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*Sustainable Development Goals and Firm Value: A
Review of Literature*

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Sustainable Development Goals and Firm Value: A Review of Literature

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Abstract

There is a slow pace in the adoption of sustainable development goals into organizations' business strategy as a result of the challenges of the interconnections and the fact that some thought pattern view SDGs to be value destroying which is premise on the theory of the firm to maximize wealth for shareholders. This can affect the achievement of sustainable development. With the changing role of business in this era to carry all stakeholders along in order to achieve sustainable development. More attention has been demanded from business to protect the people and the planet which is crucial, hence, the need for cooperation by all organizations is crucial for achieving the agenda 2030. To this end, we examined the role of SDGs in firm value from available literature. This is as a result of the slow adoption of SDGs to reveal whether firm value is affected when SDGs are implemented. We revealed that businesses are to prioritize, measure, monitor and report SDGs for firm value to enhance from these goals. Furthermore, we revealed that the relationship that exists between SDGs and firm value is dependent on the theory underpinning the study and as well as the measures used. The study also revealed that reporting SDGs gives a firm competitive advantage in the light that the firm are perceived to be transparent in their activities in being socially and environmentally responsive. This translates into more market shares which increases the firm value. We recommend that government should make disclosure mandatory. Standard setting bodies should come up with a framework for reporting SDGs and as well as all sustainability disclosures while organizations should report SDGs and view SDGs as value enhancing since it fixes environmental, social and economic issues. When this is adopted, firm value is enhanced.

Keywords: Sustainable Development Goals (SDGs), Firm Value, book-value, market-value, environmental social governance (ESG)

Introduction

Sustainable development goals (SDGs) are global agenda for sustainable development that simultaneously fix social, economic and environmental issues and these goals are to be achieved by 2030. SDG is of more coverage unlike the millennium development goals whose stakeholders were world leaders only. SDGs agenda is to achieve global cooperation by including all stakeholders (public, social, private and government) in combating inequality, poverty and leaving no one behind (inclusion). SDGs addresses the core roots of social, environmental and economic sustainability by revealing the conditions that supports

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sustainable development, the causes of the conditions and as well as the consequences of the condition (Melo et al., 2015). Therefore, organizations' contribution is imperative, the government cannot achieve these goals alone hence; the continued support of all business sectors is expected to meet the global agenda 2030.

However, there is a slow pace in the adoption of SDGs into organizations strategy which is crucial for the achievement of the agenda 2030. KPMG (2018) documented that unlike corporate social responsibility (CSR) that can be a stand-alone report, SDGs must be aligned into business strategy, measured and managed. This has resulted in the low rate of reporting SDG, leading to the criticism of the United Nation's framework for achieving the agenda 2030 (Erin & Bamigboye, 2021; Lawrence, 2020). The non-aligning of SDGs into most business strategy has heralded literature around the nexus between SDGs and firm value. Furthermore, there are arguments about the adoption of SDGs and firm value. The traditional firm has to change their thinking by extending their reports not limited to CSR and environmental and social governance but to include SDGs as their contribution in achieving agenda 2030. In addition, some organizations may report an SDGs they are engendering but fail to communicate and report the key performance indicators (Izzo et al., 2020; Ramos et al., 2022) hence, translating to non-integration of SDGs into the organization's business strategy. With the growing social and environmental concern, stakeholders are now interested in understanding firms' approach in managing sustainability issues along with their potential for value creation (Laskar, 2019). The active participation of organizations is germane to the achievement of the agenda 2030. This will help harmonize the progress made at all levels to enable national level, otherwise, if the goals cannot be measured it cannot be accounted for; this has been the major issue in SDGs and firm value. In addition, the lack of enforcement is also attributed to what is seen today thus, the need to address the issue is imperative.

Therefore, the need for each organization to reveal the alignment of the prioritized SDG, the measurement of the SDGs, and the management of the SDG in their reports is envisaged in this study. By this action then we can look at whether SDGs destroy firm value or enhances firm value. It is in this light we intend to throw light on the following: first, to examine the reasons why SDGs are not integrated into most business strategy; second, to ascertain the effect of SDGs integrated into business strategy whether it enhances firm value; and finally, to establish measures and factors that determines firm value.

Research Problem

The slow implementation of the SDGs if not addressed will affect the achievement of the agenda 2030. Despite the fact that more awareness has been created in sustainability reporting in areas which have to do with firm's activities how it impacts social, economy, environment and governance. ESG is interchanged for sustainability disclosure in most studies while corporate social responsibility is viewed as an aspect of sustainability reporting likewise the environmental disclosure. Less attention has been given to SDGs reporting in addressing the target in developing nation thus translating into non implementation. It is against this backdrop that researchers (Erin & Bamigboye, 2021; Izzo et al., 2020; Lawrence, 2020) have revealed the challenges of reporting SDGs. For instance, Izzo et al. (2020) revealed that disclosures take both voluntary and mandatory forms in Italy depending on the sector. They reported that since 2016 SDGs are being reported however, the reports lacks key performance indicators, this can be caused by the lack of standardized framework. To support this view, Lawrence (2020) revealed that the United Nations framework lacks the tenets of all should help achieve the reporting of SDGs while Erin and Bamigboye (2021) examined SDG reporting from 8 Africa countries; they revealed that apart from South Africa, the other countries show little or no interest about SDGs reason not farfetched from the voluntary disclosure which is obtainable from most developing economies. All these are challenges of reporting SDGs ranging from cost implications, key performance indicators and framework and type of disclosure. Therefore, it is on the foregoing that we decided to examine from archive SDGs and its implications on firm value. Furthermore, the issue of whether firm value would be affected is germane in this study in the implementing of SDGs. To support this view, the work examined various studies in this field to suggest studies that have revealed the way forward in implementing SDGs and its consequences on the value of the firm.

Research Objectives

The study sought to investigate the documented relationships between sustainable development goals reporting and firm value.

Theoretical Review

There are various theories underpinning sustainability reporting of which SDGs are not left out. These theories attempt to describe the impact of SDGs on firm value and performance (Soyemi et al., 2021; Wagner, 2002). They include resource-based, trade-off, stakeholders, value creating, legitimacy; and value destroying (Alshehhi et al. 2018). The value-creation approach views that firm risk is reduced with the

adoption of environmental and social responsibility. The implication of this theory to an organization would mean that integrating SDGs into the business strategy will help give an hedge over competitors, hence, such organization could go all the way to embrace SDGs. On the other hand, the value-destruction theory predicts that companies engaged in environmental and social responsibility lose focus on profitability, and instead pursue pleasing stakeholders at the expense of shareholders. By implication, holding such theory would further disintegrate SDGs in such organization, hence, they would not see the need to integrate SDGs into business strategy. We can therefore agree that these theories attempt to explain the relationship between sustainability and corporate performance. Those theories are linked to the influence (positive, negative, or neutral) and the causality (direction) of the relationship. Like with value-destruction theory, the trade-off theory suggests a negative relationship when resources are channeled towards less profitable sustainable activities (Endrikat et al., 2014; Ito, 2018). A positive relationship is explained in resource-based view (RBV) theory and Stakeholder theory. RBV stipulate that a firm possesses unique capabilities which, if strategically exploited, can achieve competitive advantage leading to better financial performance (Yang & Liu, 2022). In stakeholder theory, there is the provision of clue to justify the connection between sustainability practices and the fulfillment of corporate objectives such as profitability and sustainable growth, thus, fulfilling the requirements of stakeholders (environmental or social) contribution to financial performance (Yang et al., 2019) that their business strategy and in the long run increase their profitability. Legitimacy theory is premised on the ground that organizations have to act in accordance with society's norms and value, hence, business is left with no choice other than to be committed to the agenda.

Furthermore, the traditional economic approaches underestimate the risks from climate change and overestimate the costs of the low-carbon transition, as they do not consider the cumulative gains from path-dependent innovations (Ekins & Zenghelis, 2021). Likewise, the need to be responsible to agenda 2030 is imperative. We are of the view that it depends on which side of the pendulum the organization stands whether to become responsible or careless about the agenda. For example, to the traditional economist SDGs would go vis a vis with the value destroying theory, hence, no need to integrate the SDGs into its business strategies while the environmental responsible companies belief is in the theory of value creating, viewing SDGs as part and parcel of its business strategy.

Sustainable Development Goals

Sustainable development goal is concerned about advancing universal coverage of sustainable development involving all stakeholders through an inclusive approach for all to fight poverty and inequality. SDG is the agenda of the United Nations (UN) to be achieved by 2030 which help safeguard the planet and people. Ramos et al. (2022) documented that in the 17 SDGs, there are some economic goals (partnership for the goals:G17 and industry, innovation and infrastructures: G9), social goals (peace, justice and strong institutions:G16, life on land:G15, sustainable cities and communities:G11, reduced inequalities:G10, decent work and economic growth:G8, gender equality:G5, quality education:G4, good health:G3, zero hunger:G2, no poverty:G1), and environmental goals (clean water and sanitation:G6, affordable and clean energy:G7, responsible production and consumption:G12, climate action:G13, and life below water:G14). These goals are to encourage a path of sustainable development in which the environmental burden is kept low in line with future economic development and environmentally responsible companies tend to be more profitable (Wu et al., 2022). Again, Melo et al. (2015) posited that SDGs makes it possible to simultaneously see complex social, economic and environmental realities, as well as risks and opportunities for the development of businesses. In addition, the World Business Council for Sustainable Development (WBCSD, 2015) posited that SDG is an effective way for companies to communicate their contribution to sustainable development.

Therefore, sustainable development goals are goals of sustainable development which seek to support the well-being of people and planet in the pursuance of peace, partnership, and eradication of poverty (5p model) through sustainable economic activities (Kucukgul et al., 2022). Following the 2012 world summit an open working group was established to develop the UN Sustainable Development Goals (SDGs) to integrate sustainable development's economic, social and ecological dimensions (United Nations [UN], 2015).

In this regard, there are 17 goals with 169 targets and 242 indicators that are interlinked. These inter linkages are revealed to have resulted to the low rate of implementation, thereby questioning the SDGs framework (Lawrence, 2020). As a result, different nations have their SDGs framework for instance, European Union SDI having 132 indicators, the United Kingdom SDI having 242 indicators (Mair et al., 2018). In this regard, Mair et al. (2018) documented that the indicators associated with SDG poses some set-backs on its implementation. However, the understanding of the role of indicators according to Mair et al. is paramount

since they are useful analytical tool that can be used to measure things that are immeasurable for the purpose of accountability. Furthermore, Anderson et al. (2021) in their work developed a systems model which revealed that some targets can accelerate progress while some can pose as hurdles. Anderson et al. further put that the understanding of the system model indicates that SDGs and their corresponding targets act as levers towards achieving other goals and targets.

To support this view, several literatures (Bennich et al., 2020; Lusseau & Mancini, 2019; Pham-Trufert et al., 2020) opined that addressing the interconnection between the targets is helpful in implementing SDGs. To this end, Bennich et al. (2020) documented the guide on achieving the indivisibility of SDGs which was absent from the agenda and provided guidance on the assessment and interaction of SDGs. In addition Pham-Trufert et al. (2020) use network analysis to assess interactions among the SDGs. However, Anderson et al. (2021) documented that the use of system analysis or network analysis does not translate into identifying the synergies and the trade-off associated with SDGs. As a result, low rate of implementation has been witnessed since the take-off year (2016) of agenda 2030, as a result of the issues identified and unaddressed.

To this end, the United Nations Global Compact (2020) documented that there is a slow pace in the implementation of SDGs and as a result only 46% of members (193) have implemented SDGs into their core business operation while 37% are designing business models that contribute to SDGs. Looking at this pace of implementation, there revealed that there are challenges with the SDG thus, the levers and hurdles poses challenges to the implementation of SDGs along-side the managerial and financial implications (Soyemi et al., 2021). The expectations from business organizations are to prioritize SDGs, carry all stakeholders along and build alliance (Zhouetal, 2021).

However, the interconnection between these goals and targets have been revealed to constitute a great challenge in aligning SDGs with strategy (Mate et al., 2022) which all stakeholders to be specific, government, organizations (social, public and private) have pledged to embraced. To this end, effort put by organizations to report SDGs shows that most organizations do not understand that the achievement at the local level is to help assist the national level planning and reporting in order to meet the agenda 2030 is vital. To this end, Allen et al. (2019) posited the need for organizations to prioritize the SDGs and their targets in order to identify any gap that may exist, thus making it evidence based policy.

In addition, KPMG (2018) revealed that SDG is not a social investment or philanthropy; rather, they run through the very core of the value chain. Therefore, SDGs can serve as a guide for businesses and act as a catalyst in the process of transforming their way of doing business (Melo et al., 2015). However, Zhou et al. (2021) revealed that SDGs forms a complex system whereby the achievement of one goal can be characterized with both negative (trade-off) and positive (synergies) progress, thus requires effective management of the interconnections of the goals and their targets. Therefore to understand our first examination, reasons why organizations do not integrate SDGs in organizations' business strategy which takes the form of the challenges of SDGs are discussed below.

Challenges of adopting SDGs

Studies have revealed the setbacks in the adoption of SDGs which are methodological issues, the non-enforcement of the agenda, lack of framework for coordinated action across policy domains, lack of approach to address its interconnections and the financial implication all these are issues of SDGs (Erin & Bamigboye, 2022; Miola et al., 2019; Reyers et al., 2017; Zhou et al., 2019). For example the study of Zhou et al. (2021) posited that to adopt SDGs the approaches to address the inter linkages between the goals and targets must first be understood. These approaches are: first data driven approach; second stakeholders' consultation-based approach; and finally expert opinion-based approach (Zhou et al., 2021).

Zhou et al. puts that data driven approach capture the real situation of the SDG indicators, and the inter linkages among the SDGs, using real-life data which can be based on authentic literature review for example, the work of Anderson et al. (2021). However, using only data-driven statistical approach may overlook the context and the theoretical basis of the causal links among the SDGs and also can be limited by the quality and quantity of data available (Zhou et al., 2021). Again, Zhou et al. (2021) documented that stakeholders' consultation-based approach may provide useful insights into the context of the SDG inter linkages in a certain geographical area, but can be biased by the selection of the stakeholders. Lastly, expert opinion-based approach can provide very detailed and rich sector-specific information (United Nations Economic and Social Commission for Asia and Pacific [UNESCAP], 2017). However, there is limitation as the SDGs cover a wide range of issues. In all, expert opinion-based approaches are more suitable for specific thematic discussions rather than the whole set of the SDGs. Therefore to address the interconnections in the SDGs all three approaches are idea for the identification and quantification of inter linkages (Zhou et al., 2021).

We are of the view that organizations must have an understanding of these approaches since SDG was framed based on learning by doing approach. On this note, implementing or integrating SDGs that are prioritized into the core operations poses less challenge when levers (synergies) and trade-off (hurdles) are identified.

To this end, Sullivan et al. (2018) opined that if corporations can integrate their management strategy into their business operations, they can capture business opportunities from SDGs. In the same vein, Kucukgul et al. (2022) described the various challenges in Global Reporting Initiative (GRI) and International Integrated Reporting Council (IIRC) as framework for sustainability reporting. Kucukgul et al. put that GRI and IIRC general purpose is to support the business to disclose its economic, environmental, and social impacts with its stakeholders in a transparent, concise, reliable, complete, consistent, future-oriented, and comparable manner. Therefore, several literatures have indicated the interconnected methods for corporate sustainability, such as a robust alignment framework and an alignment approach, to increase the SDGs reporting performance of corporations by aligning the contributions of various SDGs guides of GRI and IIRC (Kucukgul et al., 2022). Furthermore, Corporate Reporting Dialogue (2020) found that there are other frameworks that can be used in resolving SDGs inter linkage challenges which are: Climate Disclosure Standard Board (CDSB), this is envisaged to be useful since climate change affects all SDGs; Global Reporting Initiative (GRI); International Integrated Reporting Council (IIRC); International Organization for Standardization (ISO) and; Sustainability Accounting Standard Board (SASB), this help to align SDG with financial performance. They however, found an overlapping in the framework. The ISO and GRI were found to be most suited for these SDGs: 1, 2, 3, 4, 5, 6, 7, 11, 12, 13, 14, and 16.

Furthermore, apart from the issues in the inter linkages in SDGs targets, the work of Erin and Bamigboye (2021) evaluate SDG reporting in Africa and revealed that most organizations show little or no concern to report their SDG as a result of the cost of implementation, non- regulatory enforcement and the voluntary nature of disclosure. Soyemi et al. (2021) examined the effect of environmental responsiveness and firm value in Nigeria. The study revealed a positive association.

SDGs and Business

The emergence of SDG has created the premise for business organizations to provide a more detailed and comprehensive report on corporate sustainability having provided a basis for key performance indicators

(KPIs) to measure sustainable performance, it is expected to lead to the increase in corporate disclosure (Cuckston, 2017). SDG has given corporate organizations a good platform to incorporate sustainability issues in their corporate reports. Whereby non-financial information are reported alongside financial information to ensure a balanced corporate reporting that serves stakeholders' needs (Hak et al., 2016). In line with this, Bebbington and Unerman (2018) documented that SDG reporting is what is needed by corporate organizations in value creation in the value chain presently. Therefore, organizations are to identify (prioritise) SDGs targets that are applicable to their business and incorporate them into their business plan and model for the achievement of global agenda (Bebbington & Unerman, 2018).

Furthermore, business organizations are to present a stewardship report on the extent to which the firm's activities have been directed toward achieving SDGs. To support this view, Hopper (2019) argued the need for organizations to measure, monitor and be accountable to achieving the SDGs. However, the study of Lanka et al. (2017) revealed a far cry from what SDG reporting is supposed to be. They argued that the current sustainability reporting lacks the basis of measurement, materiality and it is fragmented in nature. Looking at the issues above, we posit that business organizations can report SDGs when they take advantage of the solutions proffer for SDGs challenges and doing the right things, then the agenda 2030 can be achieved.

We have examined the interactions between SDGs targets and indications how it has affected achieving the global agenda 2030, hence, business organizations are to prioritize SDGs, adopt system model to manage and measure SDGs. Melo et al. (2015) opined that SDGs helps business develop new opportunities for sustainability, hence all sectors and sizes of business should channel their effort towards SDGs and as well as form alliance (Melo et al., 2015).

By this, areas of levers and hurdles are revealed (Anderson et al., 2021; Weitz et al., 2017). With limited budget, organizations need to have the knowledge for implementing SDGs. The model of Anderson et al. (2021) revealed that 30 of the 169 SDG targets increase their influence on SDGs while three targets are associated with a decrease in influence on SDG. We are of the view that Anderson et al. model, can be adopted and as well as the PwC (2017) framework is also helpful which is premised on four basic things: first, all members of an organization have a role to play; second, the leaders and management are to pursue progress towards SDG; third, there must be established key performance indicators to drive action, measure

and report progress and; finally, there should be target to achieve quality reporting for both financial and non-financial information. Anderson et al. model can be used in addressing the hurdles and levers of SDGs targets. In this process implementation of SDGs will be at a fast rate and much data will be available to assess the implementation of SDGs. We posit therefore, that when these aforementioned are applied SDGs integrated into business core operations can enhance the firm value, by this our second examination of this study is resolved. Having examined SDGs our next line of course is to examine firm value which is discussed below.

Firm Value

Firm value can be determined as follows: using book value, market value, deductive judgment, and as well as adjusted net worth (Thavikulwat, 2004). Firm value is the indicator used by investors to assess an organization thus, always revealed in the stock price in the case of public organization while unquoted firm value is determined by the book value (Nurhayati et al., 2021). Firm value is very crucial in the survival of any business organization hence, the need to sustain firm value is imperative these were the views of Friedman (as cited in Ito, 2018). The increase in stock price would mean maximizing shareholders worth, where market value (stock market price) will be used to determine the growth of the firm value (Soetjanto & Thamrin, 2020). In the same vein, firm value is the cost of a business that buyers are willing to pay for that business when sold, that is to say the accounting net worth, or book value of the business. Again, the market value has to do with the outstanding shares of a company however, cannot be used for untraded shares. In addition, firm value could be viewed from deductive judgment it uses a process of computing an index of company performance by using accounting and market values such as return on asset, return on equity, Tobin's Q (a measure of present, current and future performance and reveals managers capabilities to develop a hedge over competitors). Tobin's Q is the ratio of market value to replacement cost (Zhong et al., 2022). Adjusted net worth measure is concerned about replacement value and appropriate in mergers and acquisitions (Nurhayah et al., 2021; Thavikulwat, 2004). This is arrived at by subtracting the sum of the adjusted liabilities from the sum of the adjusted assets.

Also, Ito (2018) documented firm value could be either of cash-based value or recognized value (Ito, 2018). The cash-based value according to Ito is concerned about the increase in free cash flow whereby the involvement in SDGs will reduce cash flow and firm value as well while the recognized value is concerned

with improvements in the investor's preference on the investment as a result of involvement in SDGs which increases the firm value (Ito, 2018).

Furthermore, Sudiyatno et al. (2012) posited that firm performance determines the firm value (Tobin's Q) from the perspective of the market price of stocks. To support this view, Hassan and Musa (2021) posited that firm value is an economic measure reflecting the market value of a business, since it is the stock price that pushes organizational performance. We are of the view that in examining measures of firm value, the important factors which influence firm value should also be examined. Therefore, various factors influences firm value which are, financial performance, company size, company age, capital structure, and as well as company profit (Susanti & Restiana, 2018).

Firm value can be influenced by financial performance of the organization and this has resulted in some studies examining the influence of financial performance measure on firm value for instance, Bahraini et al. (2021) revealed that profitability has been used to measure firm value as the profit of the company increases; this means that the rate of return will also grow to cause investors to invest, contributing to an increase in stock prices. Zhong et al. (2022) documented that enterprise value can be measured using traditional accounting metrics such as ROA and ROE. This condition makes investors buy shares, and the higher the increase in share prices, the higher the shareholder's income, and causes the firm's value to increase, profitability ratio is key to firm value. Also, Soetjanto and Thamrin (2020) in their work on the relationship between capital structure, profitability and firm value (PBV) found positive association. Furthermore, the study of Endri et al. (2020) documented that a negative effect existed between current ratio and Price Book Value (firm value). While Jihadi et al. (2021) reported a positive effect of current ratio on price book value. Furthermore, Susanti and Restiana (2018) stated that the capital structure of an organization can be determined using its leverage ratio, which is measured as Debt to Equity Ratio. DER indicates the amount of an organizations' assets that are financed by debt and the amount of an organizations' debt that covers the organizations assets (Soetjanto & Thamrin, 2020), higher values of DER indicates high debt thereby posing risk on investors (Bahraini et al., 2021). However, Hermuningsih (2013) documented that debt can add to firm value (PBV) if the larger debt can be increase into profit. In line with this assertion, are the studies of Bahraini et al. (2018) and Soetjanto and Thamrin (2020) while Endri (2019) documented that DER does not affect PBV. In this view, we examine the various measures of firm value.

Measures of Firm Value

There are various measures of firm value which are, book value (Endri, 2019; Soyemi et al., 2021), enterprise value (Zhong et al., 2022), operating free cash flow (Ito, 2018) and market value (Aouadi & Marsat, 2018; Yadav et al., 2015). First, the book value of a firm is the value of the firm shown in the books or financial statement. Soetyanto and Thamrin (2020) in their study of the effect of ROE on firm value proxied by Price Book Value (PBV) found a positive effect on PBV of consumer goods companies listed on the Indonesia stock exchange spanning from 2013-2017. However, ROE revealed no effect on PBV (Putu et al., 2014). Similarly, Endri et al. (2020) used total asset turnover as a measure of firm value. They assert that Total Asset Turnover (TATO) ratio can be used to ascertain the level of effectiveness of a company in managing its funds. The study of Nurlaela et al. (2019) found that there exist a positive relationship between TATO and PBV while a negative relationship was revealed between TATO and PBV. In line with this view is the work of Karaca and Savsar (2012). In addition, Soetjanto and Thamrin (2020) found that TATO has no impact on PBV. This can be arrived at by subtracting liabilities from assets which gives shareholders equity which is the net worth of the firm. Second, enterprise value is the market value of all equity, debt and minority interest less cash (Zhong et al., 2022). Also, this enterprise value is not frequently used in studies.

Third, operating free cash flow is arrived at by adding back depreciation to earnings before interest and tax less working capital, capital expenditure and any other assets (Ito, 2018). Lastly, market value as a measure of firm value is often proxied as Tobin's Q (Nurhayati et al., 2021; Sudiyatno et al., 2012). This is the value of the firm as reflected by stock exchange. This is arrived at by multiplying the company's outstanding share by its current market price. The most currently used measures are market value and book value (Susanti & Restiana, 2018). However, Dyllick and Muff (2015) revealed that the use of market price as a measure of firm value is unaccepted while according to Gracia-Granero et al. (2018) growth and profitability ratios should be used together in examining the nexus between firm value and SDGs. There are few studies which have examined the association between SDGs and firm value; we are of the view that Tobin's Q should be used to assess the impact.

SDGs and Firm Value

There are mixed findings in the nexus between SDGs and firm value ranging from negative effects (Qureshi et al., 2020) to having positive effect (Aouadi & Marsat, 2018; Giannopoulos et al., 2022; Hassan & Musa,

2021; Zhong et al., 2022) to no effect (Atan et al., 2019) and a mixed finding (Behl et al., 2021; Ito, 2018) have revealed the role of SDG in firm value. For example, Aouadi and Marsat (2018) examined the relationship between Environment, social, Governance (ESG) controversies and firm value (market value) found that ESG is positively associated with market value (firm value). Again, Yadav et al. (2015) examined the impact of environmental performance on firm value (market value) for sustainable investment in the United States found that the announcement of environmental performance led to a significant positive association in firm value with an increase in standardized cumulative abnormal returns.

Similarly, Lopez-Perez et al. (2017) examined the management of sustainable development on firm value in small and medium enterprises and found a positive association between SD and firm value. Furthermore, Wong et al. (2020) examined the impact of sustainability (ESG) disclosure on firm value (Tobin's Q) and firm performance in airline industry found positive association between ESG and firm value. Again, Hassan and Musa (2021) examined the role of sustainability reporting on firm value (market value) found positive association between their nexus. Similarly, Abdi et al. (2021) explored the impact of ESG disclosure on firm value (market to book ratio) in the airline industry using the age and size of the firm as moderators found a positive significant relationship between ESG and firm value while firm size was revealed to moderate the association.

To support this view, Zhong et al. (2022) investigated the nexus between ESG score and firm value in Chinese manufacturing enterprise using FSQCA method revealed a positive association exists between firm value and ESG. In the same vein, Aydogmus et al. (2022) investigated the role of ESG on profitability and firm value (Tobin's Q) revealed a significant positive association. However, the study of Qureshi et al. (2020) revealed a negative association between ESG and firm value while the study of Atan et al. (2019) revealed that no relationship exists between ESG and firm value (Tobin's Q). Furthermore, Behl et al. (2021) examined the nexus between ESG score and firm value in Indian energy sector found a mixed result in the association between ESG and firm value. Also, Ito (2018) revealed a mixed effect investigated the impact of SDGs on the firm value using theoretical analysis to distinguished the firm value as cash-based value which was derived from the discount cash flow method incorporating the magnitude of cash flow, market risk, and life span of the corporation, and recognized value derived by considering the investors' utility to SDGs contribution in addition to cash-based value. They found that firm's contribution to SDGs have positive impact on the firm value if it could increase the investor base, that is, SDGs could improve

the recognized firm value. However, if the investors and shareholders care both SDGs contribution and the firm value, the cash-based firm value might be compensated; hence, SDGs contributed positively to recognized value and not to the cash based value. Furthermore, studies have shown negative correlation among goals.

For example, Zhou and Moinuddin (2019) documented that all targets under goal 8 (Decent work and economic growth) are conflicting with some target. The work of Sachs (cited by Ito, 2018) using SDGs index analyzed the impact of a SDGs activity on firm value shows that there are negative correlations between responsible consumption and production (SDG 12) and most SDGs (goal 1 - 11, 14, and 16). As a result, they opined that this could deteriorate firm value. Having examined the effect of SDGs on firm value, which was our second objective, we posit that the differences in results could be associated with measurement issues as well as theoretical issues.

To support this view, the Studies of Ekins and Zenghelis (2021) and Zheng et al. (2022) concluded that investment in sustainable development help to build organizations' image, win more market, win social resources and give competitive advantage. We can deduce that organizations when they change their behavior and innovation towards integrating identified (prioritized) SDGs into core operations it will in the long run create a good external image, hence, increase firm value. However, we are of the view that there are sacrifices to be made in the short run (Taylor et al., 2018) which will or may affect monetary value but at the long run enhance economic performance. We are of the view that economic value will help to gain potential investors into the organization which in returns at the long run bring about financial value. Therefore, is a call to challenge the traditional profitability thinking to an all-inclusive SDGs which have been revealed to have a success story on firm value since the practice of sustainable strategies this view is supported by the stakeholders theory.

Conclusions and Recommendations

The study examined the role of SDGs in firm value from existing literature. The study examined the reasons why SDGs are not integrated into most organisations' business strategy. The work revealed that apart from the framework, inter-linkages issues, there are managerial issues as well. We further looked at the relationship that exists between SDGs and firm value, we found that the firm value either as book value or market value and as well as the theory underpinning the study will determine the relationship. Finally, we

examined our last objective by examining how firm value is measured, we established that firm value should be measured in terms of book value, market value, net-worth and deductive judgement. This will help to assess the relationship between SDGs and firm value. We therefore, recommend that government of developing nations should make SDGs targets disclosures mandatory alongside the sustainability reporting. In addition, standard setting bodies should come up with a framework for reporting SDGs while business organisations are to prioritise SDGs by using the key performance indicators to measure and monitor progress this will assist in accountable sustainability reporting for the achievement of agenda 2030.

References

- Abdi, Y., Li, X., & Camara-Turull, X. (2021). Exploring the impact of sustainability (ESG) disclosure on firm value and financial performance (FP) in airline industry: The moderating role of size and age. *Environment, Development and Sustainability*, 24, 5052–5079.
- Allen, C., Metternicht, G., & Wiedmann, T. (2019). Prioritising SDG targets: Assessing baselines, gaps and interlinkages. *Sustainability Science*, 14, 421–438. <https://doi.org/10.1007/s11625-018-0596-8>.
- Alshehhi, A., Nobanee, H., & Khare, N. (2018). The Impact of sustainability practices on corporate financial performance: Literature trends and future research potential. *Journal of Sustainability*, 10(2), 2-25. <https://doi.org/10.3390/su10020494>.
- Anderson, C. C., Denich, M., Warchold, A., Kropp, J. P., & Pradhan, P. (2021). A systems model of SDG target influence on the 2030 agenda for sustainable development. *Sustainability Science*, 17, 1459–1472. <https://doi.org/10.1007/s11625-021-01040-8>
- Aouadi, A., & Marsat, S. (2018). Do ESG controversies matters for firm value? Evidence from international data. *Journal of Business Ethics*, 151(4), 1027-1047. <http://doi.org/10.1007/105551-016-3213-8>.
- Atan, R., Alam, M. M., Said, J., & Zamri, M. (2019). The Impacts of environmental, social, and governance factors on firm performance: Panel study of Malaysian companies. *Management of Environmental Quality International Journal*, 29(2), 182-194. <https://doi.org/10.1108/0320170033>.
- Aydogmus, M., Gulay, G., & Ergun, K. (2022). Impact of ESG performance on firm value and profitability. *Borsa Istanbul Review*, 22(2), 119–127. <http://doi.org/10.1016/j.bir.2022.11.006>.
- Bahraini, S., Endri, E., Santoso, S., Hartati, L., & Pramudena, S. M. (2021). Determinants of firm value: A case study of the food and beverage sector of Indonesia. *Journal of Asian Finance, Economics and Business*, 8(6), 0839–0847.
- Bebbington, J., & Unerman, J. (2018). Achieving the united nations sustainable development goals: An enabling role of accounting research. *Accounting, Auditing and Accountability Journal*, 31(1), 2-24.

- Behl, A., Kumari, P. S. R., Makhija, H., & Sharma, D. (2021). Exploring the relationship of ESG score and firm value using cross-lagged panel analyses: Case of the Indian energy sector. *Annals of Operations Research*, 313, 231–256. <https://doi.org/10.1007/s10479>.
- Bennich, T., Weitz, N., & Carlsen, H. (2020). Deciphering the scientific literature on SDG interactions: A review and reading guide. *Science of the Total Environment*, 728, <https://doi.org/10.1016/j.scitotenv.2020.138405>
- Corporate Reporting Dialogue. (2019). *The sustainable development goals and the future of corporate reporting*. In Article. <http://integratedreporting.org/wp-content/uploads/2019/02/The-Sustainable-Development-Goals-and-the-future-of-corporate-reporting-1.pdf>.
- Cuckston, T. (2017). Ecology-centred accounting for biodiversity in the production of a blanket bog. *Accounting, Auditing, and Accountability Journal*, 30(7), 1567-1592.
- Dyllick, T., & Muff, K. (2015). Clarifying the meaning of sustainable business: Introducing a typology from business-as-usual to true business sustainability. *Organization and Environment*, 1-19. <https://doi.org/10.1177/1086026615575176>.
- Ekins, P., & Zenghelis, D. (2021). The costs and benefits of environmental sustainability. *Sustainability Science* 16(4), 949–965. <https://doi.org/10.1007/S11625-021-00910-5>.
- Endri, E. (2019). Determinant of firm's value: evidence of manufacturing sectors listed in Indonesia shariah stock index. *International Journal of Recent Technology and Engineering*, 8(3), 3995–3999. <https://doi.org/10.35940/ijrte.C5258.098319>.
- Endri, E., & Fathony, M. (2020). Determinants of firm value: Evidence from the financial industry. *Management Science Letters*, 10(1), 111–120. <https://doi.org/10.5267/j.msl.2019.8.011>
- Endrikat, J., Guenther, E., & Hoppe, H. (2014). Making sense of conflicting empirical findings: A meta-analytic review of the relationship between corporate environmental and financial performance. *European Management Journal*, 32, 735–751.
- Erin, O. A., & Bamigboye, O. A. (2021). Evaluation and analysis of SDGs reporting: Evidence from Africa. *Journal of Accounting and Organizational Change*, 18(3), 369-396. <https://doi.org/10.1108/JAOC-02-2020-0025>
- Erin, O. A., Bamigboye, O. A., & Oyewo, B. (2022). Sustainable development goals (SDG) reporting: An analysis of disclosure. *Journal of Accounting Emerging Economics*, 18(3), 369-396. <https://doi.org/10.1108/JAOC-02-2020-0025>.
- Garcia-Granero, E.M., Piedra- Munoz, L., & Galdeano-Gomez, E. (2018). Eco-innovation measurement: A review of firm performance indicators. *Journal of Cleaner Production*, 191, 304-317. <https://doi.org/10.1016/j.jclepro.2018.04.215>.

- Giannopoulos, G., Fagernes, R. V. K., Elmarzouky, M., & Hossain, K. A. (2022). The ESG disclosure and the financial performance of Norwegian listed firms. *Journal of Risk and Financial Management, 15*, 237
- Hak, T., Janouskova, S., & Moldan, B. (2016). Sustainable development goals: A need for relevant indicators. *Ecological Indicators, 60*, 565-573.
- Hassan, A. O., & Musa, W. A. (2021). Sustainability reporting and firm's value; empirical evidence from non-financial sector. In Institute of Chartered Accountant of Nigeria Proceedings of the 7th Annual International Academic Conference on *Accounting and Finance Disruptive Technology: Accounting Practices, Financial and Sustainability Reporting*.
- Hermuningsih, S. (2014). Profitability, growth opportunity, capital structure, and firm value. *Bulletin of Monetary Economics and Banking, 16*(2), 115–136. <https://doi.org/10.21098>.
- Hopper, T. (2019). Stop accounting myopia: – think globally: a polemic. *Journal of Accounting and Organizational Change, 15*(1), 87-99.
- Ito, H. (2018). Analysis of impacts of SDGs activities on firm value and Utility: Proposals of SDGs finance and indices in Japan. *Communications of the Japan Association of Real Options and Strategy, 10*(1), 42-56. https://doi.org/10.12949/cjaros.10.1_42.
- Izzo, M. F., Ciaburri, M., & Tiscini, R. (2020). The challenge of sustainable development goal reporting: The first evidence from Italian listed companies. *Journal of Sustainability, 12*(8), 1-18. <https://doi.org/10.3390/su12083494>.
- Jihadi, M., Vilantika, E., Hashemi, S.M., Arifin, Z., Bachtiar, Y., & Sholichah, F. (2021). The effect of liquidity, leverage, and profitability on firm value: Empirical evidence from Indonesia. *Journal of Asian Finance, Economics, and Business, 8*(3), 423–431. <https://doi.org/0.13106/jafeb.2021>.
- Karaca, S. S., & Savsar, A. (2012). The effect of financial ratios on the firm value: Evidence from Turkey. *Journal of Applied Economic Sciences, 7*(1), 56–63.
- KPMG International. (2018). *How to report on the sustainable development goals: What good looks like and why it matters*. www.assets.kpmg.com/pdf/2018/02.
- Kucukgul, E., Cerin, P., & Liu, Y. (2022). Enhancing the value of corporate sustainability: An approach for aligning multiple SDGs guides on reporting. *Journal of Cleaner Production, 333*. <https://doi.org/10.1016/j.jclepro.130005>.
- Lanka, S., Khadaroo, I., & Bohm, S. (2017). Agroecology accounting: biodiversity and sustainable livelihoods from the margin. *Accounting, Auditing and Accountability Journal, 30*(7), 1592-1613.
- Laskar, N. (2019). Does sustainability reporting enhance firm's profitability? A study on select companies from India and South Korea. *Indian Journal of Corporate Governance, 12*(1), 1–20. <https://doi.org/10.1177/0974686219836528>.

- Lawrence, R. J. (2020). Overcoming barriers to implementing sustainable development goals: Human ecology matters. *Human Ecology Review*, 26(1), 95-115.
- Lopez-Perez, M. E., Melero, I., & Sese, F. J. (2017). Management for sustainable development and its impact on firm value in the SME context: Does size matter? *Business Strategy and the Environment*, 26(7), 985-999. <http://doi.org/10.1002/bse.1961>.
- Lusseau, D., & Mancini, F. (2019). Income-based variation in sustainable development goal interaction networks. *Nature Sustainability*, 2(3), 242–247. <https://doi.org/10.1038/s41893-019-0231-4>.
- Mair, S., Jones, A., Ward, J., Christie, I., Druckman, A., & Lyon, F. (2018). A critical review of the role of indicators in implementing the sustainable development goals. In L. F. Walter (Ed.), *Handbook of sustainability science and research. World sustainability series* (pp. 41-56). Springer. <http://hdl.handle.net/10454/18258>.
- Mate, D., Olah, J., Erdei, E., Estiyanti, N.M., Bacs, Z., & Kovacs, S. (2022). The impacts of sustainable industrial revolution (IR) on the profitability of Hungarian food companies. *Frontiers in Sustainable Food System*, 6(1), 1-14. <http://doi.org/10.3389/fsufs.2022.1034010>.
- Melo, J., Villa, L., Naranjo, A. M., & Zenteno, M. (2015). *Business and sustainable development goals: A guide for getting started*. (L. Marguerite, Trans.). Taller de innve sas. <http://innove.com.co/empresayods/>.
- Miola, A., Borchardt, S., & Neher, F. (2019). *Interlinkages and policy coherence for the sustainable development goals implementation*. JRC Technical Reports. European Commission jt res centre. <https://doi.org/10.2760/472928>.
- Nurhayati, I., Sudiyatno, B., Puspitasari, E., & Basiya, R. (2021). Moderating effect of firm performance on firm value: Evidence from Indonesia. *Problems and Perspectives in Management*, 19(3), 85-94.
- Nurlaela, S., Mursito, B., Kustiyah, E., Istiqomah., & Hartono, S. (2019). Asset turnover, capital structure, and financial performance consumption industry company in Indonesia stock exchange. *International Journal of Economics and Financial*, 9(3), 297–301. <https://doi.org/10.32479/ijefi.8185>
- Pham-Trufert, M., Metz, F., Fischer, M., Ruef, H., & Messerli, P. (2020). Interactions among sustainable development goals: Knowledge for identifying multipliers and virtuous cycles. *Sustainable Development*, 28(5), 1236–1250. <https://doi.org/10.1002/sd.2073>
- Putu, N. G. M., Moeljadi, D., & Djazuli, A. (2014). Factors affecting firms value of Indonesia public manufacturing firms. *International Journal of Business and Management Invention*, 3(2), 35–44.
- PwC. (2017). *SDG reporting challenge. Exploring business communication on the global goal*. <https://www.pwc.com/gx/en/sustainability/SDG/pwc-sdg-reporting-challenge-2017-final.pdf>.

- Qureshi, M. A., Kirkerud, S., Tran, K. M., & Ahsan, T. (2020). The impact of sustainability (environmental, social and governance) disclosure and board diversity on firm value: The moderating role of industry sensitivity. *Business Strategy and the Environment*, 29(3), 1199–1214.
- Ramos, D. L., Chen, S., Rabeeu, A., & Abdul Rahim, A.B. (2022). Does SDG coverage influence firm performance? *Journal of Sustainability*, 14. <https://doi.org/10.3390/su14094870>.
- Reyers, B., Stafford-Smith, M., Erb, K. H., Scholes, R., & Selomane, O. (2017). Essential variables help to focus sustainable development goals monitoring. *Current options in environmental sustainability*, 26, 97-105. <https://doi.org/10.1016/j.cosust.2017.05.003>
- Soetjanto, J. R., & Thamrin, H. (2020). Analysis of factors that effect firm value of consumer goods industry listed on Indonesia stock. *International Journal of Scientific and Research Publications*, 10(5), 1-8. <http://doi.org/10.29322/IJSRP.10.05.2020.p10102>.
- Soyemi, K. A., Okewale, J. A., & Olaniyan, J. D. (2021). Environmental responsiveness and firm value: Evidence from Nigeria. *Acta University Sapientiae, Economics and Business*, 9(1), 133–155. <https://doi.org/10.2478/auseb-2021-0008>.
- Sudiyatno, B., Puspitasari, E., & Kartika, A. (2012). The company's policy, firm performance, and firm value: An empirical research on Indonesia stock exchange. *American International Journal of Contemporary Research*, 12(2), 30-40.
- Sullivan, K., Thomas, S., & Rosano, M. (2018). Using industrial ecology and strategic management concepts to pursue the sustainable development goals. *Journal of Cleaner Production*, 174(10), 237-246. <https://doi.org/10.1016/j.jclepro.2017.10.201>.
- Susanti, N., & Restiana, N. G. (2018). What's the best factor to determining firm value? *Jurnal Keuangan dan Perbankan*, 22(2), 301-309. <https://doi.org/10.26905/jkdp.v22i2.1529>.
- Taylor, J., Vithayathil, J., & Yim, D. (2018). Are corporate social responsibility (CSR) initiatives such as sustainable development and environmental policies value enhancing or window dressing? *Corporate Social Responsibility and Environmental Management*, 25 (5), 971–980. <https://doi.org/10.1002/csr.1513>.
- Thavikulwat, P. (2004). Determining the value of a firm. *Developments in Business Simulation and Experiential Learning*, 31, 210- 215.
- United Nations Economic and Social Commission for Asia and Pacific. (2017). *Integrated approaches for sustainable development goals planning: The case of goal 6 on water and sanitation*. <https://www.unescap.org/publications>
- United Nations Global Compact. (2020). *Progress report on sdgs monitoring*. <https://www.unglobalcompact.org/docs/>
- United Nations. (2015). *Transforming our world: The 2030 agenda for sustainable development preamble*. https://www.un.org/en/development/desa/population/migration/generalassembly/docs/globalcompact/A_RES_70_1_E.pdf.

- Wagner, M., Nguyen, V. P., & Azomahou, T. (2002). The relationship between the environment and economic performance of firms: An empirical analysis of the European paper industry. *Corporate Social Responsibility and Environmental Management*, 9, 133–146. <https://doi.org/10.1002/csr.22>.
- Weitz, N., Carlsen, H., Nilsson, M., & Skånberg, K. (2018). Towards systemic and contextual priority setting for implementing the 2030 agenda. *Sustainability Science*, 13(2), 531–548. <https://doi.org/10.1007/s11625-017-0470-0>.
- Wong, W. C., Nordi, S., Adzis, A. A., Batten, J. A., & Ahmad, A. H. (2020). Does ESG certification add to firm value? *Finance Research Letters*, 39(5). <http://doi.org/10.1016/j.frl.2019.101593>.
- World Business Council for Sustainable Development. (2015). Reporting matters 2015. WBCSD.
- Wu, L., Qing, C., & Jin, S. (2022). Environmental protection and sustainable development of enterprises in China: The moderating role of media attention. *Frontiers in Environmental Science journal*, 10, 1-11. <http://doi.org/10.3389/fenvs.2022.966479>.
- Yadav, P. L., Han, S. H., & Rho, J. J. (2015). Impact of environmental performance on firm value for sustainable investment: Evidence from large US firms. *Business Strategy and the Environment*, 25(6), 402-420. <http://doi.org/10.1002/bse>.
- Yang, J., & Liu, X. (2022). The role of sustainable development goals, financial knowledge and investment strategies on the organizational profitability: Moderating impact of government support. *Economic Research*, 36(1), 1570-1591. <https://doi.org/10.1080/1331677X.2022.2090405>
- Yang, M., Bento, P., & Akba, A. (2019). Does CSR influence firm performance indicators? evidence from Chinese pharmaceutical enterprises. *Journal of Sustainability*, 11, 1-18. <http://doi.org/10.3390/su11205656>.
- Zheng, J., Khurram, M. U., & Chen, L. (2022). Can green innovation affect ESG ratings and financial performance? Evidence from Chinese GEM listed companies. *Journal of Sustainability*, 14 (14), 2-33. <https://doi.org/10.3390/su14148677>.
- Zhong, S., Hou, J., Li, J., & Gao, W. (2022). Exploring the relationship of ESG score and firm value using fsQCA method: Cases of the Chinese manufacturing enterprises. *Frontiers in Psychology*, 13, 1-13. <http://doi.org/10.3389/fpsyg.2022.1019469>
- Zhou, Z., & Moinuddin, M. (2019). Sustainable development goals Interlinkages and network analysis: A practical tool for SDG integration and policy coherence. Institute for Global Environmental Strategies. <https://www.iges.or.jp/en/pub/sustainable-development-goals-interlinkages/en>.
- Zhou, X., Moinuddin, M., Renaud, F., Barrett, B., Xu, J., Liang, Q., Zhao, J., Xia, X., Boshier, L., Suiliang Huang, S., & Hoey, T. (2021). Development of an SDG interlinkages analysis model at the river basin scale: A case study in the Luanhe river basin, China. *Sustainability Science*, 17, 1405–1433. <https://doi.org/10.1007/s11625-021-01065-z>