publish their Environmental, Social, and Governance (ESG) factors, there is a notable gap in frameworks that address the opportunities or barriers from AI, so, integrating these frameworks could enhance sustainability efforts and align AI innovations with global development goals (Sætra, 2021). The digital revolution plays the important role in achieving the SDGs, especially after the COVID-19 pandemic disrupted global progress, which emphasize that the need for digital access is fundamental for sustainable development. The growing nature of global governance and technological advances has quit literally impacted on organization's approach for implementation strategies that are focused on sustainable development.

The guiding role is provided by the SDGs whose purpose is to end poverty, achieve equality, protect the planet, as well as promote economic growth so planning and strategy are effective techniques for reducing the challenge (Rezaei et al., 2020). Likewise, to achieving the Goals, the framework calls for a new model based on orienting societies toward adopting technologies such as that to advance the effectiveness of AI, strategic and innovative management such that organizations can leverage both AI solutions and digital tools simultaneously in order to optimize and advance performance (Alandjani, 2023). For example, machine learning can be used to define energy use in intelligent grids, which supports SDG7 (Affordable and clean energy), that is efficiently and directly supports the increase of renewable energy. In the same manner, AI diagnostics can support disease detection, especially in rural areas, thereby directly supporting SDG 3 (Good health and well being) by increasing access and prevention. Like AI supported precision agriculture promotes resource efficiency and also addresses SDG2 (Zero Hunger) by promoting a technique of sustainability and reducing waste, the use of AI also supports personalized learning, learning pathways, and reinforces a broader SDG4 (Quality education) calls for sustainable material and equality trajectory change and alternative outcomes. The literature demonstrates how organizations have adopted AI technology with their sustainable development strategy and to enhance their performances on multiple aspects of the SDGs. The review supports the idea that AI can help at multiple levels with dealing with complex challenges of sustainability related goals including climate action, responsible consumption and production and quality education (Vinuesa et al., 2020). Also, digital transformation has expanded the concept of smart cities that include smart territories by exploring the potential of smart approaches for sustainable development; the systematic literature review has highlighted the concept framework to guide it

(Gorelova et al., 2024). These streams of literature are providing understanding or a revolution of broader notions of digital innovation, sustainable social development and use in various geographies and organizational contexts.

The SDGs aim to achieve a sustainable future for humanity, that the targets were created in 2015, and they were aimed at satisfying the requirements of economic growth, environmental protection, and inclusion of social development. The SDGs can be achieved through the proper governance and operational practices enabled by creativity in structure, systems, and technology. There is evidence that AI helped achieve 79% of the three dimensions: environment, economy, and society (Vinuesa et al., 2020). Enhancing strategic innovation is also seen to enhance the organization's sustainability by using AI to enhance decision-making and make better approaches; according to Jeong & Park (2023), there is a need to coordinate strategic innovation projects with SDGs for more significant sustainability effects. In addition, combination of technology and organizational aspects in addressing universal issues would come to a high-profile approach since the SDGs were approved in 2015 (Adams et al., 2023; Kumar et al., 2022) considering the interactions of SDGs as nested goals is critical to achieving strong sustainability (Chapariha, 2022). Recent research investigations have paid increasing attention to the role of AI in fostering the implementation of global goals; the analyses conducted by Zheng et al. (2022) revealed a significant growth in research exploring AI's contribution to organizational sustainability; therefore, the need for the use of new frameworks and structures remains of most importance to organizations for overcoming global challenges and in creating adaptable organizations.

Methodology

The adoption of AI in advancing the SDGs represents an evolving intersection of technology and global sustainability initiatives. Hence, a suitable methodology is helpful to explore this intersection by focusing on existing documents and using innovative applications. This study employs the Qualitative Secondary Data Analytical(QSDA) research approach for the Content analysis that has emerged as a valuable research method for investigating involved social, organizational, and policy-related phenomena, particularly in fields such as sustainability (Chatfield, 2020).The QSDA approach was chosen because it considers the complex relationship and interactions between AI and SDGs using existing documents, and thus provides an overview of current trends and practices. QSDA analyzes organizational reports and secondary documents to address the research questions; it is anticipated that through analyzing these data, best practices can be found to provide sustainable practices to organizations that incorporate sustainability (Dufour et al., 2019)and can uncover patterns and themes contributing to more effective sustainable development. United Nations Reports (UNRs) are also foundational for global policy and research as they provide a comprehensive overview of social, economic, environmental, and political issues, and are a common source for international development studies because they often reflect official statistics, analysis, and evaluations of global progress(United Nations Digital Library System, n.d.). United Nations SDGs and AI related documents were collected from the United Nations database, as well as other reputable sources, that contain organizational report and articles, from 2015-2024, with a focus on the role of AI-related to SDGs and qualitative key words: AI and SDGs. In the age of the AI revolution, it is impossible to ignore the contribution of technological developments; for instance, AI tools such as VOSviewer and SDG Mapper are AI-based tools that perform content analysis of patterns and trends, and mapping (Bukar et al., 2023; Gamba et al., 2023). Content analysis was used to identify key themes and recurring patterns within the selected documents, AI tools like VOSvier and SDG Mapper were used for further analysis, and VOSviewer was used to

identify thematic clusters and relationships between keywords in AI and SDG-related articles. SDG Mapper was used to visualize the distribution and relation of SDGs within these reports.

Results

Analysis and Findings

Progress toward SDGs requires a comprehensive and real-time actions, according to the 2024 progress report, the status of SDGs is as follows: 135 of 169 targets are assessable using global data from the 2015 baseline, so 34 targets lack adequate trend data or require further examination. Among the evaluable goals, 17% demonstrate progress acceptable for achievement by 2030, nearly half (48%) show moderate and marginal progress from the expected (30% limited and 18% moderate progress), notably, 18% display stagnation, while 17% show regression below the 2015 baseline levels (UNSD, n.d.). The review highlights the critical need to enhance efforts to align with the SDGs, so considering the sensitive conditions of SGD and the approaching deadline, this review has taken the path of learning from the past and recommendations for the future. This study, which is based on the qualitative method focused on the content of documents related to SDGs, provided the visualizations that enable an understanding of the representation and importance of different SDGs within the research records and facilitate a comprehensive mapping and analysis of SDG-related knowledge. By using the text-mining technique to identify concepts of the role of AI in achieving the SDGs that frequently appear in full text, the approach provided an overview of the SDGs identified and their relative importance in this field, offering insights into their frequency and prominence.

Network Visualization

The visualization highlights that research on AI and SDGs primarily focuses on specific topics, such as energy and the environment, while other topics, such as poverty and education, receive less attention. VOSviewer provided Network Visualization that untangled the clustering of keywords within the sample database in a way that was able to identify patterns and trends between AI and SDGs in the field. There were notable differences to be found with the sizes of the clusters, especially when comparing the most significant cluster ($n = 91$), which is red, to the smallest cluster, which is purple ($n = 39$); clusters were visualized in five colors, and have specific definitions. The Red cluster highlighted the AI-driven decision-making in sustainability and the ethical integration in industry practices related to technological advancement that can align with SDG 9 and SDG 12; The Green cluster highlighted AI social and educational empowerment activities that serve the healthcare, education, and community development sectors that can align with SDG 3, SDG 4, and SDG 11; The Blue cluster making AI innovations on global challenges such as poverty and health inequality that can align with SDG 1, SDG 10, and SDG 17; The Yellow cluster featuring AI in environmental sustainability regarding climate and ocean research that can align with SDG 13, 14 and 15; The Purple cluster features AI in governance and transparency to enhance accountability in sustainability framework that can align with SDG 16 and 17, *Figure 1*.

Therefore, visualization highlights the interconnected nature of research in this field with AI, Sustainability, and SDGs at the core, confirming the strong links between AI and SDGs.

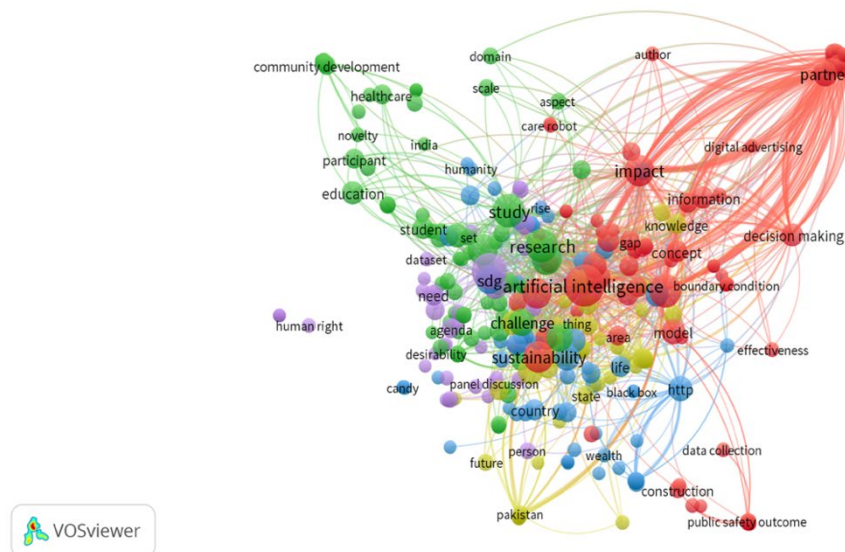


Figure 1. Network Cluster Visualization Node size displays the importance of each keyword; links show the strong connections between keywords, and Cluster Colors represent different thematic Areas

Source: own elaboration using the VOSviewer Tool.

Charts Analysis

The organizational reports were analyzed to map AI within SDGs, and the charts obtained by ranking illustrate the imbalanced focus on the SDGs through AI. The mapping shows the progress of SDGs in the field. It is presented through a bar chart in which each bar has a Goal icon that relates to the Goal focus spot with a percentage that these percentages indicates the level of attention each SDG has in context. Examination shows that there is a sternly imbalanced focus on goals, which showed heavy inequality focusing on a few Goals and on the other hand, ignoring the other Goals, which is SDG 9 Industry, Innovation, and Infrastructure, with 53.3% receiving the dominant focuses that aligned with the social and technical research; that seeks to advance AI and Technology for achieving SDGs. SDG 8 (Decent Work and Economic Growth) follows with 10.0% second in focus after SDG9, which shows the need to employ AI for sustainable economic development opportunities. Following that comes SDG 17 (Partnerships for the Goals), with 5.9% focusing on the importance of collaboration in achieving SDGs. Lower focus areas, SDG 2 (Zero Hunger) 5.3%, and 3 (Good Health and Well-being) 4.6% received moderate focus due to their relevance in AI's role in addressing issues. SDG 6 (Clean Water) is 3.6%, and SDG 13 (Climate Action) is 2.7%, emphasizing the need for right-divided resource sustainability. So this indicates that these areas require additional focus to ensure balanced progress across all goals. The *Bubble* chart provided visually represents the relevance and interconnectedness of Goals and Targets based on the frequency of target-related keywords in the analyzed documents. The bubble represents the frequency of Targets; larger bubbles indicate a higher focus on Target- related. SDG 9 is the most prominent, with the largest bubble (value: 9.5), which suggests that AI is most frequently associated with innovation and infrastructure-related Goals. Other significant SDGs include SDG 8, with notable targets such as 8.2, 8.3, and 8.10; SDG 17, with targets 17.2 and 17.6; SDG 3 and

SDG 13 also show moderate relevance. The chart focuses on Targets highlighting their relevance within AI, illustrates the distribution and interconnectedness of the Goals and Targets, and provides insights into the relevance and nexus relation of SDGs with AI that highlights areas where AI is most impactful (e.g., innovation, economic growth, partnerships); and on the other hand identifies lack of attention areas (e.g., poverty, gender equality), *Figure 2*.

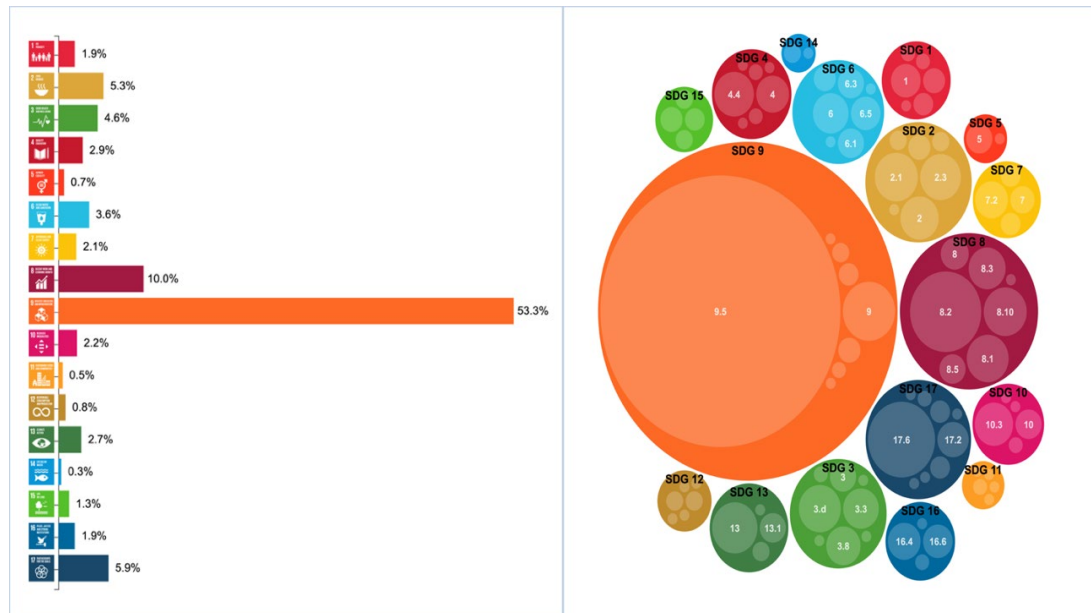


Figure 2. Charts, by ranking, illustrate the distribution of Goals and Targets according to the context of AI

Source: own elaboration using SDG Mapper Tool.

The charts showing the imbalanced focus on Goals and Targets emphasize that AI-related efforts are focused on some SDGs, high focus on SDG 9 at 53%, and other goals, like SDG 8 and 17, receive weak focus. However, many SDGs receive Minimal focus (almost less than 1%); this distribution highlights the Frequency and Regression of each SDG in the field (AI within SDGs). The visualization clearly shows where AI interventions are currently receiving the most attention and where there is potential for growth. At the same time, it should be shared and used to correct the imbalance in terms of the current emphasis on other SDGs to create more balanced and inclusive action toward the 2030 Agenda. Thus, the analysis can serve as a basis for all future actions that strive to maximize AI's transformative potential across all dimensions of sustainability.

Discussion

The research can leverage the insights to prioritize areas where AI can have the most significant impact; the findings highlight AI's transformative potential across multiple domains while identifying areas requiring further focus and investment; also, the findings emphasize that the most successful implementations are those that take the integrated approach, considering the interconnected nature of the SDGs and utilizing AI technologies. Hence, the network visualization in the study supports this result by showing the strong interconnections between different AI applications and their impacts on various SDGs. The lack of AI in certain SDGs may be attributed to a lack of data, limited resources, ethical concerns, and awareness. Since the focus of the study

revolves around the function of AI in enhancing the speed at which organizations meet SDGs, the findings are consistent with the theory that integrates AI, innovation management, and sustainable development; the focus on SDG 9, 8, 17 are based on the expected technology effect that AI has, so strengthens the view that AI can strengthen global efforts to achieve other Goals, as has been argued in the reviews (Dwivedi et al., n.d. ; Vinuesa et al., 2020). These findings have implications for realizing the importance of a broader framework for using AI across a range of SDGs that also focus on exploring AI for sustainability applications in practice according to organizational factors such as its management and the parties involved. The use of Artificial Intelligence appears to be very realizable as correlate studies show trends that AIs can be beneficial for SDGs (Sfetcu, 2024). Recommendations on policies for benefit of the SDGs include more funding for AI research, develop AI development-related guidelines, and provide training and education for more general use of AI to aid in achieving the SDGs.

It is essential to address the ethical considerations associated with the use of AI in achieving the SDGs, which include bias in AI decision-making, the potential for job displacement, and the need for transparent and accountable AI systems. Ethics aspects, in this case, play an essential role because aligned research addresses how AI ethics can be developed and put to work so that it can achieve the SDGs. Also, the different frameworks for ethical, responsible, human-oriented AI, etc., have been comprehensively reviewed by many of the studies (Sætra, 2021b). As such, this form of activity promotes the ideal that AI will foster the responsible and equitable growth of the world; therefore, organizations aiming to leverage AI for rapid SDG realization must shift from non-aligned to integrated research frameworks, emphasizing inclusivity, ethical alignment, and reliable collaboration. The understanding of this transformation is essential to understanding how AI can facilitate sustainability and equity, so this and other studies wishing to find the most efficient way of the development of underdeveloped countries suggest that AI is a universal amplifier in the context, as such level of knowledge could help the achievement of life challenges.

The discussion proves that AI can play a role in solving SDGs, so It is therefore important for organizations to close the existing gaps and put extra effort into supporting sustainable development and the 2030 Agenda; also, according to results, the current state of AI utilization within SDGs highlight the issue. Organizations have increasingly recognized artificial intelligence (AI) to increase innovation, operational efficiency, and sustainability. Thus, organizational factors will influence AI effectiveness, as this article focuses on the first conditions of importance for success: leadership, organizational culture/capacity, infrastructure, and stakeholder engagement. Successful integration of AI will require targeting practices that can integrate technologies with organizational strategies and organizational capacities. Frequency and impact of AI-driven innovations: The analysis indicates that a considerable amount of research and organizational initiatives aimed at using AI for sustainability have been on the increase; also, AI-aligned solutions have been shown to enhance organizational performance in meeting SDG targets, particularly in resource management, climate change, and economic growth; that has been noted that researchers and politicians are becoming more interested in the increasing use of AI in sustainable development.

Based on the results, the study has proposed a conceptual model encompassing the relevant organizational, technical, and processing dimensions necessary to integrate AI in sustainable development activities which can be used as a pathway for organizations and policy makers, to better understand how AI can help in addressing global issues. Moreover, Kulkov et al., (2024) note that the contribution of AI to sustainability includes three central areas of sustainability: organizational, technical, and processing. It involves Technical Factors; the accomplishment of this

aim is only achievable if organizations can implement Real-time Monitoring and data-driven decision making. Importantly, organizations must also use modern algorithms and tools that enable AI to be adopted, relative to their specific Goals. Organizational Factors are also significant for integration; because the proper governance, stakeholder cooperation, and development of partnerships are also needed that can provide an ecosystem that enables SDG achievement with the support of AI Technologies that could achieve successfully the intended results are higher. Process Factors that the employment of AI-oriented approaches for SDGs requires developing relevant processes for successful strategies implementation that the outcomes targeted are the key metrics of success of the model, Figure 3. Therefore, the model highlights that integration requires consideration of technical aspects alongside organizational structures and transparent processes that emphasize integrating these factors to use AI to achieve SDGs effectively.

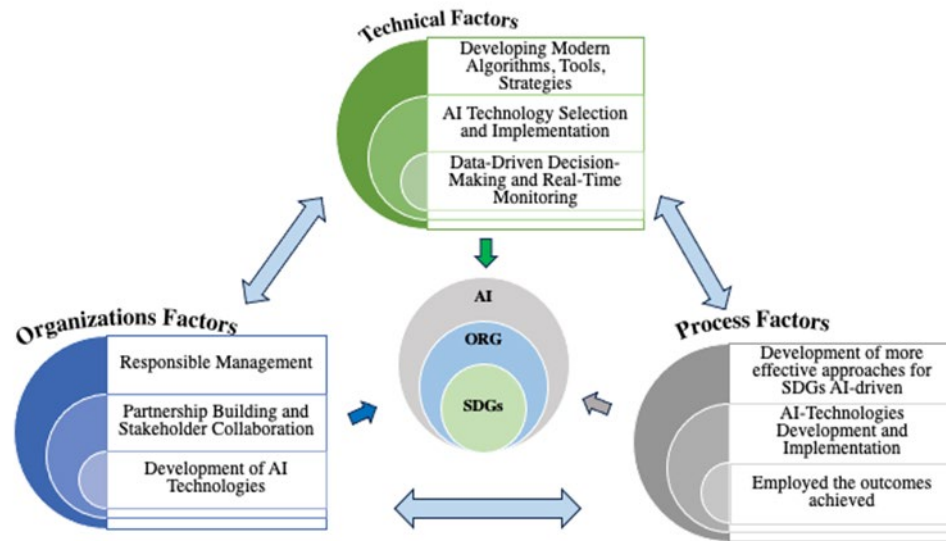


Figure 3. Conceptual Model for AI Integration in SDGs

Source: own elaboration.

Moreover, the research suggested the workflow to provide an overarching view concerning how AI technologies and applications, relative to various aspects of the UN SDGs, should be identified and put into use. The workflow is also a flexible framework for organizations that leverage AI to advance SDGs, Table 1. The workflow includes six stages that provide a step-by-step guideline from defining objectives to evaluating results that, by emphasizing evaluation, planning, and AI integration, can ensure it drives real progress toward SDGs in organizations.

Table 1. Workflow for Utilizing AI to Achieve SDGs in Organizations

Stage	Description	Output
1. Identify Organizational Goals	Assess the organization's alignment with specific SDGs and define priorities	List of relevant SDGs for the organization
2. Analyze Current Capabilities	Evaluate existing AI tools, technologies, and resources within the Organization	A Capabilities matrix for AI applications
3. Map SDGs to AI Technologies	Determine which AI technologies and applications align with each SDG	AI-SDG technology mapping table
4. Develop a Strategic AI Plan	Create a roadmap for deploying AI applications to address the prioritized SDGs	Strategic plan for AI integration

Stage	Description	Output
5. Implement AI Solutions	Deploy and integrate the identified AI technologies and applications within organizations' processes	Implementation of AI systems
6. Monitor and Evaluate	Track the impact of AI on achieving SDGs, refine strategies based on feedback, and perform	Reports on progress and effectiveness

Source: Authors' own research.

Conclusion

The research aimed to investigate the potential of AI in accelerating the UN's efforts to achieve SDGs; the results emanated from the urgent need to fast-track the achievement of the 2030 Agenda, how best the 4th Industrial Revolution technologies, more specifically AI, can help in achieving the SDGs by the frameworks. The research provides information on the current state of SDGs, their deployment capabilities, and the effectiveness of AI in achieving goals. The significance of this study lies in its integration of diverse research findings to enhance the understanding of AI dependencies for sustainable development integration, which can illustrate the importance of this study. It closes this link in the integration of theory and practice. It provides new areas of thinking on how organizations can undertake the same or even greater SDG-related activities, but this time with AI technologies. There has been much discussion in recent years on how digital technology and SDGs, which include three dimensions, social, economic, and environmental, that are related to humanity, interactions, according to modern lifestyles and humanity's undeniable need for technology, that should be considered the justification for the establishment of the 18th SDG -also the development of 18th SDG has been strongly supported by(Goh & Vinuesa, 2021); 18th SDG emphasizes fair access to digital riches and with elements such "ethical governance, digital infrastructure, digital capabilities, and digital commodities"; moreover, since the pandemic, there has been an increasing awareness that technology could have a significant societal impact (Serena Clark et al., 2022). Therefore, AI has brought numerous advantages to humanity, but must not ignore its risks and ethical consequences. Also, AI will change life challenges, meaning 17 SDGs would be affected; hence, a potential solution to overcome AI challenges internationally and a secure future would be to consider reliable AI as the 18th SDG by the UN (Nunes & Nunes, 2024). Although the full impact of the social and economic upheavals driven by the rapid pace of innovation remains uncertain, AI can be a significant force of change in modern society, so access to digital skills and resources plays a crucial role in determining the potential for inclusive progress in this innovative age.

Furthermore, rules and frameworks that encourage these technologies' safe and equitable use are critical for guiding innovation in ways that benefit society. Unfortunately, digital wealth is frequently only available to those who can afford it. Thus, there is a risk of further excluding most groups -specifically disadvantaged groups unless immediate actions are taken to reverse that trend.

Lastly, the results have led to a recommendation highlighting the importance of setting Goal *18th SDG – AI-Union (Goal Eighteenth)*. The Goal, in particular, addresses the issue of access to one's AI resources and promotes responsible AI use in organizations. *AI-Union* includes 3 *Targets*: Target 18.1 (Universal and Equal Access to AI for All) focuses on the need to make AI services available to all to enhance inclusion in all forms of societal advancements, Target 18.2 (Ethical and Responsible AI Frameworks) addresses the creation of responsible and ethical AI use frameworks, Target 18.3 (Utilizing AI to Address Life's Challenges (SDGs)) aims to the use of AI for the attainment of goals within the framework of other already existing global challenges on actions

aligned with other SDGs. AI-Union, by supporting equal access to AI resources and developing *ethical and responsible* AI in organizations and communities, can ensure SDG's commitment to "Leave No One Behind" and everyone has access to AI technologies for a "Good Life".

The adopted methodology indeed reduces the inconsistency of data and information; however, certain limitations were acknowledged that have limited the scope of the study because of the available resources, for instance, lack of organizational reports of AI within SDGs, access to some databases which may have limited the coverage of the analysis. The research has limitations, such as the possibility of secondary data bias and the absence of direct information from companies implementing AI solutions which points to the need for additional research with case studies, interviews, and empirical validation methods. These limitations highlight the inadequacy of such data and the necessity for further exploration, different perspectives on AI challenges, and a wider range of organizations considering them. Future research directions include giving research suggestions like studies across different industries, empirical analysis of the effectiveness of AI to improve sustainability and long-term studies.

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