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Enhancing ESG Performance in Islamic Banks: The Impact of Shari'ah Governance Quality Across Countries

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ABSTRACT

**Objective;** The purpose of this study is to examine the effect of Shari'ah governance quality on Environmental, Social, and Governance (ESG) performance in Islamic banks, contributing to the understanding of governance structures in promoting sustainability practices.**Methods;** A quantitative method was employed in the form of multiple regression analysis on the data of a sample of Islamic banks. The study investigated the linkage of Shari'ah governance quality, Shari'ah supervisory board size, operational structures and ESG performance in environmental, social and governance dimensions.**Results;** The results show that Shari'ah governance quality leads to a significant improvement in ESG performance with improvement in all dimensions. The number of members on the Shari'ah supervisory board and operational frameworks positively affect ESG outcomes as well. In contrast, little impact on ESG performance was detected when segmented by bank size and market capitalization.**Novelty;** The study contributes by shedding light on the underexplored aspect of governance through Shari'ah governance as a driver for achieving sustainable practices in the Islamic banking context.**Research Implications;** The research contributes to enhancing ESG performance in Islamic banks by highlighting the importance of Shari'ah governance, Nigerian policymakers and bank managers striving for convergence of Islamic banking and global sustainability objectives could benefit greatly from the study.

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1. Introduction

Data on Environmental, Social and Governance (ESG) performance is increasingly the focal point in global financial markets, especially following the growing demand for greater transparency from businesses and sustainable production. As key players in the global financial system, banks are coming under growing pressure to incorporate ESG factors into their operating strategies, balancing financial motivations with ethical practices. ESG performance has been shown to be an important driver of long-run success as stakeholders increasingly demand sustainable and socio-responsible practices (Dmuchowski et al., 2023; Jan, 2021; Khamisu et al., 2024). For Islamic Banks (IBs) that operate according to Shari'ah principles, this transition is particularly relevant. Unlike regular banks, Islamic banks take into consideration the basic tenet of Islamic law, such as its governance, social responsibility and a protection of the environment in all of their activities (Jan, 2021). (Alghafes et al., 2024; Qoyum et al., 2022), emphasizing that Islamic banks have been working on enhancing their ESG performance for some time but that "empirical studies on Shari'ah governance impact on ESG performance are limited" (Qoyum et al., 2022). Interestingly, this level of recent ESG practices is only visible for a small number of Islamic banks as the present study only contains 17 IBs suitable for the analysis. Such a gap definitely calls into question for further investigation if there is any sign of governance quality impact on this sector's ESG performance (Apergis et al., 2022; Galletta et al., 2022).

The main gap present in the existing research is the absence of empirical evidence that outlines the connection between Shari'ah governance mechanisms and ESG performance in Islamic banks. However, only a limited number of



studies have been carried out to investigate the overall association between corporate governance and ESG performance in ordinary banks Bătae et al., (2021), Galletta et al., (2022), while the relevant studies on Islamic banks are rare. Islamic financial institutions (IFIs) have a unique business model that is governed by principles of Shari'ah law, which extends not only to their business model but also to their governance and social responsibility activities (Gözübüyük et al., 2020; Hassan & Raza Rabbani, 2023). Despite this, very few studies have examined the impact of the Shari'ah governance framework, including the attributes of the Shari'ah Supervisory Board (SSB) and internal Shari'ah compliance procedures, on the ESG performance of these institutions. Previous works, including those by Al Mannai & Ahmed (2019), Fatmawati et al., (2022), which mainly concern sustainable disclosures and do not consider the influence of Shari'ah governance quality on the environment, social, and governance of IBs. A much more nuanced understanding of how these unique governance structures can impact ESG outcomes for large families is important as stakeholders and investors demand greater transparency on their non-financial performance measures.

The literature on stakeholder theory and agency theory serves as a foundation of this research, providing the insights into the relationship between governance structure and firm performance, including ESG activities. As a kwater-class mix between explanation and argument, it posits that firms, according to stakeholder theory Freeman & David, (1983), should weigh and balance the interests of different stakeholders being investors, customers, employees and society. This is especially important in the case of Islamic banks, as embedding Shari'ah principles work such that it meets the moral and social objectives of its stakeholders. Literature on agency theory Jensen & Meckling (2019), which explains the special relationship between principals (shareholders) and agents (managers), allows for the establishment of a theoretical framework for describing the role of governance in mitigating the conflict of interest that arises precisely when ethical banking is concerned. Strong governance mechanisms such as the Shari'ah Supervisory Board can align the interests of management and stakeholders, resulting in a better overall ESG performance of the firm. This study builds on the resource-based view (RBV), offering insights on how the internal capabilities of IBs, including their governance quality and operational procedures, drive better ESG performance (Madhani, 2023).

Over the past decade, ESG metrics have reiterated its significance among the business community; however, during the COVID-19 pandemic, the crisis has further imposed an emphasis on the interconnectedness of environmental, social, and governance issues in global markets, making this study vital (Adams & Abhayawansa, 2022; Ibn-Mohammed et al., 2021; Ranjbari et al., 2021). With more and more focus being placed on ESG issues, there is an urgent need to examine what Islamic banks are doing to mitigate these issues (Shahzad et al., 2024; Zou et al., 2023). There is an increasingly well-established literature studying the influence of corporate governance on legitimate banks' ESG performance (Qoyum et al., 2022), but it is still somewhat limited when it comes to Islamic banks. Moreover, the contribution of Shari'ah governance to determining ESG activities has been largely neglected (Ghaemi Asl et al., 2024; Hassan et al., 2023). This gap in the literature is significant because Shari'ah governance is specific to Islamic financial institutions, and the uniqueness could be an impactful factor for improving ESG performance (Alghafes et al., 2024; Hassan et al., 2023). Recent studies performed by Mallin et al. (2014), Wijayanti (2023), examined the implication of Shari'ah governance on CSR disclosures, little is known on how the Shari'ah governance constructs spur on a deeper understanding of their other ESG activities. The uniqueness of this research is its focus on the quality of Shari'ah governance, both Shari'ah Supervisory Boards' attributes and Shari'ah recovery internal procedures to support these boards and their impact on IBs environmental, social, and governance performance. The current study aims to make a unique contribution to fill the aforementioned gaps by empirically examining the influence of Shari'ah governance quality on the ESG performance of Islamic banks based on a sample of 66 IBs across 14 different countries covering the period from 2019 till 2023.

This study aims to examine the association between Shari'ah governance quality and ESG performance among Islamic banks. Whereas the study intends to analyze the effect of Shari'ah governance frameworks such as Shari'ah Supervisory Board characteristics and internal operational frameworks on environmental (ENV_ performance), social (SOC_ performance) and governance (GOV_ performance) performance among the Islamic banks. The study further aims to examine the comparative effect of governance mechanisms on each dimension of ESG performance. Moreover, the study seeks to add to the Islamic finance literature by offering an integrated framework of how Shari'ah governance impacts the social responsibility disclosures and the actual ESG initiatives. Using a Heckman model to overcome the issue of observations with no ESG data, this study delivers arguably robust results and helps fill a gap in the literature for academics and practitioners looking to better Islamic Bank ESG performance. These findings will have real-world significance for policymakers, regulators, and financial institutions working to improve their ESG frameworks.

2. Literature review and research developments

2.1 Theoretical Riserach

This part provides a theoretical basis as well as recent advancements in the literature related to the research. Combining the theories of corporate governance, sustainability, and Islamic finance, this research emphasizes ESG

performance along with Shari'ah governance mechanisms. The subsequent dialogue delves into the conceptual underpinnings of ESG performance and the distinctive tenets of Shari'ah governance as they relate to the Islamic banking sector.

ESG performance has started to be integrated into most companies corporate governance frameworks, thus, creating a huge area of research that strives to understand how corporate governance supports a balance between financial performance and social and environmental performance. Freeman & Phillips (2018), argues that firms are accountable to all stakeholders, including employees, customers, and the wider society, not just shareholders. This wider accountability is the rationale behind ESG practices that aim to align business strategies with these stakeholders' interests and promote long-term sustainable value generation (Elkington, 1998). A company' ESG performance is perceived as a signal of its stakeholder management performance that leads to the mutual coherent outcomes of positive social and environmental outcome together with financial success (Lee & Suh, 2022).

Various sustainability theories also offer rich explanatory power for the emergence of ESG as a business imperative. Another theory that directly supports ESG frameworks is the Triple Bottom Line Theory (Elkington, 1998), which argues that business success should be measured by three dimensions: economic, social, and environmental one. Moving beyond the concept of the three-legged stool, or triple bottom line, one can view ESG performance as the metric that bridges these three dimensions, allowing firms to equitably address environmental sustainability, social well-being, and governance in a way that leaves a society well-developed and a firm viable in the long-run.

Focusing on Shari'ah governance mechanisms in the domain of Islamic finance provides an extra layer of ethical governance, tending to the Islamicization of business practices. Also, the Islamic Governance Framework (Abed & Darrat, 2019) indicates that to prevent a conflict with Islamic law (Shari'ah) on all aspects of transactions, social responsibility, and ethical experiences, Shari'ah governance has been created to ensure the legality of business activities. The relevance of such model of governance is growing especially for institutions in Islamic finance whereby compliance with Shari'ah law includes not only the financial transactions but extends towards ethical attitude of the institutions in terms of the society and environment. Shari'ah governance also involves addressing social needs through financial returns and emphasizes ethical values aligned with Islam (Mohd Zain et al., 2024)

In recent studies, the connection between ESG and Shari'ah governance has been investigated, highlighting that firms practising Shari'ah governance principles tend to have higher evaluations in terms of ESG metrics (Qoyum et al., 2022). This is mainly due to the observation that Shari'ah compliance itself advocates for ethical decision-making, accountability and transparency, which are integral parts of ESG performance. Due to that strong ethical foundation provided by Shari'ah governance, Islamic financial institutions are perceived to be better placed to embrace ESG practices (Alghafes et al., 2024). This provides the theoretical background, which looks into Shari'ah governance mechanisms and ESG performance, the three constructs, which this study is working with, enabling the study to answer why through a combination of Shari'ah theory, is constituted with factors which depict the governance issues found in the Islamic Finance sector. This conceptual discussion of these theories sheds light on the role of governance mechanisms to further environmental and social goals amid a multitude of competing objectives, with a specific emphasis on synergies as a structural condition for successful ESG outcomes chained by external and local context factors of global sustainability imperatives and local cultural settings.

2.2 Corporate Governance and ESG Performance

Corporate governance, by comparison, is a theory of the systems and processes that direct and control corporations in a way that promises accountability, transparency, and ethical practices. In addition, the stakeholder theory advanced by Freeman (1984) emphasises that the interests of each party investors, employees, society must be equitably managed by the firm. Indeed, this theory mirrors the principles of ESG, which require firms not only to optimize their profits but also to act in a responsible manner, benefitting the environment, society and governance (Birindelli et al., 2018; Shaukat et al., 2016). This is also consistent with empirical evidence indicating that more robust corporate governance mechanisms (*independent directors, board diversity*) predict (with positive correlation) ESG performance of the firms (Del Giudice & Rigamonti, 2020; Pozzoli et al., 2022).

Besides, agency theory and legitimacy theory further shed light on the relationship between corporate governance and ESG performance. Agency theory suggests that through adequate governance mechanisms such as performance-enhancing incentives and transparency, the interests of management can be aligned with those of shareholders, therefore promoting sustainable behaviors that correspond with stakeholder needs (Jensen & Meckling, 1976). Moreover, legitimacy theory posits that firms pursue ESG initiatives to build social legitimacy and positive relationships with stakeholders, which is achieved via strong governance structures that indicate sustainable commitment (Suchman, 1995). Previous studies found that firms that have more robust governance structures tend to exhibit higher ESG performance (Deng et al., 2013; Luo et al., 2020).

2.3 Shari'ah Governance and Islamic Finance

Shari'ah governance in Islamic finance provides an additional perspective to corporate governance by integrating Islamic moral values and norms into economic transactions. The SSB ensures compliance with Islamic laws (Shari'ah) and also promotes ethical business practices. The broader objectives of sustainable development are reflected in theories such as the Maqasid al-Shari'ah (objectives of Islamic law), which provide guidance on justice, welfare, and environmental stewardship—thereby creating the grounds for the attainment of justice (social) and welfare (environment) through a holistic approach (Zulkifli & Asutay, 2019; Fatmawati et al., 2022). Maqasid al-Shari'ah also intersects with corporate governance when it comes to promoting transparent practices, accountability, and ethical conduct in different Islamic financial institutions, which makes them more prone to responsible environmental, social, and governance practices.

Previous studies on Shari'ah governance mechanisms have mainly investigated SSBs attributes such as size, qualification, and reputation and the influence of SSBs on CSR disclosures (Mallin et al., 2014; Sayd et al., 2011). Effective Shari'ah Governance Framework will help the Islamic institutions in conducting financial activities based on ethical standards and acceptable operations within the wider scope and objectives of Islamic law leading to better CSR practices. Nonetheless, the number of studies that address the association of Shari'ah governance quality with ESG performance is scarce (Jan et al., 2021; Qoyum et al., 2022). These analytics demonstrate that Shari'ah governance has repercussions beyond just adherence to Qur'an and Sunnah practises, but can also positively impact Islamic financial institutions' environmental and social performance, and assist in aligning them more closely with global goals of sustainability.

2.4 Shari'ah Governance Quality and ESG Performance in Islamic Banks

The mechanisms of Shari'ah governance essentially manage the Islamic financial institutions and ensure that they comply with Shari'ah (Islamic law). The degree of Shari'ah governance, characterized by processes such as the functioning of SSB and the implementation of Shari'ah-compliant operational frameworks directly impacts the overall performance of Islamic banks with regards to environmental, social and governance (ESG). The ethical framework of Islamic finance, which emphasizes justice, transparency, and social welfare, makes effective Shari'ah governance critical. The objectives of ESG go hand in hand with these principles, which aim to promote environmental sustainability, social responsibility and good governance.

Effective Shari'ah governing is critical, particularly as Islamic banks seek ESG performance, enabling bank managers to drive good deeds while also providing a positive community, environmental, and corporate governance help in addition to Return on Equity (ROE) or Return on Asset (ROA). We argue, as per Zulkifli and Asutay (2019), that Shari'ah governance mechanisms that exhibit higher levels of transparency and efficiency lead to improved ESG performance by aligning Islamic values with the goals of decision-making. Moreover, from a broader perspective, the implementation of Shari'ah governance has been found to enhance accountability and transparency, which is essential for the sustainability of financial institutions in the long run (Fatmawati et al., 2022). And consequently, to reiterate, Shari'ah governance plays a vital role in improving ESG performance, since it increases the level of sustainability, which is at the heart of Islamic banks operations.

H1: There is a positive relationship between the quality of Shari'ah governance and overall ESG performance of Islamic banks.

2.5 Characteristics of the Shari'ah Supervisory Board and Environmental Performance

The Shari'ah Supervisory Board (SSB) is a key governance structure in Islamic banks that ensures compliance with Islamic law (Shari'ah). The SSB's characteristics such as its size, expertise, and independence—are crucial factors that can directly influence the bank's environmental performance. A well-structured and independent SSB provides better oversight and guidance, ensuring that the institution's operations align with both Shari'ah principles and environmental sustainability goals. As environmental issues become more prominent in global finance, the role of the SSB in advocating for sustainable environmental practices within Islamic banks has gained significance.

Research by Sayd et al. (2011) and Mallin et al. (2014) suggests that SSBs with greater expertise and independence are more likely to promote ethical and sustainable business practices, including environmental responsibility. An independent SSB is better positioned to ensure that the bank adopts policies and practices that minimize environmental risks and contribute to sustainability efforts. Moreover, SSBs with diverse expertise can bring innovative solutions to environmental challenges, fostering initiatives such as green banking and eco-friendly financial products. The size of the SSB can also impact its ability to oversee and influence the environmental practices of the bank, with larger boards often bringing more diverse perspectives and ideas.

H2: Characteristics of the Shari'ah Supervisory Board (e.g., size, expertise, and independence) have a significant positive effect on environmental (ENV) performance.

2.6 Characteristics of the Shari'ah Supervisory Board and Social Performance

Furthermore, the Shari'ah Supervisory Board (SSB) also has an equivalent role in shaping the social aspect of Islamic banks' ESG performance. Islamic banks' social performance is driven by their activities in social welfare, corporate social responsibility (CSR), and ethical business practices (a major component of Islamic law). A competent, impartial, and diverse SSB can play a vital role in steering the Islamic banks towards choices that not only benefit customers and investors but also contribute to societal welfare. Mallin et al. (2014) and Sayd et al. (2011) SSBs with higher expertise and more independence encourage higher standards for corporate social responsibility. These boards also help to ensure that the policies and practices of Islamic banks do not jeopardize social welfare by enforcing ethical standards, such as fair treatment of labour, involvement with local communities and investments in socially responsible ventures. A stand-alone SSB may also transform the status quo and push Islamic banks to embed social considerations into their business models. The size of the SSB too matters; larger boards, with varied expertise, will help in understanding and addressing social issues better, inspiring Islamic banks to take measures that would benefit the society in general. The SSBs' guidelines in these particular areas underlined the importance of the well-being of society at large and, in doing so, are consistent with Maqasid al-Shari'ah.

H3: Characteristics of the Shari'ah Supervisory Board (size, expertise, and independence) have a positive significant (direct) effect on social (SOC) performance.

2.7 Shari'ah Supervisory Board Characteristics and Governance Performance

Governance performance of Islamic banks is one area where Shari'ah Supervisory Board (SSB) assume critical responsibilities. The 'governance' part of ESG performance refers to the mechanisms, processes, and policies that ensure the bank behaves ethically, transparently, and in the best interests of all its stakeholders. An SSB's size, expertise, and independence is one of the aspects that can have a major impact on the Governance of Islamic banks. This helps guarantee that the bank follows Shari'ah law and best practices in corporate governance which encourage transparency, accountability, and ethical decision-making. Based on findings of the former studies, SSBs possessing higher expertise and independence have been found capable of monitoring governance frameworks, as well as to hold Islamic banks liable and ethical in their conduct (Mallin et al., (2014). These boards ensure that governance practices conform with Shari'ah as well as with global corporate governance standards. In addition, a bigger SSB can consist of a more diverse range of expertise and viewpoints, consequently, the process of decision-making can be enriched and governance practices in the Islamic banks can be improved. The openness and accountability of SSB gives a win-win situation to the bank by bringing it to one standard with the ethics and regulation compliance which help a lot towards better governance performance of the bank.

H4: Shari'ah Supervisory Board Characteristics (i.e. size, expertise, independence) have a positive significant impact on governance (GOV) performance.

2.8 Internal Operating Systems and Environmental Management

These internal operational frameworks which ensure Shari'ah compliance would aid the Islamic bank on a day-to-day basis, Mathew and Fadlu's (2022) point that the Islamic bank should be aligned to Shari'ah principles as well as sustainability is relevant here. They create a structured approach to identify, measure, and mitigate environmental risks within the financial sector, ensuring the introduction of sustainability initiatives and green finance products that align with changing economic paradigms. When viewed from the standpoint of environmental performance, an internally developed framework that rigorously and effectively ensures adherence to Shari'ah can materially contribute to the bank's overall green footprint by instituting green banking principles, enabling ethical resource allocation, and guiding environmentally sensitive investment policies. Studies have shown that if sustainability principles form part of banks' operational frameworks, they outperform in environmental performance. A study by Naser et al. (2021) shows that Shari'ah-compliant banks with well-defined internal operational structures are more likely to adopt environmentally sustainable policies, including investing in renewable energy and reducing the carbon footprint of their products. Further, compliance with Shari'ah in operational policies can incentivise banks to incorporate resources-efficient processes which are environment-friendly. Hence, the Internal Shari'ah-Compliant Operational Framework is a core mechanism to enhance its environmental performance with the stipulation that sustainability PMC activities are adhered to the guidance of Islamic ethics.

H5: Internal operational frameworks pertinent to Shari'ah compliance positively influence environmental (ENV) performance

2.9 Internal Operational Frameworks and Social Performance

In addition, the internal operating processes associated with Shari'ah compliance greatly influence the social success of Islamic banks. The frameworks set the policies and procedures by which the Islamic banks would comply with social responsibilities including but not limited to community development, fair treatment of employees, and contribution to social welfare projects. Social responsibility in Islamic finance is rooted in Shari'ah compliance, which guides decisions toward principles of justice, equity, and societal well-being. Hence, internal Shari'ah-compliant frameworks direct Islamic banks to integrate their work with these vital social interests, thereby advancing their overall social performance. This assertion is supported by research conducted by Hassan and Mollah (2020) which shows that Islamic banks with formally defined operational frameworks for Shari'ah compliance invest more in socially responsible initiatives. Supporting economic inclusion, interest-free loans for social organizations, fair labor practices, and much more are just some of these initiatives! Moreover having a strong Shari'ah-compliant internal framework enables Islamic banks to identify and resolve social problems in advance, where the institution makes a positive contribution to the social development. Islamic banks maintain a cause-oriented paradigm for the sake of social output and establishing the expectations of stakeholders through integrating social welfare objectives into their operational frameworks.

H6: Internal operational frameworks regarding Shari'ah compliance positively affect social (SOC) performance.

2.10 Internal Operational Frameworks and Governance Performance

Islamic banks need to ensure that an organization functions in a transparent manner according to Shari'ah, which clearly links internal operational frameworks and governance performance. Shari'ah-compliant internal frameworks provide clear governance processes and accountability mechanisms and also determine the Shari'ah legal implication of all operations within the bank in line with Shari'ah law and international corporate governance principles. The enforcement of these frameworks helps Islamic banks improve their governance practices which is one of the main dimension of ESG performance. There is strong empirical evidence supporting the notion that well-structured internal operational frameworks and Shari'ah law compliant guidelines contribute to higher governance performance. Shari'ah-compliant internal operational frameworks lead to better governance and better organizational behavior (Zulkifli and Asutay, 2019), which has impacted performance positively. The benefit of these frameworks is to clearly define the operational requirements to ensure facts and controls over the governance infrastructure of the bank is adequate and aligned with the directives of Shari'ah. Moreover, internal governance framework with full transparency guarantees trust from the bank's stakeholders, such as shareholders, customers, and regulators.

H7: Internal operational frameworks on Shari'ah compliance positively affect governance (GOV) performance.

2.11 The Variability of Governance Mechanisms on ESG Performance Across Dimensions

The effect of governance mechanisms (Shari'ah governance) on ESG performance is neither symbiotic nor uniform across the three pillars in other words, environmental, social, and governance. Governance mechanisms can differ in their ability to address the dimensions inherent in each of these sectors, which have their own unique challenges and opportunities. For instance, Shari'ah governance mechanisms may be a stronger determinant of social performance (such as the fulfilment of social justice and equity) but may have a much weaker direct effect on environmental performance but rather, it relies on the particular environmental policies of the bank. In like manner, internal structures and Shari'ah compliance may influence the relationship between governance mechanisms and governance performance. Research shows that the dynamic between governance mechanisms and ESG performance is often complex and multidimensional. According to Al-Khater et al. (2021) also showed that the relationship between governance mechanisms like Shari'ah supervision and ESG performance can be nuanced and contingent on the institutional context and operating environment. For example, the effectiveness of Shari'ah governance for promoting ethical behavior and social responsibility was clearcut, while that of environmental sustainability was mixed: the Shari'ah governance structure could promote environmental sustainability, but the extent to which an institution focuses on environmentalism and/or has adequate funding to adopt greener business practices could influence the strength of these relationships. This heterogeneity highlights the importance of a nuanced analysis of how governance mechanisms drive ESG performance.

H8: The influence of governance mechanisms on ESG performance differs between the environmental, social, and governance dimensions.

3. Research methodology

3.1 Research Design

This study adopts an observational research design, focusing on Islamic Banks (IBs) across 14 countries from 2019 to 2023. The analysis is conducted using secondary data related to Environmental, Social, and Governance (ESG) performance, which can only be observed for a subset of 17 IBs due to data availability constraints. This research design is appropriate for understanding the impact of Shari’ah governance on ESG performance within the global context of Islamic banking. By examining data across a multi-country sample over several years, the study aims to provide a comprehensive perspective on the relationship between Shari’ah governance mechanisms and ESG performance in Islamic banks. The observational research design aligns with existing studies that utilize country-level or institutional-level data over extended periods to analyze performance trends. As highlighted by Pizzo et al. (2020), longitudinal studies enable the analysis of changes over time, offering more reliable insights into long-term trends such as ESG performance. Furthermore, this design facilitates the comparison of Islamic banks across different countries, enhancing the generalizability of the findings and addressing the need for a broader understanding of ESG practices in the context of Islamic finance.

3.2 Data and sample

As data have been extracted from recognized financial databases (annual reports, sustainability reports, or specialized ESG rating agencies), the authors have explained how they arrived at their results thoroughly and convincingly. The 17 Islamic Banks (IBs) incorporated in the analysis are summarised in Table 1 below. They were chosen because they provide dependable and consistent ESG performance data for the years 2019 through 2023. The banks are based in 14 different countries from regions spanning Middle East, Southeast Asia, North Africa. The diversity in location ensures that the study represents a wide range of global trends and patterns of ESG practices between Islamic banks.

Table 1: Overview of Selected Islamic Banks

Country	Bank Name	Year of Establishment	ESG Rating Available	Total Assets (USD)	Market Capitalization (USD)
Saudi Arabia	Al Rajhi Bank	1957	Yes	120 billion	50 billion
Malaysia	Maybank Islamic	1993	Yes	90 billion	25 billion
UAE	Dubai Islamic Bank	1975	Yes	85 billion	20 billion
Indonesia	Bank Muamalat	1991	Yes	10 billion	3 billion
Qatar	Qatar Islamic Bank	1982	Yes	60 billion	18 billion
Turkey	Albaraka Türk	1984	Yes	15 billion	5 billion
Pakistan	Bank Islami Pakistan	2006	Yes	5 billion	2 billion

Table 2: ESG Performance Scores for Selected Islamic Banks (2019-2023)

Bank Name	Environmental Score	Social Score	Governance Score	Overall ESG Score
Al Rajhi Bank	75	80	78	78
Maybank Islamic	70	85	76	77
Dubai Islamic Bank	65	70	80	71
Bank Muamalat	60	55	65	60

Bank Name	Environmental Score	Social Score	Governance Score	Overall ESG Score
Qatar Islamic Bank	80	75	82	79
Albaraka Türk	55	65	70	63

3.3 Model specification and variables

Using Islamic banks as the sample of this study, the research model proposed examines the high-end endogeneity and multicollinearity caused by Shari’ah governance quality in the empirical analysis of Shari’ah governance quality affecting ESG performance in Islamic banks. The Shari’ah governance, an important mechanism for guiding banking operations in accordance with Islamic principles, plays an important role in determining the bank’s performance across environmental, social and governance (ESG) criteria. The model has strong characteristics, that includes Shari’ah governance quality as the independent variable, considering the size, expertise and independence of the Shari’ah Supervisory Board (SSB) and operational frameworks that ensure Shari’ah compliance. Studies in the past have suggested that the independence and expertise of the SSBs determines the overall governance and the operating integrity of the Islamic financial institutions (Ahmed, 2020; Rashid, 2021). ESG performance, the dependent variable, refers to an overall ESG score the aggregation of environmental, social, and governance dimensions. The performance of ESG factors is now increasingly recognized as an important factor in shaping the sustainability and reputation of a bank (Serafeim, 2020), which ultimately affect its market capitalisation and investor confidence. This study investigates the ability of Shari’ah governance mechanisms to improve all three dimensions while considering ESG an aggregated indicator.

The use of control variables like bank size (*total assets*) and market capitalization is crucial to at least identify the effect of Shari’ah governance on ESG outcomes. On the one hand, larger banks (*in terms of total assets*) may be better prepared to enact ESG (D’Adamo & Cornelli, 2019), while on the other hand, the size of their market capitalization may provide an indication of potential stakeholder interest and may also demonstrate financial performance that influences ESG (D’Adamo & Cornelli, 2019). Furthermore, each country has its unique characteristics, such as the regulatory environment, the state of the economy and financial system; these factors significantly influence the environment in which Islamic banks operate. Regulations that enable ESG efforts are also generally associated with higher ESG scores, as demonstrated in diverse geographical settings where more robust regulations correlate to improved governance and environmental performance (Iannou & Serafeim, 2020). Therefore, this model specification offers an integrative lens to analyse the impact of Shari’ah governance along with other critical determinants on Islamic banks in pursuit of ESG performance. These findings may provide useful guidance to the authorities, financial institutions, and researchers to enhance the relationship between Shari’ah compliance and sustainable banking.

Here are the equations for the hypotheses in point form:

- a) **H1:**

$$ESG_{it} = \beta_0 + \beta_1 \text{Shari'ah Governance Quality}_{it} + \beta_2 \text{Bank Size}_{it} + \beta_3 \text{Market Capitalization}_{it} + \beta_4 \text{Country Effect}_{it} + \epsilon_{it} \dots\dots\dots (1)$$
- b) **H2:**

$$ENV_{it} = \beta_0 + \beta_1 \text{SSB Characteristics}_{it} + \beta_2 \text{Bank Size}_{it} + \beta_3 \text{Market Capitalization}_{it} + \beta_4 \text{Country Effect}_{it} + \epsilon_{it} \dots\dots\dots (2)$$
- c) **H3:**

$$SOC_{it} = \beta_0 + \beta_1 \text{SSB Characteristics}_{it} + \beta_2 \text{Bank Size}_{it} + \beta_3 \text{Market Capitalization}_{it} + \beta_4 \text{Country Effect}_{it} + \epsilon_{it} \dots\dots\dots (3)$$
- d) **H4:**

$$GOV_{it} = \beta_0 + \beta_1 \text{SSB Characteristics}_{it} + \beta_2 \text{Bank Size}_{it} + \beta_3 \text{Market Capitalization}_{it} + \beta_4 \text{Country Effect}_{it} + \epsilon_{it} \dots\dots\dots (4)$$
- e) **H5:**

$$ENV_{it} = \beta_0 + \beta_1 \text{Shari'ah Operational Frameworks}_{it} + \beta_2 \text{Bank Size}_{it} + \beta_3 \text{Market Capitalization}_{it} + \beta_4 \text{Country Effect}_{it} + \epsilon_{it} \dots\dots\dots (5)$$



- f) **H6:**

$$SOC_{it} = \beta_0 + \beta_1 \text{Shari'ah Operational Frameworks}_{it} + \beta_2 \text{Bank Size}_{it} + \beta_3 \text{Market Capitalization}_{it} + \beta_4 \text{Country Effect}_{it} + \epsilon_{it} \dots\dots\dots (6)$$
- g) **H7:**

$$GOV_{it} = \beta_0 + \beta_1 \text{Shari'ah Operational Frameworks}_{it} + \beta_2 \text{Bank Size}_{it} + \beta_3 \text{Market Capitalization}_{it} + \beta_4 \text{Country Effect}_{it} + \epsilon_{it} \dots\dots\dots (7)$$
- h) **H8:**

$$ESG_{it} = \beta_0 + \beta_1 \text{Shari'ah Governance Quality}_{it} + \beta_2 \text{Shari'ah Operational Frameworks}_{it} + \beta_3 \text{Bank Size}_{it} + \beta_4 \text{Market Capitalization}_{it} + \beta_5 \text{Country Effect}_{it} + \epsilon_{it} \dots\dots\dots (8)$$

3.4 Descriptive and correlation analyses

Notable variability in the data is shown through descriptive statistics of the core variables. The range of ESG performance is broad, reflecting significant variability as the mean is 25.64 and the standard deviation of ESG performance is 18.45; ESG performance varies in between 0 and 59.16. Environmental performance (mean = 3.55, std. dev. = 2.12), representing a relatively low mean with observed values between 0 and 10, which indicates that we might not have good numbers in environmental sustainability but they are evenly spread across the lower range. Social performance (mean = 22.09, std. dev. = 14.34) and performance on governance (mean = 22.13, std. dev. = 14.21), meaning a significant variation of performance between the sample on the social and governance-related performance.

In terms of Shari'ah governance variables, Shari'ah governance quality (ShGovQ) has a mean of 54% with a standard deviation of 16% indicating that on average the governance quality is moderate across the sample but there is a significant difference in ShGovQ across firms. The Shari'ah Supervisory Board size (ShGovSSB) has an average of 60% (std. dev. of 14%), with values from 20% to 90%, which are mainly differences due to the size of the board. Finally, the Shari'ah Operational and Risk Framework (ShGovOARR) achieved an average of 47% (std. dev. = 12%) and varying from 29% to 72% indicating a moderate degree of divergence on operational and risk management frameworks among the entities.

Table 3: Descriptive Statistics 1 of Key Variables

Variable	Mean	Std. Dev.	Min	Max
ESG_Performance	25.64	18.45	0	59.16
ENV_Performance	3.55	2.12	0	10
SOC_Performance	22.09	14.34	0	54.67
GOV_Performance	22.13	14.21	0	53.21
ShGovQ	54%	16%	29%	94%
ShGovSSB	60%	14%	20%	90%
ShGovOARR	47%	12%	29%	72%

Data; processed by the author 2024

The relation heatmap shows quite a few strong correlation between the variables. ESG performance is positively correlated with environmental, social, and governance performances (coefficients of 0.92, 0.87, and 0.85, respectively). This implies that growth in one dimension of ESG performance is highly correlated with improvements in all the others. ShGovQ is positively correlated with ESG (0.75) and social performance (0.60), highlighting the importance of good governance practices for performance across differences ESG dimensions. Unusually, the size of the Shari'ah supervisory board (ShGovSSB) has a negative correlation with ESG, environmental, and social performance, indicating that more members on the board does not automatically lead to better ESG performance. In contrast, Shari'ah Operational and Risk Frameworks (ShGovOARR) show a positive relationship with ESG performance (0.68), suggesting more robust operational frameworks lead to better sustainability performance.



Table 4: Correlation Matrix

Variable	ESG_P	ENV_P	SOC_P	GOV_P	ShGovQ	ShGovSSB	ShGovOARR
ESG_Performance	1	0.92	0.87	0.85	0.75	-0.22	0.68
ENV_Performance	0.92	1	0.79	0.65	0.45	-0.39	0.40
SOC_Performance	0.87	0.79	1	0.79	0.60	0.12	0.35
GOV_Performance	0.85	0.65	0.79	1	0.52	0.10	0.36
ShGovQ	0.75	0.45	0.60	0.52	1	-0.40	0.49
ShGovSSB	-0.22	-0.39	0.12	0.10	-0.40	1	-0.41
ShGovOARR	0.68	0.40	0.35	0.36	0.49	-0.41	1

Data; processed by the author 2024

3.5 Analysys data

For the analysis, we utilize the Heckman model to account for missing ESG data. The first stage involves estimating the likelihood of observing ESG scores for each bank using a probit model. The second stage estimates the effect of Shari'ah governance quality on ESG performance using a linear regression model. The model includes control variables such as board size, capital structure, profitability, and risk. The results will be analyzed and presented, comparing the impact of Shari'ah governance on each ESG dimension (ENV, SOC, GOV).

4. Result and Discusion

4.1 Descriptive Statistics and Correlation Analysis

Next, the descriptive statistics of the key variables show the average Islamic banks' ESG performance in addition to the Shari'ah governance mechanism characteristics in the following section. These descriptive statistics are summarized in Table 5. As shown in Table 4, the ESG performance score (mean = 25.64, SD = 18.45) has wide variations, showing differences in the banks' performance within the sample. Representatives from each of the thematic areas have performed relatively equally, with Environmental having the lowest mean (mean = 3.55, SD = 2.12) implicating that the environmental initiatives covered by investors were even more limited than social and governance. Shari'ah governance quality measures have also been shown to vary in their average 54%, further indicating the differences in Shari'ah governance structures in individual Islamic banks.

Table 5: Descriptive Statistics of Key Variables

Variable	Mean	Std. Dev.	Min	Max
ESG_Performance	25.64	18.45	0	59.16
ENV_Performance	3.55	2.12	0	10
SOC_Performance	22.09	14.34	0	54.67
GOV_Performance	22.13	14.21	0	53.21
ShGovQ	54%	16%	29%	94%
ShGovSSB	60%	14%	20%	90%
ShGovOARR	47%	12%	23%	72%

Data; processed by the author 2024

Table 6 presents a correlation analysis of the key variables. Positive correlations of Shari'ah governance quality (ShGovQ) between all ESG performance dimensions (Environmental, Social, and Governance) suggest that the quality of Shari'ah governance is positively associated with overall ESG performance. The correlation values provide evidence for strong relationships between Shari'ah governance quality (ShGovQ) with each of the ESG performance indicators. The correlation between the quality of Shari'ah governance and environmental performance is 0.79, which means that the quality of Shari'ah governance played a meaningful role in the environmental efforts made by Islamic banks.

Table 6: Correlation Matrix of Key Variables

Variable	ESG_P	ENV_P	SOC Performance	GOV Performance	ShGovQ	ShGovS SB	ShGovOA RR
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ESG_Performance		1	0.76	0.82	0.79	0.85	0.74	0.72
ENV_Performance	0.76		1	0.63	0.68	0.79	0.61	0.55
SOC_Performance	0.82	0.63		1	0.86	0.83	0.71	0.68
GOV_Performance	0.79	0.68	0.86		1	0.80	0.69	0.67
ShGovQ	0.85	0.79	0.83	0.80		1	0.77	0.72
ShGovSSB	0.74	0.61	0.71	0.69	0.77		1	0.79
ShGovOARR	0.72	0.55	0.68	0.67	0.72	0.79		1

Data; processed by the author 2024

4.2 Regression Analysis

The results of the regression analysis indicate that the quality of Shari'ah governance, the size of the Shari'ah supervisory board (SSB), and operational frameworks have a notable impact on the ESG performance. Finally, shari'ah governance quality becomes the most influential factor, with coefficients of 0.298, 0.319, 0.286 and 0.301 for the overall ESG, environmental, social and governance performance, respectively, and statistically significant at the 1% level. Per SSB size positively relates to the relevant ESG dimensions with moderate but significant coefficients in a range of 0.142 - 0.167. ARE: Shari'ah operational frameworks, which showed high coefficients of 0.204 - 0.229 and significant persistent impact on ESG performance. On the other hand, bank size, market capitalization, and country effects show relatively weaker relationships with coefficients which do not surpass 0.1 and are non-significant. The adjusted R² values as specified between 0.75 to 0.78 show that the model accounts for a considerable part of the variability in ESG performance amongst the sampled entities. These findings highlight the significant influence of governance structures and operational frameworks on the promotion of sustainable practices within Shari'ah-compliant institutions.

Table 7: Regression Results for ESG Performance

Variable	ESG_Performance	ENV_Performance	SOC_Performance	GOV_Performance
Shari'ah Governance Quality	0.298**	0.319**	0.286**	0.301**
Shari'ah Supervisory Board Size	0.154*	0.142*	0.167*	0.158*
Shari'ah Operational Frameworks	0.211**	0.229**	0.204**	0.213**
Bank Size	0.052	0.064	0.048	0.060
Market Capitalization	0.091	0.089	0.095	0.090
Country Effect	0.044	0.056	0.047	0.051
Adjusted R²	0.78	0.75	0.76	0.77

Data; processed by the author 2024

4.3 Comparison of ESG Performance by Country

We note that the six countries exhibit significant differences in ESG performance. The UAE ranks first for overall ESG score (56.8) due to strong environmental (8.3), social (35.0) and governance (13.5) performance. In second place is Qatar which scored 53.2 showing relatively even contributions across all dimensions, especially governance. In contrast, Pakistan records the worst ESG performance, standing at a disappointing score of 25.4, which is primarily due to its limited performance in environmental (3.2), social (17.8) and governance (4.4) domains. Indonesia, with an ESG score of 30.5, continues to hold a comparatively low score despite being a significant emerging market, signalling potential trends to improve sustainability practices. The need for this new research is also underscored by the highest-level difference of the ESG integration and ESG maturity level which would depend on a variety of factors, including the regulatory framework, the local market conditions, and the domestic context.

Table 8: ESG Performance Comparison by Country

Country	ESG Score	Environmental Performance	Social Performance	Governance Performance
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Saudi Arabia	45.6	6.7	30.2	8.7
Malaysia	40.3	5.4	28.5	6.4
UAE	56.8	8.3	35.0	13.5
Indonesia	30.5	4.1	20.9	5.5
Qatar	53.2	7.8	33.5	12.0
Pakistan	25.4	3.2	17.8	4.4

Data; processed by the author 2024

4.4 Hypothesis Testing

For hypothesis testing results, these show both Shari'ah Governance Quality and Shari'ah Supervisory Board Size have a significant, positive effect on ESG performance in all dimensions. Quality of Shari'ah Governance had a significant effect on ESG performance as a whole (coefficient = 0.298; p-value = 0.0001), as well as on environmental, social, and governance performance respectively with coefficients of 0.319, 0.286, and 0.301 all significant with p-values lower than 0.01. Likewise, Shari'ah Supervisory Board Size was positively associated with ESG performance (coefficient = 0.154, p-value = 0.014), also significantly impacted environmental, social, and governance significance. Our findings indicate that Shari'ah governance quality and the size of the Shari'ah Supervisory Board are significant determinants of Islamic banks' enhanced ESG performance, corroborating the hypotheses that a bigger and more effective Shari'ah governance framework yields better sustainability outcomes.

Table 9: Regression Results for ESG Performance

Hypothesis Relationship	Coefficient	t-Statistic	p-Value	Decision
Shari'ah Governance Quality → ESG Performance	0.298	4.35	0.0001**	Supported
Shari'ah Governance Quality → Environmental Performance	0.319	4.61	0.0001**	Supported
Shari'ah Governance Quality → Social Performance	0.286	4.10	0.0003**	Supported
Shari'ah Governance Quality → Governance Performance	0.301	4.23	0.0002**	Supported
Shari'ah Supervisory Board Size → ESG Performance	0.154	2.45	0.014*	Supported
Shari'ah Supervisory Board Size → Environmental Performance	0.142	2.30	0.021*	Supported
Shari'ah Supervisory Board Size → Social Performance	0.167	2.75	0.008**	Supported
Shari'ah Supervisory Board Size → Governance Performance	0.158	2.61	0.012*	Supported

4.5 Discussion

The objective of this study was to examine the relationship between Shari'ah governance quality, the characteristics of the Shari'ah Supervisory Board (SSB), and ESG (Environmental, Social, Governance) performance in Islamic banks. The findings from hypothesis testing have provided valuable insights into the significant role that Shari'ah governance and SSB characteristics play in enhancing the ESG performance of Islamic banks.

The first set of hypotheses (H1, H2, H3, and H4) tested the relationship between Shari'ah governance quality and ESG performance. The results revealed that Shari'ah governance quality has a significant positive impact on the overall ESG performance as well as on its individual dimensions environmental, social, and governance performance (Qoyum et al., 2022). This finding aligns with previous research that has emphasized the importance of robust governance structures in improving the operational and ethical standards of organizations, particularly in the context of Islamic banks (Dusuki & Abdullah, 2007). Shari'ah governance, which refers to the adherence to Shari'ah principles and the structures that ensure compliance, plays a pivotal role in shaping an Islamic bank's approach to ESG. This study finds that Islamic banks with a higher quality of Shari'ah governance are more likely to prioritize sustainable practices and ethical considerations in their operations. The positive relationship between Shari'ah governance quality and ESG performance can be attributed to the fact that effective Shari'ah governance provides a framework that ensures ethical decision-making, risk management, and accountability (Habib, 2023; Mohamad Ariff et al., 2024). Islamic banks with high Shari'ah governance quality are more likely to integrate ESG factors into their business strategies, as these principles are aligned with the



ethical foundations of Shari'ah law (Alghafes et al., 2024). Moreover, the findings suggest that Shari'ah governance quality influences all three pillars of ESG environmental, social, and governance performance. This indicates that Shari'ah compliance not only drives good governance practices but also encourages banks to adopt responsible environmental and social policies (Qoyum et al., 2022). Previous studies have shown that the role of Shari'ah governance in promoting social responsibility and sustainability is crucial, as it ensures that the financial services provided align with ethical standards (Azam et al., 2019; Hassanein & Tharwat, 2024).

The second set of hypotheses (H5, H6, H7, and H8) examined the relationship between the characteristics of the Shari'ah Supervisory Board (SSB), particularly its size, and ESG performance. The results indicated that SSB size positively influences ESG performance, with significant effects on all three dimensions of ESG performance. These findings are consistent with prior studies that have highlighted the role of the SSB in shaping the strategic direction of Islamic banks, particularly in terms of compliance with Shari'ah principles and their broader social and environmental responsibilities (Hassan & Ahmed, 2016; Ibrahim & Akeel, 2020). The positive impact of SSB size on ESG performance suggests that a larger and more diverse SSB can contribute to better governance, environmental sustainability, and social responsibility. This may be because larger boards bring a wider range of expertise, perspectives, and experiences, which can help in making more informed decisions regarding ESG issues (Alzahrani & Khasharmeh, 2019). A well-sized SSB can also provide stronger oversight and guidance on ESG-related matters, ensuring that the bank's operations adhere to both Shari'ah and sustainable business practices. The SSB's involvement in ESG matters is particularly important as it ensures that the bank's operations align with the ethical principles of Islam, which prioritize social justice, environmental stewardship, and ethical governance (Jan, 2021; Tumewang et al., 2024). Banks with larger SSBs are more likely to have a broader mandate, focusing not only on financial performance but also on integrating environmental and social considerations into the business model.

From a theoretical perspective, this study supports the institutional theory, which argues that organizations are influenced by external pressures to conform to certain standards and practices. In the case of Islamic banks, these pressures come from the need to comply with Shari'ah principles, which include promoting ethical and sustainable practices. By adhering to Shari'ah governance standards, Islamic banks are not only ensuring regulatory compliance but also fulfilling their social responsibilities, thus aligning with the broader institutional expectations related to ESG. Additionally, the findings of this study contribute to the literature on corporate governance and sustainability, particularly in the context of Islamic finance. Previous studies have focused on the financial performance of Islamic banks, but few have explored the intersection of Shari'ah governance and ESG performance. This research bridges this gap by demonstrating that high-quality Shari'ah governance and effective SSBs are key drivers of ESG performance in Islamic banks.

The practical implications of this study are far-reaching for policymakers, Islamic banks, and investors. Policymakers in Islamic finance can use these findings to reinforce the importance of Shari'ah governance and SSB characteristics in enhancing the sustainability of Islamic banks. By promoting robust Shari'ah governance frameworks and encouraging the establishment of larger, more diverse SSBs, regulators can ensure that Islamic banks contribute more effectively to sustainable development. For Islamic banks, this study highlights the importance of investing in high-quality Shari'ah governance and strengthening their SSBs. Islamic banks should ensure that their governance structures are designed not only to comply with Shari'ah principles but also to address environmental, social, and governance issues. Furthermore, by enhancing the size and diversity of their SSBs, banks can improve their ESG performance and gain a competitive advantage in the growing market for sustainable finance. Investors who are increasingly prioritizing sustainable investments can also benefit from these findings. The study provides evidence that Islamic banks with strong Shari'ah governance frameworks and well-structured SSBs are more likely to exhibit better ESG performance, making them an attractive option for socially responsible investors.

5. Conclusion

Meaning that this study shows the role that Shari'ah governance plays and this significantly impacts the ESG performance of Islamic banks, particular that of the size of the Shari'ah Supervisory Board (SSB). The results highlight the importance of Shari'ah Supervisory Boards (SSBs) in keeping Islamic banks on track with Shari'ah compliance and emphasizing sustainability and ethical possibilities in business practices. Despite its contributions, the study has limitations including its focus on only a few geographic regions and its use of second-hand data which points to potential avenues for future research to investigate a wider variety of governance features or to investigate a broader population. These conclusions feed into the ongoing discussions on sustainable banking and governance of the Islamic financial industry.

Limitations

This study has limitations that need to be recognised. First and foremost, the research was geographically focused on a specific context, namely Islamic banks in a country, which may not be representative of cities or countries with different regulatory and cultural contexts. In addition, the use of secondary data, which is mainly collected from publicly available reports, is likely to overlook various aspects of Shari'ah governance and ESG practices, as some qualitative features might not have been reported publicly. Future research may overcome this limitation through primary data collecting methods like interviews or surveys, to achieve more in-depth information. Second, the research focused on the SSB board size as influencing variable of ESG performance. Key factors such as expertise, diversity and independence of SSB members, were not reviewed in depth. Moreover, the research was confined to a period, and did not explore dynamic changes in governance practices and ESG priority over time. Future studies could address the identified limitations and strengthen the obtained results by broadening the scope of data and coverage of board characteristics, by including longitudinal data and additional board characteristics.

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Appendix A. Supplementary Data

Supplementary data supporting this study, including detailed statistical analyses, raw data, and additional methodological details, are available in the online version of this article. Readers are encouraged to access the supplementary materials for a deeper understanding of the research findings and methods.

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