



n today's socially conscious market environment, sustainability trends have altered how businesses run their operations. This is supported by international bodies like the United Nations, Global Reporting Initiative (GRI), Sustainability Accounting Standards Board, World Business Council for Sustainable Development, and Principles for Responsible Investment that have set the principles, guidelines, and best practices for corporations to manage their various functions and assets in a more sustainable multistakeholder manner. As such, this trending concept has become the new language of business, whereby firms not only need to sustain their financial strength (for shareholders) but also their social and environmental impacts on the broader stakeholders, namely the community, consumers, customers, suppliers, employees, investors, and regulatory bodies. The broad perspective on organisational value has morphed far beyond the domain of financial and accounting statements.

The banking sector plays an important role in sustainable development. Currently, sustainability is one of the most significant trends in the industry. It could be in the form of investors' desire for sustainable responsible investing or corporate management's focus on corporate social responsibility or governments' focus on sustainability and environmental impact issues According to Sustainalytics' 2014 Thematic Research Report, banks are the heart of all modern markets; they pump financial means like lifeblood through the system, enabling innovation, economic growth, and prosperity. However, the role of financial establishments often goes beyond their original function as intermediaries. It is noted that the core function of banks as enablers of economic growth and prosperity remains undisputed, but civil society, particularly in the developed world, is increasingly concerned about how they fulfil this purpose. Many have expressed the need for 'moral capitalism' that is in tune with social and environmental concerns. Banks have been criticised by civil society groups wanting a large stewardship commitment, regarding their involvement in aiding businesses and development that immensely harm the environment, undermine human rights, and are connected to severe

adverse impact on local communities. Although in all these cases financial institutions do not directly affect the society and environment, they have the capability to do so indirectly via their influence on the businesses they finance.

Despite the promising evidence of the corporate social performance-corporate financial performance and corporate environmental performance-corporate financial performance relations across various business sectors, the findings from the banking sector remain limited and inconclusive. Some empirical studies in the banking industry discover a positive link between financial performance of the banks and social performance (Simpson & Kohers, 2002; Cornett et al., 2014), governance (Aebi, Sabato & Schmid, 2012), and environmental-friendly performance (Jo, Kim & Park, 2014). As banks work to restore their credibility following the global financial crisis and contribute to financial stability, timely and strategic integration of sustainability into their businesses remain a crucial agenda for change. Sustainability can be practised from the inside (banks' internal operations) to the outside (banks' financing and investment portfolio, client and community relationships). Nevertheless, other empirical research reveal an opposite evidence: Financial performance has a negative relation (Soana, 2009; Nollet, Filis & Mitrikostas, 2016), or no significant relationship with sustainability business practices (Chih, Chih & Chen, 2010).

This article is an encapsulation of a technical research that seeks to identify

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and understand the impact of banks' social and environmental performance on their financial performance through (i) identification of the significant or material data or information that may have an impact on the banks' financial performance, (ii) examination of the means through which the social and environmental performance values translate into the banks' financial performance, (iii) assessment of whether social and environmental indicators have a significant impact on the banks' financial performance, and (iv) identification of the threshold of social and environmental impact on the banks' profitability, which may vary depending on bank size and level of social and environmental performance. This study controls for the type of financial institution such as commercial banks, cooperative banks, investment banks, Islamic banks, private banking or asset management companies, real estate and mortgage banks, and savings banks. This study also takes into account both the bank-specific variables and the macroeconomic variables. Finally, this study takes into consideration reliability and comprehensiveness of dataset. We use MSCI (previously merged with KLD) as our source of sustainability data, which is the latest and in-depth social and environmental database used for the reference and datapoint. MSCI data has been widely applied in the literature by researchers and academicians examining the relation between social responsibility and financial performance (e.g. Graves & Waddock, 1994; Turban & Greening, 1997; Mattingly & Berman, 2006; Godfrey, Merrill & Hansen, 2009; Ioannou & Serafeim, 2014). The key justifications, findings, and contributions of the research are elaborated briefly below.

While banks might understand the relationship between their sustainable performance and business performance, banks need to be able to value map the material social and environmental indicators into business performance with reasonable data availability and quality. This in turn will help investors (including current and future shareholders) integrate their sustainability evaluation



into the decision-making and business processes. An increasing number of investors commit to the integration of social and environmental sustainability in their investment process. However, which of these social and environmental sustainability data should be taken into consideration is still a matter of further exploratory discussion and debate.

The research considered the materiality aspects of social and environmental sustainability affecting financial institutions. Materiality is key in the study of sustainability performance in the banking sector. Without materiality determination, the study would not be able to open the door to measuring sustainability effectively, if not accurately. Therefore, to measure the impact of banks' social and environmental sustainability performance, the study must identify the factors that materially affect banks' performance. This study uses material dataset in assessing the impact of social and environmental sustainability performance on banks' financial performance. This way, the study fills the gap in the existing empirical literature, which mainly uses the nonmaterial dataset.

Secondly, previous studies were not able to identify the channels through which social and environmental



sustainability performances generate positive impact towards the financial performance of the bank. As such, this study expanded the understanding of the relationships among the identified variables in the model and allows more hypotheses to be tested systematically. The analysis using the interaction term suggests that management quality or firm efficiency is one of the channels through which the value from accessto-finance (a key social sustainability component in the banking sector) could flow to business performance of banks. Additionally, loan growth is also identified as another medium to which sustainability value could flow to banks' financial performance. Inclusion of the interactive term in this study helps us to understand how this positive sustainability is being channelled to the business performance of banks.

Thirdly, by applying the threshold regression estimation method suggested by Hansen (2000), we find that there is no statistically significant sample splitting when access to finance is used as a threshold variable. In other words, the varying degrees of access to finance (low, medium, or high) have no effect on the return on equity (ROE) of banks generally. However, there is significant sample split when bank size is used as a

threshold variable. Banks with total assets lower than US\$2.07 billion experience significantly positive impact of access to finance on their ROE. In essence, smaller banks will have significant impact as compared to larger banks when they partake in providing access to finance initiatives. We find that banks that score below 1.51/10 for environmental financing experience negative impact on their financial performance. This is probably due to the negative environmental impact arising from reputational damage, erosion of collateral value due to environmental damage, increase in litigation and default risk, and potentially regulatory fines. Interestingly, there is no statistically significant effect on banks' financial performance for banks that score above 1.51 in environmental financing, although sign of the coefficient is positive. One plausible explanation could be that banks require time to realise the potential upside of environmental financing as per Jo, Kim & Park (2014) who revealed that reducing environmental costs takes at least one or two years before increasing return on assets. We find that differences in bank size do not matter as environmental financing is not statistically significant in both small and large banks.

Based on this study, market investors and analysts will have a better understanding of social and environmental sustainability and how it affects the firm's performance in general, and banks specifically. This can be used for future valuation of bank's financial and environmental, social, and governance performance, and whether to afford premium or discount accordingly. Therefore, financial institutions are incentivised to graduate from greenwashing or altruism to strategic objectives by incorporating social and environmental sustainability into their business strategy goals and business performance. As investors become more and more sophisticated and aware of the implications of various pieces of financial information towards the future financial performance of a company, stock prices are incorporating this information with greater efficiency and with less bias.

Findings of this study also have bearing

and implications toward policy and regulatory development in the banking sector. Policymakers should endeavour to create an institutional environment that is conducive to social and environmental sustainability practices in the financial sector. Na (2016) highlighted that if allowed to operate in a conducive political and economic environment, coupled with a level playing field and profit-making prospects, the financial sector can be a significant contributor to the economy. To avoid any unintended consequences of counterproductive regulation and to enable an environment that promotes informed policy drafting, banks should consider playing a proactive and collaborative role with regulators and policymakers.

Tiered incentive structures could be explored by policymakers and regulators to encourage small- and medium-sized banks to embrace social and environmental sustainability practices, as opposed to across-the-board requirements. For example, the global standard-setting body for sustainability reporting, GRI, provides their signatories with guidelines and milestones to be achieved within a stipulated time period. Policymakers may also consider incentivising banks and financial institutions to become more pro-environment through measures such as imposition of taxes on environmentally harmful products or services, imposition of a percentage of greenery compulsory in financing development projects, and granting of tax deductions for environmentally friendly activities within communities. *

The authors acknowledge the research grant from Khazanah-INCEIF Research Collaboration on Islamic Finance. Opinions and analysis expressed in this article are solely by the authors.

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