

INTEGRATION OF NYADRAN VALUES IN SUSTAINABILITY ACCOUNTING BASED ON BARBOUR PERSPECTIVE

Mochammad Ilyas Junjunan^{1*}, Binti Shofiatul Jannah², and Imam Buchori³
^{1,2,3} Accounting Department, Universitas Islam Negeri Sunan Ampel Surabaya, Indonesia
¹mij@uinsa.ac.id; ²binti.shofiatul@uinsa.ac.id; ³ibe@uinsa.ac.id

ABSTRACT

The Nyadran tradition, a Javanese cultural practice rooted in religious and spiritual values, serves as a metaphorical lens to expand the sustainability accounting paradigm. Using Ian G. Barbour's four perspectives framework—conflict, independence, dialogue, and integration—this study adopts a literature review approach to Nyadran analyse how the Nyadran tradition can enrich sustainability accounting. The findings reveal that Nyadran embodies core values such as ecological harmony, social responsibility, and respect for nature, which resonate deeply with the principles of sustainability. The dialogue and integration perspectives play a pivotal role in bridging the apparent gap between the spiritual essence of Nyadran and the quantitative, data-driven nature of sustainability accounting. Narratives embedded within the Nyadran tradition offer profound insights into sustainability practices, adding depth and meaning to sustainability reporting. In turn, sustainability accounting frameworks can empirically highlight the positive impacts of Nyadran cultural practices on environmental and social well-being. The implications of this research extend beyond traditional paradigms, advocating for the inclusion of moral and spiritual dimensions in sustainability accounting. By integrating Nyadran values, the framework adopts a more holistic approach, emphasising not only environmental and economic aspects but also ethical and spiritual considerations. The study's novelty lies in its innovative combination of cultural narratives with sustainability accounting, paving the way for a more inclusive and meaningful understanding of sustainability in diverse cultural contexts.

Keywords: Nyadran; Accounting; Barbour's perspective; Integration

INTRODUCTION

The Nyadran tradition has long been an integral part of Javanese life. As one of the cultural practices rooted in social and spiritual systems, Nyadran reflects the harmony between humans, nature, and God. This ritual is usually carried out with various activities, such as joint prayers, slametan, and respect for ancestors who have preceded (Nasir, 2019). This tradition not only serves to strengthen social solidarity, but also a means of reflection for individuals and communities in maintaining a harmonious relationship with their environment (Maimun et al., 2020). Research by Hasan et al. (2023) shows that Nyadran undergoes an acculturation process with Islamic values, making it a unique symbol of the fusion of local culture and religion in Indonesia. This transformation shows how cultural and spiritual values can be adapted to the needs of modern society without losing their essence. In this context, Nyadran is not just a tradition, but also a medium capable of bridging the dialog between traditional beliefs and religious spirituality (Hasan et al., 2023). This is in line with the concept of “Dialogue” initiated by Ian G. Barbour, where religion and science are seen as complementary, creating space for reflection and synergy (Ives & Kidwell, 2019; Macaneiro, 2023). Therefore, Nyadran is relevant to be positioned in contemporary discourse, particularly in addressing the challenges of social and environmental sustainability in the era of globalization (Bsoul et al., 2022; Imran, 2024; Muñoz-García & Villena-Martínez, 2020).

Meanwhile, accounting as a modern scientific discipline has evolved into a strategic tool in managing resources and promoting transparency (Albán, 2018; Owusu & Ofori-Owusu, 2024). In the beginning, accounting was oriented towards recording economic transactions. However, as global awareness of environmental issues increased, accounting began to be adapted to measure, record, and report sustainability activities (Fagerström et al., 2017; Herath & Herath, 2024). In this context, sustainability accounting becomes an important approach to bridge economic needs and environmental preservation. Prasetyo's research (2021) shows that Nyadran can be used as a pragmatic model in environmental management accounting, providing a new view on how local traditions can inspire

sustainability reporting practices (Swalih et al., 2024; Weber & ElAlfy, 2024). In this approach, local values such as respect for nature and ecological awareness in Nyadran are articulated as an integral part of the accounting process, enabling the measurement of human rights, obligations and claims to the environment (Jones, 2010). Thus, accounting becomes not only a technical tool, but also a medium to represent broader spiritual and cultural dimensions, which is particularly relevant in the context of Indonesian society rich in local traditions (Munteanu et al., 2013; Nørreklit et al., 2024).

However, the relationship between the Nyadran tradition and sustainability accounting has not been widely explored in previous research. A number of studies have indeed discussed the cultural dimensions and religious values in Nyadran, such as the research of Hasan et al. (2023) which highlights the acculturation of this tradition with Islamic values, or Prasetyo (2021) which makes Nyadran a reflective approach to environmental management. Nonetheless, most of these studies focus on socio-cultural aspects without linking them in depth with the accounting science paradigm. In the discourse of the relationship between religion and science, the "Integration" approach initiated by Ian G. Barbour, which emphasizes the synergy between religion and science (Bigliardi, 2012; Losch, 2022), is also still rarely applied to build local wisdom-based accounting concepts (Damper, 2024). This suggests a research gap, particularly in explaining how local traditions such as Nyadran can be strategically integrated into sustainability accounting practices (Al-Hazaima et al., 2024; Herath & Herath, 2024). Thus, the main issue of this study is the lack of in-depth research that integrates the spiritual and cultural values of the Nyadran tradition into the framework of sustainability accounting, particularly based on the integration approach between religion and science according to Ian G. Barbour's perspective.

This research offers novelty by raising Nyadran as a metaphor of religious culture integrated into a sustainability accounting framework. Referring to Ian G. Barbour's integration perspective, this research develops a new approach that connects local traditions with modern science (Bremer & Funtowicz, 2015; Koutsouris, 2010; Weinstein & Eugene Turner, 2012), especially in addressing sustainability challenges in the present. The novelty of this research lies in the in-depth exploration of the values of ecological and spiritual harmony in Nyadran, which are then translated into a more holistic concept of sustainability reporting (Geria et al., 2023; Hilmi et al., 2024; Kakoty, 2018). As a result, this research not only fills a gap in the cross-disciplinary literature between religion and science, but also provides a theoretical foundation for the development of religious accounting in Indonesia. By taking Nyadran as inspiration, this research makes a significant contribution in creating an accounting model that is able to integrate spiritual and sustainability values simultaneously (Ives & Kidwell, 2019; Macaneiro, 2023), an approach that has not been previously explored in the literature.

In an era of growing globalization and industrialization, local culture-based approaches are becoming increasingly important for maintaining social and environmental sustainability (Bsoul et al., 2022). Traditions such as Nyadran offer valuable lessons on how local communities can care for their environment through spiritual and cultural values that have been passed down for generations. This research shows that Nyadran is not only relevant as a cultural heritage, but also has great potential to enrich accounting science approaches (Sultan et al., 2024). By integrating local traditions into global practices, this research makes a contribution that is not only significant in the academic realm, but also in the practice of sustainable accounting. In addition, the main academic contribution of this study is to present an innovative conceptual approach by incorporating spiritual values in Nyadran into sustainable accounting practices, thereby expanding the accounting paradigm to include moral, cultural, and spiritual dimensions in sustainability reporting in a more holistic manner. The results of this study can open a wider space for dialogue between religion and science, while offering innovative solutions to sustainability challenges facing modern society, both at the local and global levels.

RESEARCH METHOD

This research uses a literature review method with a conceptual approach, focusing on exploring theoretical ideas and ideas related to integrating the values of the Nyadran tradition in sustainability accounting based on Ian G. Barbour's four perspectives: conflict, independence, dialogue, and integration (Dura et al., 2021). This approach prioritizes critical interpretation of relevant academic literature, policies, and social phenomena, and considers the researcher's position as a reflective actor in initiating integration between local spiritual values and modern scientific frameworks (Losch, 2022). This research does not involve the collection of empirical data, but rather emphasizes the development

of concepts underlying the relationship between cultural traditions and sustainability accounting (Bigliardi, 2012; Jaakkola, 2020).

This research adopts a synthesis of ideas from various literatures that discuss social, environmental, and religious-based accounting (Damper, 2024; Nicholls, 2020) as well as relevant spiritual values in local traditions such as Nyadran (Hasan et al., 2023; Prasetyo, 2021). The aim is to show that sustainability accounting is not only oriented towards technical measurements, but also reflects sustainability's social and moral dimensions in a holistic manner. The literature review was conducted without limiting the sources' type, location, or time of publication. The literature reviewed included reputable scientific journals and books relevant to the values of Nyadran into sustainability accounting. The literature was selected based on its relevance in linking sustainability accounting principles with the spiritual and social values contained in the Nyadran tradition. The analysis was conducted systematically to develop a new conceptual framework that includes views from all four perspectives of Barbour (Damper, 2024), with a focus on the potential of local values in building a more comprehensive sustainability paradigm.

The first step of this research is to outline the basics of sustainability accounting theory and the challenges of integrating it with local values. The researcher then uses Ian G. Barbour's four perspectives-conflict, independence, dialog, and integration-to explore how Nyadran can be connected to sustainability accounting (Herath & Herath, 2024; Sultan et al., 2024). The conflict perspective is used to highlight the contradiction between the spiritual values in Nyadran and the quantitative approach of accounting, while the independence perspective places the two as separate domains. The dialog and integration perspectives explain the potential of merging the spiritual dimension of Nyadran with sustainability principles in accounting to create a more holistic approach.

This research also illustrates the implementation of Nyadran values in sustainability accounting. Practices such as respect for ancestors and nature are translated into sustainability indicators that include social and ecological responsibility. With this approach, the research is expected to provide a conceptual framework for the integration of traditional values and scientific approaches in sustainability accounting, so as to be able to answer social, environmental, and moral challenges in the future.

ANALYSIS

Contradictions between Nyadran Practices and Sustainability Accounting

Ian G. Barbour's theory, the conflict perspective describes the relationship between religion and science as two conflicting entities (Damper, 2024). This conflict often occurs when religion and science try to explain the same phenomenon with different approaches, or when both fight for exclusive claims to truth. In this context, science tends to be perceived as prioritizing rationality, objectivity, and empirical facts, while religion centers on spiritual meaning, moral values, and transcendental beliefs (Bigliardi, 2012; Reid, 2024). This fundamental difference creates inevitable contradictions, especially when these two domains are forced to confront each other (Peters, 2017; Stenmark, 2010).

The contradiction is evident in the practice of Nyadran and sustainability accounting. As a cultural ritual loaded with spiritual values, Nyadran focuses on human relationships with God, ancestors, and the universe (Hasan et al., 2023). This practice reflects the belief that the sustainability of human life cannot be separated from gratitude to the Creator and respect for ancestors. Prayers and slametan in Nyadran are performed to maintain cosmic harmony, as well as a form of moral responsibility for environmental sustainability (Prasetyo, 2021). In this context, Nyadran contains qualitative and symbolic dimensions, which are difficult to measure with objective parameters.

In contrast, as part of modern science, sustainability accounting is oriented towards quantitative measurement and empirical data collection (Jones, 2010; Tverskoi et al., 2024). The main focus of sustainability accounting is to objectively record and report the impact of human activities on the environment, such as carbon emission levels, energy use efficiency, or waste management (Owusu & Ofori-Owusu, 2024; Swalih et al., 2024; Venturelli & Mio, 2024). This approach often ignores spiritual or symbolic dimensions, as they are considered irrelevant in a data-driven framework. The contradiction arises when the spiritual values contained in Nyadran cannot be accommodated in the sustainability accounting system, so the practice is considered to have no real contribution to environmental sustainability.

For example, in Nyadran, respect for nature is realized through prayers that aim to maintain harmony between humans and their environment (Suharyo, 2020). The belief that these prayers on sustainability cannot be empirically proven by sustainability accounting. Instead, sustainability accounting may view this practice as an activity that has no measurable impact on the environment (Tverskoi et al., 2024), as there is no quantitative data to support the claim. This contradiction reflects how these two approaches have different epistemological foundations, making it difficult to find common ground.

Furthermore, this conflict also reflects different paradigms in viewing sustainability. In the Nyadran tradition, sustainability is understood as the moral and spiritual responsibility of humans to maintain harmony with nature (Prasetyo, 2021). This practice places spiritual values above material measurements, believing that a good relationship with nature and ancestors will bring blessings and sustainability. In contrast, sustainability accounting views sustainability as a technical problem that can be solved through measuring and managing resources efficiently (Karyada, 2024). This approach often overlooks the moral and spiritual dimensions that are considered difficult to integrate into a data-driven reporting system.

However, these conflicting perspectives not only reflect contradictions, but also provide important insights into the limitations of each approach. In the context of Nyadran, reliance on spiritual values without the support of empirical evidence may make this tradition difficult to recognize in global sustainability discussions that increasingly prioritize data and evidence (Nche & Michael, 2024; Sitthisuntikul & Horwitz, 2015). Conversely, sustainability accounting's exclusive focus on quantitative data can neglect the moral and spiritual dimensions that can actually give deeper meaning to sustainability itself (Dhiman, 2016; Singh & Bhatnagar, 2023). In other words, this conflict shows that no single approach is fully adequate to deal with complex sustainability challenges.

In this sense, the conflict between Nyadran and sustainability accounting can also be understood as a reflection of the broader challenge of bridging local values with global approaches. Traditions such as Nyadran, which are rich with cultural and spiritual values, are often deemed irrelevant by global systems based on international standards (Rusu et al., 2024). In contrast, global approaches often fail to understand the local context and values underlying traditions such as Nyadran. This conflict creates a need to find new ways to bridge these two seemingly opposing approaches.

Separating the Domains of Nyadran and Accounting for Harmony

The independence perspective, as described by Ian G. Barbour, provides the view that religion and science are two different domains, with their own unique focus and function. In this approach, religion and science need not contradict each other or interact directly, as they have different areas of work. Religion is tasked with answering questions about the meaning of life, moral values, and the purpose of existence (Srivastav, 2008), while science is responsible for explaining the phenomena of the world through empirical data and natural laws (Shaikh, 2018). In this way, conflicts can be minimized as both move in different scopes.

In the context of Nyadran tradition and sustainability accounting, the independence approach allows both to perform their respective functions without having to intervene with each other. Nyadran, as a cultural ritual rich with spiritual values, can be seen as a practice that aims to strengthen human relationships with God, ancestors and nature. This ritual serves as a space of reflection, where humans reflect on their connectedness with the universe and express gratitude to the Creator for all the gifts that have been given (Hasan et al., 2023). The spiritual and symbolic components in Nyadran do not require scientific proof or data quantification, as their value lies in the beliefs and meanings generated by the practitioners (Prasetyo, 2021).

Sustainability accounting, on the other hand, operates in an entirely different domain. As part of science, accounting is designed to provide objective and data-driven measurement tools in managing human impacts on the environment. Its main focus is on providing measurable information, such as carbon emission levels, energy consumption, and resource efficiency (Galaz et al., 2021), to help organizations understand and reduce their environmental impact (Christ & Burritt, 2013). With this approach, sustainability accounting is independent of the spiritual or symbolic values contained in Nyadran, but remains relevant in the context of global sustainability (Maas et al., 2016).

The independence approach allows Nyadran to remain understood as a fully spiritual and symbolic practice without the need to be justified by scientific data. Conversely, sustainability accounting can continue to develop according to its scientific framework without the need to integrate the spiritual

values contained in this tradition. For example, the ritual of prayer and slametan in Nyadran can continue to be carried out as a form of gratitude and respect for ancestors, without having to measure its impact on the environment through scientific indicators (Suharyo, 2020). Conversely, sustainability accounting can still focus on resource management and environmental reporting using standardized metrics, without the need to include a spiritual dimension.

However, while independence provides space for each domain to develop according to its characteristics, this approach also has limitations. By strictly separating religion and science, there is a risk that the moral and spiritual values contained in Nyadran cannot make a real contribution to the development of the concept of sustainability (Reid, 2024). For example, the ecological awareness at the core of Nyadran—such as respect for nature and the responsibility to maintain environmental harmony—may not be integrated into environmental policy if it is perceived as something that is only relevant in the religious domain. Conversely, sustainability accounting that relies entirely on objective data may lose the moral dimension that could enrich its approach. For example, an exclusive focus on numbers such as carbon emission reductions or energy efficiency may ignore the broader narrative of how humans should relate to nature meaningfully (Gale, 2006). In this sense, an independent approach can create a gap between spiritual values and their application in the context of sustainability.

However, independence also provides a space of stability that allows religion and science to remain authentic to their respective identities (Damper, 2024). The practice of Nyadran does not need to change to meet scientific demands, and sustainability accounting does not need to sacrifice its scientific principles to accommodate spiritual values. In this way, both domains can remain relevant to their respective contexts without overwhelming each other. Nyadran continues to be a source of moral and spiritual inspiration for the communities that perform it, while sustainability accounting remains a reliable tool to objectively measure and manage environmental impacts.

The Meeting Space between Religious Values and Science

The dialog perspective in Ian G. Barbour's theory offers a constructive approach to bridging religion and science. Instead of seeing the two as conflicting or separate entities, dialog allows for a complementary relationship (Cerovac, 2019). Within the framework of dialog, religion provides moral insights and spiritual values, while science offers tools and methods to understand the world empirically. This approach opens space for mutual reflection to deal with complex challenges that require more than just one point of view (Browning, 2011; Ninić & Kešina, 2010).

In the context of Nyadran, this dialogue can be realized through recognizing the local values contained in the tradition, while using a scientific approach to increase its impact. Nyadran, as a cultural practice that integrates religious and ecological elements, contains deep moral messages about human relationships with nature (Hasan et al., 2023). This tradition teaches the importance of maintaining harmony, both with ancestors, communities, and the surrounding environment. In the Nyadran ritual, prayers and slametan are performed as a form of gratitude to God for all the gifts given, including the sustainability of life-sustaining ecosystems. This spiritual element shows that sustainability is not only physical, but also moral and transcendental (Ives & Kidwell, 2019). On the other hand, sustainability accounting, as part of modern science, plays an important role in providing a framework for measuring and reporting the impact of human activities on the environment. It focuses on quantitative data, such as carbon emissions, energy use and resource efficiency, designed to encourage environmental and social responsibility. However, while this approach is very useful, it often neglects the spiritual dimension that can give sustainability itself a deeper meaning.

Through the dialog between Nyadran and sustainability accounting, we can find ways to bring together the strengths of both. Values in Nyadran, such as respect for nature and a sense of responsibility to the community, can serve as inspiration for creating more holistic sustainability indicators. For example, in sustainability reporting, organizations can not only include numbers showing reduced environmental impacts, but also include narratives about how they respect local values and culture in resource management (Imran, 2024; Sultan et al., 2024). These narratives not only provide a more complete picture, but also create an emotional and spiritual connection between humans and the environment. Conversely, science through sustainability accounting can provide tools that help Nyadran to be more structured and impactful. For example, by using scientific methods, the positive impact of Nyadran practices on the environment can be measured and validated. For example, the use of local materials in environmentally friendly slametan or waste management during rituals can be

quantitatively analyzed to demonstrate the contribution of this tradition to sustainability (Macaneiro, 2023). In this way, the values of Nyadran are not only maintained, but also reinforced with the support of empirical evidence.

Furthermore, this dialog can serve as a model for how local traditions such as Nyadran can contribute to global challenges. In the midst of rapid globalization, local traditions are often marginalized by uniform international standards (Rusu et al., 2024). Through dialog, Nyadran can show that sustainability is not only about numbers, but also about moral and spiritual values rooted in local culture. Conversely, global standards can provide a framework that helps Nyadran to be more relevant in a modern context. The dialog between Nyadran and sustainability accounting also has wider implications. Both create a space for shared reflection on what sustainability really means. In a world increasingly fragmented by materialistic approaches, this dialog reminds us that sustainability is not only about safeguarding resources for future generations (Maas et al., 2016), but also about creating harmony between humans, nature, and the Creator. The values contained in Nyadran can serve as a reminder that sustainability is a moral responsibility (Weinstein & Eugene Turner, 2012), not just a legal or economic obligation.

Understanding Nyadran and Accounting Practices through Stories and Values

An integrative perspective on the relationship between religion and science offers an approach that centers on the stories and meanings behind each human practice. Nyadran and sustainability accounting can be understood as two forms of storytelling that originate from different but potentially complementary traditions. Nyadran tells the story of human relationships with nature, ancestors, and the Creator, while sustainability accounting presents an integration of human responsibility in managing resources and creating a better future. In the Nyadran tradition, it provides an overview of human relationships with ancestors who have provided the basis for life, as well as human responsibility for nature that sustains this sustainability (Prasetyo, 2021). Rituals such as prayers and slametan become a medium to tell stories of gratitude, respect, and requests for overall harmony.

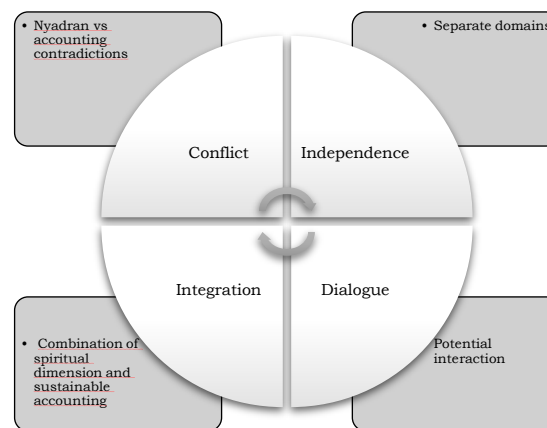
The practice of Nyadran places humans as part of a larger cosmos, where every action has consequences for spiritual and ecological balance (Hasan et al., 2023). This event teaches the importance of harmony, which is not only intended for individual interests but also for the sustainability of the community and nature. On the other hand, sustainability accounting also has a strong narrative, although it is often delivered through numbers, reports and metrics. The story that sustainability accounting wants to tell is about how organizations and individuals can act responsibly towards the environment and society (Ives & Kidwell, 2019; Rusu et al., 2024; Swalih et al., 2024). The numbers in sustainability reports, such as reduced carbon emissions or increased energy efficiency, are symbolic of a larger effort of human endeavor to create a balance between economic needs and environmental sustainability.

In other words, sustainability accounting is a story about human responsibility and commitment to take care of the planet for future generations. The narrative perspective opens up space for reflection on what sustainability really means. In a world that is often fragmented by technical and materialistic approaches, narratives like Nyadran remind us that sustainability is not just about numbers and indicators, but also about the stories we share with future generations. It teaches us that sustainability is about gratitude, responsibility, and respect for the world we share.

Figure 1 shows specifically how Ian G. Barbour's framework of conflict, independence, dialog, and integration perspectives in the practice of Nyadran and sustainable accounting is explained. Based on Figure 1, the conflict perspective highlights the importance of understanding the fundamental differences between religion and science, as well as the challenges that arise when the two try to interact. This conflict should not be viewed as an obstacle, but as an opportunity to reflect on how local spiritual and cultural values such as those contained in Nyadran can provide new perspectives that enrich modern scientific approaches. Conversely, science can also help traditions like Nyadran to be more relevant and impactful in the face of global sustainability challenges. In this way, conflict can be the beginning of a deeper and more constructive dialog. Meanwhile, the independence perspective emphasizes that religion and science can coexist without having to interfere with each other. Nyadran and sustainability accounting can run parallel as two approaches that serve different human needs: one talks about meaning and value, while the other focuses on measurement and management. With this approach, each can make a valuable contribution to sustainability without losing its identity or primary function.

Furthermore, the dialog perspective not only brings religion and science together, but also creates a mutually enriching relationship. The Nyadran tradition provides a moral and spiritual dimension that is often overlooked by modern science, while sustainability accounting offers tools and methods that can amplify the impact of this tradition. Through dialog, the two can work together to create a more holistic and meaningful approach to sustainability. Meanwhile, the integration perspective suggests that Nyadran and sustainability accounting can function as two sides of the same story. Nyadran provides a spiritual and moral dimension that is often missing in scientific approaches, while sustainability accounting provides the structure and tools to tell a broader story of impact. By integrating the two, we can create a story of sustainability that is not only locally relevant, but also meaningful in a global context. This story is not only about keeping ecosystems in balance, but also about creating harmony between humans, nature and the Creator.

Figure 1. Ian G. Barbour's Perspective Framework in Nyadran Practice and Sustainable Accounting



Source: Data Processing Results

Harmony between Tawhid and Sustainability: The Concept of Belief with Environmental Preservation

In Islamic teachings, tawhid is the main foundation that teaches that Allah is the only creator, maintainer, and regulator of the universe (Hasan et al., 2023). Tawhid provides a comprehensive view that everything on this earth is a mandate from Allah that must be maintained and preserved by humans as caliphs on earth. Allah SWT says in QS. Al-A'raf verse 56: *“and do not make corruption on the earth after (Allah) has repaired it, and pray to Him with fear (will not be accepted) and hope (will be granted). Verily, the mercy of Allah is very near to those who do good.”* In the Nyadran tradition, harmony between humans, the environment and God is reflected in the respect for ancestors that is carried out through prayers and symbolic rituals. This practice emphasizes that humans have a moral responsibility to protect the nature that God has entrusted to them. This monotheistic value can be applied in the sustainability accounting paradigm in a way that focuses on profit and includes ecological and social responsibilities. Sustainability accounting, in this case, serves as a tool to measure the extent to which companies maintain the balance of nature and respect God's creation, as well as a means to reflect on human responsibility as khalifah on earth. This concept encourages an understanding that sustainability is not just a strategic choice, but a religious obligation that aims to maintain harmony between creatures and the Creator. Thus, the Nyadran tradition and the principle of tawhid can inspire sustainability accounting to incorporate the spiritual dimension into more holistic reporting. For example, companies can organise social and religious activities alongside formal routines, such as holding large-scale studies at certain times to strengthen employee spirituality and refresh ideas for better employee performance innovation.

Accountability as a Trust: Uniting Moral Values and Reporting Systems

In Islam, accountability is an integral part of the trust that Allah entrusts to humans. Every human action, both within the scope of individuals and organizations, will be held accountable before Allah. Allah's word in QS. Al-Mu'minun verse 8 states *“And those who keep their trusts and their promises.”*

The Nyadran tradition, which often includes reflection and prayer, teaches the importance of maintaining good relationships with God, fellow humans and the natural world (Prasetyo, 2021). This value is in line with the concept of accountability in Islam, where all human actions must be accounted for both in this world and in the hereafter. In the context of sustainability accounting, these values translate into honest, transparent and responsible reporting practices. Reporting based on Islamic values not only aims to meet regulatory standards, but also reflects the company's commitment to morality and justice. The importance of reporting is based on truth and knowledge, which is in line with the principle of accountability in sustainability accounting. For example, in the Nyadran tradition, communal prayers and respect for ancestors also reflect moral and spiritual aspects that can be integrated into the reporting system to provide an overview of how companies' concern for the environment must be maintained, and not always prioritise profit above all else, but rather the welfare of humans and the integrity of the environment.

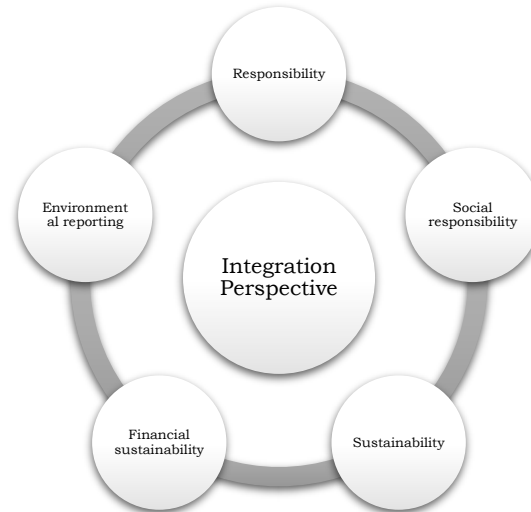
Ihsan in Sustainability: Social and Ecological Balance

Ihsan, which means doing good in the best possible way, is one of the fundamental principles in Islam. This principle encourages humans to carry out their duties and responsibilities with excellence and sincerity. In QS. Al-Baqarah verse 195, Allah SWT says *“And spend (your wealth) in the way of Allah, and do not bring yourselves to destruction, and do good. Verily, Allah loves those who do good.”* In the practice of Nyadran, the principle of ihsan is reflected through efforts to maintain a harmonious relationship between humans, nature, and God (Hasan et al., 2023). This activity encourages the creation of ecological and social awareness which is the essence of sustainability. In sustainability accounting, the value of ihsan teaches companies not only to fulfill legal obligations, but also strive to achieve the best results in preserving the environment and supporting community welfare. Applying ihsan in sustainability accounting involves maximum efforts to minimize negative impacts on the environment, such as pollution or resource exploitation, and create positive impacts through sustainability initiatives. For example, companies that care about the environment will certainly present financial and non-financial information regarding their concern for local culture and social responsibility.

Balance (Mizan) as a Basic Principle of Sustainability

Islam emphasizes the importance of maintaining balance (mizan) in all aspects of life. Allah SWT says in QS. Ar-Rahman verses 7-9: *“And Allah has raised the heavens and He has placed a balance (justice). So that you may not transgress the limits of the balance. And establish the balance justly and do not diminish it.”* This mizan principle is very relevant to the Nyadran tradition which emphasizes harmony between humans and nature (Hasan et al., 2023). In this ritual, respect for ancestors and prayers for the blessing of nature reflect efforts to maintain ecological balance. This principle is applied in sustainability accounting through balanced resource management between economic, social, and environmental needs. Sustainability reporting that reflects mizan shows that companies are not only responsible to stakeholders, but also to the Creator. This balance is important to ensure that economic development does not come at the expense of ecosystem sustainability or community well-being. The integration of mizan values into sustainability accounting creates a harmonious framework between a company's profitability and its ecological responsibility. The integration of the spiritual dimension of Nyadran practice and sustainable accounting results in a form of (Islamic) value balance including responsibility, social responsibility, sustainability, environmental reporting, and financial sustainability as shown in Figure 2.

Figure 2. Construction Perspective of Integration of Nyadran Practices and Sustainable Accounting



Source: Data Processing Results

Maqasid Sharia and Sustainability Accounting: Protecting Life's Core Values

Maqasid Sharia, or the ultimate goal of sharia, aims to protect five aspects of life: religion, soul, mind, offspring, and property. In QS. Al-Maidah verse 2, Allah SWT says: "And help each other in (doing) virtue and piety, and do not help each other in sin and transgression." The values in Nyadran, such as gratitude, social solidarity, and respect for ancestors, are in line with maqasid sharia which encourages the protection of human life and the environment (Prasetyo, 2021). In sustainability accounting, this principle is translated through reporting that includes indicators of social welfare, environmental preservation, and economic justice. In this way, accounting becomes not only a technical tool, but also a means to support sharia's goal of creating a better and sustainable life. For example, companies with a high level of concern will certainly prioritise non-financial aspects as a form of concern for the environment, society and economy. This has the potential to shift the business paradigm, which does not only prioritise material aspects, but also cultural, social, cultural and even religious aspects as strategic considerations in business practices in Indonesia.

CONCLUSION

Nyadran and sustainability accounting should not be viewed as two conflicting entities. Rather, they can complement each other to create a richer sustainability paradigm. Nyadran provides an indispensable moral and spiritual dimension in the face of global sustainability challenges, while sustainability accounting provides the tools and structures to ensure that such values can be applied practically and measurably. By bridging local traditions such as honor cultural heritage, Nyadran with a global approach in accounting, and we honour cultural heritage and create sustainability solutions that are relevant at both local and global levels.

The perspective of integration between Islam and sustainability accounting through the Nyadran tradition shows that the two can synergize to create a holistic and meaningful framework. By incorporating Islamic spiritual values such as tawhid, accountability, ihsan, mizan, and maqasid sharia, the Nyadran tradition provides a strong foundation for the development of sustainability accounting that is not only locally relevant, but also contributes to the global discourse on sustainability based on morals and ethics. Ultimately, the integration of Nyadran values into sustainability accounting not only enriches the theory and practice of science, but also provides inspiration on how sustainability can be redefined. Sustainability is not just about numbers or indicators, but also about the stories, values and meanings we share with future generations. As such, traditions such as Nyadran remind us that sustainability is a collective responsibility that involves harmony between humans, nature and higher spirituality.

The specific implications of this research for the future are to encourage empirical studies that directly examine the impact of integrating Nyadran values into sustainability accounting practices at the organisational or community level. The practical implications of this research can serve as a basis for developing more contextual and locally-based sustainability reporting models, especially in regions with strong cultural traditions such as Indonesia. Some companies in Indonesia still view traditions such as ‘Tasyakuran’ as merely a formality to gain legitimacy from the surrounding community. Therefore, it is necessary to adopt such activities as part of a social programme that aims not only to gain community legitimacy, but also to serve as part of management's belief in gratitude and sustainability in financial, social, cultural and religious aspects.

REFERENCES

- Al-Hazaima, H., Alshurafat, H., Al Shbail, M. O., & Ananzeh, H. (2024). Stakeholders’ perceptions of sustainability accounting education: A literature review. In *Technological Innovations for Business, Education and Sustainability* (pp. 79–89). Emerald Publishing. <https://doi.org/10.1108/978-1-83753-106-620241006>
- Albán, M. T. M. (2018). Management accounting strategies applied to smes literary review. *Revista Lasallista de Investigacion*, 15(2), 256–270. <https://doi.org/10.22507/RLI.V15N2A20>
- Bigliardi, S. (2012). Barbour’s typologies and the contemporary debate on islam and science. *Zygon*, 47(3), 501–519. <https://doi.org/10.1111/j.1467-9744.2012.01269.x>
- Bremer, S., & Funtowicz, S. (2015). Negotiating a place for sustainability science: Narratives from the Waikaraka Estuary in New Zealand. *Environmental Science and Policy*, 53, 47–59. <https://doi.org/10.1016/j.envsci.2014.11.006>
- Browning, D. S. (2011). Reviving christian humanism: Science and religion. *Zygon*, 46(3), 673–685. <https://doi.org/10.1111/j.1467-9744.2011.01205.x>
- Bsoul, L., Omer, A., Kucukalic, L., & Archbold, R. H. (2022). Islam’s Perspective on Environmental Sustainability: A Conceptual Analysis. *Social Sciences*, 11(6). <https://doi.org/10.3390/socsci11060228>
- Cerovac, K. (2019). A Transdisciplinary approach to the consideration of the relationship between natural science and theology. *Obnovljeni Zivot*, 74(3), 399–412. <https://doi.org/10.31337/oz.74.3.8>
- Christ, K. L., & Burritt, R. L. (2013). Environmental management accounting: The significance of contingent variables for adoption. *Journal of Cleaner Production*, 41, 163–173. <https://doi.org/10.1016/j.jclepro.2012.10.007>
- Damper, R. I. (2024). Science and Religion in Conflict, Part 1: Preliminaries. *Foundations of Science*, 29(3), 587–624. <https://doi.org/10.1007/s10699-022-09870-0>
- Dhiman, S. (2016). The case for eco-spirituality: Everybody can do something. In *Spirituality and Sustainability: New Horizons and Exemplary Approaches* (pp. 1–16). Springer International Publishing. https://doi.org/10.1007/978-3-319-34235-1_1
- Dura, I., Mihălescu, I., Frătilă, M., Cîrceie, V., & Borcan, R. (2021). Rethinking the integrative dimension of theology with science: syntheses and congruences. *RUDN Journal of Philosophy*, 25(1), 121–129. <https://doi.org/10.22363/2313-2302-2021-25-1-121-129>
- Fagerström, A., Hartwig, F., & Cunningham, G. (2017). Accounting and Auditing of Sustainability: Sustainable Indicator Accounting (SIA). *Sustainability (United States)*, 10(1), 45–52. <https://doi.org/10.1089/sus.2017.29080.af>
- Galaz, V., Centeno, M. A., Callahan, P. W., Causevic, A., Patterson, T., Brass, I., Baum, S., Farber, D., Fischer, J., Garcia, D., McPhearson, T., Jimenez, D., King, B., Larcey, P., & Levy, K. (2021). Artificial intelligence, systemic risks, and sustainability. *Technology in Society*, 67. <https://doi.org/10.1016/j.techsoc.2021.101741>
- Gale, R. (2006). Environmental management accounting as a reflexive modernization strategy in cleaner production. *Journal of Cleaner Production*, 14(14), 1228–1236. <https://doi.org/10.1016/j.jclepro.2005.08.008>
- Geria, I. M., Nastiti, T. S., Handini, R., Sujarwo, W., Dwijendra, A., Fauzi, M. R., & Juliawati, N. P. E. (2023). Built environment from the ancient Bali: The Balinese heritage for sustainable water management. *Heliyon*, 9(11). <https://doi.org/10.1016/j.heliyon.2023.e21248>

- Hasan, N., Taufiq, M., Hannan, A., & Enhas, M. I. G. (2023). Tradition, Social Values, and Fiqh of Civilization: Examining the Nyadran Ritual in Nganjuk, East Java, Indonesia. *Samarah*, 7(3), 1778–1802. <https://doi.org/10.22373/sjkh.v7i3.20578>
- Herath, S. K., & Herath, L. M. (2024). Accounting for Sustainability. In *Contemporary Research and Practices for Promoting Financial Literacy and Sustainability* (pp. 50–91). IGI Global. <https://doi.org/10.4018/979-8-3693-0863-9.ch003>
- Hilmi, H. S., Andayani, & Wardani, N. E. (2024). Ecological Wisdom in the Legend of Otak Aiq Tojang: An Ecocritical Analysis. *Studies in English Language and Education*, 11(2), 1193–1212. <https://doi.org/10.24815/siele.v11i2.35428>
- Imran, M. H. (2024). Religious philosophies and environmental ethics. In *Religious Philosophies and Environmental Ethics*. Bentham Science Publishers. <https://doi.org/10.2174/97898152748201240101>
- Ives, C. D., & Kidwell, J. (2019). Religion and social values for sustainability. *Sustainability Science*, 14(5), 1355–1362. <https://doi.org/10.1007/s11625-019-00657-0>
- Jaakkola, E. (2020). Designing conceptual articles: four approaches. *AMS Review*, 10(1–2), 18–26. <https://doi.org/10.1007/s13162-020-00161-0>
- Jones, M. J. (2010). Accounting for the environment: Towards a theoretical perspective for environmental accounting and reporting. *Accounting Forum*, 34(2), 123–138. <https://doi.org/10.1016/j.accfor.2010.03.001>
- Kakoty, S. (2018). Ecology, sustainability and traditional wisdom. *Journal of Cleaner Production*, 172, 3215–3224. <https://doi.org/10.1016/j.jclepro.2017.11.036>
- Karyada, I. P. F. (2024). Paradigma Nusantara Dalam Masa Depan Akuntansi. *Jurnal Akuntansi Multiparadigma*, 15(1), 190–204. <https://doi.org/10.21776/ub.jamal.2024.15.1.14>
- Koutsouris, A. (2010). Transdisciplinarity and participatory development: A critical realist approach. *International Journal of Interdisciplinary Social Sciences*, 5(4), 253–264. <https://doi.org/10.18848/1833-1882/CGP/v05i04/51689>
- Losch, A. (2022). Constructive-critical realism as a philosophy of science and religion. *HTS Teologiese Studies / Theological Studies*, 78(2). <https://doi.org/10.4102/HTS.V78I2.7742>
- Maas, K., Schaltegger, S., & Crutzen, N. (2016). Integrating corporate sustainability assessment, management accounting, control, and reporting. *Journal of Cleaner Production*, 136, 237–248. <https://doi.org/10.1016/j.jclepro.2016.05.008>
- Macaneiro, M. (2023). Religions and Sustainability: Concepts, Emphasis, Initiatives. *Perspectiva Teologica*, 55(2), 427–450. <https://doi.org/10.20911/21768757v55n2p427/2023>
- Maimun, A., Indiyanto, A., & Mujaab, M. (2020). Educating islamic values through wiwitan tradition. *Journal of Indonesian Islam*, 14(2), 359–386. <https://doi.org/10.15642/JIIS.2020.14.2.359-386>
- Muñoz-García, A., & Villena-Martínez, M. D. (2020). Sustainable behavior among spanish university students in terms of dimensions of religion and spirituality. *Sustainability (Switzerland)*, 12(2). <https://doi.org/10.3390/su12020470>
- Munteanu, V., Ștefan, V., & Gheorghian, C. M. (2013). Developing an efficient model for reflecting environmental impact in organizational accounting. *Quality - Access to Success*, 14(SUPPL.2), 130–138. <https://www.scopus.com/inward/record.uri?eid=2-s2.0-84878323510&partnerID=40&md5=ba79cd519c074c3be6f51ea1817c6819>
- Nasir, M. A. (2019). Revisiting the Javanese Muslim Slametan: Islam, local tradition, honor and symbolic communication. *Al-Jami'ah*, 57(2), 329–358. <https://doi.org/10.14421/ajis.2019.572.329-358>
- Nche, G. C., & Michael, B. O. (2024). “it Is Taboo to Clear Those Forests or Cut Trees from Them”: How Sacred Forest Preservation in Abanyom, Cross River State, Nigeria Promotes Environmental Sustainability. *Worldviews: Environment, Culture, Religion*, 28(3), 268–294. <https://doi.org/10.1163/15685357-02803005>
- Nicholls, J. A. (2020). Integrating financial, social and environmental accounting. *Sustainability Accounting, Management and Policy Journal*, 11(4). <https://doi.org/10.1108/SAMPJ-01-2019-0030>
- Ninić, N., & Kešina, I. (2010). The observer's involvement - One of the restrictions of science. *Filozofska Istrazivanja*, 30(1–2), 175–191. <https://www.scopus.com/inward/record.uri?eid=2-s2.0-78951492398&partnerID=40&md5=46ba738e0918a9e77635279498a4dcb2>

- Nørreklit, L., Nørreklit, H., Cinquini, L., & Mitchell, F. (2024). Accounting for a better world: towards a conceptual framework to enable corporate reporting to contribute to the sustainability of the good life. *Meditari Accountancy Research*, 32(5), 1608–1640. <https://doi.org/10.1108/MEDAR-05-2023-2015>
- Owusu, G. M. Y., & Ofori-Owusu, C. (2024). Analysis of the structure and evolution of sustainability accounting research: a 41-year review. *Meditari Accountancy Research*, 32(4), 1445–1492. <https://doi.org/10.1108/MEDAR-11-2022-1846>
- Peters, T. (2017). Cult books revisited: Ian Barbour's issues in science and religion. *Theology*, 120(3), 163–171. <https://doi.org/10.1177/0040571X16684417>
- Prasetyo, W. (2021). Ritual Nyadran Pragmatics for Environmental Management Accounting. *Jurnal Akuntansi Multiparadigma*, 12(3), 509–530. <https://doi.org/10.21776/ub.jamal.2021.12.3.29>
- Reid, L. (2024). Beyond conflict: an exploration of the way UK church leaders view the relationship between science and religion. *Journal of Contemporary Religion*, 39(2), 327–345. <https://doi.org/10.1080/13537903.2024.2342636>
- Rusu, T. M., Odagiu, A., Pop, H., & Paulette, L. (2024). Sustainability Performance Reporting. *Sustainability (Switzerland)*, 16(19). <https://doi.org/10.3390/su16198538>
- Shaikh, S. A. (2018). Making sense of our existence: the scientific and religious worldview. *International Journal of Ethics and Systems*, 34(4), 593–607. <https://doi.org/10.1108/IJOES-08-2018-0116>
- Singh, N., & Bhatnagar, D. (2023). Applied spirituality and sustainable development policy. In *Applied Spirituality and Sustainable Development Policy*. Emerald Group Publishing Ltd. <https://doi.org/10.1108/9781837533800>
- Sitthisuntikul, K., & Horwitz, P. (2015). Collective Rituals as Meaningful Expressions of the Relationships between People, Water and Forest: A Case Study from Northern Thailand. *Journal of Intercultural Studies*, 36(1), 88–103. <https://doi.org/10.1080/07256868.2014.990365>
- Srivastav, P. K. (2008). The religion & human science: Religion & science. *International Journal of Interdisciplinary Social Sciences*, 2(6), 193–196. <https://doi.org/10.18848/1833-1882/cgp/v02i06/52449>
- Stenmark, M. (2010). Ways of relating science and religion. In *The Cambridge Companion to Science and Religion* (pp. 278–295). Cambridge University Press. <https://doi.org/10.1017/CCOL9780521885386.015>
- Suharyo. (2020). Culture as a Javanese Language Retention Strategy for Women's Society in Klaten, Central Java. *E3S Web of Conferences*, 202. <https://doi.org/10.1051/e3sconf/202020207061>
- Sultan, K. H., Ali, N. J. M., Mohammed, M. T., & Salman, A. J. (2024). Sustainability Accounting Measuring and Reporting Environmental Costs. *Journal of Ecohumanism*, 3(5), 591–603. <https://doi.org/10.62754/joe.v3i5.3925>
- Swalih, M. M., Ram, R., & Tew, E. (2024). Environmental management accounting for strategic decision-making: A systematic literature review. *Business Strategy and the Environment*. <https://doi.org/10.1002/bse.3828>
- Tverskoi, D., Ember, C. R., Gelfand, M. J., Jones, E. C., Skoggard, I., Toutée, L., & Gavrillets, S. (2024). Cultural tightness and resilience against environmental shocks in nonindustrial societies. *Proceedings of the National Academy of Sciences of the United States of America*, 121(49). <https://doi.org/10.1073/pnas.2403386121>
- Venturelli, A., & Mio, C. (2024). ACCOUNTING FOR THE SUSTAINABLE DEVELOPMENT GOALS: An introduction. In *The Routledge Handbook of Accounting for the Sustainable Development Goals* (pp. 1–4). Taylor and Francis. <https://doi.org/10.4324/9781003404118-1>
- Weber, O., & ElAlfy, A. (2024). THE SUSTAINABLE DEVELOPMENT GOALS: Applications of accounting frameworks and corporate reporting outlook. In *The Routledge Handbook of Accounting for the Sustainable Development Goals* (pp. 86–96). Taylor and Francis. <https://doi.org/10.4324/9781003404118-7>
- Weinstein, M. P., & Eugene Turner, R. (2012). Sustainability science: The emerging paradigm and the urban environment. In *Sustainability Science: The Emerging Paradigm and the Urban Environment* (Vol. 9781461431). Springer New York. <https://doi.org/10.1007/978-1-4614-3188-6>