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Article

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MANAGEMENT | RESEARCH ARTICLE

Integrating corporate sustainability and sustainable development goals: towards a multi-stakeholder framework

Avinash Pratap Singh^{1*} and Zillur Rahman¹

Abstract: The United Nations Sustainable Development Goals (SDGs) are a basket of major global challenges. No business is untouched by the challenges presented by the SDGs. The SDGs are well connected with the three pillars of corporate sustainability. This research paper has two unique properties: first, it uses a stakeholder approach to establish the organic linkages between the triple bottom line (TBL) approach and SDGs. India is committed to the SDGs of the United Nations. Indian public and private corporations can play a key role in India's commitments to achieving SDGs by 2030. The second objective of this study is to examine the alignment of the top 100 Indian companies with the SDGs based on quantitative content analysis. The proposed SDG-TBL framework contributes to advance theoretical and practical understanding of the factors influencing the adoption of SDGs by businesses. This article also offers implications for researchers and practitioners.

Subjects: India; studies of; Sustainable Development; Business, Management and Accounting



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PUBLIC INTEREST STATEMENT

Global goals represent our shared vision to make the world a better place by 2030. Businesses have the resources to support the timely achievement of the SDGs. The proposed TBL-SDGs framework validates that TBL is organically aligned with Agenda 2030, urging corporations to participate positively in the sustainable development of the world. SDG integration by businesses is contingent on their listing age and industry segment. It was found that there are several SDGs on which businesses have focused inadequately. Policymakers, regulators, and the government need to formulate policies to stimulate businesses to participate in all SDGs. From a corporate perspective, embedding SDGs into key business processes has long-term commercial value by finding new growth opportunities and reducing the risk associated with their profiles.

Keywords: Sustainable development goals (SDGs); triple bottom line (TBL); stakeholder engagement; corporate reporting; corporate sustainability

1. Introduction

Contemporary businesses operate in a “multi-stakeholder ecosystem paradigm,” where the vital resources necessary for organizations’ long-term survival are dependent on the stakeholder world (Desai, 2018; Viglia et al., 2018). From the sustainable development perspective, firms need to engage with their various stakeholders (Amaeshi & Crane, 2006). However, corporations often struggle to build a sustainable relationship with multiple stakeholders (Maak, 2007). As a result of this complex situation, corporations confront multiple integrally entangled sustainability challenges, and such a hostile environment stimulates firms to embrace an adaptive approach (Hörisch et al., 2014).

In the management literature, social and environmental expectations of stakeholders from businesses have nurtured the concept of sustainability (Cennamo et al., 2012; Herremans et al., 2016; Lim & Greenwood, 2017). As stated by Elkington (1999), Corporate sustainability is the archetype for 21st-century businesses. The emergence of the sustainability concept has urged businesses to re-examine their approach to measuring their performance. Businesses must work for complete system stability to ensure their viability in complex mutual stakeholder systems (Sulkowski et al., 2018). In recent years, the expectations of stakeholders from businesses have increased extensively. Business maneuvers occur within the social and environmental periphery, so social and environmental aspects need to be considered. (Anbarasan & Sushil, 2018; Johnson et al., 2018; Kepore & Imbun, 2011). McLaren (2004) claimed that stakeholders measure firms’ success with their societal and environmental performances.

Elkington (1998) explained that sustainability is dependent on three interconnected dimensions, namely economic prosperity, social equity, and environmental integrity. Businesses should consider all three approaches with equal importance (Venkatraman & Nayak, 2015). This perspective has marked a paradigm shift and urges businesses to shift their focus from the traditional bottom-line approach to the triple bottom line (TBL) approach (Hardjono & van Marrewijk, 2001). The relationship between Economic, Social, and Environmental facets of business sustainability is termed TBL (Svensson et al., 2018).

1.1. Stakeholder definition from the corporate sustainability perspective

A stakeholder is a social construct of different entities having the potential to influence or get affected by the businesses (Jakhar, 2017); it is “a generic term and includes both individuals and groups” (Greco et al., 2015). Based on the relational perspective, Sulkowski et al. (2018) has identified stakeholders as the key elements of any business. According to Noland and Phillips (2010), stakeholders are the building blocks of an organization, and the businesses operate in a space created by a network of stakeholders.

The stakeholder definition suggested by Freeman (1984), “any group or individual who can affect or is affected by the achievement of the organization’s objectives,” has been the most influential in management literature for the last three decades. Researchers have extended the human-oriented definition of stakeholder to include various “non-human actors” who can disturb or are upset by companies’ actions (Missonier & Loufrani-Fedida, 2014). Society and the environment have “value and implications” for companies and are therefore indispensable to businesses (Anbarasan & Sushil, 2018; Lane & Devin, 2018). The firm is also a stakeholder on the socio-ecological system, with society and the environment as the autochthonous stakeholder (Henriksson & Weidman Grunewald, 2020; Sulkowski et al., 2018).

1.2. Sustainable development goals

In 2000, world leaders committed themselves to the United Nations Millennium Development Goals (MDGs)—a development plan with a specified deadline of 2015. After fifteen years, even though substantial growth was recorded globally, many countries failed to meet the MDGs targets (Battersby, 2017; Satterthwaite, 2016). In 2015, MDGs ended their term and replaced the Sustainable Development Goals (SDGs) to address the unfinished agenda (Kumar et al., 2016). The 17 SDGs have been moulded from MDGs with the addition of other global problems such as climate change, economic inequality, innovation, sustainable consumption, peace and justice. In September 2015, 193 member states of the United Nations adopted SDGs to shape the world's most ambitious agenda. The SDG framework has 17 goals with 169 targets related to poverty, food, health, education, women, water, energy, economy, infrastructure, inequality, habitation, consumption, climate, marine ecosystems, institutions for peace, and sustainable development (Carreira et al., 2017). It is an ambitious plan to make the world more inclusive and sustainable by the year 2030 (Borges et al., 2017). SDGs are comprehensive and applicable to all nations, therefore also known as Global Goals. The SDGs' prime objective is to restructure the development model globally (Pradhan et al., 2017).

The SDGs have a 2030 deadline and require fast-track actions (Nhamo & Mjimba, 2020). Creative and innovative solutions are needed to tackle the challenges posed by SDGs. Businesses have the resources and capabilities to stimulate SDGs through innovation, research, technology, funding, and employment. However, businesses seek greater motivation to engage with SDGs, particularly beyond statutory CSR spending (Scheyvens et al., 2016).

Analogous to TBL, the UN SDG framework was also designed with a stakeholder perspective. The goals are clear and time-bound and demand active participation from all stakeholders (Anderson & Ratiu, 2019). SDGs are the most comprehensive framework for inclusive growth (Borges et al., 2017). No business can succeed if society fails, and businesses need to understand that SDGs provide an opportunity for businesses and societies to live and prosper together (Pedersen, 2018).

1.3. Connecting corporate sustainability to sustainable development goals

The role of businesses can be redefined with the fact that sustainable development of the world and the future of the upcoming generations depend on the companies' current choices and actions (Morioka et al., 2017). Corporate sustainability is a concept that drives organizations to improve their performance in all three dimensions of TBL, and SDGs have clear and time-bound targets. Establishing linkages between the three pillars of the TBL concept and 17 SDGs can be insightful for businesses. A TBL-SDG framework can inspire businesses to participate actively and contribute to the SDGs. Integration of TBL and SDGs can provide businesses with all the internal and external motivation to contribute to the world's sustainable development. With the TBL-SDG framework, the main aim of this study is to systematically integrate the secluded social and environmental dimensions of corporate sustainability into business.

From the corporate sustainability perspective, firm, society, and environment are the three key stakeholders associated with creating economic, social, and environmental values, respectively (Anbarasan & Sushil, 2018). In developing the TBL-SDG framework, these three stakeholders are positioned at the core to establish the linkages between TBL and SDGs. The three pillars of corporate sustainability are interrelated (Purvis et al., 2019). Similarly, global goals are highly connected and form a complex interlinkage network (Swain & Ranganathan, 2021; Tosun & Leininger, 2017). Consistent with Fonseca and Carvalho (2019), this study considered all SDGs in seclusion and used a systematic approach to develop the TBL-SDGs framework.

1.3.1. Society and SDGs

Social sustainability refers to the company's ability to ensure the wellbeing of society. Businesses often fail to understand the social dimension of the TBL framework. Firms undertake various projects for the community in their corporate social responsibility (CSR) programs. However, these CSR initiatives fail to establish the impact of firms' activities on society and determine

accountability. From the community standpoint, corporations consider adopting sustainability beyond the CSR activities to be discretionary rather than necessary (Padin et al., 2016).

Poverty, hunger, health, education, gender discrimination, water and sanitation, employment, inequality, peace, and justice are the issues that directly affect society. The nine SDGs that can be classified in the social dimension of the TBL approach are

SDG 1: No Poverty—End poverty in all its forms everywhere.

SDG 2: Zero Hunger—End hunger, achieve food security and improved nutrition and promote sustainable agriculture.

SDG 3: Good Health and Wellbeing—Ensure healthy lives and promote the wellbeing of all ages.

SDG 4: Quality Education—Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.

SDG 5: Gender Quality—Achieve gender equality and empower all women and girls.

SDG 6: Clean Water and Sanitation—Ensure availability and sustainable management of water and sanitation for all.

SDG 8: Decent Work and Economic Growth—Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all.

SDG 10: Reduce Inequalities—Reduce inequality within and among countries.

SDG 11: Sustainable Cities and Communities—Make cities and human settlements inclusive, safe, resilient and sustainable.

SDG 12: Responsible Consumption and Production—Ensure sustainable consumption and production patterns.

SDG 16: Peace and Justice—Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels.

Businesses pursuing the above SDGs can enhance their contribution to the community perspective of the TBL approach to corporate sustainability.

1.3.2. *Environment and SDGs*

Environmental sustainability refers to the firm's ability to conserve and preserve the natural environment. Companies often envision Cost-cutting measures as the primary tool to engage in environmental conservation activities. Several organizations have adopted environmental management systems (EMS) (Knowles et al., 1999). Undoubtedly, EMS is an effective way to measure a firm's performance from an environmental perspective (Vanclay, 2010). However, a holistic approach is necessary to better understand the TBL concept's environmental perspective (Sridhar & Jones, 2013).

From an environmental perspective, clean water, clean energy, sustainable cities, climate change, and sustainable marine and land resources are major challenges. The six SDGs that can be categorized in the environmental dimension of the TBL approach are:

SDG 6: Clean Water and Sanitation—Ensure availability and sustainable management of water and sanitation for all.

SDG 7: Affordable and Clean Energy—Ensure access to affordable, reliable, sustainable and modern energy for all.

SDG 11: Sustainable Cities and Communities—Make cities and human settlements inclusive, safe, resilient and sustainable.

SDG 13: Climate Action—Take urgent action to combat climate change and its impacts.

SDG 14: Life below Water—Conserve and sustainable use the oceans, seas and marine resources for sustainable development.

SDG 15: Life on Land—Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss.

By acting for SDG 6, SDG 7 and SDG 13 to SDG 15, businesses can create ecological value and contribute to the environmental perspective of the TBL approach to corporate sustainability.

1.3.3. Firm and SDGs

Economic sustainability refers to the company's ability to survive, make profits and contribute to the economy (Roberts & Tribe, 2008). Gender discrimination, decent work and economic growth of employees, inequality at the workplace, clean energy, innovation, and sustainable use of resources are vital challenges for businesses. The six goals that are associated with the economic perspective of the TBL approach are:

SDG 5: Gender Quality—Achieve gender equality and empower all women and girls.

SDG 7: Affordable and Clean Energy—Ensure access to affordable, reliable, sustainable and modern energy for all.

SDG 8: Decent Work and Economic Growth—Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all.

SDG 9: Industry, Innovation and Infrastructure—Build resilient infrastructure, promote inclusive and sustainable industrialisation and foster innovation.

SDG 10: Reduce Inequalities—Reduce inequality within and among countries.

SDG 12: Responsible Consumption and Production—Ensure sustainable consumption and production patterns.

Businesses can enhance their economic dimension of the TBL approach by working for SDG 8 to SDG 12.

1.3.4. SDG-17 and sustainability of TBL elements

Global goals are ambitious and need extraordinary support from all stakeholders, including businesses (Anderson & Ratiu, 2019). Cooperation between stakeholders is necessary to meet all the 16 SDGs directly linked with three dimensions (economic, social, and environmental) of TBL.

SDG 17: Partnerships for the Goals—Strengthen the means of implementation and revitalise the global partnership for sustainable development.

SDG17 provides businesses with the opportunity to lead a shared value creation process and enhance their long-term sustainability (Pedersen, 2018).

Figure 1. TBL-SDGs framework (adapted from **Fonseca & Carvalho, 2019**).



The proposed TBL-SDG framework is shown in [Figure 1](#). This holistic framework is based on the organic linkages and explains the 16 SDGs to businesses using the TBL concept. Also, the proposed framework calls for collaboration among all stakeholders for sustainable value creation along all three dimensions of the TBL approach.

1.4. India and SDGs

India is one of the fastest-growing economies in the world ([Sankaran et al., 2020](#)). On the other hand, India has been facing many social, economic, and environmental challenges such as low per capita income, poverty, hunger, energy security, water security, large population, sanitation, poor health care, depleting natural resources, climate change ([Bansal et al., 2020](#)). India has played a vital role in shaping the UN SDGs of the United Nations and supported the 2030 agenda for sustainable development ([Aayog, 2017](#)). India has pledged to the effective implementation of SDGs. As per [MoSPI \(2015\)](#), India missed the national targets of the MDGs, and SDGs are significant and crucial from the Indian context. Meeting the SDGs targets by 2030 will be essential for India and its growth journey.

United Nations estimates that SDGs require an investment of USD 90 trillion, with India needing USD 2.5 trillion to achieve its climate change targets by 2030 ([UNFCCC \(United Nations Framework Convention on Climate Change\), 2015](#)). This considerable investment seeks the active participation of businesses to turn sustainable development challenges into opportunities and play a key role in meeting SDGs targets ([Ghosh & Rajan, 2019](#); [Mio et al., 2020](#); [Scheyvens et al., 2016](#)). Compared to MDGs, businesses worldwide are more sensitive and engaged with SDGs through initiatives such as the UN Global Compact. Indian businesses have gradually adopted practices to achieve the SDGs ([Mishra, 2021](#); [Poddar et al., 2019](#)). The achievement of SDGs depends on the speed with which companies develop more innovative and inclusive business models ([Scheyvens et al., 2016](#)). This paper's key objective is to examine the orientation of the top 100 Indian companies with SDGs based on quantitative content analysis. The two research questions prepared to fit the primary purpose of this study are:

Research question 1: Based on quantitative content analysis, does the adoption of SDGs by the top 100 Indian companies is dependent on their listing age.

Research question 2: Based on quantitative content analysis, does the adoption of SDGs by the top 100 Indian companies is dependent on their industry segment.

The following section explains the research method. Sections 3 and 4 present the research paper findings and further discussion. The final section of this study offers the conclusions, implications, and limitations, followed by suggestions for future inquiries.

2. Research methodology

Content analysis is a systematic research method used to analyze the documents and gather data to test the theoretical problems. It allows researchers to draw replicable and logical conclusions from the data (Krippendorff, 2018). Studies focusing on non-financial information of corporate reporting uses content analysis as a research method to capture data on social and environmental disclosures (Guthrie & Abeysekera, 2006). Non-financial disclosures are primarily qualitative, and content analysis allows to capture and analysis of diverse empirical data. (Guthrie et al., 2004).

This study used inductive content analysis to examine the top 100 Indian companies' alignment with the SDGs. There are three main phases in content analysis-preparation, organizing, and reporting (Elo & Kyngäs, 2008).

2.1. Preparation phase

We downloaded the list of the top 100 Indian companies based on market capitalization from the website of the National Stock Exchange of India Limited (a leading stock exchange in India), along with other relevant information such as industry category and listing date. The top 100 Indian companies are classified into 15 industry groups by the National Stock Exchange of India Limited, as shown in Figure 2. The listing date of the firms on the stock exchange was used to calculate the listing age.

2.1.1. Selection of non-financial disclosure reports

The disclosure content of annual reports provided by corporations is an area of considerable interest to organizational researchers (Guthrie et al., 2004). Corporate disclosures are labeled as mandatory (such as financial reports, business responsibility report) or voluntary (such as sustainability report, corporate sustainability report, ESG report) (Rowe et al., 2014). An organization can use either or both types of disclosures or an integrated mode (such as integrated reports) to communicate with its stakeholders (Garrido-Miralles et al., 2016). Annual reports are deemed as the most appropriate abode for all kinds of disclosures. Disclosure reports enable stakeholders to measure businesses' social and environmental impact (Othman & Ameer, 2010). Stakeholders perceive selected disclosure by firms as an eyewash (Blackburn et al., 2018; Martín-de Castro et al., 2016). Multiple disclosures in discrete or integrated style comprising financial, social, and

Figure 2. Composition of top 100 Indian enterprises.

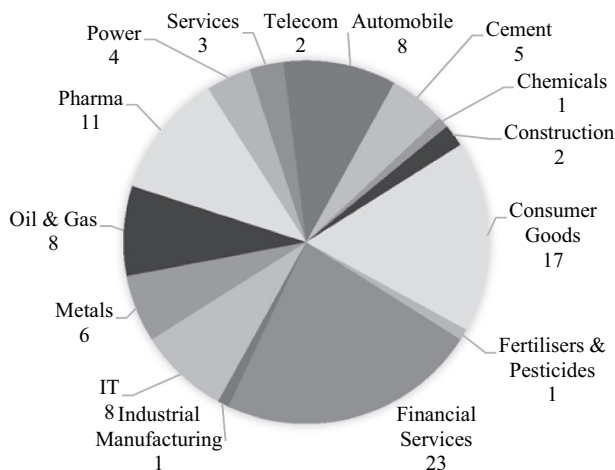


Table 1. Criteria and data collection points

Criterion	Type-1	Type-2
Type of Measurement (Quantitative or not)	Non-quantitative: Mapping of SDGs	Quantitative: Performance measurement and benchmarking
Time Orientation (Future Vision-Short-term/ Long Term)	Short Term: Measurable future targets	Long term: self-plan aligned with UN 2030 agenda

Table 2. Finalized texts, data collection point, and code

Texts	UN SDGs	Assurance of Non-financial disclosure
Keywords	“sustainable development goals” OR “SDGs” OR “SDG” OR “global goals” OR “agenda 2030”	“external assurance” OR “independent assurance”
DCP 1	For each SDGs 1 to 17 • if yes	• if yes
DCP 2	Mapping of SDGs • if yes	
DCP 3	Performance measurement and benchmarking • if yes	
DCP 4	Measurable future targets • if yes	
DCP 5	SDGs through CSR • if yes	
DCP 6	SDGs through Various business practices • if yes	
DCP 7	If self-plan aligned with UN 2030 agenda: details of plan	

environmental aspects, based on the stakeholders’ needs, are suggested for an effective stakeholder engagement (Prado-Lorenzo et al., 2009). Over the years, business disclosure has increased considering the stakeholders’ needs (Sierra-García et al., 2015).

Based on this study’s objective to investigate the alignment of Indian companies with the SDGs, it was decided to include both mandatory and voluntary reports in the content analysis. Corporate reports were downloaded in PDFs from companies’ websites in six categories: Annual Report, Integrated Report, Sustainability Report, Business Responsibility Report, ESG Report, and Corporate Social Responsibility Report. The downloaded PDF files of corporate reports were converted into readable text documents

2.1.2. Selection of keywords and their codification for content analysis

For systematic content analysis of the documents to provide evidence-based conclusions to research questions, the texts were categorized into two keywords groups: UN SDGs and the Assurance of Non-Financial Disclosure.

Figure 3. Adoption of SDGs vs firms' listing age.

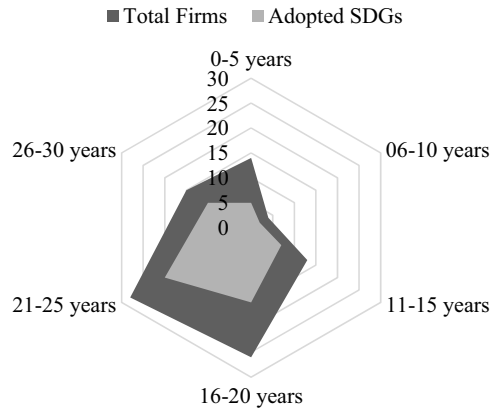
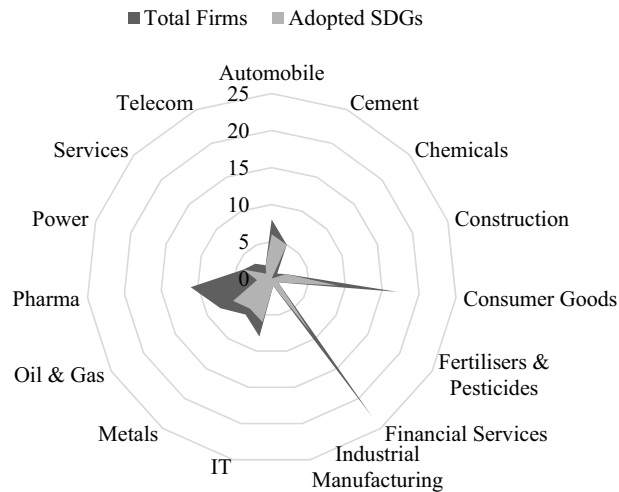


Figure 4. Adoption of SDGs vs industry segment.



2.2. Organizing phase

2.2.1. Pilot run

The two scholars independently conducted a pilot run on five firms to test the coding scheme before the final content analysis. Test run allowed to distinguish between reporting on SDGs action and SDGs performance based on the type of measurement and time orientation presented in [Table 1](#). Test run also allowed to refine and finalize data collection points (DCPs) and codify them for data capturing during content analysis. The finalized texts, data collection points, and codes are shown in [Table 2](#).

Table 3. SDGs measurement & time orientation

	Adopted SDGs	Type of Measurement		Time Orientation	
		Non-quantitative	Quantitative	Short Term	Long Term
		Mapping of SDGs			
Benchmarking and performance measurement	Measurable future targets	Self-plan aligned with UN 2030 agenda			
Number of Firms	59	49	34	13	7

Figure 5. External assurance of non-financial disclosure vs firms' listing age.

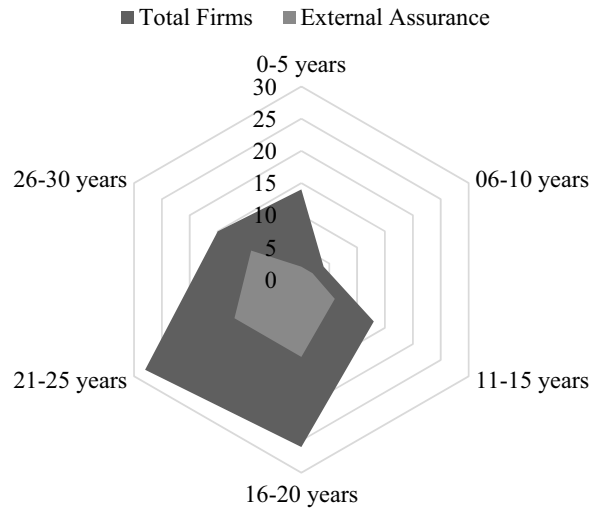


Figure 6. External assurance of non-financial disclosure vs industry segment.

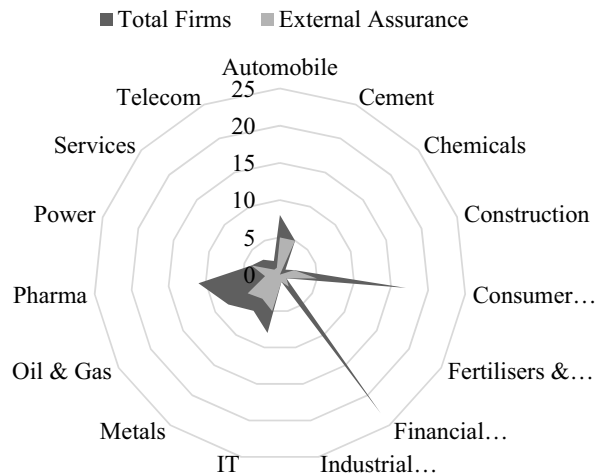


Figure 7. Industry segment vs social SDGs priority.

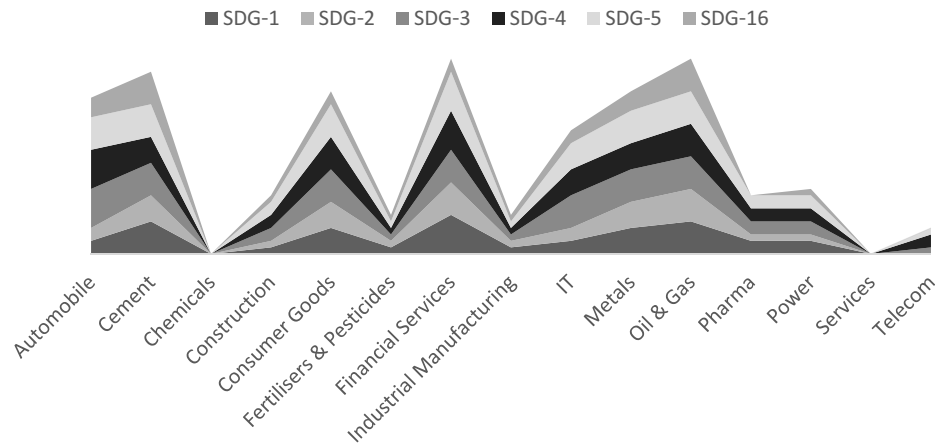
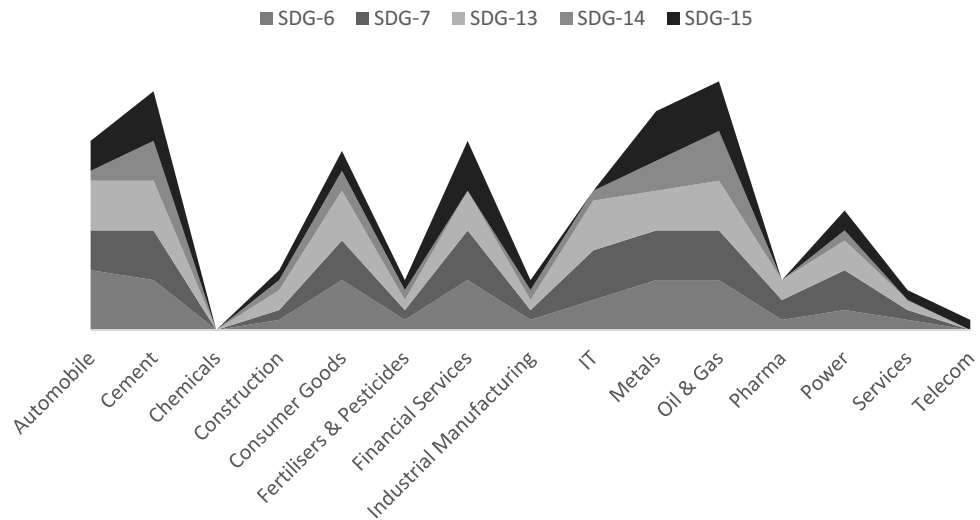


Figure 8. Industry segment vs environmental SDGs priority.



2.2.2. Text analysis

An in-depth manual content analysis of the corporate disclosure documents was adopted for the two keywords groups. Coded data were captured and recorded from the corporate reports for all the DCPs. Company-wise recorded data across all DCPs is made available in Annexure-1.

2.3. Reporting phase

The collected qualitative data was plotted, analyzed, and correlated the variables using the Chart tool available in Microsoft Excel. The findings of the content analysis are presented in the next section of this article.

3. Results

Among the top 100 Indian companies based on market capitalization, the firms' listing age ranged from zero to 30 years. The investigation revealed that the SDG adoption is contingent on the firms' listing age, as shown in Figure 3. Of the 69 corporations above the listing age of 15 years, 45 firms have adopted the SDGs. However, out of 31 companies up to 15 years of listing age, only 14 firms have adopted SDGs.

Figure 9. Industry segment vs economic SDGs priority.

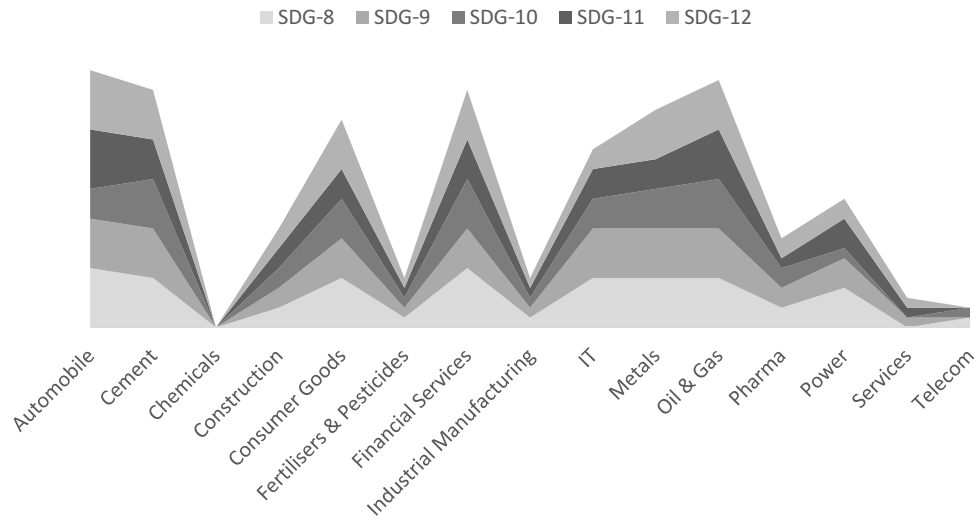
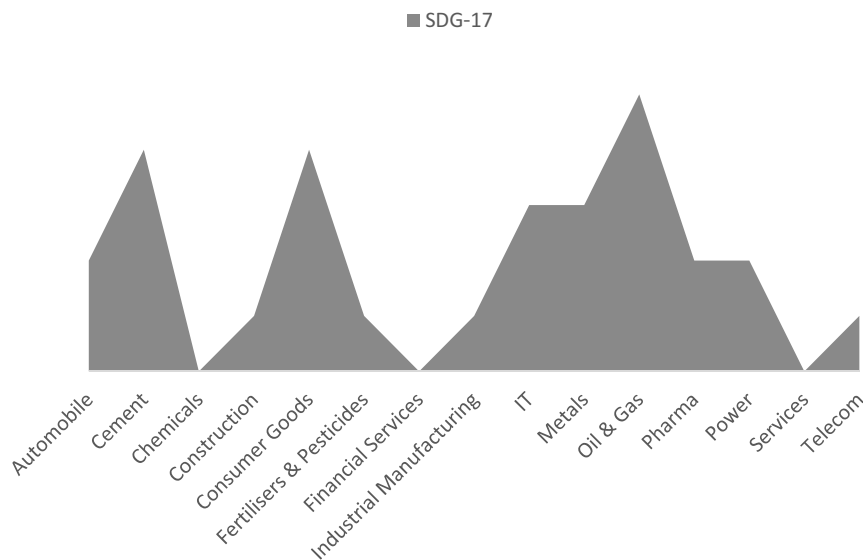


Figure 10. Industry segment vs SDG-17.



The industry-wise result on the adoption of SDGs is shown in [Figure 4](#). The analysis uncovered that firms in cement, construction, fertilizers & pesticides, industrial manufacturing, power, and telecom segments had adopted SDGs. In companies related to chemicals, financial services, pharma, and services industries, less than 50 percent of the firms have adopted SDGs.

Investigation on the external assurance by the top 100 Indian corporations revealed that the independent assurance of non-financial disclosure is dependent on the company's listing age, as shown in [Figure 5](#). Of the 69 corporations above the age of 15 years, 33 have externally assured non-financial disclosure in their corporate reports. However, only 10 out of 31 firms up to the listing age of 15 have independently assured their non-financial disclosures.

The outcomes on the relationship between external assurance of non-financial disclosure and industry are shown in [Figure 6](#). Firms in cement, construction, fertilizers and pesticides, industrial manufacturing, and power industries have independently assured their non-financial disclosures.

Figure 11. Firms' listing age vs SDGs integration.

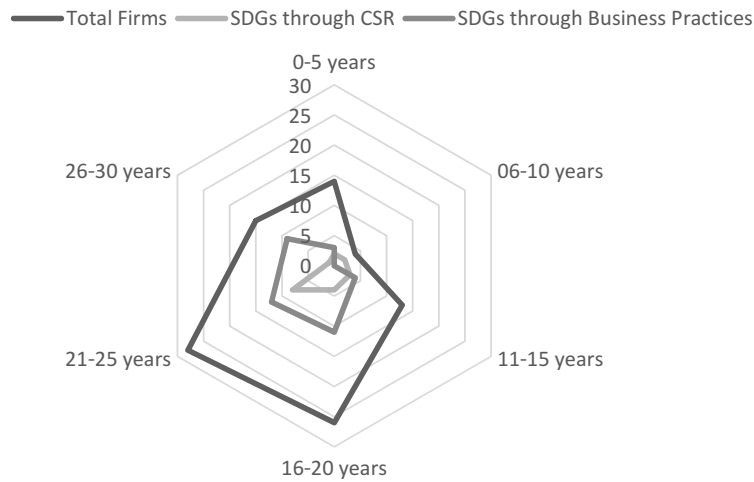
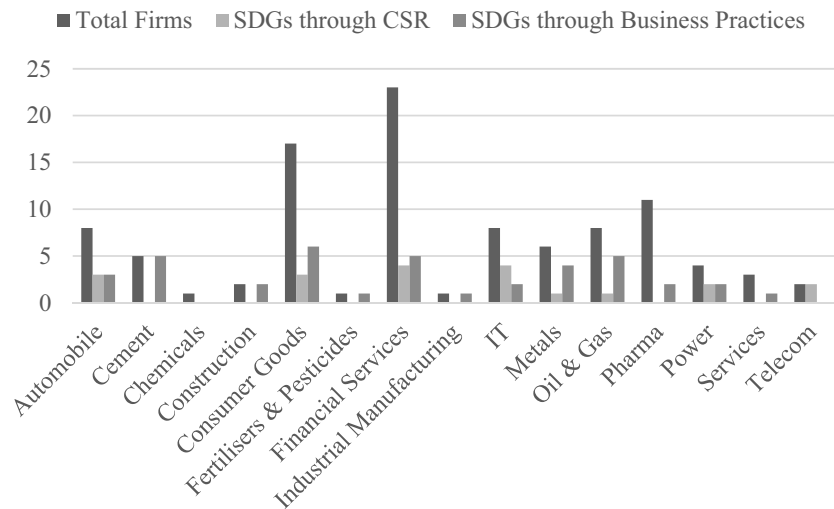


Figure 12. Industry segment vs SDGs integration.



However, less than 50 percent of companies in the chemicals, consumer goods, financial services, pharma, and service sectors have externally assured their non-financial disclosures.

The outcomes of the industry-wise analysis of SDGs related to the social aspect of TBL are shown in Figure 7. It was found that firms working in industries such as oil and gas, financial services, cement, consumer goods are more involved in SDGs linked to the social aspect of TBL than companies dealing in chemicals, fertilizers, industrial manufacturing, services, pharma, power, and telecom sectors.

For the SDGs related to the environmental dimension of TBL, the findings are primarily similar to the SDGs related to the social dimension of TBL. It found that companies operating in the metals and power industries to be slightly more concerned with their environmental impact than the social aspect. The results of the industry's preference for environmental SDGs are shown in Figure 8.

Figure 9 present the industry-wise priority for the SDGs related to the economic dimension of TBL. It found similarities in the overall pattern of the economic dimension with the social and environmental dimensions. In the case of SDGs related to the economic aspects of TBL, automobile companies are more involved, followed by firms operating in the oil and gas, financial services, and cement industries.

The pattern for the adoption of SDG-17 in industries is shown in Figure 10. Investigations suggested that oil and gas firms are more active in engagement with other stakeholders to meet the 16 SDGs. Financial services firms leading the adoption of the SDGs related to all three TBL dimensions are utterly inactive with SDG-17.

Findings on the integration of SDGs revealed that newly listed firms engage in SDGs with CSR practices, while companies over 15 years of age integrate SDGs into all business practices such as operations, strategy, value chain, and CSR. Figure 11 presents the outcomes on the association of SDG integration with firms listing age.

Industry-wise analysis of SDGs integration retrieved that all firms involved in cement, construction, fertilizers and pesticides, industrial manufacturing industries have adopted SDGs through business practices. Metals, oil and gas, consumer goods, financial services, and pharma companies have more entrusted business practices to adopt the SDGs. Telecom companies have entirely relied on the CSR approach to SDR, and IT corporations have also preferred CSR way to SDGs. Firms related to the automobile and electric industries are equally divided between the two approaches to adopt the SDGs. The outcome of SDGs integration across industries is shown in Figure 12.

Out of the top 100 Indian companies, 59 companies have adopted SDGs, and the findings on their SDG measurement and time orientation are presented in Table 3. 49 firms have mapped the SDGs with their business activities ranging from strategy to operations and corporate governance to CSR. Thirty-four companies are measuring their SDGs annual performance and benchmarking it with the achievements of previous years. In terms of time orientation, 13 firms have set future short-term targets for the SDGs. Seven companies have designed their self-plan aligned with global goals 2030, such as ACC's Sustainability Development 2030 Plan, Ambuja Cements' Sustainable Development Ambition 2030, Adani Green Energy'2030 Targets, DLF's 2030 SDG Targets, Hero MotoCorp's 2030 Targets, Hindustan Unilever's 2030 Targets, ITC's Organizational Goals 2030 and Larsen & Toubro Infotech's Sustainability Roadmap 2030,

4. Discussion

In this section, findings in relation to previous studies on the adoption of SDGs and organizational factors are discussed. In particular, the adoption of SDGs, external assurance of non-financial disclosure information, and SDGs integration with SDGs concerning the firm's listing age and its industry segment are discussed.

Rosati and Faria (2019) argued that firms committed to voluntary reporting are more likely to adopt SDGs, and Prencipe (2004) found that businesses' voluntary disclosure is positively associated with their listing age. The investigation discovered that SDG adoption and the firm's listing age are positively related based on the corporate disclosures. Consistent with García-Sánchez et al. (2019) on sustainability reporting across industries, this study also found differences in the adoption of SDGs between industry sectors.

García-Sánchez et al. (2019) claimed that businesses assuring their sustainability reports independently are more likely to adopt the SDGs. A positive relationship between company listing age and independent assurance of non-financial disclosure was found. The investigation also noted differences in the external assurance of voluntary reporting between industry sectors. The TBL-SDG framework was used to examine each SDG's adoption by the top 100 Indian companies, and the results revealed that each industry segment had different priorities. The study also suggests that

SDG integration by a firm is dependent on its listing age. Young firms prefer to integrate SDGs based on CSR practices, while older firms adopt a holistic view of SDG integration based on business activities, including CSR. The study also showed that SDG integration practices differ by industry sector.

To provide a holistic view on the adoption of SDGs by businesses, each SDG's adoption by the top 100 Indian companies was analyzed. SDG-8 (Decent work and economic growth) has been given greater emphasis by corporations, followed by SDG-3 (Good health and wellbeing), SDG-4 (Quality education), and SDG-5 (Gender equality). While SDG-14 (Life below water) has attracted the attention of very few firms, followed by SDG-16 (Peace, Justice and Strong Institutions) and SDG-17 (Partnership for the Goals).

As Mukhi and Quental (2019) stated, all SDGs are equal and essential, but some SDGs are vital for every firm, such as SDG 17—an imperative for the success of other SDGs adopted by the company. The trend of SDG adoption of the top 100 Indian companies reveals that 15 firms have adopted all 17 SDGs, 26 enterprises have accepted 11 to 15 SDGs, seven corporations have embraced 6–10 SDGs, and three businesses have implemented 1 to 5 SDGs. A firm may not find all SDGs equally essential and relevant. However, the TBL-SDG framework can easily enable businesses to link and associate with the maximum number of SDGs.

5. Conclusion, implications, and limitations

Adoption of SDGs, external assurance of non-financial disclosure, and SDG integration by businesses are contingent on their listing age and industry segment. 17 SDGs are universal, interrelated, and integrated (Delgado-Ceballos et al., 2020), and the secluded view for the SDGs has been used in this study to establish the relationship between the SDGs and the TBL framework. The proposed TBL-SDG framework validates that TBL is organically aligned with SDGs, urging corporations to positively participate in the stakeholder world's sustainable development.

5.1. Implication for practitioners

Corporate sustainability is a function of social, environmental, and economic sustainability. From the sustainability point of view, businesses have started to find a relationship with the TBL concept. However, many organizations have found TBL an unsettling concept calling for broader firm responsibilities beyond transactional relationships. TBL is seen as too complex, confronting managers with multilateral and interrelated social, environmental and economic aspects (Hahn et al., 2010). With the proposed TBL-SDG framework, businesses can define, measure and benchmark their goals in three TBL dimensions. In the proposed TBL-SDG framework, the TBL concept can steer the decision-making processes, and SDGs can shape the businesses' targets.

In addition to the TBL perspective, the United Nations SDGs agenda offers many critical viewpoints and can encourage businesses to engage with global goals. 193 countries are committed to the SDGs and are developing national-level programs and policies to achieve the goals. Government and citizens are two important stakeholder groups, which significantly affect businesses' performance in a country. These two stakeholder groups will favor companies that align their core business processes with their priorities, not corporations that do not engage with the country's interests. Moreover, the voluntary support by the government and citizens of a country can create a competitive advantage for some businesses. Williams (2015) stated that embedding SDGs into key business processes has a long-term commercial significance. Businesses should align their key processes with the SDGs to find new growth opportunities and reduce the risk associated with their profiles.

This study found that there are many SDGs on which businesses have focused less. Policymakers, regulators, and the government should formulate policies to motivate businesses to participate in overlooked SDGs.

5.2. Limitations and implications for researchers

Irrespective of the in-depth analysis, key findings, and important conclusions, this study has its limitations. The content analysis approach assisted in understanding the organizational factors influencing SDG adoption. From the TBL-SDG framework, SDG adoption is a complex phenomenon and can further enhance quantitative study understanding. This study focused on the top 100 Indian companies to conclude, and this is an explicit limitation. The inclusion of the top 500 Indian companies may give more generalized conclusions. In this research, secondary data from published reports of corporations have been used. From the sustainability perspective, SDGs are strategic, and therefore, multiple case studies based on primary data can be valuable. In future exploration, researchers should perform a similar study in the same industry segment, and different countries can lead to a better understanding of SDGs adoption.

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