

INTEGRATING ESG PRINCIPLES: ENRICHING BUSINESS EDUCATION FOR A SUSTAINABLE FUTURE

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ABSTRACT

The integration of Environmental, Social and Governance (ESG) principles into business education represents a paradigm shift in preparing business leaders for a sustainable and responsible global economy. This research paper presents the process of introducing the ESG Modular Specialization while incorporating ESG concepts in the Post Graduate Diploma in Management (PGDM) curriculum at a premium business school based in south India. The study discusses the motivations and the experiences behind the adoption of ESG in the curriculum, the methods of integration, the challenges faced, and the experiences. The authors shared the effect on students' knowledge, attitudes, and skills. The research paper intends to discuss the broader implications of curriculum transformation for business education and the corporate world.

Keywords: *ESG, Sustainability Practices, Sustainable development goals, B-School Curriculum, Environmental Practice Learning*

JEL: M14 - Corporate Culture; Diversity; Social Responsibility; Q01 Sustainable Development; I23 - Higher Education; Research Institutions; A22 - Economic Education and Teaching of Economics

1. Introduction

It's important to realize that the environmental, social, and governance (ESG) concerns of all businesses are interconnected. In light of the current COVID-19 epidemic, ESG has become even more important for investors, governments, and other key stakeholders, as it can help protect firms from future hazards. However, the landscape of ESG reporting lacks a unifying structure (PricewaterhouseCoopers, 2020b). The concept that is of critical interest and has been receiving substantial discussions among various players including academicians, researchers, managers, and practitioners is sustainability (Chiu & Fong, 2023). McKinsey reports highlight that global sustainable investment has risen by \$ 30 trillion in 2019 (Koller et al., 2022). This shows a significant increase of 68 % compared to 2014. Growing global environmental concerns such as climate changes, biodiversity, loss depletion of natural resources, and atmospheric and industrial pollution have created the necessity to address these issues at the corporate and academic levels. Environmental, Social and Governance (ESG) is a framework for measuring sustainability using benchmarks and metrics (HSBC, 2021). The current generation of customers is increasingly becoming conscious of the environmental and social impact of the products and services they buy and are looking for more sustainable options (White, 2023). It has been witnessed that there is an increasing trend across all generations from Baby Boomers to Gen Z are willing to pay more for sustainable products (Firstinsight,

2021). At present, investors are gradually looking for firms that have sound social and environmental performance, which might be indicators of long-term financial success (White, 2023). Hence it is necessary to incorporate ESG as a part of the curriculum of any business school, this will help in transforming the student fraternity into managers and business leaders who have a noble understanding of how to incorporate environmental and social issues in corporate decision-making.

2. State of ESG – A Review

The general understanding from the literature study reveals that ESG generally means a broad set of environmental, social, and corporate governance considerations that may impact a company's ability to execute its business strategy and create value over the long term. While ESG factors are sometimes non-financial, how a company manages them undoubtedly has measurable financial consequences (Nasdaq, Inc., 2019).

In the context of the above, one can trace the current status of ESG to the Brundtland Report, officially known as the United Nations (UN) 'Report of the World Commission on Environment and Development: Our Common Future' published in 1987 (Brundtland, 1987). The report defines sustainability as "Development that meets the needs of the present without compromising the ability of future generations to meet their own needs". The report states "Yet, in the end, sustainable development is not a fixed state of harmony, but rather a process of change in which the exploitation of resources, the direction of investments, the orientation of technological development, and institutional change are made consistent with future as well as present needs". In 1998, Robert Levering and Milton Moskowitz analyzed the Fortune 100 Best Companies to Work For list and its impact on the company's recruitment and brand reputation presented the financial effect of ESG factors (Ballou et al., 2003). In his work, Elkington (1999) introduced the triple bottom line concept, i.e., financial, environmental, and social [*profit, planet, people*], as significant parameters for business performance. Further, the investment market significantly responded to this, introducing the 'Responsible Investor' (Beergi, 2022).

Though the concept of ESG existed for quite some time, the term 'ESG' was first popularly described and endorsed in the report titled "Who cares wins" by 20 well-reputed financial institutions at the invitation of the United Nations in 2004. It presented the essential recommendations by the financial industry to integrate better environmental, social and governance issues in analysis, asset management and securities brokerage (United Nations & Swiss Federal Department of Foreign Affairs, 2004). These developments triggered the informal group of financial leaders, city lawyers and environmental stewardship NGOs known as The Virtuous Circle. Its brief examined the correlation between environmental and social standards and financial performance (Gangi & D'Angelo, 2016). In addition to the above, Edmans (2011) presented the '100 Best Companies to Work For' and reported that these companies, who paid attention towards responsible business, outperformed their peers in stock returns during 1984–2009 and exceeded the analysts' expectations in earnings. The other notable work in this line is by Douglas Cogan (Cogan, 2008), Michael L. Barnett and Robert Salomon (Barnett & Salomon, 2006) and Ruth V. Aguilera and others (Aguilera et al., 2006). It was noted that the term ESG had been widely used, since 2015, due to the 2030 Agenda for Sustainable Development, adopted by UN Member States, popularly known as The Paris Agreement. It is arguably the most recognized and well-known agreement created for achieving sustainability goals by the United Nations. The Paris Agreement was signed and agreed upon

by 195 countries in 2015 (United Nations, 2022). The report calls for the sustainability inclusion of economic resources beyond the natural resources to achieve a holistic, balanced approach towards the environment, social and governance aspects. The comprehensive approach toward sustainability pushed the UN Members toward the issue of an Agenda for Sustainable Development in 2015, which includes 17 Sustainable Development Goals (SDGs) and 169 targets to be achieved by 2030 (Wikipedia, 2022).

3. Importance of ESG in today's world

ESG is defined as an established set of practices (policies, procedures, metrics etc.) that are implemented by firms to limit the negative impact or improve the positive impact on the environment, society, and governance bodies (Apiday, 2023). For any business, ESG is a term which are interconnected with each other and post-COVID-19, pandemic, it has gained significant importance among investors, policymakers, and other key stakeholders. It has been seen as a route to protect businesses from future risks. Environmental criteria consider how a company safeguards the environment, including corporate policies addressing climate change (Team, 2023). The criteria examine the influence of resource consumption of any business on the environment like carbon footprint and wastewater discharge (Beergi, 2023). The social criteria look at the relationship of the company with internal and external stakeholders (Team, 2023). The criteria consider how the business links with the communities in which it operates and also looks into internal policies related to labour, diversity and inclusion policies (Beergi, 2023). The third criterion governance ensures that a company uses clear and precise accounting methods, practices integrity and diversity in selecting its leadership and is accountable to its shareholders (Team, 2023). There are different reporting frameworks which are available and can help companies in disclosing ESG related information. Most commonly used frameworks are a) UN Sustainable Development Goals (SDGs) b) Global Reporting Initiative (GRI) c) Sustainability Accounting Standards Board (SASB) d) Climate Disclosure Standards Board (CDSB) e) Task Force on Climate-related Financial Disclosures (TCFD) (Beergi, 2023).

An essential tool for achieving sustainable development goals (SDGs) is to implement regulatory requirements for companies' information on Environmental (E), Social (S), and Governance (G), known as the ESG criteria (Investopedia, 2022). The ESG criteria form a report that discloses how sustainable a company is. The ESG report will give a clear overview of the companies' sustainability and drive investments and interest toward companies with solid sustainable prospects. It will also give investors and stakeholders insight into non-financial information about the company. ESG has become very popular and essential in the corporate world as a concept for creating sustainable business organizations focusing on profitability rather than profit as the sole motive for conducting business activities.

ESG focuses on the responsibilities of a company, encompassing the internal and external business environment; hence, it should aim at striking a healthy balance between generating profits and maintaining sustainability. Therefore, organizations must work with communities, use structured frameworks to measure their ESG performance, and have appropriate disclosure policies. A comprehensive ESG strategy by any organization will require them to include both financial and non-financial ESG reporting, resulting in unified corporate reporting that will help stakeholders understand the multiple aspects of ESG. It will also help financial institutions like banks, which may seek detailed information about a company's ESG strategy before lending. As the ESG framework evolves, organizations must proactively focus on modifying supply chains, working with communities, and reporting and disclosing further to strengthen

the role of ESG in the new normal. In less than 20 years, the ESG movement has grown from a corporate social responsibility initiative launched by the United Nations into a global phenomenon (Wikipedia, 2022).

4. The main Pillars of ESG

The authors have adopted Investopedia's explanation of ESG factors (2022) to understand and present the concept in this study. It is understood that the ESG is a defined framework to integrate the organization's vision & mission, and strategy with the process & performance of the entity for – Environment, Social and Governance – in terms of identification, assessment and management of sustainability-related risks and opportunity by considering the stakeholders of the organization.

Each factor is further analyzed and presented below from the specific studies during the literature study.

4.1 Environmental Factors

This factor focuses on preserving natural resources and eco-friendly initiatives. This factor addresses climate change, greenhouse gas emissions, biodiversity loss, deforestation, pollution, energy efficiency and water management and other natural resource preservation aspects (S&P Global, 2022a).

4.2 Social Factors

People, relationships, and responsibility to the stakeholders are the key aspects considered in this factor. Steps were taken to support gender and diversity, equity, inclusion, enhancing customer satisfaction, employee engagement and socially inclusive initiatives by the organization (Fitzpatrick et al., 2020).

4.3 Governance Factors

This factor considers the past and current practices for how the organization is governed and enhances the corporate environment for a better workplace. Board composition, management structure, cybersecurity practices, compensation, anticorruption, gender equality and ratio, and other best practices of ascendancy are considered in this factor (S&P Global, 2022b).

5. Impact of ESG On Firms

Focussing on ESG principles would help organizations adapt a more balanced stakeholder-oriented approach to achieve sustainability and a better brand value for their organizations which would enable them in achieving business growth which can stand the test of time and the volatilities of the uncertain operating business environment.

Till the mid-2010s, a few investors paid attention to the aspects of ESG information about firms; carbon footprints, labor policies, etc, and at present the dynamics have changed. Investors feel that it is wise to invest in firms that are high ESG performers which are providing superior financial results and also there is a sense of ethical consideration to invest in green funds (Serafeim, 2021). The COVID-19 pandemic had a severe impact on the performance of

the companies, and it was proven that the companies with superior governance and high social standards served as key indicators of resilience (Kalia, 2020). Therefore it fully justifies the role of ESG in companies. Integrating ESG into broader strategy of any company can improve its performance and improve the competitiveness of the company. Integration of ESG strategy can improve brand reputation, market differentiations, relationships with stakeholders opportunities and reduce risks(Kalia, 2020). Therefore the governments and the statutory bodies in different countries in various sectors of business activities are coming out with more stringent norms relating to the following:

- practices by commercial organizations keeping in view the green initiatives and protection of major stakeholders;
- consequently, more compliance with norms relating to stakeholder initiatives; and
- greater focus on mandatory disclosures at regular intervals to report the various activities through a system of audit and reporting standards.

However the adoption of ESG in India is at a Nascent stage and has to be given due importance as there is there is a paradigm shift among companies across the world towards ESG. For example, if the Indian Govt. today announces a sudden shift to EV/Hydrogen/renewable-based automotive mobility vis a vis disincentivising the ICE-based automotive, the immediate issue will be the loss of a huge number of jobs in the conventional automotive sector and the benefits from EV/renewables may come later over the years. Because, the number of moving parts, thus the wear and tear & replacement needs of the ICE vehicles is over 80-100 times more than an EV. India now is at the cusp of rapidly reducing poverty, leap frogging the technology cycles and enter the arena of world trade as a major exporter. A sudden shift in focus to higher education inputs on ESG without due deliberations on the direct and indirect effects on the National grand strategy of socio-political, economic and strategic-security related aspects is felt as an incomplete study. Thus, the approach to the ESG needs to be India-specific while sensitising the students to the broader world issues, indicating the ways in which this fine balancing can be achieved.

ESG reporting in India began in 2009 with the Ministry of Corporate Affairs (MCA) issuing the Voluntary Guidelines on Corporate Social Responsibility as the initial step for making the concept of business responsibility more acceptable. Since then, the reporting standards have come a long way with the introduction of Business Responsibility Reporting (BRR), Corporate Social Responsibility (CSR), IR, National Guidelines on Responsible Business Conduct (NGRBC) and at present, Business Responsibility and Sustainability Report (BRSR) (introduced through a SEBI circular dated 10 May 2021)

In India, Investors have realized aligning the financial goals with sustainable development. Investing in ESG has emerged as a powerful tool for creating a positive impact on financial returns. The key drivers of ESG investing in India are presented in Table 1.

Table 1: Key Drivers of ESG Investing in India

Regulatory Support	The Securities and Exchange Board of India (SEBI) is playing an active role in initiating ESG investing by introducing guidelines that require the top 1,000 listed companies to disclose their ESG-related activities enhances transparency and encourages companies to improve their ESG practices.
Investor Demand	Institutional investors, retail investors, and asset management companies are increasingly realizing the potential of investing in ESG.
Business Opportunities	Adoption of sustainable practices and focusing on ESG often lead to increased operational efficiency, reduced risks, attracting capital from responsible investors and achieving competitive advantage in the market.

Source: Chauhan, Kuldeep Singh (2023). Embracing the rise of ESG investing in India: A sustainable future. Times of India, June 1, 2023. Available at: <https://timesofindia.indiatimes.com/readersblog/theintersection/embracing-the-rise-of-esg-investing-in-india-a-sustainable-future-54478/>

As a logical corollary, creating the right mindset among the owners and professional managers engaged in business activities to base their views on ethics and value-based orientations becomes necessary. Keeping this in mind, the basic tenants of ESG while formulating their mission, vision, operational frameworks, organizational structures and business decisions to run their organizations effectively and efficiently. ESG principles help organizations adopt a more balanced stakeholder-oriented approach to achieve sustainability and better brand value for their organizations. Further, it enables them to achieve business growth that can stand the Test of time and the volatility of the uncertain operating business environment.

6. Brief Profile of the Business School

The curriculum enhancement by introducing ‘ESG Modular Specialization’ has been incorporated in Shri Dharmasthala Manjunatheshwara Institute for Management Development (SDMIMD), a prominent management institute in the country located in Mysuru, which has always believed in imparting value-based management education with a focus on developing ethical orientation among students based on universal human values and Indian value systems. SDMIMD is offering the flagship program of the institute is the two-year full-time residential PGDM (Post Graduate Diploma in Management) program from the past 30 Years and has carved a niche in the Management Education segment. The focus is on creating and developing value-based and ethical orientation among them so that as corporate decision-makers they would develop the necessary mindset to balance the interests of all stakeholders (both internal and external) in their business relations, where they would help the organizations become more sustainable business entities with an eye on making them achieve balanced growth while

protecting the interests of the stakeholders with whom they are engaged in business relationships.

7. Methodology

The members of the Governing Board of the institution have realized the importance of ESG in today's business scenario and have decided to set up a Centre for Excellence in Management (CEM) in collaboration with Bangalore Chambers of Industry and Commerce (BCIC) in Mysuru. This centre will facilitate in engaging in inviting industry experts, organising seminars, engaging in research, and looking at innovative ways in strengthening the curriculum of the PGDM program by designing a new set of courses. As part of the said objectives, SDMIMD initiated the introduction of ESG Modular Specialization to the PGDM 2022-24 Batch which can bring both academic and the corporate world together in educating the young managers about ESG principles. As a starting initiative, the board members felt that revision of the PGDM course curriculum by incorporating the relevant practices of ESG would be ideal. Senior faculty members of the institute were entrusted with responsibility of changing the curriculum. The study was conducted in three stages, the first stage included doing a literature review and analysing the curriculum of Business schools which are teaching and practising ESG practices. The second stage included having detailed discussions and meeting with senior academicians, corporate executives who are the members of BCIC and researchers who expertise in ESG practices. The third stage included the perception study of Indian Executives about ESG and to bring the results of the study to the table for discussion.

7.1 Stage 1: Review of the curriculum of Business Schools

As this study is focused on introducing the ESG Principles as part of the PGDM Program in an Indian B-School environment, the authors explored the literature with the keywords ESG, Sustainability Practices, B-Schools, Management Education, India. Further, they considered Scopus, Google Scholar and EBSCO Business Source Elite Database for this study. The learning from the literature about ESG in general and its applicability to the corporation is explained in Section 2. Regarding the curriculum and practices in B-Schools in this domain focused on ESG and Sustainability Practices can be seen from 2012 onwards.

The work from Neeraj Singhal (Singhal, 2012) identify the need for sensitizing the young managers and the practices or activities in some of the B-schools at the introductory level. Later, the work on studying the trends in B-School learning helped to create a road map for this exercise (Rao et al., 2013). The authors wish to record and appreciate the magnanimous work by Jose (Jose, 2016) which has given a holistic understanding of the course offerings in this domain and related areas in the Indian Higher Education domain. This work has greatly contributed to designing the ESG Modular Specialization. Another novel work from the international perspective is from Godemann (Godemann et al., 2023) which helped the authors to get the international perspective in this domain when applied to the B-School scenario. The other work which were consulted for the case study approach was from Neeraj Singhal (Singhal et al., 2017) and Vishal Pradhan (Pradhan, 2014); the perception study which gave insights from the academic administration by Ritangi Narang (Narang, 2023); and the review from Himani Gupta and others (Gupta & Singhal, 2017) helped to focus our literature study from

2017 onwards, as it has covered the learning from the earlier studies. The recent publication on the influence of sustainability education (Baber et al., 2023) on the students helped us design the project guidelines for the ESG Modular Specialization.

7.2 Stage 2: Discussion with Academicians, Corporate Leaders, and Practitioners

The learning from the review of literature about the practices, course offering, duration, introduction stage, mode of instructions and the discussions in the articles were the key sources of information to place the proposal for ESG Modular Specialization discussion. The discussion with academicians who are associated with the institute board, and corporate leaders was introduced by the Bangalore Chamber of Industry and Commerce (BCIC) who work in this domain, and practitioners who are major consultants helped in fine-tuning the ESG offering to the students of the PGDM Program.

The authors like to acknowledge the work of Jose (Jose, 2016) which was presented as Exhibits to the experts who participated in the discussion. The exhibits used as shared as Exhibit A (figures 1 and 2) and B (figures 3 and 4).

The inputs and suggestions from the experts are incorporated and submitted the same to the Academic Quality Enhancement Committee [AQEC] for final approval.

7.3 Stage 3: Perception Study on Indian Executives

One of the authors of this paper made an attempt to understand the perception of the Indian Executives about ESG (Sunil & Sengupta, 2022). The outcome of the perception study greatly helped in designing seminars and the project work for the said Modular Specialization. Further, the work added to the confidence about the requirement of such efforts in the B-School environment in the contemporary world.

8. Challenges in Incorporating ESG into Business School Curriculum

Drawing from the above discussion as part of the introduction, literature review and ESG in firms, it is clear that higher education institutes (particularly management institutes) imparting education for would-be professionals getting ready to join the commercial organizations, corporate sector organizations, and MNCs, need to clearly base their courses and curriculum based on ESG principles, wherever, relevant and practical to do so. This would help inculcate the much-needed mindset and values for ESG-oriented activities among the students who would be become managers, professionals and business decision-makers in commercial organizations. They need to be equipped with an understanding of ESG principles and its various practical and operational elements to become aware about becoming more compliant and balanced individuals faced with the challenge of working in sustainable business organizations with a clear focus on stakeholder sensitivities and management of their issues.

9. Discussion on the ESG Modular Specialization Curriculum

ESG Certification for any Company is a Symbol of Sustainable Compliance. The stamp speaks about the excellence in sustainable policies, investments, and business criteria of the company. Across the globe, companies are marching for ESG Certification – to attract customers, investors, and employees; to demonstrate their concern for the environment; and to avail, the government subsidises, incentives, rebates, funds, and sponsorship. Above all to stand out in the ever-changing competitive world.

The responsibility of the B-School is to enable the students to be ready for this eco-system and to be with the company in the ESG initiative which can be a ‘focus’ for the competitive advantage. This responsibility is the backdrop of this initiative. The results of the effort are shared in this section.

9.1 Student’s Learning from ESG Modular Specialization

The ESG Modular Specialization enables the student to understand and appreciate the following -

- Environmental – How business is impacting the environment? Like Water conservation, Waste management, Energy Use, etc.
- Social – How business treat its customers, employees, and stakeholders? Like employee diversity, inclusion, human rights, employee engagement, HR policies, etc.
- Governance – How business is managed and governed? Like board diversity, ethical leadership, anti-corruption policies, etc.

9.2 The ESG Modular Specialization

The ESG Modular Specialization syllabus aimed at blending the compulsory courses, courses available in the MOOC [Massive Open Online Course], Seminar Courses, Optional Courses, Invited talks & Interactions; and a Project Work, to present the complete learning from the courses and the knowledge gained during the out of class activities. The syllabus of the said modular specialization is shared below:

Table 2: ESG Modular Specialization Syllabus

Sl No.	Course Name
Compulsory Courses	
1	Managerial Economics
2	Business Ethics, Governance, and Social Responsibility
3	Socially Relevant Project (SRP)
4	Universal Human Values & Yoga, Wellness Management
5	Social and Social Entrepreneurship Research - Tools & Techniques
Courses on Infosys Springboard [MOOC Courses] - Choice-Based Minimum 25 hours	
6	Global Environmental Management

7	Introduction to Sustainability
8	Circular Economy - Sustainable materials management
9	Cities & Consumption: Urban Sustainability
10	Environmental Management & Ethics
11	Introduction to Environment Law
Optional Course	
12	Strategizing and Measuring Business Sustainability
Seminar Courses - Choice Based - Minimum 16 Hours (2 Seminar Courses)	
13	Seminar course on Work-life integration
14	Seminar on Best Practices in ESG
15	Seminar on Women Empowerment: Issues and Challenges
16	Seminar course on Prevention of sexual harassment at the workplace
17	Seminar on Issues in Governance
Interaction - Invited Talks, CEO Interaction, Industry Visits	
Industry	
18	Industry Talk and CEO Interaction
Mandatory Project Work	
19	Project Work in the Company

9.3 ESG Modular Specialization Certification

The companies expect the young executives to be informed about the ESG as it is the norm to move ahead. The ESG modular specialization certificate will help to - Demonstrate knowledge and skills about the essentials of ESG required to respect and practice in a company Help you to stand out in the competitive job market Provide an opportunity to enter and compete in the international job market, international projects/assignments, and exclusive networking with ESG compliance companies Demonstrate that you are committed to lifelong learning. Open avenues to move ahead for Certified professional for - Sustainability Investment, ESG Investor, ESG Analyst, ESG Advisor.

10. The Way Forward

The above exercise was implemented for the PGDM 2022-24 Batch and currently, the students are involved in the ESG Project Work. The interaction with the students and the observations of the authors about this initiative is very positive. Some of the key observations and the outcome of the interactions are shared below: Students are able to bring the sustainability dimensions and the ESG Principles during the case discussion in the class. The students volunteered to form the ESG Committee to organize the debate, discussions, and invited talks about the ESG and Sustainability topics. The response from the recruiters to this initiative is very positive. It was understood that during the placement process, the recruiters were curious to discuss the learning from the ESG Modular specialization. The change in the student's behaviour towards the environment, waste of food in the institute mess, care for the society and their involvement in the social inclusiveness initiative of the institute has a considerable impact.

The exposure to the MOOC learning, interaction with the corporate leaders, and experience in the project has made them to appreciate the modular specialization.

The impact of the Modular Specialization has to be studied by administering the proper survey questionnaire and the structured interaction. This demands the completion of the entire cycle in this exercise. The authors aim to conduct the research in this line to take the process forward. As Kaizen – is the process of continuous improvement.

11. Conclusion

An attempt has been made by the Business school to inculcate the principles of ESG in students by implementing the concepts in its curriculum. This will help in preparing and training students as future leaders for a rapidly changing global business landscape. By integrating ESG principles and concepts into education framework, business schools can nurture the new generation who are accountable and sustainable business professionals. They will acquire a profound understanding of the moral, social and environmental characteristics of their decisions and in turn equipped with skills to drive profitability.

The shift towards ESG incorporation in business education can empower students to foresee beyond short-term profits, highlighting the prominence of long-term sustainability and stakeholder value. Moreover, the values and priorities of today's society can be aligned with business education leading to an equitable and environmentally conscious future. By inculcating ESG into the curriculum, business schools can play a crucial role in defining and nurturing the next generation of business leaders who are both profit- and purpose-driven. Thus, embracing ESG principles in business school education is a vital step towards making a more righteous, sustainable, and successful future.

References:

1. Aguilera, R. V., Williams, C. A., Conley, J. M., & Rupp, D. E. (2006). Corporate Governance and Social Responsibility: A comparative analysis of the UK and the US*. *Corporate Governance: An International Review*, 14(3), 147–158. <https://doi.org/10.1111/j.1467-8683.2006.00495.x>
2. Baber, H., Fanea-Ivanovici, M., & Sarango-Lalangui, P. (2023). The influence of sustainability education on students' entrepreneurial intentions. *International Journal of Sustainability in Higher Education*, ahead-of-print(ahead-of-print). <https://doi.org/10.1108/IJSHE-11-2022-0369>
3. Ballou, B., Godwin, N. H., & Rebecca Toppe Shortridge. (2003). Firm Value and Employee Attitudes on Workplace. *Accounting Horizons*, 17(4), 329–341.
4. Barnett, M. L., & Salomon, R. M. (2006). Beyond dichotomy: The curvilinear relationship between social responsibility and financial performance. *Strategic Management Journal*, 27(11), 1101–1122. <https://doi.org/10.1002/smj.557>
5. Beergi, A. (2022, February 1). Why Is ESG More Important Now Than Ever For Your Business? RegASK. <https://regask.com/why-is-esg-more-important-now-than-ever-for-your-business/>
6. Brundtland, G. H. (1987). Report of the World Commission on Environment and Development: Our Common Future (5987). United Nations. <https://sustainabledevelopment.un.org/content/documents/5987our-common-future.pdf>

7. Chaudhary, A. (2022, September 2). India's new ESG rules to address corporate green washing. Bloomberg.Com. <https://www.bloomberg.com/news/articles/2022-09-02/india-s-new-esg-rules-to-address-corporate-greenwashing>
8. Chiu, W.-K., & Fong, B. Y. F. (2023). Recent Trends of Research and Education in ESG and Sustainability. In T. C. H. Leung, W.-K. Chiu, C. S.-X. You, & B. Y. F. Fong (Eds.), *Environmental, Social and Governance and Sustainable Development in Healthcare* (pp. 99–112). Springer Nature. https://doi.org/10.1007/978-981-99-1564-4_7
9. Cogan, D. G. (2008). *Corporate Governance and Climate Change: The Banking Sector : a Ceres Report*. Ceres.
10. Dhamne, R., & Modak, V. (2021, April 26). ESG Reporting in India. IRIS GST. <https://irisgst.com/esg-reporting-in-india/>
11. Edmans, A. (2011). Does the Stock Market Fully Value Intangibles? Employee Satisfaction and Equity Prices. *Journal of Financial Economics*, 101(3), 621–640.
12. Firstinsight. (2021). The State of Consumer Spending: Gen Z Shoppers Demand Sustainable Retail [Educational Website]. Firstinsight. <https://www.firstinsight.com/white-papers-posts/gen-z-shoppers-demand-sustainability>
13. Fitzpatrick, G., Neilan, J., & Reilly, P. (2020, June 28). Time to Rethink the S in ESG. The Harvard Law School Forum on Corporate Governance. <https://corpgov.law.harvard.edu/2020/06/28/time-to-rethink-the-s-in-esg/>
14. Frigo, M. L., Kaplan, R. S., & Ramanna, K. (2022). Sustainability strategies and Net-Zero Goals. *Strategic Finance*, 103(10), 42–29.
15. Gangi, F., & D'Angelo, E. (2016). The Virtuous Circle of Corporate Social Performance and Corporate Social Disclosure. *Modern Economy*, 7(12), 1396–1418.
16. Godemann, J., Nguyen, B.-N., & Herzig, C. (2023). Business schools' transformation towards sustainability: Empirical insights from UN PRME signatories. *International Journal of Sustainability in Higher Education*, ahead-of-print(ahead-of-print). <https://doi.org/10.1108/IJSHE-07-2022-0223>
17. Gupta, H., & Singhal, N. (2017). Framework for Embedding Sustainability in Business Schools: A Review. *Vision*, 21(2), 195–203. <https://doi.org/10.1177/0972262917700993>
18. HSBC. (2021). Sustainability vs ESG: What's the Difference and Why They Matter [Educational Website]. <https://www.businessgo.hsbc.com/en/article/demystifying-sustainability-and-esg>
19. Investopedia. (2022). What Is Environmental, Social, and Governance (ESG) Investing? Investopedia. <https://www.investopedia.com/terms/e/environmental-social-and-governance-esg-criteria.asp>
20. Jose, P. (2016). Sustainability Education in Indian Business Schools: A Status Review. *AD-Minister*, 28, 255–272. <https://doi.org/10.17230/ad-minister.28.13>
21. Koller, T., Nuttall, R., & Henisz, W. (2022). ESG framework | McKinsey [Educational Website]. <https://www.mckinsey.com/capabilities/strategy-and-corporate-finance/our-insights/five-ways-that-esg-creates-value>
22. Das, L., Anand, P., Anjum, A., Aarif, M., Maurya, N., & Rana, A. (2023, December).

The Impact of Smart Homes on Energy Efficiency and Sustainability. In 2023 10th

IEEE Uttar Pradesh Section International Conference on Electrical, Electronics and Computer Engineering (UPCON) (Vol. 10, pp. 215-220). IEEE.

23. Srithong, K., & Limrattanaphattarakun, W. (2024). Guidelines for Developing the Potential of Farmer Organizations for Sustainable Self-Reliance. *วารสาร สันติ ศึกษา ประดิษฐ์* ม จร, 12(2), 425-439.
24. Abd Algani, Y. M., Caro, O. J. M., Bravo, L. M. R., Kaur, C., Al Ansari, M. S., & Bala, B. K. (2023). Leaf disease identification and classification using optimized deep learning. *Measurement: Sensors*, 25, 100643.
25. Mishra, M. K., Selvaraj, K., Santosh, K., Aarif, M., Mary, S. S. C., & Bala, B. K. (2024, March). The Impact of 5G Technology on Agile Project Management: A Cross-Industry Analysis. In *2024 5th International Conference on Intelligent Communication Technologies and Virtual Mobile Networks (ICICV)* (pp. 119-126). IEEE.
26. Kaur, C., Kumar, M. S., Anjum, A., Binda, M. B., Mallu, M. R., & Al Ansari, M. S. (2023). Chronic kidney disease prediction using machine learning. *Journal of Advances in Information Technology*, 14(2), 384-391.
27. Lohiya, A., Aggarwal, V., Dixit, A., Srivastav, R., Yadav, S., & Aarif, M. (2023). An Exploring the Relationship Between Consumer Knowledge and Adoption of Energy-Efficient Home Technologies. *Journal of Informatics Education and Research*, 3(2).
28. P. Soundarraj, M. Aarif, S. Gangadharan, S. R. Naqvi, N. K. AssiHalaf and A. Salih Mahdi, "Smart Product Packing and IoT Marketing: Enhancing Customer Interaction," *2023 International Conference on Innovative Computing, Intelligent Communication and Smart Electrical Systems (ICSES)*, Chennai, India, 2023, pp. 1-6, doi: 10.1109/ICSES60034.2023.10465408.
29. Khan, S. I., Kaur, C., Al Ansari, M. S., Muda, I., Borda, R. F. C., & Bala, B. K. (2023). Implementation of cloud based IoT technology in manufacturing industry for smart control of manufacturing process. *International Journal on Interactive Design and Manufacturing (IJIDeM)*, 1-13.
30. Ambashtha, K. L., Vijayalakshmi, N. S., Aarif, M., Jeevalatha, R., Kuchipudi, R., & Reddy, T. S. K. (2023, December). Integrating a Neural Network Model based on LSTM and Auto Encoder into the Travel and Tourism Industry. In *2023 2nd International Conference on Automation, Computing and Renewable Systems (ICACRS)* (pp. 623-628). IEEE.
31. Abd Algani, Y. M., Caro, O. J. M., Bravo, L. M. R., Kaur, C., Al Ansari, M. S., & Bala, B. K. (2023). Leaf disease identification and classification using optimized deep learning. *Measurement: Sensors*, 25, 100643.

32. Chaudhary, J. K., Aarif, M., Rao, N. R., Sobti, R., Kumar, S., & Muralidhar, L. B. (2023, December). Machine Learning Strategies for Business Process Optimization. In 2023 10th IEEE Uttar Pradesh Section International Conference on Electrical, Electronics and Computer Engineering (UPCON) (Vol. 10, pp. 1743-1747). IEEE.
33. Ratna, K. S., Daniel, C., Ram, A., Yadav, B. S. K., & Hemalatha, G. (2021). Analytical investigation of MR damper for vibration control: a review. *Journal of Applied Engineering Sciences*, 11(1), 49-52.
34. Das, L., Salman, R., Sabeer, S., Ansari, S. K., Aarif, M., & Rana, A. (2023, December). Customer Retention Using Machine Learning. In 2023 10th IEEE Uttar Pradesh Section International Conference on Electrical, Electronics and Computer Engineering (UPCON) (Vol. 10, pp. 221-225). IEEE.
35. Naidu, K. B., Prasad, B. R., Hassen, S. M., Kaur, C., Al Ansari, M. S., Vinod, R., ... & Bala, B. K. (2022). Analysis of Hadoop log file in an environment for dynamic detection of threats using machine learning. *Measurement: Sensors*, 24, 100545.
36. Almahairah, M. S. Z., Goswami, S., Karri, P. N., Krishna, I. M., Aarif, M., & Manoharan, G. (2023, December). Application of Internet of Things and Big Data in Improving Supply Chain Financial Risk Management System. In 2023 10th IEEE Uttar Pradesh Section International Conference on Electrical, Electronics and Computer Engineering (UPCON) (Vol. 10, pp. 276-280). IEEE.
37. Abd Algani, Y. M., Ritonga, M., Kiran Bala, B., Al Ansari, M. S., Badr, M., & Taloba, A. I. (2022). Machine learning in health condition check-up: An approach using Breiman's random forest algorithm. *Measurement: Sensors*, 23, 100406. <https://doi.org/10.1016/j.measen.2022.100406>
38. Narang, R. (2023). Sustainability education in business and accounting schools in India: Perceptions of business deans and academics [Thesis, CQUniversity]. <https://doi.org/10.25946/23259005.v1>
39. Narayanan, E. A., & Sirigauri, N. (2020). ESG investing in India. <http://repository.iimb.ac.in/handle/2074/19470>
40. Nasdaq, Inc. (2019). ESG Reporting Guide 2.0—A Support Resource for Companies. National Association of Securities Dealers Automated Quotations (NASDAQ). <https://www.nasdaq.com/docs/2019/11/26/2019-ESG-Reporting-Guide.pdf>
41. Pradhan, V. (2014). Inclusion of Sustainability Education in Business Schools—An Indian B-School Case Study of MBA-ITBM Curriculum. *International Journal of Applied Engineering Research*, 9(23). https://www.academia.edu/49554101/Inclusion_of_Sustainability_Education_in_Business_Schools_An_Indian_B_School_Case_Study_of_MBA_ITBM_Curriculum
42. PricewaterhouseCoopers. (2020a). ESG reporting. PwC. <https://www.pwc.com/sk/en/environmental-social-and-corporate-governance-esg/esg-reporting.html>
43. PricewaterhouseCoopers. (2020b). The evolution of ESG in the new normal. PwC. <https://www.pwc.in/consulting/esg-environment-social-governance/the-evolution-of-esg-in-the-new-normal.html>
44. Rao, P., Patil, Y., & Gupte, R. (2013). Education for Sustainable Development: Trends in Indian Business Schools and Universities in a Post Liberalization Era. In S. Caeiro, W. L. Filho, C. Jabbour, & U. M. Azeiteiro (Eds.), *Sustainability Assessment Tools in Higher Education Institutions: Mapping Trends and Good Practices Around the World* (pp. 417–432). Springer International Publishing. https://doi.org/10.1007/978-3-319-02375-5_24

45. Securities and Exchange Board of India (SEBI). (2022). Consultation paper on Environmental, Social and Governance (ESG) rating providers for securities markets. https://www.sebi.gov.in/reports-and-statistics/reports/jan-2022/consultation-paper-on-environmental-social-and-governance-esg-rating-providers-for-securities-markets_55516.html
46. Singhal, N. (2012). Environment Sustainability Initiatives in Indian Business Schools (SSRN Scholarly Paper 2119189). <https://doi.org/10.2139/ssrn.2119189>
47. Singhal, N., Suryawanshi, P., & Mittal, G. (2017). Crafting Responsible Management Practices in Business School Learning Outcomes: An Indian Case Study. *Vision*, 21(1), 46–62. <https://doi.org/10.1177/0972262916681249>
48. Sood, K., Pathak, P., Jain, J., & Gupta, S. (2022). How does an investor prioritize ESG factors in India? An assessment based on fuzzy AHP. *Managerial Finance*, ahead-of-print(ahead-of-print). <https://doi.org/10.1108/MF-04-2022-0162>
49. S&P Global. (2022a). Understanding the “E” in ESG. <https://www.spglobal.com/en/research-insights/articles/understanding-the-e-in-esg>
50. S&P Global. (2022b). What is the “G” in ESG? <https://www.spglobal.com/en/research-insights/articles/what-is-the-g-in-esg>
51. Sunil, M. V., & Sengupta, M. (2022). Perception towards ESG reporting among Indian Executives. In *Contemporary Research in Management*. Shri Dharmasthala Manjunatheshwara Research Centre for Management Studies (SDM RCMS), SDMMMD.
52. Team, E. I. (2022, April 21). List of Key ESG Reporting Frameworks, Standards and Ratings. Novisto. <https://novisto.com/list-esg-reporting-framework-standard/>
53. United Nations. (2022). United Nations Environment – Finance Initiative – Partnership between United Nations Environment and the global financial sector to promote sustainable finance. <https://www.unepfi.org/>
54. United Nations & Swiss Federal Department of Foreign Affairs. (2004). The Global Combat—Who Cares Wins: Connecting Financial Markets to a Changing World (2004). United Nations. https://www.unepfi.org/fileadmin/events/2004/stocks/who_cares_wins_global_compact_2004.pdf
55. White, S. (2023, June 7). Business Schools Are Ushering In a New Era of Sustainability [Educational Website]. Fennel. <https://medium.com/fennelapp/business-schools-are-ushering-in-a-new-era-of-sustainability-bc2d0851bf7b>
56. Wikipedia. (2022). Sustainable Development Goals. In Wikipedia. https://en.wikipedia.org/w/index.php?title=Sustainable_Development_Goals&oldid=1112655786

Exhibit A

Figure 1. Sustainability and Environmental Management MBA Programs in India

	MBA Programmes	Institutions
MBA- Environmental Management	<ul style="list-style-type: none"> Environmental Management Environmental Change & Management Industrial Safety & Environmental Management (PGDISEM) 	<ul style="list-style-type: none"> Amity Institute of Energy and Environment, New Delhi Annamalai University, Cuddalore Cochin School of Business (SCMS Cochin) Department of Environmental Management, Bharathidasan University Chhatrapati Shahu Institute of Business Education and Research, Kolhapur Institute of Management and Technical Studies (IMTS), Noida NorthPole Institute of Distance Education, Rajkot Sam Higginbottom Institute of Agriculture Technology and Sciences (SHIATS) Allahabad Swami Vivekanand Institute of Information Technology (SVIT), Patiala VPGI Institute of Technology, Chennai Indian Institute of Social Welfare and Business Management (IISWBM), Calcutta NITIE, Mumbai
MBA- Sustainability	<ul style="list-style-type: none"> Business Sustainability Sustainable Development Green Business Sustainable Management Business Strategy & Sustainability Business Ethics & Sustainability Lean Sustainable Supply Chain Sustainability Management 	<ul style="list-style-type: none"> Institute of Management and Technical Studies (IMTS), Noida Teri University, Delhi Silver Bright Institute of Management (SBIM) The Global Open University, Nagaland The Indian Institute of Management, Lucknow SP Jain School of Global Management, Mumbai Birla Institute of Management Technology (BIMTECH) Xavier University Bhubaneswar (XUB) Indsearch, Pune
Energy Management	<ul style="list-style-type: none"> Executive PGP- Energy management Energy and Environment Energy Policy Energy Management National Management Programme (NMP)/ PGP-EM (Energy Management) 	<ul style="list-style-type: none"> Management Development Institute, Gurgaon (MDI) Symbiosis International University Department of Management Studies, Indian Institute of Science (DOMS IISc) Indian Institute of Social Welfare and Business Management (IISWBM) Birla Institute of Management Technology (BIMTECH) Management Development Institute, Gurgaon

Figure 2. Core Courses in the PGP-SM Program of IIML

Core Courses in the PGP-SM Programme of IIML

- | | |
|---|---|
| • Communication for Sustainable Management | • Environmental Law and Policy |
| • Environmental and Resource Economics | • Sustainable Marketing Concepts |
| • Principles of Sustainable Management | • Externalities and Externalities Trading |
| • Business Certification for Sustainability | • Lifecycle Management |
| • Creativity and Innovations for Designing Sustainable Solutions | • Social Entrepreneurship |
| • Basic Decision Making Techniques for Sustainable Management | • Sustainability: Measuring & Reporting |
| • Accounting for Sustainable Management | • Research Methods for Sustainable Management |
| • Financial Decision Making for Sustainable Management | • Stakeholder Analysis and Management |
| • Designing (Sustainable) Organizations | • HRM for Sustainable and High Impact |
| • Human Dimensions of Sustainability (Human Rights, Justice and Ethics) | • Environment and Social Risk Analysis and Management |
| • Systems Thinking | • Sustainable Supply Chain Management |
| | • Environment Finance and Sustainable/Impact Investment |

Exhibit B

Figure 3. Sustainability and Environmental Management Electives

Electives	
	Asia-Pacific Institute of Management (AIM) • Business Ethics & Corporate Governance
	Christ University Institute of Management, Bangalore • Sustainability and Environmental Management Law, Ethics and Corporate Social Responsibility
	Indian Institute of Management Ahmedabad (IIMA) • Carbon Finance • Environment Management • Managing Energy Businesses • Managing Sustainability
	Indian Institute of Management, Bangalore (IIMB) • Corporate Strategy and Environment • Strategy and the Sustainable Enterprise • Social Enterprises • Inclusive Business • Corporate Governance • Green Business • Environmental Economics
	Indian Institute of Management, Calcutta (IIM-C) • Ethics • Corporate Social Responsibility • Environmentally-Sound Business Practices and Leadership
	Indian Institute of Management, Indore (IIM-I) • Green Business Management • Business of the Bottom of the Pyramid • Marketing to Bottom of the Pyramid Customers
	Indian Institute of Management, Kozhikode (IIM-K) • Environmental Management • Green Supply Chain Management & Practices • Corporate Governance & Corporate Social Responsibility
	Indian Institute of Management, Lucknow (IIM-L) • Corporate Governance & Strategy • Business Sustainability and Externalities Markets • Business and Society • Green & Sustainable Computing
	Indian School of Business (ISB) • Leaders and Sustainable Development
	Lal Bahadur Shastri Institute of Management (LBSIM) • Business Ethics & Corporate Governance (PGDM) • Business Sustainability & CSR
	Rajiv Gandhi Institute of Management, Shillong • Sustainability, Corporate Social Responsibility & Ethics
	Rajagiri Centre for Business Studies (RCBS) • Environment Management • Business Ethics & Corporate Governance, • Sustainable Development & Corporate Governance
	School of Management for Infrastructure and Development studies (MINDS), • Energy Trading • Environmental Management
	Shailesh J. Mehta School of Management (SJMSSOM) • Environmental Management
	XLRI-Jamshedpur • Introduction to Sustainable Development and Corporate Sustainability • Advanced Environmental Management and Green Marketing • Introduction to Social Entrepreneurship
	NMIMS – School of Business Management • Corporate Social Responsibility • Ethical Issues in Management • Social Development & Introduction to Social Entrepreneurship • Disaster Management • Environment Management
	NITIE, Mumbai • Sustainable Development • Environment and Safety Legislation • Green Marketing • Environmental Management • Sustainability
	Institute of Rural Management (IRMA), Anand • Social Entrepreneurship • Values and Ethics in Management • Corporate Social Responsibility • Sustainability and CSR Compliance Mechanisms
	SCMHRD, Pune • Concepts and Applications in Sustainability • Corporate Social Responsibility • Sustainable Marketing • Sustainable Supply Chain • Social Entrepreneurship • Corporate Governance and Ethics • Microfinance and Social Banking

Figure 4. Core Courses in MBA in Business Sustainability (TERI)

- Climate change and development
- Energy policy and management
- Sustainable business strategy
- Environmental economics
- Financial intermediaries, institutions and regulations
- Corporate governance - challenges, evolution and future direction
- Business ethics
- Contemporary issues in change management
- Community relationship