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Executive Compensation, Sustainability, and Performance of European and US Banks

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Abstract

This study aims to investigate the impact of sustainability and executive compensation on bank's performance before and after the 2007-2009 financial crisis of 127 banks in Europe and the USA from 2002 to 2019 with a total of 2286 observations using the PLS-SEM approach. It also investigates the direct impact of executive compensation on sustainability (measured by ESG score). Additionally, this study examines the mediating role of sustainability between executive compensation and bank's performance. The results reveal a positive impact of executive compensation on sustainability and performance dimensions, and mixed results for the impact of sustainability factors on performance. Further, there is a partial mediation role for ESG score on the effect of compensation on performance, and mixed findings for the individual pillars. Furthermore, different results were found before and after the crisis as well as between Europe and the USA banks for the diverse relationships. Above all, the environmental pillar is indicated to be the lowest impacting pillar. The results can contribute to changing the compensation setup in the banking sector, and have important implications for bank practitioners, decision-makers, regulators, auditors, professional firms, and policymakers.

Keywords

Executive Compensation, Sustainability, ESG Score, Bank Performance, Financial Crisis, Europe, USA, Mediation Role, PLS-SEM, SmartPLS

1. Introduction

Global firms have begun to recognize in recent years that they require a higher purpose than just growing shareholders' profit due to market conditions and severe economic changes, especially the effect of the 2007-2009 financial crisis.

Executives are under pressure from shareholders and stakeholders to produce long-term value for the company. A current trend is to link executive compensation to sustainability factors including Environmental, Social, and Governance (ESG) objectives, to align better the incentives of managers and other stakeholders, which can help create long-term value for the company (Babcock et al., 2021).

The incorporation of sustainability into bank's activities is progressively becoming a fundamental banking system driver. This is due to the impact of banks' actions on sustainability issues in banking which has attracted a lot of attention (Fakoya & Nakeng, 2019). Various stakeholders have recently pressured banks to consider sustainability in their fundamental operations (Kumar & Prakash, 2019). This is because of the potentially vital role banks can play in improving sustainability by fostering inclusive economic growth (UNEP FI, 2020). In contrast, others see that sustainability investments, such as banks' adoption of socially responsible programs, result in increased costs, putting them at a disadvantage in the marketplace (Simpson & Kohers, 2002). Accordingly, engaging in sustainability pillars can be a substantial administrative burden to banks (Barnett & Salomon, 2006), negatively impacting performance. It is also worth noting that one of the recurring themes in executive compensation discussion is whether compensation affects shareholder value maximization and long-term bank sustainability (Ntim et al., 2015; Nwagwu, 2020).

On the other hand, executive management is crucial to the effective utilisation of organisational resources in order to maximise shareholder value (Bussin & Modau, 2015), and their compensation is essential for investors to make investment decisions based on the production of sustained market returns (Correa & Lel, 2016). It should be taken into consideration that executive remuneration is the sum of all monetary rewards and bonuses granted to executives in exchange for their contributions to the performance of the organisation (Theku, 2014). Regardless of the sector, structure, or company size, executive compensation acts as an incentive for upper-level management to make choices and perform in accordance with shareholder interests and as a means of retaining executives (Chaudhri, 2003).

Furthermore, executive remuneration in financial services organisations was ignored before the 2007-2009 financial crisis, and most empirical research on executive compensation routinely omitted financial services firms from their samples. Following the financial crisis, executive remuneration, particularly in the financial services industry, has resurfaced as a source of heated discussion among regulators, market players, the media, and academics (Tian & Yang, 2014).

While the three perspectives are interrelated together, most of the literature focused on one part or relationship between the presented perspectives (executive compensation, sustainability, and bank's performance). Accordingly, it is necessary to study the three relationships in one model and see whether the re-

sults differentiate or tally with previous literature. Besides, the relationship between the three perspectives is non-linear, can take a U-shape relationship, and can be further explained by other mediator factors (Nollet et al., 2016; El Khoury et al., 2021). In addition, most of the studies used either regular regression or correlation to find the direct linear relationship, and minimal studies were conducted to discover the mediation role of sustainability between executive compensation and bank's performance.

The Research Problem

Linking executive compensation to sustainability is not a new subject but is gaining traction in recent years. Many large organisations such as Royal Dutch, Shell, and The Clorox Company, have linked compensation to sustainability targets over the past decade (Sullivan & Cromwell LLP, 2020). The discussion of linking executive compensation to sustainability is usually referred to as environmental, social, and governance (ESG) pillars (Boffo & Patalano, 2020). Besides, several prominent corporations have taken substantial measures to link executive compensation to ESG pillars over the past decade. In addition, as per the surveys of large-cap companies, some companies link executive compensation to ESG metrics such as Pepsi Co, BP, Danone, Walmart, and Unilever (Sullivan & Cromwell LLP, 2020). This is due to the fact that tying compensation to ESG factors improves organisations' long-term performance. Similarly, according to a 2013 survey by the United Nations (UN) and Accenture, an international technology company, 76% of executives believe that incorporating sustainability in business would drive revenue growth and opportunities (Sullivan & Cromwell LLP, 2020).

Banks are extremely scrutinised by the media and the government regarding their corporate social responsibility (CSR) and ESG overall activities. The banking system serves a significant role in economic growth because its security and viability generates numerous external benefits to society. However, more frequently than in other industries, banks must provide feedback to the community (Beck et al., 2000; Levine, 2005; Shen & Lee, 2005). Although of this importance, the majority of the studies were conducted in the USA, Asia or individual European countries, and outside the baking sector.

In addition, according to the previous literature, contradictory results have been found on the association between executive compensation, sustainability, and performance. Hence there is a need to investigate these relationships from new and different aspects. In addition, while the three perspectives are interrelated, most of the literature focused on one part or relationship between the presented perspectives (executive compensation, sustainability, and bank's performance).

Besides, the relationship between the three perspectives is non-linear, can take a U-shape relationship, and can be further explained by other mediator factors (Nollet et al., 2016; El Khoury et al., 2021). In addition, most of the studies used

either regular regression or correlation to find the direct linear relationship, and minimal studies were conducted to discover the mediation role of sustainability between executive compensation and bank's performance.

Hence, to address this problem, this research contributes to the knowledge by investigating the relationships between the three perspectives in one model. In addition, this study investigates the potential impact of executive compensation on performance directly and indirectly mediated by sustainability, using Structural Equation Modeling (SEM).

The motivation behind this topic is the increasing discussion of sustainability worldwide (Kirkerud & Tran, 2019), the growing interest in sustainability in the professional and academic spheres (Siueia et al., 2019), as well as its importance to banks, firms, and different stakeholders. There are several gaps that this research is trying to fill including the lack of research in studying the mediator role, especially for sustainability between compensation and performance. Accordingly, there is a lack of research on using the PLS-SEM method in testing for both direct and indirect relationships between the variables. Hence, this research aims to contribute to the knowledge by investigating the direct relationships between the three perspectives (total executive compensation, sustainability, and bank's performance), and the indirect relationship between compensation and performance mediated by sustainability. Likewise, the extent to which these relationships vary before and after the financial crisis. Similarly, the extent to which these relationships vary between European and the USA banks.

The remainder of this paper is organized as follows. Section 2 reviews previous literature and develops the study hypotheses. Section 3 presents for the methodology and data. Section 4 reports and discusses the empirical results. Finally, Section 5 concludes the study.

2. Literature Review and Hypotheses Development

2.1. Impact of Executive Compensation on Sustainability

The purpose behind executive compensation is to incentivize executive and top-level management, "the decision-maker", to serve and perform within the shareholders' interest, strategically and towards firm value creation (Nguyen, 2015). Executive compensation in the banking sector can be used to align the shareholders and top management interests (Emerton & Jones, 2019). The consequence is that compensation may be utilised to motivate senior bank executives to produce better long-term banking results (Dittmann et al., 2017). On the other side, sustainability evolves all elements of the corporate environment, social, and governance challenges to provide long-term shareholder value (Adams et al., 2013). From the firm's perspective, sustainability can be defined as addressing the requirements of a company's direct and indirect stakeholders without jeopardizing its capacity to accomplish its core business objectives (Dyllick & Hockerts, 2002).

From a theoretical background, the challenges of how best to reward executives are a classic application of principal-agent theory. This theory's core assumption is to resolve the conflict of interest between shareholders and managers because of their self-interest maximization (Jensen & Meckling, 1979; Salehyan et al., 2014). The principal (the shareholder) wants the agent (the management) to maximize shareholder value, but he or she cannot appropriately assess the executive's response function. The executives' objectives may differ from those of the shareholders. For instance, managers may be more interested in defending personal power or maximizing their own wealth (Bebchuk & Fried, 2004). On the other side, stakeholder theory asserts that organizations could maximize the shareholder's value by considering all stakeholder rights and interests (Mele, 2008). An organization should consider the interests of its multiple stakeholders and its shareholders to be recognized as a socially responsible business (Freeman et al., 2004).

The literature results on the relationship between executive compensation and sustainability are not confirmed and mixed between positive, negative, and no relationship (Al-Shaer & Zaman, 2019). In addition, according to Winschel and Stawinoga (2019), by analyzing 37 empirical studies published between 1992 and 2018, they confirmed that most of the studies examine the relationship between compensation and sustainability in the USA, individual countries such as the UK, other international countries, but none in Europe. Furthermore, while all 37 studies used archival data, 35 used several quantitative research methods such as different types of regression and correlation. However, only one used the Partial Least Square-Structural Equation Modeling (PLS-SEM) approach according to the researcher's best knowledge. Accordingly, this research adds another contribution to the literature by filling theses gaps. As a result, to evaluate the impact of total executive compensation on sustainability, we test the following hypothesis:

H1: Total executive compensation has a significant impact on sustainability.

2.2. Impact of Sustainability on Bank's Performance

Banks play a crucial role in the economy and are subject to increasing stakeholder demands. Consequently, it is essential to appreciate the monetary impact of sustainability on banks' operations (Belasri et al., 2020). In addition, scholars often have three alternatives for assessing business performance: accounting-based measurements, market-based indicators, or a combination of both. Several academics favor accounting-based performance measurements such as a firm's return on assets (ROA) and return on equity (ROE) (Chen et al., 2021). On the other hand, others have used market-based metrics such as Tobin's Q (Wagner, 2010). From a theoretical background, agency theory focuses solely on maximizing shareholders' wealth in the short-term, but it has received global criticism (Hahn et al., 2010; Lenssen et al., 2010). On the other side, stakeholder theory is an excellent indicator of the link between sustainability and perfor-

mance (Siueia et al., 2019). According to stakeholder theory, to be successful, managers must have a positive connection with stakeholders (Tarmuji et al., 2016). Organizations implementing sustainability practices have a competitive edge in the marketplace by attracting more investors and lowering operational expenses (Manrique & Marti-Ballester, 2017).

Earlier studies (e.g., Madsen & Rodgers, 2015; Fatemi et al., 2015; Karim et al., 2018; Brooks & Oikonomou, 2018; Shakil et al., 2019, Moufty et al., 2021) establish no obvious and precise relationship between sustainability and performance. Results are inconsistent and even contradicting exhibiting positive, negative, insignificant, or mixed relationships Moreover, investigating the relationship between ESG performance and corporate performance is still inconclusive (Wang et al., 2016). To examine the impact of sustainability on bank's performance, the following hypothesis is tested:

H2: Sustainability has an impact on bank's performance.

2.3. Impact of Executive Compensation on Bank's Performance

The association between executive compensation and performance can be explained in terms of two opposing but interconnected theoretical perspectives: agency and tournament. Nigam et al. (2018) explained that the incentive-based approach discussed in agency theory encourages management to engage in irresponsible risk-taking, which can be financially advantageous in the short-term but disastrous for a company in the long-term. In addition, it can encourage fraudulent behaviour of managers and leaders to manipulate financial performance data, as was the case with Enron. Variable compensation can be granted in the form of equity, so giving a percentage of ownership to executive directors. This could boost the executive directors' consideration. In contrast, the tournament theory fails to find a clear link between remuneration and performance. It provides a basic framework to support the idea that rewarding executive directors foster excellent performance at the company level (Conyon & Sadler, 2001).

The previous literature (e.g., Kirsten & Toit, 2018; Rodgers et al., 2019) has shown contradicting findings regarding the relationship between executive compensation and performance, and additionally, studies on the banking industry in the USA and are rare (Nascimento et al., 2020). Therefore, this research contributes to the literature by filling these gaps. Further, several studies (e.g., Kabir et al., 2013; Tian, 2013) have analysed what forms of compensation have proven to be the most effective. However, the link between compensation and corporate performance is still weak for several reasons (Borisova et al., 2012). First, corporate governance is one of several reasons for reducing agency conflicts. Second, countries have differences in executive pay regarding cultural, institutional, and corporate governance practices. Based on this discussion, the following hypothesis is tested:

H3: Total executive compensation has an impact on bank's performance.

2.4. Mediation (Indirect) Role for Sustainability between Compensation and Bank's Performance

The indirect impact of sustainability as a mediator between executive compensation and bank's performance is extremely limited in the literature (Veniero, 2020), and this research fills the gap. The study by Kartadjumena and Rodgers (2019) finds that higher executive remuneration in Indonesian banks might inspire managers to be more inclined to address environmental problems. Contrary to expectations, environmental issues negatively impact both financial health and market value performance. They also concluded that sustainability partially mediates executive compensation and financial health performance, or market performance represented by Tobin's Q indicator. Furthermore, Veniero (2020) study revealed a partial mediation role for ESG performance between compensation and ROA. Accordingly, a partial mediation role for sustainability is expected in this research. The defining feature of a mediating effect (i.e., indirect impact or mediation) is the involvement of a third variable that acts as an intermediary between the independent and dependent variables. In statistical terms, the effect of the independent variable X on the dependent variable Y is mediated by a third variable, M, known as the mediating variable or mediator (Nitzl et al., 2016). In taking the evaluation of these relationships further, this study examines whether executive compensation leads to higher ESG performance which in turn affects bank's performance positively or negatively.

This research extends the studies of Veniero (2020) and Kartadjumena and Rodgers (2019) by examining the overall ESG score and individual pillars between compensation and performance accounting and market-based dimensions, in both Europe and the USA contexts, before and after the financial crisis. As a result, it is necessary to evaluate the mediation effect of sustainability factors between executive compensation and performance dimensions based on the literature review. Based on this discussion, the following hypothesis is tested:

H4: There is a statistical mediation role for sustainability on the relationship between total executive compensation and bank's performance.

2.5. Financial Crisis Impact Scenario

It is crucial for all markets to research how the global financial crisis has affected the banking industry (Ayadi et al., 2019). The global financial crisis highlighted the flaws in executive compensation policies which focus solely on maximizing shareholders' wealth in the short term without considering the long-term impact. This has been widely criticized for being harmful not only to the economy but also to the environment and society (Kolk & Perego, 2014). As cited by Buallay (2018), before the financial crisis, the banking industry was slower to respond to sustainability concerns than other industries, and it is still lagging behind other industries in managing environmental and social implications. In addition, some banks were able to survive and even thrive after the financial crisis, while others went bankrupt. Banks that functioned sustainably and focused

on ESG aspects could survive and flourish (Buallay, 2018). As a result, the number of CSR reports increased significantly with the crisis (Loh et al., 2017). After the financial crisis, numerous studies have indicated that banks and financial institutions have been the leaders in sustainability reporting (Buallay, 2018).

Moreover, the literature results regarding the relationship between sustainability and performance before or after the financial crisis are mixed. Some found a positive impact and others found a negative effect between the two variables (Buallay et al., 2020). For example, after the crisis, implementing sustainability targets in executive compensation and contracts negatively impacted bank's performance, represented by ROA and ROE (D'Apolito et al., 2019). Another study by Buallay et al. (2021) on 882 banks from both developed and developing economies during the 2007-2009 financial crisis discovered that ESG performance has greatly improved the accounting and market-based performance of banks in developing countries. Similarly, Hannah et al. (2021), in their study on a sample of S&P 3000 firms between 2004 and 2012, revealed a positive effect of ESG dimensions on firm value before and after the global 2007-2009 financial crisis. Furthermore, according to Yang et al. (2014), the link between compensation and performance varied between the two periods. Based on these various patterns, they concluded that incentive-based contracts were ineffective compensation tools in the aftermath of the financial crisis. Accordingly, this research as a knowledge contribution, investigates whether the results differentiate based on the time dimension, before and after the financial crisis or not.

2.6. Europe vs the USA Banks Comparison Scenario

The Banking Sector in Europe and the USA

Banks play a crucial role in the global financial stability. As Scholtens & Klooster (2019) pointed out, banks are vital to economic growth and bear a great deal of responsibility across societies. Banking scandals in the past have highlighted the importance of good corporate governance. Environmental sustainability, social involvement, and corporate governance (ESG) should be prioritised by banks (Batae et al., 2021).

For the financial sector's long-term survival, banks should play a dual role. The internal position entails activities undertaken in the ordinary course of business. In contrast, the external section is concerned with ESG risks associated with financing, funding, and investment decisions (Buallay et al., 2021).

There are several reasons for the focus on the banking industry. To begin with, banks have a crucial role in allocating capital, which is necessary for the economic growth of nations (Miralles-Quiros et al., 2019). Banks were also heavily chastised for their part in the 2007-2009 financial crisis. Furthermore, when banks incorporate ESG risk as one of their lending and investing criteria, they play a dual role in promoting social performance through their performance (Buallay et al., 2021). Moreover, banks are tasked with satisfying the expanding needs of increasingly diverse and complicated stakeholder groups (Ofori et al.,

2014).

While the USA economy has shown improvement since the subprime mortgage crisis of 2007-2009, in 2012, European Union (EU) leaders agreed to create an integrated financial framework to re-establish trust in banks and the euro. The banking union is based on a set of standard regulations that all EU financial institutions must follow (Baselga-Pascual et al., 2015).

The banking industry is the European economy's backbone and serves as a vital financial middleman. European banking is one of the few industries where companies operate together in a competitive market (Menicucci & Paolucci, 2016). "The European countries are the leading countries when it comes to advocating sustainability" (Buallay, 2018: p. 1478). At the same time, there is limited research on the impact of sustainability on banking sector returns (Kotsantonis & Bufalari, 2019).

The majority of prior research in the financial sector has focused on sustainability in a specific country or region (Moufty et al., 2022). As cited by (Fernholz & Koch, 2021), the USA banking industry has undergone a significant transformation over the past fifty years. A small number of the largest banks hold more assets than ever before, a trend that has accelerated since the late 1990s, when banks were deregulated on a massive scale. In contrast, the proportion of total assets held by the ten largest European commercial banks fell by one-third between 2008 and 2016. Besides, in the past decade, policymakers and researchers have expressed concern over the comparative low profitability of European banks and their U.S. counterparts (Feng & Wang, 2018).

Besides, according to Friede et al. (2015), in terms of the impact of ESG on performance, and as per the regional findings, North America has a greater percentage of positive results than Europe within developed markets. In addition, as cited by Jouber (2018), the literature on compensation and sustainability has previously demonstrated that findings range between nations, particularly between those in North America and those in Europe. According to contextual factor statistics, European countries have weaker investor protection and corporate governance quality than Anglo-American countries (Jouber, 2018). Besides, according to Miralles-Quiros et al. (2019), in Europe and North America, the negative association between social characteristics and Tobin's Q is prominent. In terms of governance, Europe outperforms North America with a positive outcome compared to the latter's insignificance.

2.7. The Research Gap in Summary

This study enriches the existing literature on the impact of compensation on sustainability, sustainability on performance, and compensation on performance, in the banking sector, in Europe and the USA. There are several gaps that this research is trying to fill and which can be summarised as follows. First, there is a lack of studying the impact of the three perspectives in one model as the majority of the studies considered two aspects only. Second, there are con-

tradictory findings on the undefined direction of the relationship between the three perspectives. Third, there is a lack of research to test any of the relationships in the banking sector. Fourth, there is a lack of research in studying the relationships in the European context as most of the studies were done in the USA, Asia and individual European countries such as the UK. Fifth, some studies examined ESG as an overall score while others examined individual pillars. Hence, there is a lack of research covering both ESG score and individual pillars in the same study (Branco & Rodrigues, 2008; Zhou et al., 2022). Sixth, there is a lack of research in studying the mediator role especially for sustainability between compensation and performance. Seventh, and accordingly, there is a lack of research on using the PLS-SEM method in testing for both direct and indirect relationships between the variables. Eighth, some studies focused on the pre-crisis period while others focused on the post-crisis period. Thus, there is a lack of research in studying the impact before and after the financial crisis to examine if there are any differences. Finally, there is a lack of research in the literature in undertaking a comparative analysis between Europe and the USA banks as the majority of prior research in the financial sector has focused on sustainability in a specific country or region (Moufty et al., 2022) and few studies have compared sustainability in across-national context (Campbell, 2007).

2.8. Summary

This chapter presented the related theories and literature and the gap to be filled by this study. The current literature showed different and inconsistent results related to the relationships between the three perspectives; executive compensation, sustainability, and performance. In addition, the literature also illustrated different patterns between Europe and the USA banks, as well as different results before and after the financial crisis.

3. Research Design

3.1. Data and Sample Selection

Most research in the business and management field has archival data collected by others. Individuals or organisations keep these data for many reasons, such as tax records, monitoring performance, and protection purposes. Researchers may gain access to data considering the confidentiality concoctions, or access may be achieved as a license agreement for public domains (Easterby-Smith et al., 2018).

As illustrated in the previous sections, this research's secondary data is collected from the Thomson Reuters database, as the University of Northampton granted the access. Besides, country-specific macroeconomic and governance indicators were collected online from the World Bank dataset.

The collecting of data is the most crucial aspect of any research. Thus, knowledge is formed by organizing collected information in a useful manner (Creswell, 1994). Existing sources, such as databases and company annual reports, are

mined for secondary data (Bryman, 2012). Hence, in line with these study objectives, methodology and paradigm, and based on the nature of the variables employed in this research, this research applies secondary data to test this study's hypotheses. This research's secondary data is collected from the Thomson Reuters database. Besides, country-specific macroeconomic and governance indicators were collected online from the World Bank dataset. The selected sample covers banks in Europe and the USA with a minimum of six years of published data as per the Thomson Reuters database. Several criteria and steps were done to select the final sample under the sample screening process. Accordingly, this research sample is 127 banks distributed over 23 countries between 2002 to 2019. The list of final banks is shown in Table 1.

Table 1. Number and percentage of banks by country.

#	Country	Number of banks	%
1	Austria	2	1.6%
2	Belgium	1	0.8%
3	Cyprus	1	0.8%
4	Czech Republic	1	0.8%
5	Denmark	3	2.4%
6	Finland	1	0.8%
7	France	3	2.4%
8	Germany	3	2.4%
9	Greece	5	3.9%
10	Hungary	1	0.8%
11	Ireland	3	2.4%
12	Italy	10	7.9%
13	Netherlands	1	0.8%
14	Norway	1	0.8%
15	Poland	10	7.9%
16	Portugal	2	1.6%
17	Russia	3	2.4%
18	Spain	5	3.9%
19	Sweden	3	2.4%
20	Switzerland	5	3.9%
21	Türkiye	7	5.5%
22	UK	6	4.7%
23	USA	50	39.4%
	Total	127	100%

Notes: some facts to be given (e.g., comparison between EU banks (60.6% vs US banks 39.4%)).

3.2. Data Analysis Tool

SEM is among the least utilized approaches or instruments in management research (Smith & Langfield-Smith, 2004). SEM is a powerful technique for evaluating hypotheses with many equations, including dependence connections in which an independent variable becomes dependent in a later dependence relationship (Hair et al., 2014). Despite its rising use in accounting literature, this approach is still less prevalent than others (Smith, 2011). In addition, Iacobucci et al. (2007) empirically demonstrated that SEM techniques are more effective than linear regression approaches at detecting a mediation result. Therefore, SEM is deemed the appropriate statistical analysis method for this research.

Partial Least Square - Structural Equation Modeling (PLS-SEM)

PLS-SEM, also known as PLS path modeling in some literature (Wong, 2019), is a variance-based technique that provides an excellent way to simultaneously estimate complex interrelationships, and accommodate both reflective and formative measurement models. PLS-SEM is the superior and preferred method for estimating mediation models. Accordingly, a partial least square is applied based on the nature of these research variables.

Wong (2019) stated that the PLS-SEM field has progressed significantly in the past few years and was found to be useful for structural equation modeling in applied research projects. PLS-SEM has many benefits, such as:

- Can handle both small and large sample size requirements.
- No assumptions about the distribution of the variables.
- Effectiveness in analysing mediator's impact

In addition, as cited by Hair et al. (2017), researchers should select PLS-SEM:

- When the purpose of the analysis is to examine a conceptual model from a prediction standpoint,
- When the structural model is intricate and has numerous constructs, indicators, and model linkages,
- When the research is built on secondary or archive data, which may lack a comprehensive measurement theory-based justification, and
- When there are distribution concerns, such as lack of normality.

Accordingly, SmartPLS software was employed as the analysis tool in this study to test the proposed model.

3.3. Testing Mediation Role

To assess the indirect mediated relationship between executive compensation and bank's performance through sustainability, specific steps had to be undertaken, mainly applying the bootstrapping function to see the level of significance of the relationship either directly or indirectly (Hair et al., 2017). This research used the bootstrapping method to investigate the indirect relationships between the current research variables. The main goal of conducting a mediation test was to understand whether sustainability mediates the relationship between execu-

tive compensation and performance.

3.4. Variables and Their Measurements

Independent variables

Two main independent variables are used in this research. The first one is the total executive compensation (Al-Shaer & Zaman, 2019) in the case of the relationship between compensation and sustainability, and the relationship between compensation and performance. The second one is sustainability represented by the overall ESG score and individual environmental, social, and governance pillars score obtained from Thomson Reuters, in the case of the relationship between sustainability and performance.

Dependent variables

Another two main dependent variables are used in this research. The first one is the bank's performance in the case of the relationship between compensation and performance. The second one is the relationship between compensation and sustainability. In this research, the dependent variable bank's performance has been measured using both accounting and market-based performance. Accounting-based performance is represented by operational performance (represented by return on assets or ROA), and financial performance (represented by return on equity or ROE). Market-based performance is represented by Tobin's Q measure (Buallay, 2018). On the other hand, market-based performance measurements are likely to be the best option (Copeland et al., 2000) since they encompass risk adjustment and predict future values. The second dependent variable is sustainability represented by the overall ESG score and individual environmental, social, and governance pillars score, in the case of the relationship between compensation and sustainability.

Mediator variables

A mediator variable is a third variable that intervenes between two related constructs. In mediation analysis, researchers specifically analyse whether a change in the independent construct results in a change in the mediator variable, affecting the dependent construct in the model (Demming et al., 2017). Sustainability, represented by the overall ESG score and individual environmental, social, and governance pillars score, is the mediator variable in this research between compensation and performance (Kartadjumena & Rodgers, 2019).

Control variables

Literature suggested other controlling factors affecting sustainability and bank's performance as dependent variables. The research applied numerous factors, including sustainability-specific control variables (bank size as total assets, board gender diversification, and independence of board members) on sustainability, in addition to bank-specific (represented by CAMEL model) control variables (Baselga-Pascual et al., 2015). Besides, this research also collected major country economic indicators and Worldwide Governance Indicators (WGI) as country control variables.

Sustainability-specific control variables

Bank Size (*log of total assets*)

The most widely used variable in corporate governance and risk management literature is bank size, calculated as a natural logarithm of total assets (Parrado-Martinez et al., 2019). According to a number of research studies, bank size has a beneficial effect on ESG performance (Birindelli et al., 2018). Accordingly, a positive impact is expected in this research. Greater CSR reporting is related to larger firms (Baumann-Pauly et al., 2013; Frias-Aceituno et al., 2013; Chan et al., 2014) and higher levels of environmental disclosure (Neu et al., 1998). Conversely, other literature found that the company size does not influence CSR (Seto-Pamies, 2015).

Independent Board Member (*IBMS*)

Independent directors are directors who have no ties to the company other than their board membership. It is the company's percentage of independent board members (Elbahar, 2016). Aebi et al. (2012) categorized directors with a prior executive function, a family relationship with a bank executive officer, or any other business ties, such as attorneys or consultants performing other work for the bank. Even though the majority of research linking board independence to CSR appears to confirm a positive relationship (Kilic et al., 2015; Lone et al., 2016), other studies find that having independent directors on boards has a negative impact on social and environmental disclosure (Nurhayati & Taylor, 2015; Baraibar-diez et al., 2019), and environmental performance (Mallin et al., 2014). Further research finds no substantial link (Walls & Berrone, 2017).

Board Gender Diversity Percentage (*BGDS*)

Board gender diversity (or women on the board) is measured by the percentage of women on the board (Francoeur et al., 2017). Having more women on its board of directors might influence a company's sensitivity to social and environmental concerns. There appears to be a widespread consensus in the literature that female directors positively impact sustainability performance (Birindelli et al., 2018). There are, however, studies that found a modest positive influence (Glass & Cook, 2016), no significant correlation (Khan, 2010; Alazzani et al., 2017), or a negative association (Prado-Lorenzo et al., 2009; Deschenes et al., 2015) between social and environmental practices and the presence of female directors.

Bank-specific control variables

The explanatory variables in the chosen model are proxies for the CAMEL (Capital risk, Asset quality, Management efficiency, Earnings quality, and Liquidity management) (Gutierrez-Lopez & Abad-Gonzalez, 2020). The conventional CAMEL model is a valuable tool for forecasting a bank's solvency and guaranteeing financial stability (Gutierrez-Lopez & Abad-Gonzalez, 2020).

Capital adequacy ratio (*CAR*)

According to Aspal and Nazneen (2014), the capital adequacy ratio is substantially and adversely related to lending (loans), asset quality, and managerial effi-

ciency. Most studies, such as Bateni et al. (2014), found a positive association between ROE and capital adequacy ratio. Contrary to this, Buyuksalvarc and Abdioglu (2011) evaluated the drivers of Turkish banks' capital adequacy ratio and its effects on the financial positions of banks included in the research. They discovered that CAR had a negative and statistically significant effect on ROE.

Capital to assets (*CTA*)

It is a financial ratio computed by dividing total equity or capital by total assets. It is also known as the capital risk that investors confront when they are exposed to the danger of losing all or part of their investment (Elbahar, 2016). This ratio is considered a primary measure of capital strength (Golin, 2001). Some studies have found a positive impact (Menicucci & Paolucci, 2016; Tan, 2016), and some have found a negative impact (Sun et al., 2017) for the equity to assets ratio on performance.

Loan Loss Provision (*LLP*)

Also called credit risk, when a borrower fails to meet his or her loan repayment obligations, credit risk occurs. Banks with defaulting debtors may experience cash flow issues, which can directly impact their performance (Elbahar, 2016). Banks must set aside funds for loan losses. Higher provisioning grows proportional to the overall loan amount and is a sign of high risk. As a result, credit risk management is critical to the financial system's overall health (Tsorhe et al., 2011).

Non-Performing Loans (*NPL*)

As explained by Elbahar (2016), this is the percentage of non-performing loans in relation to total loans. This ratio also shows management risk-taking behavior with regard to total business resources. A higher NPL indicates taking greater risks in their operations, leading to greater losses when bad loans are written off. A lower NPL ratio reflects the efficacy and efficiency with which banks manage their loans and the quality of their outstanding loans and risk management. Using a sample of 87 different types of banks, Zhang et al. (2016) studied the impact of NPLs on bank behavior in China from 2006 to 2012. They concluded that a greater NPL ratio is linked to riskier lending, and that a high proportion of NPLs will have a negative impact on performance, loan quality, and overall financial system instability.

Efficiency ratio (*ER*)

Efficient leadership is closely related to the quality of earnings and assets, as management quality is also reflected in loan quality (Paule-Vianez et al., 2019). The higher ratio indicates inefficient operational cost management, which adversely (negatively related) affects profitability (Trujillo-Ponce, 2013).

Non-interest income (*diversification*)

The non-interest income ratio over gross revenue is used to calculate diversification (Yao et al., 2018). Tan (2016) proposed that when banks engage in miscellaneous income, they may produce more revenue. Furthermore, banks with a broader range of activities might benefit from economies of scale to lower their

expenses. As a result, diversification is predicted to positively influence bank profitability. Accordingly, in this research a positive impact is expected. This is consistent with Chiorazzo et al. (2008) and Wu and Shen's (2013) results. On the contrary, Gischer and Juttner (2001) argued that diversification negatively affects bank profitability because, compared to traditional interest income activity, the fee-income generating business has more competition, which leads to a decrease in the profitability of the bank.

Loans to deposits ratio (*LDR*)

This ratio indicates how much depositors are contributing to financing bank loans to their borrowers as a source of capital (Elbahar, 2016). A lower LDR indicates that depositors fund a significant amount of bank loans. Besides, a lower LDR indicates that banks have a significant level of liquidity and cannot generate investments with the desired returns. In contrast, a high LDR ratio indicates that banks may not have sufficient liquidity to cover any unanticipated financial obligations or money requirements (Elbahar, 2016).

Country-specific variables

GDP Growth

The country's gross domestic product (GDP) controls the country's economic impact on the firm's performance (Hu & Scholtens, 2014; Miralles-Quiros et al., 2019). GDP Growth (GDPG): This variable indicates economic growth. During economic expansion, banks are anticipated to engage in additional operational operations, such as lending, borrowing, and non-interest-bearing services. One can expect its positive impact on bank's profitability, which is consistent with previous studies (Sinha & Sharma, 2016; Mohammed & Muhammed, 2017; Buallay, 2020).

Inflation

Inflation is described as an increase in the general price level of goods and services, which causes the purchasing power of a currency to fall (Yao et al., 2018). Banks should maintain high liquidity while inflation rates fall and vice versa, according to Moussa (2015), since this helps preserve economic stability and liquidity flow in the system. Mixed evidence is found in previous literature. Zarrouk et al. (2015) found a negative impact of inflation on profitability; Olson and Zoubi (2011), Mohammed and Muhammed (2017) and Buallay (2020) found a positive impact on ROA and ROE; Lee and Jung (2016), found a positive impact ROE and negative on ROA and negative impact on Tobin's Q (Buallay, 2020). High inflation rates correlate with high loan interest rates, increasing bank profits.

Worldwide Governance Indicators

The measure for country-level governance indicators is the average of six governance indicators for a particular country for a particular year (provided by the World Bank): 1) voice and accountability, 2) political stability and absence of violence, 3) government effectiveness, 4) regulatory quality, 5) the rule of law, and 6) control of corruption; as used by previous studies (Cahan et al., 2016;

Rachisan et al., 2017; Seifert & Gonenc, 2018). In this research, an average of six country-level governance variables: VA, PV, GE, RQ, RL and CC (Cahan et al., 2016; Ullah, 2020; Asteriou et al., 2021), is applied. In their study on 73 Islamic banks in the MENA region between 2008 to 2017, El-Ansary and Rashwan (2020) find a positive impact on average WGI on both ROA and ROE. **Figure 1** illustrates the overall model with all applied variables.

4. Empirical Results

4.1. The Direct Impact

Compensation and Sustainability

The analysis of total executive compensation impact on sustainability showed multiple instances of positive relationships between the two variables as explained in the following subsections. **Table 2** summarizes the path coefficient results of the direct relationship, followed by a description of the findings. The main "ALL-banks" model showed a positive direct relationship between compensation and ESG score as well as all individual pillars.

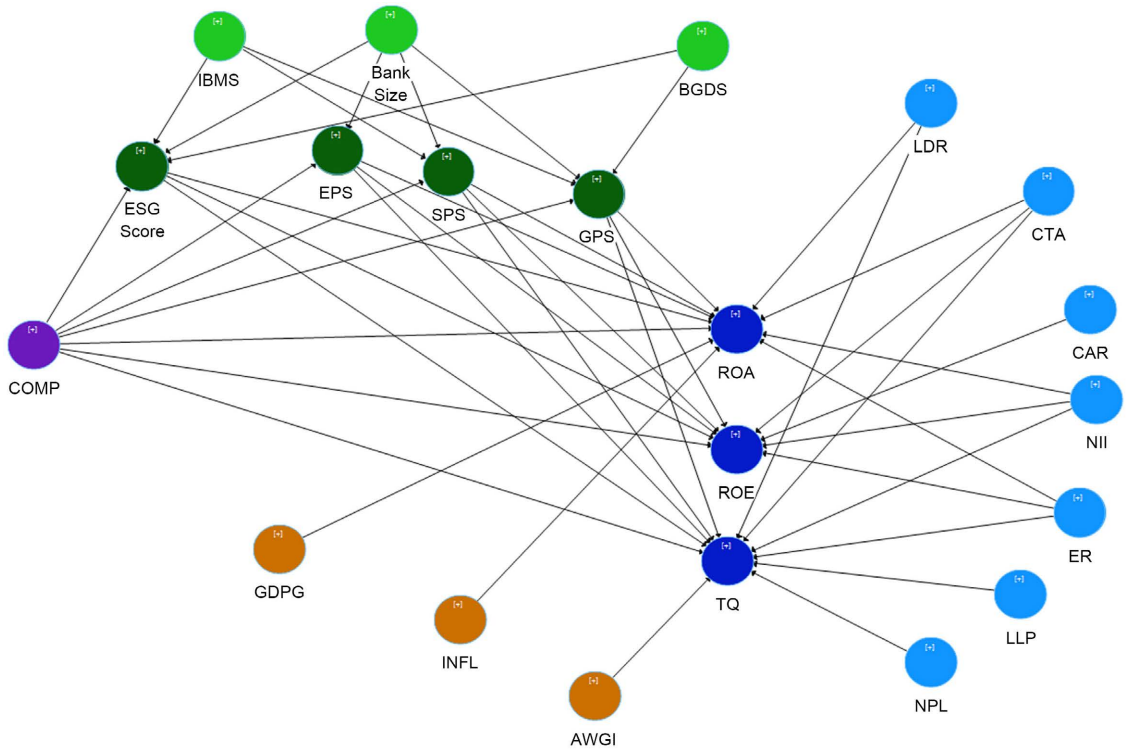

Figure 1. The Overall Model with all applied variables (Extracted from SmartPLS). Notes: COMP = Total executive compensation; ESG Score = Overall ESG score; EPS = Environmental pillar score; SPS = Social pillar score; GPS = Governance pillar score; ROA = Return on Assets = Operational performance; ROE = return on Equity = Financial performance; TQ = Tobin's Q = Market performance; Bank Size = Log of total assets; IBMS = Independent board member; BGDS = Board gender diversification percentage; LDR = Loans to deposits ratio; CTA = Equity/capital to assets ratio; CAR = Capital adequacy ratio; NII = Net interest income; ER = Efficiency ratio; LLP = Loan loss provision ratio; NPL = Non-performing loans ratio; GDPG = GDP growth ratio; INFL = Inflation; AWGI = Average of worldwide governance indicators.

Table 2. Results of direct relationships.

Main Model	ALL-Banks
Banks	127
Years	18
Observations	2286
Compensation impact on sustainability	
COMP-ESG	0.202
COMP-EPS	0.202
COMP-SPS	0.234
COMP-GPS	0.104
Sustainability impact on performance	
ESG-ROA	0.111
EPS-ROA	−0.197
SPS-ROA	−0.204
GPS-ROA	0.102
ESG-ROE	0.131
EPS-ROE	−0.052
SPS-ROE	−0.097
GPS-ROE	−0.190
ESG-TQ	0.201
EPS-TQ	0.024
SPS-TQ	0.211
GPS-TQ	0.190
Compensation impact on performance	
COMP-ROA	0.180
COMP-ROE	0.202
COMP-TQ	0.147

Notes: COMP = Total executive compensation; ESG Score = Overall ESG score; EPS = Environmental pillar score; SPS = Social pillar score; GPS = Governance pillar score; ROA = Return on Assets = Operational performance; ROE = return on Equity = Financial performance; TQ = Tobin's Q.

The results showed a positive impact of total executive compensation on all sustainability factors. The same is consistent with the finding of (Nigam et al., 2018; Baraibar-Diez et al., 2019; D'Apolito et al., 2019; Tahir et al., 2019; Veniero, 2020; Haque & Ntim, 2020; Shin et al., 2020; Derchi et al., 2021; Radu & Smaili, 2021). These studies were done in different countries or regions, different industries including banking, different methods including regressions, correlation and PLS-SEM, different sample sizes, and different periods. Accordingly, no

specific factor led to the positive impact or results, which means including or considering long-term sustainability factors in executive compensation positively impacts sustainability regardless of the industry and region.

On the other side, the results are inconsistent with previous literature that found a negative relationship between executive compensation and sustainability as per the findings of (Francoeur et al., 2017). It should be noted that these studies were conducted considering individual dimensions of the ESG, the environmental pillar, either as environmental reputation (Stanwick & Stanwick, 2001) or environment-friendly firms (Francoeur et al., 2017). Furthermore, the results are consistent with stakeholder theory and do not support agency theory from the other side, as executive compensation promotes good environmental, social and governance practices that support the firm long-term survival (Martinez et al., 2015). Practically, the results are very encouraging in linking long-term sustainability targets in addition to traditional short-term indicators, which is not followed by many or most of the banks or firms in other industries. Incorporating ESG pillars in CEOs or executives' remuneration means increasing the value not only for internal shareholders but also for different stakeholders. New forms of contracting should be created and followed. Accordingly, related policies and procedures should be revised or built based on these findings.

Sustainability and Performance

Table 2 also shows that the sustainability impact analysis on performance found mixed results between the two variables as explained in the following subsections. According to the main "ALL-banks" model, the results in **Table 2** indicate a positive impact of ESG score and governance pillar on operational performance. On the other hand, the results show a negative impact of the environmental and social pillars on operational performance. In addition, the results reveal that only a positive impact of ESG score on financial performance. Besides, the results showed a negative impact of the governance pillar score on financial performance. Conversely, both the environmental and social pillars scores have no impact on financial performance. On the market performance level, the results show a positive impact of ESG score on market performance. On the individual pillars, the results also show a positive impact of both social and governance pillar scores on market performance. On the other side, no impact of the environmental pillar score on market performance.

The results showed mixed outcomes. While the results revealed a positive impact of ESG score on all performance dimensions, the results for the individual pillars were mixed between accepted and rejected. The mixed findings are consistent with previous studies (Buallay, 2018; Shakil et al., 2019; Alareeni & Hamdan, 2020; Qureshi et al., 2021). The main explanation for the results can be related to the differences in methodology and methods applied, sample size, data collection, and other research factors. In addition, it can be concluded based on the results, that the effort made by banks to improve their environmental activities may not have a corresponding benefit of improvement in bank's perfor-

mance (Moufty et al., 2021). As mentioned before, there is no exact standard for measuring sustainability and different types of ESG scores can vary. This could be a possible explanation for the differences in the results. In addition, the findings might be explained by the differences in the measures used as proxies for bank's performance in this study compared to those used in other studies (D'Apolito et al., 2019).

The positive impact of sustainability on performance is consistent with the findings of (Alshehhi et al., 2018; Buallay, 2018; Fatemi et al., 2018; Maqbool & Zameer, 2018; Platonova et al., 2018; Albuquerque et al., 2019; Javeed & Lefen, 2019; Siueia et al., 2019; Taliento et al., 2019; Velte, 2019; Alareeni & Hamdan, 2020; Buallay et al., 2021; De Lucia et al., 2020; Szegedi et al., 2020; Huang, 2021) that found a positive relationship. This indicates that the management of the banks believes that engaging in sustainability activities does add value to the bank's performance and profits. In other words, the existence of a positive and demonstrable impact of ESG on performance would imply that bank management sees substantial incentives to engage in such behaviour, including picking sustainable projects. This way, a virtuous loop would be set in action, motivating banks and corporations to see their sustainable-driven initiatives supported (La Torre et al., 2021). On the other side, the results are inconsistent with the findings of (Mangantar, 2019; Mukhibad et al., 2020; La Torre et al., 2021), that found no impact and no relationship between the two variables. This could depend on differences between samples, different types of ESG scores, and slight variations in the method. Accordingly, the scoring methods can therefore be subjective and differ between providers. Besides, as cited by Atan et al. (2016), management is hesitant to engage in sustainability activities as it believes they do not add value or boost the company's or shareholders' profits. Furthermore, the results are inconsistent with the findings of (Duque-Grisales & Aguilera-Caracue, 2019; Buallay, 2020), which found a negative connection between the two variables. It should be noted that these studies were done in different countries or regions, different industries including banking, different methods including regressions, correlation and PLS-SEM, different sample sizes, and different periods.

In addition, the adverse effect finding could emerge due to the fact that the expenditures connected with the implementation of sustainability initiatives are not represented in the performance of a bank. After all, the failure to acquire stakeholder approval is a result of the improper execution of these initiatives or the lack of institutional support to make them more visible. On the other side, firms that engage heavily in ESG practices may compromise and shift resources needed for core operations, leading to lower performance (Duque-Grisales & Aguilera-Caracuel, 2019). Likewise, activities do not always correlate with improved financial performance, particularly when they are not part of a bank strategic decision-making process. As a result, the bank's performance suffers (Kartadjumena & Rodgers, 2019). A further reason behind why banks continue

to select not to share sustainability practices is that they must hire and train personnel to comprehend and create sustainability reports. They predict that in the near future, the costs will outweigh the benefits (Buallay, 2020).

The empirical results can strengthen stakeholder theory to relate the results to the theoretical foundation of why ESG score could impact performance. According to stakeholder theory, we should expect the ESG score to impact performance positively, as revealed by the ESG score and part of the individual pillars score. Thus, stakeholder is supported. Another justification, as explained earlier by Aggrawal (2013), can be the sample difference from one side or that various effects of different sustainability performance measures may negate and counteract each other, resulting in the common assertion that there is no substantial influence on performance. Another explanation might be that the ESG score does not give enough information on sustainable measures that positively impact performance (Balatbat et al., 2012).

Practically, not all shareholders, owners, or management are aware of the sustainability concept and its implications. The results, whether at ESG score or specifically at the social and governance pillars level, send a clear indicator of the added value or positive impact of sustainability on short-term and long-term performance and value to the bank. Accordingly, boards of directors should start the process of sustainability awareness for their banks and businesses. Even at a country level, not all countries impose sustainability or CSR as a mandatory requirement (Junior et al., 2014).

Compensation and Performance

Further, the analysis of compensation impact on performance indicates multiple instances of the positive impact of compensation on performance as explained in the following subsections. The results showed a direct positive impact of compensation on all performance dimensions. There is a positive impact on operational performance, on financial performance, and on market performance. The results showed a positive impact of total executive compensation on all bank's performance dimensions. The results are consistent with the expectation that the compensation of the bank's executives is associated with the bank's accounting and marketing performance. The same is consistent with a number of studies (Bussin & Ncube, 2017; Ndlovu et al., 2017; Elsayed & Elbardan, 2018; Noja et al., 2020; Boakye et al., 2021; Wang et al., 2021; Ahmed, 2022) that found a positive link between the two variables. This indicates that the executives' compensation is linked to the accounting and market performance indicators.

Conversely, the results are inconsistent with those (Kirsten & Toit, 2018) that found no relationship between the two variables. The relationship between executive compensation and performance might indicate that remuneration policies are based on share price and hence are closely linked to the principle of maximising shareholder wealth. It simply means that financial performance was not the primary factor in determining compensation (Kirsten & Toit, 2018). In other words, the findings do not support the notions that managers

have control over their own remuneration and that managerial entrenchment is more prevalent when there is less corporate governance pressure (Duffhues & Kabir, 2007).

According to tournament theory, a positive direct link between compensation and performance is expected. It provides a basic framework supporting the notion that high executive compensation motivates success at all organisational levels (Elsayed & Elbardan, 2018). As per the results, compensation has a positive impact on performance. Thus, tournament theory is supported. Practically, the results are not surprising. The majority of compensation and reward are related to or built on short-term measures or key performance indicators (KPIs). The added value in these results is that banks should consider not only accounting-based indicators, but market-based measures should also be counted in setting the performance targets and the performance appraisal for the executives.

4.2. Mediation Role for Sustainability between Compensation and Performance

The structural model of this study includes a mediation through sustainability factors between compensation and performance dimensions. **Table 3** summarizes the indirect relationship results.

From **Table 3** and at the ESG score level, there is a complementary partial mediation impact between compensation and each of the performance dimensions ROA, ROE, and Tobin's Q. On the individual ESG pillars, different results are revealed on the impact between compensation and performance. The environmental pillar has a competitive partial mediation role on Tobin's Q only. The social pillar has a complementary partial mediation on ROE and Tobin's Q. Finally, the governance pillar has a complementary partial mediation on Tobin's Q and a direct mediation on ROE.

The results showed a partial mediation role for sustainability factors in the relationship between compensation and bank's performance. The same is consistent with the findings of Kartadjumena and Rodgers (2019) and Veniero (2020), who found a partial mediation role. A possible reason for the findings of partial mediation may be that empirical mechanisms by which compensation may contribute to the performance of banks have not yet been uncovered (Vishwanathan et al., 2020). The positive complementary partial mediation role for ESG score from one side and for the social and governance pillars from the other side strengthens the relationship between compensation and operational performance and market performance of banks, respectively. This means banks should contribute and invest more in social and governance activities considering linking these targets within the executive compensation, leading to more satisfied stakeholders, pleased rewarded executives, and joyful owners and shareholders.

On the contrary, the negative competitive partial mediation role for the environmental pillar weakens the relationship between compensation and market performance. This can indicate that either banks should better control their

environmental activities to reduce or mitigate the negative impact on performance, or banks should try to reinvest in more value-added environmental activities to satisfy both internal and external stakeholders. Practically, these results may add value and support to changing the compensation setup in the banking sector all over the world. Although executives most probably will oppose or be in conflict in linking their compensation and contracts to long-term non-financial performance indicators, banks should favour their different internal and external stakeholders' interest to maintain their reputation, trust, the competitiveness.

Table 3. Results of indirect (mediated) relationships.

Mediation path	P1 × P2		P3		P1 × P2 × P3	Result
COMP > ESG > ROA	−0.027	Significant	−0.019	Significant	Positive	Partial mediation (Complementary)
COMP > ESG > ROE	0.033	Significant	0.046	Significant	Positive	Partial mediation (Complementary)
COMP > ESG > Tobin's Q	−0.003	Significant	−0.033	Significant	Positive	Partial mediation (Complementary)
COMP > EPS > ROA	−0.015	Not significant	−0.008	Not significant		No effect
COMP > EPS > ROE	−0.045	Not significant	0.039	Not significant		No effect
COMP > EPS > Tobin's Q	0.015	Significant	−0.034	Significant	Negative	Partial mediation (Competitive)
COMP > SPS > ROA	0.043	Not significant	−0.008	Not significant		No effect
COMP > SPS > ROE	0.016	Significant	0.039	Significant	Positive	Partial mediation (Complementary)
COMP > SPS > Tobin's Q	−0.023	Significant	−0.034	Significant	Positive	Partial mediation (Complementary)
COMP > GPS > ROA	0.005	Not significant	−0.008	Not significant		No effect
COMP > GPS > ROE	−0.006	Not significant	0.039	Significant		Direct only
COMP > GPS > Tobin's Q	−0.003	Significant	−0.034	Significant	Positive	Partial mediation (Complementary)

Notes: COMP = Total executive compensation; ESG Score = Overall ESG score; EPS = Environmental pillar score; SPS = Social pillar score; GPS = Governance pillar score; ROA = Return on Assets = Operational performance; ROE = return on Equity = Financial performance; Tobin's Q = Market performance.

4.3. Control Variables Analysis Results

The analysis of the main "ALL-banks" model has revealed the following results (path coefficients) for the control variables presented in Table 4.

On the sustainability-specific control variables side, the results showed a positive impact of bank size on ESG score, environmental pillar, social pillar, and governance pillar. The results are consistent with (Kuzey & Uyar, 2017; Helfaya & Moussa, 2017; Birindelli et al., 2018) findings. This positive relationship might be attributed to large enterprises' higher exposure to public opinion and their greater effect on the socio-economic environment, as well as increased resource availability, a more focused interest among stakeholders, and the necessity to efficiently satisfy their needs (Fernandez-Gago et al., 2016).

Table 4. Control variables analysis results.

	Original Sample (O)	*P* Values
Bank size (total assets log) -> ESG score	0.345	0.000
Bank size (total assets log) -> EPS	0.420	0.000
Bank size (total assets log) -> SPS	0.350	0.000
Bank size (total assets log) -> GPS	0.180	0.000
Board gender diversity score -> ESG score	0.164	0.000
Board gender diversity score -> GPS	0.230	0.000
Independent board member score -> ESG score	0.242	0.000
Independent board member score -> SPS	0.167	0.000
Independent board member score -> GPS	0.367	0.000
Capital adequacy tier one ratio (CAR) -> ROE	0.440	0.002
Capital to assets ratio (CTA) -> ROA	−0.347	0.549
Capital to assets ratio (CTA) -> ROE	0.247	0.435
Capital to assets ratio (CTA) -> Tobin's Q	0.915	0.093
Loan loss provision (LLP) -> Tobin's Q	−0.125	0.000
Non-performing loans (NPL) -> Tobin's Q	0.118	0.009
Efficiency ratio (ER) -> ROA	−0.165	0.000
Efficiency ratio (ER) -> ROE	−0.203	0.012
Efficiency ratio (ER) -> Tobin's Q	0.161	0.006
Net interest income (NII) -> ROA	−0.520	0.063
Net interest income (NII) -> ROE	0.252	0.433
Net interest income (NII) -> Tobin's Q	0.669	0.044
Loans to deposits ratio (LDR) -> ROA	−0.179	0.617
Loans to deposits ratio (LDR) -> Tobin's Q	−0.383	0.099
GDPG -> ROA	0.247	0.000
INFL -> ROA	0.221	0.000
AWGI -> Tobin's Q	−0.191	0.000

Source: Authors as captured from SmartPLS.

The Independent board member score also positively impacts the ESG score, social and governance pillars. The results are consistent with (Jizi et al., 2014; Kilic et al., 2015; Lone et al., 2016) findings. As cited by Helfaya and Moussa (2017), Independent boards are more likely to prioritise long-term financial performance objectives and provide effective oversight by engaging in external dialogues with stakeholders and other organisations and boosting their reputations. By establishing external interactions with stakeholders and other firms and boosting their reputation, they attract significant resources to their companies. Indeed, independent directors may have more influence in persuading management to give more voluntary information (Nurhayati & Taylor, 2015). In contrast, the results are inconsistent with studies that found a negative impact (Mallin et al., 2014; Nurhayati & Taylor, 2015; Baraibar-diez et al., 2019), nor with studies that found no link (Walls & Berrone, 2017). This argues that market regulators should not only develop guidelines for effective corporate governance, but also procedures to ensure that they are followed. Regulatory bodies should also look for measures to ensure that independent directors are sufficiently independent when reviewing decisions, such as whether or not to report certain information (Nurhayati & Taylor, 2015).

The board gender diversity positively impacts the ESG score and governance pillar score. The results are consistent with (Seto-Pamies, 2015; Kilic et al., 2015; Glass & Cook, 2016; Lone et al., 2016; Liu, 2018). As cited and illustrated by (Helfaya & Moussa, 2017), the positive role of female directors was discussed from several angles. First, there is a broad consensus that female directors are more stakeholder-focused and sensitive to sustainability issues, which may improve stakeholder engagement strategies. Second, female directors are warier about lawsuits and reputational damage, which may encourage them to participate in sustainable business activities and reduce perceived environmental risks. Third, female directors bring various perspectives and beliefs to the boardroom, promoting democratic and participatory decision-making and broadening debates to represent stakeholders' concerns better, increasing the firm's commitment to CSR efforts. On the contrary, the results are inconsistent with (Alazzani et al., 2017), which found no significant correlation, and with (Deschenes et al., 2015), that found a negative association. The empirical findings showed that, in most cases, women directors are unable to play an independent role due to cultural cognitive barriers such as a patriarchal society dominated by men, family business, and a lack of necessary experience for women in business (Ullah, 2020).

The results showed various impacts on one or more of the performance dimensions on the bank-specific control variables. For example, a positive effect of capital adequacy ratio on financial performance only. The results are consistent with prior studies (Bateni et al., 2014) and inconsistent with studies that found a negative impact (Buyuksalvarcı & Abdioglu, 2011). This relationship between CAR and performance can be explained by the fact that the banking industry controls CAR in accordance with Basel I, Basel II and Basel III standards. This is

to maintain an appropriate level for evaluating the bank's ability to pay its obligations and face future threats. Furthermore, it was shown that banks that maintain this percentage above the statutory level had a favourable correlation with better ROE (Elbahar, 2016). A positive impact of NPL on market performance, the opposite of (Epure & Lafuente, 2015; Zhang et al., 2016) findings that found a negative link with performance. Although a higher ratio indicates a bank's capacity to deal with possible losses due to loan default, it also signals low credit quality, which has a negative impact on profitability (Yao et al., 2018).

In addition, there is a negative impact of LLP on market performance, which is consistent with the findings of (Sayedi, 2014; Menicucci & Paolucci, 2016). This means that banks should continue to maintain a low credit risk level to increase profitability, as a modest increase in credit risk has a negative impact on bank profitability (Elbahar, 2016). On the other side, the results are inconsistent with Hakim and Neamie's (2001) prior findings of the positive impact of LLP on bank profitability as a measurement of bank performance. It suggests that banks are more vulnerable to riskier loans that deteriorate into nonperforming loans, diminishing their profitability (Yao et al., 2018). Besides, the result showed a negative impact of the ratio of loans to deposits on operational and market performance. The results are consistent with Tandelilin et al. (2007). In contrast, the results are inconsistent with the findings of Fanta et al. (2013), which concluded that the ratio of loans to deposits had no statistically significant impact on performance. The low LDR demonstrates that depositors support a substantial portion of the bank's loans and that the bank cannot invest the excess funds. In addition, a high LDR ratio indicates that banks do not have enough liquid assets to cover their expected and unforeseen obligations and any fund requirements (Elbahar, 2016). On the contrary, the lower LDR suggests that banks have a lot of cash and cannot make investments and recognise the expected profits (Tandelilin et al., 2007).

Furthermore, three variables impact the three performance dimensions; efficiency ratio positively affects market performance and negatively impacts both operational and financial performance. The negative results are consistent with (Trujillo-Ponce, 2013). This demonstrates the bank managers' capacity to utilise the bank's resources effectively, maximise profit, and lower operating expenses (Nguyen, 2015). On the other side, NII has a non-negative impact on operational performance and non-positive impact on financial performance and a positive effect on market performance. The positive impact is consistent with (Tan, 2016) findings. However, the negative impact is consistent with Gischer and Juttner's (2001) findings. The negative link suggests that depending increasingly on non-interest-bearing sources of income prevents banks from meeting operational costs, resulting in reduced profitability.

Similarly, ETA also has a non-negative impact on operational performance and a non-positive impact on both financial and market performance. The results are consistent with past literature where other studies have found a positive impact (Menicucci & Paolucci, 2016; Tan, 2016), and some have found a negative

impact (Sun et al., 2017) of CAT ratio on performance. Furthermore, from a country and macroeconomic control variables perspective, the results showed that GDPG which is consistent with previous studies (Sinha & Sharma, 2016; Mohammed & Muhammed, 2017; Buallay, 2020). In addition, inflation has a positive impact on operational performance or ROA. Which is consistent with (Mohammed & Muhammed, 2017; Buallay, 2020). This means that when setting their interest margins, banks bear inflation in mind (El-Ansary & Rashwan, 2020).

At the same time, the average of worldwide governance indicators has a negative impact on market performance or Tobin's Q. None of the variables has an impact on financial performance or ROE, which is inconsistent with El-Ansary and Rashwan's (2020) findings. This is due to the fact that a reduction in corruption is achieved by increasing country regulations, where broad banking restrictions are imposed, which reduces investment options and impairs the efficiency of banks. As for the financial crisis as well as Europe and bank comparison scenarios, **Table 5** summarizes the results of the analysis.

Table 5. Results of different bank samples and periods.

Scenarios:	1	2	3	4	5	6	7	8
	Europe	USA	ALL-Banks 2010-2019	ALL-Banks 2002-2009	Europe 2010-2019	Europe 2002-2009	USA 2010-2019	USA 2002-2009
COMP-ESG	0.149	0.402	0.086	0.268	0.074	0.227	0.318	0.422
COMP-EPS	0.182	0.400	0.086		0.140			0.396
COMP-SPS	0.184		0.129	0.276			0.316	0.402
COMP-GPS	0.048	0.249	0.003	0.203	−0.064	0.173	0.232	0.367
ESG-ROA	0.201	0.105	0.113	−0.144	0.154	−0.077	0.045	−0.074
EPS-ROA	−0.061	−0.064	−0.085		−0.010			−0.225
SPS-ROA	−0.103		0.150	−0.120			0.123	0.122
GPS-ROA	0.170	0.111	0.045	−0.015	0.138	−0.063	−0.037	−0.020
ESG-ROE	0.114	0.101	−0.036	0.077	0.033	0.084	0.011	0.016
EPS-ROE	−0.032	−0.032	−0.063		0.015			−0.047
SPS-ROE	−0.109		0.042	0.043			−0.029	0.033
GPS-ROE	−0.107	−0.064	−0.027	0.044	0.014	0.071	−0.073	0.021
ESG-TQ	0.168	0.110	−0.046	0.144	−0.016	0.037	0.031	0.181
EPS-TQ	−0.013	−0.045	0.019		−0.042			−0.110
SPS-TQ	0.201		0.074	0.098			0.006	0.064
GPS-TQ	0.210	0.103	0.016	0.034	0.068	−0.001	0.040	0.220
COMP-ROA	0.102	−0.038	0.000	0.068	0.035	0.034	0.095	0.239
COMP-ROE	0.057	0.120	0.044	−0.027	0.075	−0.008	0.028	−0.039
COMP-TQ	−0.037	0.104	0.116	0.025	−0.008	0.014	0.107	0.017

Notes: COMP = Total executive compensation; ESG Score = Overall ESG score; EPS = Environmental pillar score; SPS = Social pillar score; GPS = Governance pillar score; ROA = Return on Assets = Operational performance; ROE = return on Equity = Financial performance; TQ = Tobin's Q = Market performance; Blanked cells = the variable does not fit in the model.

4.4. Financial Crisis Impact Scenario

Compensation and Sustainability

From **Table 5**, the main findings showed a positive relationship between compensation and sustainability before the 2007-2009 financial crisis at ESG score, social score, and governance score. After 2009, a positive relationship exists between compensation and ESG score, and social pillar score and does not exist for the other pillars. The same is driven mainly by the USA banks rather than European banks. At the same time, the relationship between compensation and environmental pillar does not exist at any stage. During the financial crisis, over half of bank CEOs in the USA lost their incentive compensation (Cerasi & Oliviero, 2015). The primary issue is that certain financial businesses may not have an efficient remuneration system in place, leading to conflicts of interest between CEOs and their stakeholders. Accordingly, it is obvious for the USA banks to act faster than any other regions to recover their reputation and trust with their clients.

Sustainability and Performance

The relationship between ESG score and operational performance has developed from a negative relationship before the crisis to a positive relationship after the crisis. Similarly, the relationship between the social pillar and operational performance has developed from a negative relationship before the crisis to a positive relationship after the crisis. At the same time, the connection with environmental or governance pillars does not exist at any stage. The positive impact of the ESG score is driven by European banks, while the positive impact of the social score is driven primarily by the USA banks. Besides, the results showed no relationship between sustainability factors and financial performance or ROE at any stage, before or after the crisis.

Furthermore, the results revealed a positive impact of ESG score on market performance after the crisis. The overall results are consistent with the literature that the relationship between sustainability and performance before or after the 2007-2009 financial crisis is mixed (Buallay et al., 2021). Muhammad et al. (2015) discovered a significant association between environmental performance and financial performance before the 2007-2009 financial crisis, and a negligible relationship after the financial crisis. Given these developments, bank's social performance in the post-crisis period is predicted to improve compared to the pre-crisis period. As a result, the post-crisis period is projected to see a more significant relationship between bank's social and financial success than the pre-crisis period (Cornett et al., 2014). The findings indicate that the years leading up to the crisis were more critical and associated with a higher return on equity. This conclusion is consistent with the concept that pre-crisis performance should be better than post-crisis performance since banks require time to recover after a catastrophe. Banks must dramatically strengthen the quality and profile of their corporate governance and risk management functions to be better equipped to tackle the financial crisis (Elbahar, 2016). Banks should continue to

invest in sustainable initiatives because they develop strong relationships with stakeholders, resulting in more considerable economic advantages and more environmental and financial synergy (Gallego-Alvarez et al., 2014).

Compensation and Performance

The results showed a positive impact of compensation on market performance after the crisis. The results are mainly led by the USA banks, where a positive relationship between compensation and operational performance exists for the USA banks before and between compensation and market performance after the crisis. The results are also consistent with the findings of Yang et al. (2014), who found a positive relationship between total executive compensation and ROA in pre- and post-crisis periods. They argued that there were different patterns in the link between CEO compensation and performance between the two periods. In the aftermath of the crisis, incentive-based contracts were ineffective compensation tools based on these various patterns (Yang et al., 2014). Besides, according to studies, the banking industry has specific characteristics that make CEO remuneration different from other industries (Nguyen, 2015). On the other side, According to D'Apolito et al. (2019), after the crisis, the Implementation of sustainability targets in executive compensation and contracts negatively impacted bank's performance, represented by ROA and ROE. Yang et al. (2014) discovered that pre- and post-crisis years showed different patterns in the link between CEO compensation and firm performance. These findings indicate that incentive-based remuneration was ineffective after the financial crisis.

Practically, the link between compensation and performance or sustainability is expected to show up or get developed after the crisis especially in the banking sector. As illustrated earlier, banks have been eager to regain back the trust and their reputation that were lost during to the financial crisis. As a result of pressure from their stakeholders to improve their performance, banks have begun to report social and environmental information in order to maintain their position within the community (Moufty et al., 2022). Nevertheless, the results for mainly the environmental pillar are surprising. Apparently, banks either were focusing on social pillar and activities in order to satisfy their customers for competitiveness reasons, or banks were not aware or educated enough of the environmental side. To the level that, if a bank is perceived to finance projects or borrowers with negative environmental and impact, its reputation could suffer (Moufty et al., 2022).

4.5. Europe vs. The USA Comparison Scenario

Compensation and Sustainability

Starting with executive compensation and sustainability, on the European side, the main findings showed a positive relationship between compensation and ESG score, the environmental pillar, and the social pillar. On the USA side, the relationship between compensation and sustainability also exists for the ESG score, the environmental pillar, and the governance pillar as compared to Eu-

rope banks. It should be noted that the impact is more significant in the USA case than in the European case. The explanation for these results is that in the USA, and due to the financial crisis, which was started in the USA by the banking industry, the governance pillar continued and was better than in Europe. In addition, the USA banks are better than Europe regarding the social pillar impact. The USA banks give more attention to their customers and society than European banks in trying to recover their lost trust and reputation. The results indicate that the banking sector in the USA is more resilient to market shocks. In addition, the crisis in the USA was resolved more quickly and resoundingly than in Europe. Both liquidity and calm were injected into the markets in terms of monetary policy, toxic asset provisioning, and bank bailouts (Valverde et al., 2019).

Sustainability and Performance

As for the impact of sustainability on performance, mixed results were also recorded in Europe and the USA. European banks results showed almost the same results recorded in the main ALL-banks model. The results showed a positive impact of ESG score and governance pillar on operational performance. On the other hand, the results showed a negative impact of the social pillar on operational performance, and no effect of the environmental pillar score on operational performance. In addition, the results showed only a positive impact of ESG score on financial performance. Conversely, the results showed a negative impact of both social and governance pillar scores on financial performance. There was no impact of the environmental pillar score on financial performance. Furthermore, the results showed a positive impact of ESG score on market performance. On the individual pillars, the results also showed a positive effect of both social and governance pillar scores on market performance. On the other side, there is no impact of the environmental pillar score on market performance.

The results fell between positive and no impact on the USA banks side. The results showed a positive effect of ESG score and governance pillar on operational performance. On the other hand, the results showed no impact of the environmental or the social pillars on operational performance. In addition, the results showed only a positive effect of ESG score on financial performance, and no impact on any individual pillars. Furthermore, similar to operational performance, the results showed a positive impact of ESG score and governance pillar on market performance and no effect of the environmental or social pillars on operational performance. The results are consistent with findings of (Moufty et al., 2021) that demonstrate a statistically significant positive relationship between the internal social dimensions of sustainability and bank performance, whereas no evidence was found for the relationship between the environmental dimensions of sustainability and bank performance.

In addition, these results are inconsistent with Fried et al. (2015) findings that there is a higher share of positive results (between sustainability and perfor-

mance) in North America than in Europe. In contrast, there is a positive impact of the social pillar on ROA especially after the crisis. This indicates that stakeholders have begun to recognise and consider social practices in their investment decisions as the primary driver for improved performance and efficiency. According to La Torre et al. (2021), following the recent financial crisis, it appears that banks are looking into the costs, risks, and prospects of redesigning their businesses under the banner of sustainability to regain the faith of some of their stakeholders. Besides, compared to other industries, banks have a lower direct impact on the environment (Branco & Rodrigues, 2008).

Furthermore, as cited and illustrated by (Moufty et al., 2022), on their path to sustainability, the majority of banks will pass through four stages of awareness and response. First, in defensive banking, the bank disregards all sustainability concerns and may even attempt to oppose or delay new environmental regulations if they may directly or indirectly harm the bank's interests. The second is preventative or protective banking, in which environmental and social risks are managed more systematically. Thirdly, offensive banking involves the strategic management of environmental and social risk, as well as the restriction of environmental and social value addition. Finally, sustainable banking embraces solutions that benefit both parties. Nonetheless, banks at this stage seek to achieve the highest sustainable rate of return in addition to the highest financial rate of return, while remaining profitable over the long term. Based on the above, both European and the USA banks can be sorted between the defensive and preventive stages. They need to work more to move to stage for where they can meet long term benefits.

Compensation and Performance

While a positive impact of compensation on operational performance is revealed under the European scenario, a positive impact is revealed for compensation on both financial and market performance on the USA side. The results revealed a positive impact on both accounting ad market-based performance in the USA, while in Europe case, the impact was only on the accounting performance represented by ROA. This may indicate that the USA is a more stakeholder-oriented country and Europe is a more shareholder-oriented region, as opposite to (Van der Laan Smith et al., 2005) earlier findings. Besides, as noted by (Maruffi et al., 2015), the USA executives are viewed as more capable and productive than their foreign counterparts, and they are compensated accordingly at different levels.

Compensation in the USA banks is closely linked to business performance, implying that executives should get reduced compensation when their firms have poor market returns, as more than half of the USA banking executives lost incentive income during the 2007-2009 financial crisis (Cerasi & Oliviero, 2015). This may also indicate that in both markets, Europe and the USA, executive compensation in banks is linked to performance regardless of the performance indicator used. In addition, this also means that the USA banks are more con-

cerned with connecting compensation with accounting and market indicators, especially after the financial crisis which started in the USA market. The same is particularly important to bring back the trust lost during and after the crisis. Besides, as illustrated by Li (2018), Some European banks may not maintain an effective remuneration structure, resulting in conflicts of interest between executives and shareholders. They may not comprehend the predictive relationship between executive performance and total compensation. Practically, the USA banking system was always considered as the leader sector worldwide. In addition, as the financial crisis started from the USA, the USA banks are expected to act faster than any other region to recapture their reputation in the market. And that is reflected in the positive impact for compensation on both accounting and market-based indicators.

Furthermore, one of the primary distinctions between the USA and Europe is the approach to corporate social responsibility, which is explicit in the USA but implicit in Europe. In the USA, voluntary approaches to addressing companies' social responsibility issues are more prevalent, affording businesses more opportunities to take a relatively explicit approach to responsibility. The explicit approach relies on corporate discretion to engage in voluntary responsible activities and is driven by pressure from key stakeholders rather than in response to authority (Matten & Moon, 2020). While in the Europe, corporations are subject to a greater number of mandatory and customary requirements to address stakeholder issues deemed essential on a broader scale. This has led to a more implicit approach to CSR and fewer incentives for businesses to take explicit responsibility. As a result, in response to regulations and broader values, businesses have a tendency to adopt an implicit approach to responsibility that is motivated by broad institutional forces (Matten & Moon, 2020). Earlier, Maignan and Ralston (2002) attributed the differences in sustainability practices between the USA and Europe to the traditional role of institutions. In Europe, the state has traditionally been responsible for social welfare, whereas in the USA, businesses have taken the lead in their respective communities. Moreover, the new wave of sustainability regulations, particularly in Europe, is exerting an isomorphic pressure on businesses to comply with their sustainability reports (Matten & Moon, 2020).

5. Conclusion, Implications and Future Research

The results showed a positive impact of total executive compensation on all sustainability factors represented by ESG score, environmental pillar score, social pillar score, and governance pillar score. The results are within the expectation that linking sustainability factors to executive compensation positively impacts sustainability in the banking sector in Europe and the USA. In addition, while the results revealed a positive impact of ESG score on all performance dimensions, the results for the individual pillars were mixed between accepted and rejected. Nevertheless, the environmental pillar has no impact on any of the per-

formance dimensions. Besides, the results showed a positive impact of total executive compensation on all bank's performance dimensions. The results are consistent with the expectation that the compensation of the bank's executives is associated with the bank's accounting and marketing performance. In addition, the results showed a partial mediation role for sustainability factors in the relationship between compensation and bank's performance.

Furthermore, the findings revealed a positive relationship between compensation and sustainability during and before the financial crisis in terms of the ESG score, social pillar, and governance pillar. After 2009, the positive relationship exists only between compensation and the social pillar score and does not exist for the other pillars. At the same time, the relationship between compensation and environmental pillar does not exist at any stage. In addition, the relationship between ESG score and operational performance has developed from a negative relationship before the crisis to a positive one after the crisis. Similarly, the relationship between the social pillar and operational performance has developed from a negative relationship before the crisis to a positive relationship after the crisis. At the same time, the connection at the environmental or governance pillar does not exist at any stage. Finally, the results revealed a positive impact of compensation on market performance after the crisis.

Finally, the findings revealed a positive relationship between compensation and ESG score, environmental pillar, and social pillar on the Europe side. On the USA side, the relationship between compensation and sustainability exists for the ESG score, environmental pillar, and governance pillar. As for the impact of sustainability on performance, mixed results were also recorded in both Europe and the USA. In addition, while a positive impact of compensation on operational performance is revealed under the European scenario, a positive impact is revealed for compensation on both financial and market performance on the USA side.

This research has some implications for decision-makers regarding the link between executive compensation and sustainability factors. The results showed a positive relationship between compensation and the ESG score, environmental pillar, social pillar, and governance pillar, at a similar level. Decision-makers should consider this positive link to set contracts for executives and CEOs based on banks sustainability factors investment and long-term objectives. Accordingly, policies and procedures should either include these factors or be updated. The same can be applied in Europe, the USA or even globally, and in any other sector, not only in the banking industry.

Banks that proactively integrate sustainability into their business strategy are more likely to cultivate their stakeholder's loyalty, enhance their reputation, and create value for all stakeholders. Hence, this research provides business leaders with insight into the need for transparency and explains their banks' sustainable banking activities to society, investors, and other stakeholders. Furthermore, the study's findings suggest that sustainable banking investments are a win-win

strategy. Instead of considering sustainable banking initiatives as an afterthought, banking professionals are urged to include them in their fundamental operations. It can also avoid the collapse of the financial system and the loss of jobs by restricting excessive bank risk-taking (Akwasi, 2021).

In addition, the results of this research have some implications regarding the link between sustainability and performance. The results showed a positive impact of the ESG score on performance. Decision-makers and policymakers should consider this association by setting long-term objectives and targets for their banks and firms. Consequently, policymakers in various countries, such as the Securities and Exchange Commission, should work to offer precise standards on sustainable banking reporting to promote sustainable banking disclosures. Policymakers can, for example, establish precise rules to guarantee that sustainable banking disclosures are based on actual performance rather than regular statements meant to fool investors and the broader public. It is also critical for policymakers to implement mandatory sustainable banking transparency rules and define reporting formats and standard language in Europe and the USA financial sector (Al-Shaer et al., 2021). Furthermore, the results revealed a positive impact of compensation on performance dimensions, both accounting and marketing. The same is a clear signal for boards and decision-making in banks and other industries for the importance of linking executives' compensation to short-term and long-term performance indicators and results. Finally, professional agencies and firms such as McKinsey, Boston Consulting Group, and Harvard Business Review, shall benefit from the results of this study for their current and future research in the field.

This study has some limitations that can be considered as good opportunities for future research. This study focuses on Europe and the USA. Future research shall consider other continentals, regions, or countries such as Asia or the Middle East region, where other control variables may have an impact such as the difference between conventional and Islamic banks. In addition, this study considers the mediator effect of sustainability between compensation and performance. Future research may consider mediator and moderator impact, as well as other factors between compensation and sustainability and between sustainability and bank's performance. Finally, the findings of linking remuneration to both sustainability and financial performance should feed continuing conversations and debates regarding executive compensation policy and practices from a practical standpoint. Moreover, this connection between compensation and ESG practices could be utilized to promote broader societal goals, including human rights advocacy, workplace diversity, and sustainable development, by employing public policy instruments such as tax credits or corporate subsidies (Callan & Thomas, 2014). In addition, it is proposed that boards and compensation committees should pay more attention to the many performance measures available when analyzing executives' performance. To that end, future research can adopt a similar empirical approach to examine a different universe of banks

or companies at different periods. Furthermore, secondary data has a few constraints, such as a lack of relevance if the objectives and methodology used to collect the secondary data are not appropriate for the problem at hand. In addition, secondary data may lack accuracy depending on several factors such as the research design, data collection method, etc. Hence, future research may consider combining secondary data with other quantitative methods such as surveys or questionnaires.

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Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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