

Responsible Leadership and Sustainable Management  
Series Editors: Nayan Mitra · René Schmidpeter

Jayati Talapatra  
Nayan Mitra  
René Schmidpeter *Editors*

# Emerging Economic Models for Sustainable Businesses

A Practical Approach

 Springer

# **Responsible Leadership and Sustainable Management**

## **Series Editors**

Nayan Mitra, Private Limited, Sustainable Advancements (OPC),  
Kolkata, West Bengal, India

René Schmidpeter, Ingolstadt, Bayern, Germany

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Jayati Talapatra · Nayan Mitra · René Schmidpeter  
Editors

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*To all those who witnessed the COVID-19  
crisis and helped each other, to overcome it.*

# Foreword

This book comes at an opportune moment, when the world is rebuilding itself post-COVID-19. As a banker for more than 30 years, I have seen how strong business models lead to a long-term success. Today, a strong business model is necessarily one which looks at people and planet, along with prosperity. I would go as far as to say that the first two pillars are necessary for organisations to remain profitable in future. A recent research by ADB finds that the impacts of climate change on agriculture, tourism, energy demand, labour productivity, catastrophic risks, health and natural ecosystems could collectively result in a loss of 11% in South East Asia's combined Annual Domestic Product by the end of the century.

The loss of global GDP due to COVID-19 is still being calculated but is sure to exceed any other losses in the past, including those resulting from wars. The case for a green recovery is strong, the most compelling argument being that taking care of biodiversity and the planet as a whole is essential to avoiding future pandemics. The world can ill-afford another COVID-19.

This book presents research on the role of new and emerging models in enabling business sustainability. Through case studies, empirical data and research, the authors show that it is possible to both build sustainable businesses and push businesses towards sustainable models. In fact, research literature over the past two decades already suggests an overwhelmingly positive relationship between sustainability practices and corporate financial performance.

I congratulate the authors and editors, Jayati Talapatra, Dr. Nayan Mitra and Dr. René Schmidpeter, for making such significant contributions to the now increasing body of research, on sustainability. Readers will certainly see the value of focussing on long-term benefits over short-term gains. Hopefully, they will also see the business

case for investing in sustainable business processes, which I know will be critical for success of all ventures in future.



Manila, Philippines  
April 2021

Diwakar Gupta



# Preface

The 2020s will be the decade that decides the future of our race and its existence on this planet. Will we meet the 1.5 degree climate target? Will our organisations be carbon-neutral by 2030? Will we be able to feed and provide a life of dignity to our rising population?

The need for existing businesses to turn sustainable, and new businesses to start with people and planet at its core, is no more a choice. It is the only way to be.

At the time of writing this, 2.7 million people have died worldwide, due to COVID-19. More than 2000 deaths per year have been occurring due to natural disasters, the intensity and frequency of which have been increasing over the past few years. The loss in terms of economic value exceeds billions of dollars. In 2020, Cyclone Amphan led to widespread devastation in the Bay of Bengal and amounted to a loss of USD 15 billion (Aon Catastrophe Report, 2020).

This book comes from a deep sense of responsibility towards our communities and the world we live in. We believe that destruction of nature, and consequently of human and other life, is not a deliberate act of hatred towards people and planet. It is more about not being able to strike a balance between immediate gains and long-term viability. We believe that newer thoughts and models can help business owners strike that balance and create a win-win-win for all—the planet, communities and businesses.

In this book, you will read:

- Case studies of organisations which have created sustainable value chains;
- Concept notes and research papers on the emerging economic models that build on changing consumer sentiments, legislations and reporting standards.

Current market scenarios and future trends are accounted for in the chapters to make them relevant and future-ready. The pandemic has changed the way businesses operate. Has the corporate world become more conscious of its actions and started focussing on ‘green recovery’ in earnest? Or has the sharp decline in profits for some industries pushed their sustainable agenda back by a few years?

Business leaders will find that this book could help you improve your existing sustainable practices, speed up the transition from linear to circular, narrow stakeholder driven to community driven.

Prospective entrepreneurs may find that the book could give you the nudge that you need, to start a sustainable enterprise.

Students and researchers can learn from real-life examples of how sustainable transformations unfold.

The book addresses various aspects of business sustainability and attempts to offer multiple viewpoints, while firmly focussing on present realities. It helps the reader understand existing challenges while showing that there are many possibilities and opportunities, of making ‘sustainability’ the core of all economic activity. Above all, it aims to provide hope that it is indeed possible to take care of our fellow beings and the earth while remaining financially viable.

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## About the Editors

**Jayati Talapatra** teaches Business Sustainability to post-graduate students in leading Business Schools such as MDI Gurgaon and The Energy and Resource Institute (TERI) School of Advanced Studies, New Delhi, India. She completed her Masters in Business Studies from one of the top institutes in India, XLRI Jamshedpur. She worked in the field of organisation development, leadership development and change management in leading Fortune 500 companies for 15 years, and presently teaches and consults on business sustainability. She runs an eco-tourism organization that promotes citizen action for a more sustainable world. She is an independent researcher and her area of research is the role of consumers in influencing corporate sustainability decisions.

**Nayan Mitra** has over 20 years of diverse professional experience in academics, social & corporate sectors; Academic Council member & Science Board member in International Academic forums. She has edited books such as *Corporate Social Responsibility in India: Cases and Development after the Legal Mandate* (2017); *Mandated Corporate Social Responsibility: Evidence from India* (2019) and *Corporate Social Responsibility in Rising Economies: Fundamentals, Approaches and Case Studies* with co-editor, Dr. René Schmidpeter and many scientific publications in the subject in peer reviewed international/national journals/books. Dr. Mitra was a recipient of the prestigious Author Award at the India CSR Leadership Summit three years in a row: 2017, 2018 and 2019; adjudged as one of the 25 most impactful CSR Leaders in India 2019 and many other international awards for her contribution to CSR and recognised as an Exceptional Woman of Excellence at the Women Economic Forum, 2019.

**René Schmidpeter** is founder of the M3TRIX Institute for Sustainable Business Transformation in Cologne. He holds Professorships at various universities and research centers in Europe, Asia and Australia. He is series editor for *Springer's*

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# Abbreviations

ABS	Acrylonitrile Butadiene Styrene
ACAD	Academician
BIRAC	Biotechnology Industry Research Assistance Council
CBD	Central Business Districts
CIIE	Centre for Innovation Incubation and Entrepreneurship
CO <sub>2</sub>	Carbon Dioxide
CORP	Corporate Participant
COVID-19	Coronavirus Disease 2019
CPCB	Control Pollution Control Board
CSR	Corporate Social Responsibility
CSRD	Corporate Social Responsibility Disclosure
CSRR	CSR Reporting Index
EDB	Economic Development Board
EPR	Extended Producer Responsibility
EV	Electric Vehicle
FICCI	Federation of Indian Chambers of Commerce & Industry
FLW	Food Loss and Waste
GDP	Gross Domestic Product
HDI	Human Development Index
ICT	Information and Communication Technology
IMF	International Monetary Fund
INR	Indian Rupee
kWP	Kilo Watt Peak
LEED	Leadership in Energy and Environmental Design
LPG	Liquid Petroleum Gas
MCA	Ministry of Corporate Affairs
MDGs	Millennium Development Goals
MNC	Multi-national Corporation
MPCB	Maharashtra Pollution Control Board
MSINS	Maharashtra State Innovation Society
Mt	Metric Tonne

MW	Megawatt
NABL	National Accreditation Board for Testing & Calibration Laboratories
NBC	Non-Profit Business Collaboration
NGO	Non-Government Organisation
NKDA	New Town Kolkata Development Authority
NPO	Non-Profit Organisation
NVG	National Voluntary Guidelines
PM	Prime Minister
PP	Polypropylene
PPE	Personal Protection Equipment
PPP	Public–Private Partnership
PSUs	Public Sector Units
PV	Photovoltaic
RT/PCR	Reverse Transcriptase PCR
SAP	Superabsorbent polymer
SCPs	Smart City Proposals
SDG	Sustainable Development Goal
SERIS	Solar Energy Research Institute of Singapore
SKU	Stock Keeping Unit
SWM	Solid Waste Management
TSO	Third Sector Organisation
TSOP	Third Sector Organisation Participant
UAE	United Arab Emeritus
ULBs	Urban Local Bodies
UN	United Nations
USD	United States Dollar
UTI	Urinary Tract Infection
WHO	World Health Organisation
WWF	World Wildlife Fund



# Chapter 1

## Emerging Economic Models of Sustainability—An Introduction



Jayati Talapatra

**Abstract** The world is richer in terms of monetary wealth than it has ever been before. GDP per capita globally is at its highest despite increase in population. Such unprecedented economic growth has come at the price of human and planetary health. This chapter captures the growth trajectory of the economic world, from shareholder primacy to stakeholder welfare. It gives an overview of how each chapter in this book presents a facet of sustainability that shows how economic development and social and environmental improvement can happen side by side. Chapters in this book touch upon various examples, cases studies and theoretical frameworks ranging from corporate social responsibility to building efficiencies to the role of consumers. This chapter attempts to knit these concepts together based on the chronological flow of events as they have taken place in the field of sustainable development.

**Keywords** Sustainable development · Stakeholder theory · Economic models

### 1.1 Introduction

Milton Friedman won the Nobel Memorial Prize in Economics in 1976, for his research on consumption analysis, monetary history and theory and the complexity of stabilisation policy. He is credited with defining the purpose of an organisation to be to maximise shareholder value (Friedman 1962). Organisations and world leaders, Margaret Thatcher and Ronald Reagan in particular, adopted this tenet and focussed on maximising shareholder value, by every possible mean. Corporate America in the 1970s saw an increase in social and environmental activists, demanding better welfare for the communities and the planet. But the ‘shareholder primacy’ theory urged business leaders to be wary of spending money on social welfare and environment, which reduced the firm’s profits. However, it was not always like this. From the end of World War II to the 70s, businesses followed a process of ‘Retain and Reinvest’, which ensured welfare of employees, and consequently the communities they belonged to

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(Lazonick 2014). This sustainable model gave way to ‘Downsize and Distribute’ in an effort to maximise profits, at the cost of welfare.

The Business Roundtable is a meeting of American CEOs where principles of corporate governance are issued periodically. ‘Shareholder Primacy’ has been a focus area for this group since 1997. In 2019, the group declared for the first time that increasing value of all stakeholders, which include the employees, the communities they work in and all players in the value chain, will now be corporate responsibility (Business Roundtable 2019). The purpose of the organisation, as per this group, now includes imbibing sustainable processes that are inclusive, conscious and take care of communities and the environment.

Extending the definition of stakeholders of organisations, to include communities, is more than an ethical decision. The long-term success of a firm depends on the ability to create value for the extended stakeholder groups (Freeman 2015). From the ‘Shareholder Primacy’ theory of considering social and environmental responsible activities to be undesirable to the ‘Stakeholder Theory’ of adding maximum value to all stakeholders to ensure sustained business success has been a challenging journey. It is difficult to build a business case for sustainability even today.

Till Elkington introduced the term ‘Triple Bottom Line’ in 1994, and the social and environmental aspects of business were rarely talked about. Management gurus like Tom Peters or Peter Drucker to name a couple focussed on a variety of aspects of businesses and factors that would lead to long-term profitability with no reference to social, environmental or governance issues. The Triple Bottom Line reporting urged organisations to look at social and environmental values created or destroyed, over and above economic value creation, in a way that the business community understood for the first time (Elkington 1994). The transition towards ‘sustainable capitalism’ was to be one of the most challenging one that our species had ever witnessed, where a more inclusive, symbiotic way of operating took over from the existing exclusive and subversive one (Elkington 2004). Organisations started accounting for social and environmental impact along with profits. But this was not enough nor the right approach to achieve sustainable capitalism.

The Triple Bottom Line (3BL) reporting became a popular accounting tool as organisations started reporting increasingly on actions that they took on the People and Planet front. But the 3BL approach was intended to be more than just an accounting tool, in which detrimental impact of a business could be ‘traded-off’ with environmental and social initiatives. It was meant to provoke deeper rethinking on the tenets of capitalism and its future (Elkington 2018). 3BL triggered creation of many other reporting tools that look beyond profits, like the Global Reporting Initiative (GRI) and SROI (Social Return on Investment), to name the more commonly used frameworks globally. However, unless these reports provide information to aid management decisions to improve their social and environmental scores, just as they continuously strive to improve their profits, they will remain a balancing act—to write off the damages of operation. If the planet and its people are to be saved, the business world will need to build sustainability into its DNA, into its business model.

Rethinking business success as one that promotes inclusive and sustainable growth for all stakeholders is not a new idea. In India, The Tata Group has focussed on

creating value for its employees and their communities, since the 1870s. 100 years later, Patagonia, an outdoor clothing and gear company, was founded on the principles of environmental sustainability. In 1985, it became the first business in the world, to commit 1% of its annual sales to the environment according to Forbes Magazine. The beginning of this century saw the rise of B Corporations (B Corp) who choose to strike a balance between profits and purpose. The B Corp organisations see themselves as a ‘force for good’ and are driven by a set of values which are captured in what they appropriately call, their ‘Declaration of Independence’. Creation of products and services that benefit all and harm no one is a key tenet that they operate on. What distinguishes them from other organisations who report on economic, social and governance parameters or even those that contribute towards philanthropy, through Corporate Social Responsibility, is their core purpose.

‘Purpose’ is what differentiates long-term wins over quick but transient success and COVID-19, and before this, the 2008 financial market crash has shown that purpose-driven organisations survive catastrophes better than those who are not (McKinsey & Company 2020). Organisations are shifting their focus from merely ‘What’ to ‘How’. B Corp Chief Executive Officers (CEOs) appear to be truly demonstrating an ability to rethink the future of capitalism and accept the role that the global economy ought to play, in making things better for all beings on earth.

The certification of B Corps started in 2007, and today, there are 3905 companies, spanning 150 industries, spread across 74 countries. While the absolute numbers are not very encouraging, what is encouraging is the reason why organisations are choosing to become B Corps. A primary reason is to demonstrate authentic actions towards a more equal and sustainable world, as compared to ‘greenwashing’ actions of a majority of firms (Kim et al. 2016). Many of the B Corps have come into being because their industry has traditionally been a carbon-intensive or non-inclusive one, and they wanted to lead change in their industry (Kim et al. 2016). These firms want to join the movement, to create a new set of rules for a new economy.

Stakeholders, especially consumers and investors, are pushing businesses to adopt sustainable business processes. Additionally, organisations that have embedded sustainability into its core and sustainable businesses that have been created solely for enriching lives and the planet have been able to do so because of their leaders. Co-founded by Sir Richard Branson, Founder, Virgin Group and Jochen Zeitz, former chairperson, PUMA, in 2013, the B Team is the corporate leadership response to the present unsustainable economic model. Heads of market leading organisations such as Vodafone, Unilever and Shell have adopted Responsible Tax Principles, among other B Team principles, which are helping them on their journey towards sustainability. The Tata Group and Patagonia, mentioned above, also owe their responsible business approach, to their founders and leaders. Jamsetji Tata started his business enterprise with a textile mill in central India in the 1870s. He is as much known for his philanthropy and humaneness as much as for creating one of the largest business conglomerates in the world today. His compassion for his fellow humans led to the creation of Tata Trusts, which has been funding charitable activities in the country, decades before Corporate Social Responsibility became a norm. Yvon Chouinard, Founder of Patagonia, is also an environmentalist and mountain climber. His strong

belief in creating products that conserve nature's resources is demonstrated through his '1% for the planet' program as well as the firm's constant adoption of processes that reduce their carbon footprint, such as promoting reuse of old clothing over new. Both Tata's and Chouinard's personal beliefs have ensured that their organisations are authentic in their actions to make the world a better place.

2020 saw the increase of climate risk and carbon disclosures by a larger percentage than ever before (Harvard Business Review 2021). Larry Fink, CEO, BlackRock, one of the largest investment management firms in the world, has been pushing companies that his firm invests in, to disclose environmental impact. In an official letter to the stakeholder community at the beginning of the year, he emphasised on the importance of climate-related disclosures and how the firm's future investments will be governed by this. Increasing activism from shareholders, push from Investment Firms such as BlackRock are not the only reasons for the increase in disclosures and reporting from the industry. An increase in 1.2% in stock price of the disclosing company has been observed post-announcement of disclosure (Harvard Business Review 2021).

With organisational leaders coming together to create sustainable value chains, investment getting increasingly available to enable green transitions and the number of organisations choosing to disclose its social and environmental impact and create strategies to minimise damage, the path towards a more balanced prosperity seems clear. The following chapters will illustrate how the world is progressing down that path.

## 1.2 An Overview of the Book Chapters

India took a lead in making Corporate Social Responsibility (CSR) an institutionalised practice, when an amendment to the Companies Act, 2013, mandated CSR spending by companies with certain inclusion criteria. The result of mandating CSR on Indian companies has been varied. Chapter 2 presents a study on CSR reporting pattern, of 30 Indian companies, listed on the Bombay Stock Exchange, studied over a period of four years. The chapter throws light on which areas within the given CSR focus areas are disclosed more and which have not been disclosed. An industry-wise analysis is also presented which shows trends in how CSR reporting varies across sectors. The chapter shows that post-mandating of CSR, substantial increase in CSR reporting has been observed by Indian businesses. While reporting and disclosures are an important step in the sustainability journey, the success of CSR as an agent of change needs to be understood through detailed research on how the on-ground implementors, such as Non-Profit Organisations and other Civil Society Organisations are utilising funds allocated through CSR. Chapter 3 is a study of how corporate funding and corporate culture have impacted the functioning of implementing organisations. Is working with corporates, making implementing organisations more professional and efficient? How does the implementing agency ensure that it sticks to its goals and purpose, without getting influenced by what their funder is asking of them? Various aspects of this relationship are discussed, and the overall impact on the implementing

agency, which were used to functioning in a ‘fund utilisation’ mode of operating as compared to the ‘outcome based’ approach that corporates seek, is presented.

In countries where CSR is not mandated, its adoption can depend on a variety of factors. Chapter 4 presents a model in which the authors show how neo-institutional mechanisms—normative, coercive and mimetic, influence CSR development. CSR development is further explained through three stages of cultural reluctance, grasp and embedment. The case of the ready-made garment industry of Bangladesh is used to demonstrate how the CSR development model works. The ready-made garment sector of Bangladesh had been evoking the anger of human rights activists for long. The Rana Plaza incident of 2013, where a number of garment units were gutted in fire in a town in Bangladesh, leading to loss of lives and livelihoods, spurred a series of changes in legislation (International Labour Organisation 2013). Chapter 4 studies how these changes affected CSR in the garment industry of the country.

Along with human rights violations, the garment industry is also accused of being one of the largest environmental violators, being the second largest consumer of the world’s freshwater and responsible for 10% of all anthropogenic carbon emissions (World Economic Forum 2020). Chapter 5 explores how Marshallian framework of Cluster Economics enables sustainable processes in the garment industry. A key challenge faced by small and medium enterprises is the availability of funds for implementation of sustainable practices. Case studies of small and medium size garment manufacturers in the National Capital Region of New Delhi are presented, and the impact of cluster formation and pooling of CSR funds of such organisations are discussed. The chapter proposes a three-pronged, multi-stakeholder approach at three levels—the Government, the Firm and the Cluster or Industry Association, to enable large-scale sustainability initiatives in the sector.

A key environmental impact of the garment industry, especially fast fashion, is the generation of waste. Approximately 1 truckload of discarded garments is sent to the landfill every second (Bick et al. 2018). Fuelled by consumer activism and a call taken by some industry leaders, like Chouinard of Patagonia, fashion industry has been making steady progress towards circularity, moving away from a linear model to one of reduce, reuse and recycle. Chapter 6 brings out the opportunities that exist in extracting value out of waste, through recycling, reuse and recovery. It shows how a good waste management system can incentivise creation of new sustainable businesses. Case studies of three organisations are presented, to demonstrate how waste can be a resource. Aspects of changing consumer behaviour towards waste reduction and segregation are incorporated into the cases. The chapter shows how a multi-stakeholder approach, with private players, the government and the aware consumer can benefit the environment as well as businesses, providing a win-win solution for all.

Waste management is an important step in creating safe, resilient and sustainable urban spaces. Chapter 7 brings out economic, social and environmental aspects of sustainable cities, through case studies of three Asian countries and an in-depth analysis of the smart cities programme in India. A study of the New Town Smart City in Kolkata, West Bengal, is presented, illustrating how a multi-stakeholder approach and long-term commitment by visionary leaders can help build a self-sustaining

urban space that is healthy and vibrant. The case study demonstrates how innovative use of solar energy is a financially viable way of creating sustainable micro urban spaces.

The success of the models mentioned in Chaps. 6 and 7 depends substantially on the individual consumers' awareness and thereby an ability to commit to a responsible way of life. Similarly, consumer demand for more sustainable products and services is critical to spur a new generation of sustainable businesses and motivate existing businesses to move towards more sustainable processes. The pandemic has further accelerated changes in consumer behaviour, who had increasingly started demanding more accountable, humane and environmental conscious products and services, even before 2020. Chapter 8 studies this change in consumer behaviour and its impact on organisations. Seventy-five consumers share their views on how their consumption pattern has changed over the past couple of years. These changes are mapped on to observed changes in sustainable practices of organisations. A case study of a leading global hotel chain and its sustainability practice is also present to corroborate the findings from the study.

Responsible consumption behaviour, or awareness of how one's actions impact the earth and its inhabitants, can be inculcated through the education system. Chapter 9 presents a nine-factor framework (9FF) for creating a sustainable education system. The framework uses a systems approach, taking into account multiple variables and stakeholders, to propose a system that is robust and relevant over a large set of conditions. Education lays the foundation for human behaviour and any societal change and needs to begin with changes in the education system. This paper attempts to propose a foundation for entrenching sustainability into our society.

Various aspects of sustainability have been presented so far—from understanding how legislation enables implementation of sustainable practices, how urban spaces can be created to be resilient and healthy, opportunities that exist for new sustainable businesses, to what lays the foundation for responsible behaviour. The future business world is increasingly looking at sustainability as the way forward. Chapter 10 brings together two emerging trends in the business world—sustainability and digitization. The pandemic has further accelerated digitization and as the previous chapters point out, the need for responsible production. This chapter shows how they work hand in hand. A 2 by 2 matrix is proposed, which maps organisations along 'creating positive impact' and 'avoiding negative impact' axes. The chapter shows that now more than ever before, CSR is being used to take genuine steps to improve people and planet health, rather than minimise damage caused due to operations.

The book starts with the impact of CSR on sustainability and data is presented to show how it is being used effectively by ground-level implementors, to create lasting change. The need for the corporate world to come together and help people in need has never been felt more strongly than during the pandemic. Chapter 11 presents data on how CSR funds have been utilised to bridge the gap in medical equipment, medicines, oxygen and so on. Legislative amendments have been made to allow organisations to divert their CSR funds towards COVID-19 relief operations. A developing country like India with limited medical infrastructure sorely needed corporate funds to cope with the pandemic.

### 1.3 Conclusion

India has the third largest number of billionaires in the world and also some of the poorest (Forbes 2021). Poverty arising out of conflicts, climate change and lack of economic models that lead to overall prosperity of communities and nations, is still the norm than the exception. Shareholder capitalism seems to dominate global business as evident from the growing income disparity, especially in developing countries. As an added blow to stakeholder capitalism, Danone's SA's CEO and Chairperson Emmanuel Faber, a leading voice for sustainability in the global business world, were asked to step down, as I write this. Is the world moving back from its commitment to make it a better world for future generations?

The following chapters prove that that is not the case. The move towards sustainability is now more commonly accepted, and the business case for it is evident. Opportunities exist for the business world, to earn profits and create widespread and long-term prosperity rather than concentrated wealth in the hands of a few. And when people unite, this is entirely possible, as can be seen from multiple examples from public health, where tropical diseases have been successfully wiped out from the face of the earth or heinous human rights violations faced with stiff opposition. The Montreal Protocol signed by Heads of States in 1987 laid out a plan for stopping production of ozone depleting substances, halocarbons. Today, the ozone hole has been healed to a large extent, thanks to the concerted effort of the business world looking for alternatives to halocarbons that were traditionally used for cooling. Implementation of the Montreal Protocol establishes the power of collective action.

COVID-19 has proved to be a turning point in the history of humanity. It has shown us the need for symbiotic living with nature, as the link between pandemics and biodiversity destruction is now well documented (World Wildlife Fund 2020). For the first time, the global community came together as one, contributing money, expertise and equipment, to fight the common enemy. The pandemic saw companies diverting their production lines to build ventilators, while others made large monetary contributions to provide relief. But more importantly, individuals changed the way they look upon their planet and the people around them. Patients coming out of a hospital in Maharashtra, India, have been planting trees because the value of oxygen has never been clearer. Never before, has it been more evident, that our actions can destroy and at the same time heal the earth and all who live in it.

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# Chapter 2

## Corporate Social Responsibility Reporting in the Post-mandate Period: An In-Depth Content Analysis of Indian Top-Listed Companies



Shafat Maqbool, Nayan Mitra, and Asiya Chaudhury

**Abstract** The purpose of this study is to examine the pattern of corporate social responsibility reporting of top Indian companies in the post-mandatory period. To this end, the study selected 30 SENSEX companies for four years (2014–15 to 2017–2018). Content analysis has been used to compute the disclosure under four dimensions of corporate social responsibility, namely community welfare, environmental stewardship, human resources and product and customer. The results of the study indicate that corporate social responsibility reporting in selected companies has increased during the period of study. The most disclosed dimension of corporate social responsibility is community development, and the least disclosed dimension is product development. The study further reveals that oil exploration and refineries have the highest corporate social responsibility disclosure and the pharmaceutical industry stands at the bottom-most position in corporate social responsibility disclosure. The result suggests that Indian companies have made significant development in corporate social responsibility reporting after the introduction of recent reforms.

**Keywords** Corporate responsibility · Corporate disclosure · SENSEX companies · Content analysis · Companies Act

### 2.1 Introduction

Corporate social responsibility disclosure (hereafter CSRD) has emerged as an important area of research for management theoreticians and practitioners. This area has received much importance, given that CSR has evolved as an important corporate strategy in the industrialized economies of the world (Maqbool and Zameer 2018).

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Creating wealth and surviving in the competitive environment not only depends on the internal functioning of the corporate entity but how the business entity is perceived as a responsible venture that creates societal welfare (Murthy 2008). To survive in this highly competitive environment, corporate entities have to coexist with society and mutually generate benefits for each other (Schmelzer 2013). The business is expected to produce goods for the society, create value, generate employment and abide norms of the society, and in return, society provides an environment of prosperity, allowing investors to earn returns while ensuring that the stakeholder can enjoy the benefits of their involvement without fear of arbitrary and unjust action. Modern companies are working in a framework where they achieve their financial goals and simultaneously contribute to the welfare of society (Sastry 2011).

Sustainability reporting has become an important strategy to survive in this competitive environment and craft a positive relationship with stakeholders. Communicating corporate success and its commitment toward ecology and society are seen as an integral part of corporate annual reports. The review of corporate social reporting suggests that communication of social and ecological issues is essential devices to demonstrate the commitment of corporate entities toward the welfare of society (Khan 2010). According to Abugre and Nyuur (2015), “Communicating CSR is a means of ensuring that these firms are in touch with their stakeholders to be responsible for their social and environmental impacts.” It creates legitimacy for the company, positive relationships with different stakeholders, and is able to enter into the public dialogue that can influence the finance of the company and institutional operating environment (Ghosh 2015; Maqbool and Bakr 2019). So, the organizations ensure that they not only are practicing the CSR, but communicate the same to be recognized as responsible firms with a multi-stakeholder approach. Sustainability report bridged this information vacuum by providing a comprehensive interdisciplinary account of economic, environmental and social elements weaved in one report.

CSRD is gaining currency in India, and companies are now separately reporting on social and environmental issues. The CSRD in India started in the 1980s with the mandatory disclosure on the conservation of energy in directors’ reports. In recent times, few guidelines have been issued by the Government of India to make companies responsible and transparent in their corporate dealings. In 2012, the security and exchange board of India issued guidelines for the top 100 listed companies to practice National Voluntary Guidelines (NVG) on the environment, social and economic responsibility and publish the business responsibility report along with the annual reports. The year 2013 marked the beginning of a new era of CSR in India with the enactment of Companies Act, 2013, which mandates CSR for big companies and report about those activities in/along with the annual report. Two relevant studies on CSRD of SENSEX companies in India are taken by Bhatia and Chander (2014) and Maqbool and Zamir (2019). The study of Bhatia and Chander (2014) focused on CSR reporting of SENSEX companies for the year 2009–2010. The study of Maqbool and Zamir (2019) was carried out in the post-mandated period. The study focused on CSR reporting of SENSEX companies for the year 2016–17. The majority of studies in the Indian context, including these two studies, are restricted to the single year.

It is problematic to extend these results to other years and extrapolate trends. The main shortcoming of existing studies is that most of the studies are cross-sectional. The paper has taken a longitudinal perspective to understand the pattern of CSR reporting in the post-mandated period. This is the first study that traces the CSR reporting in the post-mandated period for four consecutive years. Particularly, the present study addresses an important gap in scholarship by exploring the following research questions in the Indian context.

First, this study examines the CSR reporting of different dimensions of SENSEX companies in the post-mandated period. Second, the study examines the difference of CSR reporting in the selected industries. Third, the study examines the pattern and trend of CSR reporting over the period (2014–15 to 2017–2018).

The study is organized as: Sect. 2.1 is the introduction, and Sect. 2.2 discusses the extant literature of CSR in India. Section 2.4 is about research methodology and data collection. Section 2.5 throws lights on the results and findings, and paper ends with the summary and conclusion.

## 2.2 Theoretical Background and Review of Literature

This section discusses the three aspects related to CSR. First, the definitions of CSR are examined to understand the framework of CSR. Second, the theoretical background is discussed. Third, various studies related to CSR in the Indian context are analyzed.

Corporate entities are increasingly publishing their business responsibility reports to craft positive public perception by signaling the transparency in corporate dealings and the adoption of environmental practices. CSR is understood as “the process of communicating the social and environmental effects of the organization’s economic actions to particular interest groups within society and to society at large” (Gray et al. 1995). It essentially means that “firms are in touch with their stakeholders to be responsible for their social and environmental impacts” (Abugre and Nyuur 2015). The CSR reporting involves the extending responsibility of corporate entities beyond the traditional role of providing financial information to owners. The business responsibility reports are published alongside with annual reports to communicate with the stakeholders that companies share wider responsibility than simply to make money for their shareholders. The National Association of Accountants identified four major areas of CSR, namely community development, human resources, service and product contribution, physical resources and environment contribution. By reporting on these issues, companies manage the perception of different stakeholders and build reputational value for the company.

CSR in developing countries has been mainly theorized using legitimacy theory (Neu 1998). Reporting on CSR engagement in the area of environment, social and human resources are all geared toward enhancing the company reputation and invariably creating legitimacy. “Legitimacy is a generalized perception or assumption that the actions of an entity are desirable, proper, or appropriate within some socially

constructed system of norms, values, beliefs and definitions” (Suchman 1995). The legitimacy of the corporate sector stems from the social contract theory. The theory states that there exists an implicit social contract between the corporate sector and society and their activities are intertwined. The social contract, as explained by Deegan (2002), represents a myriad of expectations that society has about how an organization should conduct its operations. The company is dependent on the society for its existence, and in return, the firm has obligations, including moral obligations to a broad range of stakeholders (Adams et al. 1998). The legitimacy is enriched as the corporate entity builds a positive and participatory relationship with different stakeholders. Corporate entities continuously disseminate social and environmental information to get approval from society, thus ensuring their continuing existence. “When society’s expectations are not fulfilled, that is, a company’s actual or perceived behavior is not in accordance with social values and norms, a breach of contract exists and a legitimacy gap may develop” (Mahmood et al. 2019). The organizations have to continuously publicize their social and environmental activities to improve their legitimacy in society. Where the managers perceive that organizational activities do not commensurate with the values of the society, according to the legitimacy theory, remedial measures are done by disseminating CSR information to the company stakeholders (Chan et al. 2014).

In the last decade, CSR has received great patronage from the Indian government and Indian corporate institutions. Corporate philanthropy was seen as an important part of the Indian corporate sector and was inspired by the cultural values of Indian tradition. With the trade liberalization in 1991, the Indian corporate market was exposed to international corporate standards and paved the way for multi-stakeholder CSR (Chaudhary et al. 2020). Institutional reforms started with the then Prime Minister Dr. Manmohan Singh releasing the Ten Point Social Charter, which called Indian companies to share benefits with the less privileged community and takes responsibility in nation-building (Singh 2007). This was closely followed by the corporate week 2009, which laid down six principles to advance CSR in India. In 2012, the security exchange board of India issued a notification to direct top 100 companies to report their social, environmental and economic activities in their annual report. In 2013, the Indian Parliament made an important decision by making CSR mandatory for big companies and directed them to spend their two percent on CSR. Further, in 2016 BSE signed a memorandum of understanding with the Global Reporting Initiative to encourage listed companies to report on and act upon reducing environmental and social impact. The CSR is growing in India, and companies have taken it with pride to contribute toward the society (Maqbool and Hurrah 2020).

Few empirical studies were carried out in early 2000 to understand the CSR reporting of Indian companies. These studies mostly focused on the nature and characteristics of CSR in India (Arora and Puranik 2004; Sood and Arora 2006), perception of CSR (Raman 2006) and determinant of CSR (Hossain and Reaz 2007). In 2008, Murthy made an important contribution to CSR reporting by studying the CSR of 16 software companies for the year 2003–2004. This was a comprehensive study on CSR reporting in the Indian context. The study found that human resources are the most disclosed theme, followed by community development activities and

environmental activities. Tewari and Dave (2012) compared the CSRD of Indian companies and multinational companies. The study selected the top 100 companies operating in the information and technology sector of India. The study found that only 13.04% of Indian companies publish a separate sustainability report against 47% of MNCs, albeit, the standards and quality of published reports of Indian companies match global benchmarks in terms of the content of the report. The prolific work on CSR reporting is carried out by Kansal and Singh (2012). They studied the disclosure of the top 82 companies on 96 disclosure items. The study used a 6-point scale to see both the quantity and quality of CSRD in selected companies. The study found that community development and human resources are the centers of social initiative in selected companies. In-house training, health, conservation of energy and education are focused by the majority of companies. The study assumes that most of the companies in India follow the legitimacy theory to practice CSR. Ghosh (2014) studied the CSRD of the top 208 Indian private companies for three years (2006–2008). The most preferred activities undertaken by these companies are education, health and the environment. Drinking water and sanitation are the least reported activities. Bhatia and Chander (2014) studied the CSRD of SENSEX companies for the year 2009–2010 by preparing a CSR index. The study reports that overall CSR reporting is low in India. The study further reports that community involvement and environment are the most disclosed themes by SENSEX companies. Jain and Winner (2016) found that environmental activities are the most reported items in the selected top 200 companies. Aggarwal and Singh (2018) examined the CSRD of the top 60 listed companies in India for the period 2013–2014. The study found that community disclosure is the most reported dimension and employee disclosure is the least disclosed dimension. The study further observed that CSR practices in India differ by category, industry type and firm size. Maqbool and Zamir (2019) studied the CSRD of SENSEX companies for the period 2016–2017 by formulating the social responsibility index. The study observed that fair business practices are the most reported theme, followed by community development and environmental stewardship. The most reported items are education, health and energy conservation. Two recent studies have been carried out to check the CSRD in pre-mandated and post-mandated years in India. Goel (2018) studied the CSRD of the top 68 companies in the pre-mandated and post-mandated period. The study found a significant change in CSRD in the post-mandated period. Ghosh (2020) found that CSRD jumped from 35% in 2012–13 to 68% in 2014–15, and after that, disclosure increased moderately. The important link which is missing in these studies is the pattern of CSRD from a longitudinal perspective. This study will fill this gap by examining CSRD for 4 years in the post-mandatory period.

### 2.3 Objectives of the Study

The study examines the corporate social responsibility reporting of top Indian companies. The study specifically studies these three issues.

1. To analyze the relative importance attached to different CSR categories by all SENSEX companies.
2. To explore the extent to which the different industries have communicated CSR in their annual reports.
3. To examine the CSR reporting of SENSEX companies from the longitudinal perspective in the post-mandated period.

## 2.4 Database and Methodology

The basic purpose of this study is to analyze the CSR information communicated by the SENSEX companies in the post-mandatory period. The study sample constitutes the top 30 companies (as on September 25, 2018) listed on Bombay Stock Exchange, popularly known as SENSEX. The market capitalization of selected companies as on September 25, 2018, was about ₹54,637.08 billion (US \$766 billion). Out of these 30 companies, 8 companies belonging to the banking and financial sector were excluded because their CSR expectations and practices have a lot of variations from the rest of the companies. These 22 companies represent 9 industries, are actively traded in the stock exchange and are barometers of the Indian corporate sector and economic growth. These companies are corporate leaders and are appropriate to understand how corporate entities in India respond to mandatory CSR. The study focuses on the annual reports of SENSEX companies starting from 2014–15 to 2017–18. To keep the analysis meaningful, the change in the constitution of BSE SENSEX companies has been ignored.

### 2.4.1 Data Collection Instrument

This study has used a content analysis technique to analyze and condense the information into themes and categories. Krippendorff (1989) defines content analysis as a “research technique for making replicable and valid inferences from data to their context” (p. 24). This technique involves the identification of different literary themes in the company reports to understand the focus of the company toward different CSR activities. The content analysis focuses on the characteristics of language as communication, with attention to content or contextual meaning of the text (Hsieh and Shannon 2005). Two important issues that are core to the content analysis are the developing of the CSR reporting index (hereafter CSRRI) and the coding process. The CSRRI was formulated by examining the international standards and guidelines, like GRI guidelines, UNGC principles, ISO 26000, DJSI and extensive earlier CSR indices used to study CSR reporting in India. All disclosures from the mentioned sources were collected and compiled. The checklist was prepared with four major themes, namely community welfare, environmental stewardship, human resources

and product and customer. The checklist was prepared to codify the qualitative information disclosed in the annual reports. The total number of items on the checklist was 73. The items were further refined, and irrelevant items were excluded by the pilot study of annual reports for FY-2014. Further, the final checklist was devised after receiving feedback from 2 faculty members and 5 researchers who have good expertise in the content analysis. The final inventory, which is selected for this study, is 43 items (check Appendix). Subsequently, coding has been done by following the scoring system, similar to the one used by Sulemana (2016) and Maqbool and Zameer (2018). The scoring is done by allocating 1 to the disclosed item and 0 if the item does not list in the annual reports of the selected companies. For example, if an item related to education is mentioned in the annual report, it will score a point under community. The same procedure is repeated for all other items. The annual reports of all the companies were scrutinized by five students from the department of commerce, who were trained to carry out this endeavor. After the time of 2 months, all the five students and authors met at Aligarh Muslim University to bring consensus and consistency in the coded results. This is because the inter-coder agreement is very critical in this methodology.

## 2.5 Results and Findings

### 2.5.1 *Characters of the Sample*

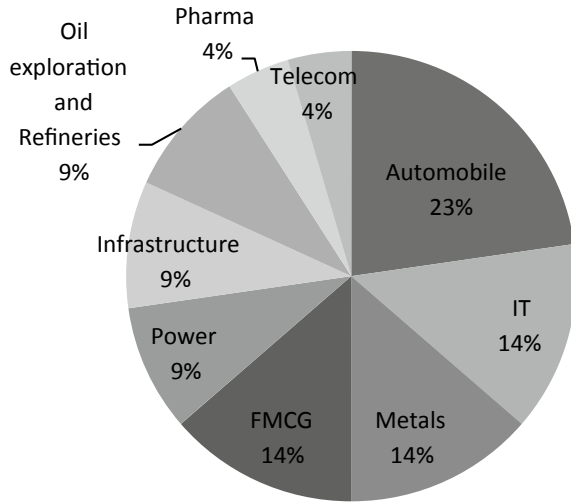
The selected SENSEX companies examined for this study are divided into 9 industrial sectors using Bombay Stock Exchange classification. The sample includes 23% automobile companies as shown in Fig. 2.1. Informational technology, FMCG and metals have 14% presence each in the study sample. Infrastructure, power and oil exploration and refineries make 9% each to the total sample. Telecom and pharmaceuticals have a 4% share in the study sample.

### 2.5.2 *Category-Wise CSR Disclosure*

Table 2.1 shows the category-wise CSR disclosure by SENSEX companies over the selected period. The CSR disclosure ranges from 80.3 to 47.1%, and average disclosure is 62.1%. The grand mean disclosure for various themes is 6.69 against the expected score of 10.75, indicating a gap of 4.06. The average CSR disclosure of SENSEX companies has increased exponentially (62.3%) in comparison with the study of Bhatia and Chander (2014), which reported a mean score of 31% for the SENSEX companies in the pre-mandatory period.

The findings show a distinct emphasis on community welfare among the selected categories. The community welfare has 80.3% disclosure, followed by environmental

**Fig. 2.1** Industry-wise CSR disclosure. *Source* Authors' own



**Table 2.1** Category-wise disclosure

Themes	Score obtained	Applicable score	Mean disclosure score	Percentage disclosure
Community development	707	880	8.03	80.3
Environmental stewardship	635	968	7.21	65.5
Human resources	684	1232	7.77	55.5
Product development	332	704	3.77	47.1
Total	2358	3784	6.69	62.1

*Source* Authors' own

stewardship with disclosure of 65.5%, human resources with disclosure of 55.5% and product development with disclosure of 47.1%. Overall, the most favored category is community welfare and the least reported category is product development. Furthermore, the Kruskal–Wallis test is performed to check the inter-theme variation. As reported in Table 2.2, the Kruskal–Wallis test with chi-square = 3.0 is observed to be insignificant at  $p > 0.05$ . Thus, null hypothesis  $H_{01}$  is accepted that there is no significant difference in disclosure of community welfare, environmental stewardship,

**Table 2.2** Results of Kruskal–Wallis test

Method	Chi-square statistics	df	Asymp. significance
Kruskal–Wallis	3.00	3	0.39

*Source* Authors' own



human resources and product development of selected companies. In the normative sense, all themes should receive equal focus as each theme has its relevance and ensuing benefits. The results have found that SENSEX companies focused on all themes and there is an insignificant difference. These results resemble the earlier studies in the context of India. Aggarwal and Singh (2018) found that community development has the highest disclosure rate in India in the post-mandatory period. Maqbool and Zamir (2019) reported that community welfare has 78% CSR disclosure for the period 2017–18. Jain and Winner (2016) reported that the environment and community are dominant themes in Indian companies. The plausible explanation for the dominance of community development among selected themes is that CSR in India is conceptualized from the perspective of community. Even the Indian Companies Act, 2013, included the majority of themes related to community welfare in the CSR definition.

In order to further analyze the CSR reporting of SENSEX companies, all 22 companies were further divided into 9 industrial groups. The result in Table 2.3 shows that average disclosure is 62.1% and CSR disclosure ranges from 73.54 to 37.10%. The standard deviation of percentage disclosure is 11.42, which shows that most of industries have similar CSR reporting pattern. The disclosure is highest in oil exploration and refineries that is 73.54%. The pharmaceutical industry has the lowest CSR reporting that is 37.10%. Among the 9 industries, 6 industries have disclosure between 61.74 and 68.02%. In 2014, the mean CSR disclosure varied from 29.3 (metals) to 14.0 (pharma). The mean CSR disclosure score in 2015 ranges from 32.0 (oil exploration and refineries) to 15.0 (pharma). Regarding CSR disclosure in 2016, the score ranges from 33.0 (oil exploration and refineries) to 15.0 (pharma). The CSR disclosure in 2017 ranges from 33.0 (oil exploration and refineries) to 16.0 (pharma). Overall, the oil exploration and refineries industry have the highest mean score and the pharmaceutical industry has lowest mean score.

**Table 2.3** Industry-wise disclosure

Industries	2014–2015	2015–2016	2016–2017	2017–2018	Percent
Automobile	25.8	26.0	26.8	27.6	61.74
IT	27.0	27.6	27.3	29.0	64.53
Metals	29.3	29.0	29.0	29.6	68.02
FMCG	28.3	27.3	28.3	28.0	65.11
Power	25.0	24.0	30.0	31.0	63.95
Infrastructure	27.0	27.0	27.0	29.5	64.24
Oil exploration and refineries	28.0	32.0	33.0	33.0	73.54
Telecom	19.0	21.0	22.0	27.0	51.74
Pharma	14.0	15.0	15.0	16.0	37.10
Overall mean	24.82	25.43	26.48	27.85	

Source Authors' own

**Table 2.4** Results of Kruskal–Wallis test

Method	Disclosure score	df	Asymp. significance
Chi-square statistics	8.00	8	0.43

Source Authors' own

Further, Kruskal–Wallis test was employed to check whether the difference in various industrial groups is significant. As reported in Table 2.4, the result shows the chi-square value is 8.00 and is insignificant at 5%. Thus, null hypothesis is accepted  $H_{01}$  that there is no significant difference in the mean disclosure scores of various industry groups. Hence, in India CSRD does not seem to be industry specific.

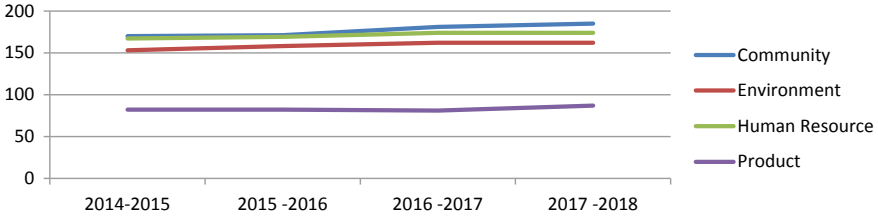
To further elaborate on CSR reporting, this study analyzed the increment of CSR reporting in the selected four years. The result in Table 2.5 shows a steady increase in these four years. The CSRD of community development indicator was 77.2% in 2014, which increased to 84% in 2017. The community development indicator has increased by 8.8%. Further, the Wilcoxon test reports that 10 companies have increased their disclosure; in 9 companies, there is a reduction in disclosure and 3 show no improvement.  $Z$  score shows an insignificant increase in the disclosure as the  $p$ -value is insignificant as  $p > 0.05$ . The environmental stewardship disclosure in 2014 was 63.22% and that increased to 66.9% in 2017. The environmental stewardship indicator has shown an increase of 5.8% in the disclosure of CSR. The Wilcoxon test shows that 9 companies have increased their CSR reporting, 5 companies have reduced and 8 companies have not shown any change. The  $Z$  value is insignificant ( $p > 0.05$ ) which depicts that disclosure has not improved significantly. The human resource disclosure in 2014 was 54.2% that increased to 56.4% in 2017. The human resource indicator shows an increase of 4.05% in the selected period. The Wilcoxon test shows that 7 companies do not show any improvement in CSR disclosure, 8 companies showed increase, and 7 companies show a decline. The  $Z$  score is insignificant ( $p > 0.05$ ), which depicts that there is not a significant increase in human resource disclosure. The product development disclosure was 46.5% disclosure in 2014 and increased to 49.4% in 2017. The product development indicator shows an increase of 6.2% in CSR reporting. The Wilcoxon test shows that 10 companies do not show any improvement over a study period, 7 companies show an increase and 5 companies show a decline in the CSR reporting. The  $Z$  score is insignificant ( $p > 0.05$ ), which depicts that there is no significant increase in the disclosure of product development. The same has been shown in the graphical depiction in Fig. 2.2. Furthermore, the disclosure of all indicators in 2014 is 60.4%, which increases to 64.2% in 2018. The highest increment in CSR disclosure in the selected period is for community development (8.8%), followed by 6.2% in product development. Human resource has the lowest increment (4.05) in the selected 4 years.

The result suggests that there is an upward trend and CSR reporting gradually increases year after year. Ghosh (2020) also found that there is an exponential increase in CSR reporting in the post-mandatory period. The study of Bhatia and Chander (2014) found 40.32% disclosure of SENSEX companies in the pre-mandatory period.

**Table 2.5** Year-wise disclosure

Themes	2014–2015	Percentage	2015–2016	Percentage	2016–2017	Percentage	2017–2018	Percentage
Community	170	77.2	171	77.7	181	82.2	185	84.0
Environment	153	63.2	158	65.2	162	66.9	162	66.9
Human resource	167	54.2	169	54.8	174	56.4	174	56.4
Product	82	46.5	82	46.5	81	46.0	87	49.4
Overall	572	60.4	580	61.3	598	63.2	608	64.2

Source Authors' own



**Fig. 2.2** Category-wise disclosure. *Source* Authors’ own

**Table 2.6** Wilcoxon test

Variables	Increase	Decrease	Ties	Z score	P-value
Community	10	9	3	0.81	0.41
Environment	9	5	8	0.51	0.60
Human resource	8	7	7	0.20	0.84
Product	7	5	10	0.16	0.86

*Source* Authors’ own

The CSR reporting in India increased exponentially after CSR was made mandatory in India. Ghosh (2020) found that CSRD jumped from 35% in 2012–13 to 68% in 2014–15 in India and afterward score increased moderately. The main reason for the increase of CSRD in India is the enactment of Companies Act, 2013, which made it compulsory for big companies to invest 2% in CSR activities. Further, in 2016 BSE signed a memorandum of understanding with the Global Reporting Initiative to encourage listed companies to report on and act upon reducing environmental and social impact. Furthermore, after CSR jumped in 2013–2014, there is a gradual growth in the CSR reporting in India. The possible explanation is that the majority of companies comply with the mandatory 2% and hence CSR reporting increased manifold. Given that CSR is linked to turnover, which usually increases moderately, CSR reporting also increases gradually. We infer that companies in India only comply with the legal mandate. Therefore, after an exponential increase in 2013, it now increases gradually with an increase in the turnover (Table 2.6).

## 2.6 Conclusion and Implications of the Study

This is the leading study proving the insights into the corporate social responsibility reporting in the post-mandatory period. The purpose of this study is to understand the extent of CSR reporting by SENSEX companies in the post-mandatory period. To this end, we selected BSE SENSEX companies for four years (2014–15 to 2017–2018). CSR was measured by a self-reported index, which constitutes 43 CSR items summarized into four dimensions. The finding of this study indicates with respect to the

“richness of the content category”; the most preferred theme is community development, and least disclosed theme is product development. The findings of the study of Bhatia and Chander (2014) and Maqbool and Zamir (2019) highlighted that disclosure about community welfare is the second most reported category by SENSEX companies. Further, the result shows that industry-wise disclosure is highest in the oil exploration and refineries industry by attaining the first rank in the CSR activities in the selected companies. Similarly, the metal industry has attained the second position and pharmaceutical industry stands at the lowest position among the sample industries. The study also discovered exponential growth in the CSR reporting in India as compared to previous studies in pre-mandated period. The result suggests that Indian companies have made significant development in CSR reporting after introduction of recent reforms and is now increasing gradually year after year.

The study has important implications for both academicians and policymakers. This study contributes to the extant scholarship by adding the longitudinal perspective in CSR reporting. It reflects from the results that CSR reporting in India is driven by the legitimacy theory as community development is the center to the CSR reporting in India, particularly education and health. Maqbool (2019) opined that CSR in India is reported to legitimize corporate actions. It depicts a lop-sided approach by selected companies and poor synchronization of various stakeholders. In the normative sense, all themes should receive equal focus as each theme has its relevance and ensuing benefits. The companies should follow stakeholders’ theory to engage all the stakeholders equally and build a positive relationship with all stakeholders who have the potential to influence the performance of the company. Further, low-ranking companies need to amend their CSR strategies to meet regulatory and stakeholder’s demand. The pharma and telecom are underreported industries, and only one industry has disclosure above 70%. The regulatory agents need to design policies and further standardize the non-financial reporting. CSR credits may be developed on the pattern of carbon credits as a base for providing subsidies to encourage and incentivize the companies to move beyond regulatory compliance. The outcome of this study may motivate managers of other companies to execute CSR activities, build a positive image of the company and facilitate in the development in the long run.

## 2.7 Limitations and Direction for Future Research

The implication of the study should be interpreted with some caution. First, the study is restricted to large companies in India and the generalization to small/SME is unwanted. This small group of companies usually keeps the best records on the CSR. The future study should include small companies or build a comparative analysis of small and large companies. Second, this study has mainly focused on the quantity dimension of CSR. This gives an overview of CSR reporting without detailing out the depth of CSR. Future research should incorporate a quantitative approach in the study to have an in-depth understanding of the CSR in Indian companies. The study has relied on the public information provided by particular companies and

is not certified by a third party. The possibility is that the company may overstate their performance in sharing social responsibilities. The future study can build a case study and cross-examine from the multiple sources to bring more objectivity in the results.

## Appendix

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### *Community development*

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1. Promotion of education
2. Health services and medical support
3. Providing relief to victims of natural disasters
4. Rural development program/adoption of villages
5. Construction/maintenance of parks, heritage, sports, etc.
6. Provision of drinking water facilities
7. Vocational guidance and self-employment
8. Contribution toward women upliftment
9. Adopting/building old age homes
10. Eradicating hunger and poverty

### *Environmental stewardship*

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11. Received an award for environment programs and policies
12. Planting trees
13. Reducing paper use
14. Engaged in manufacturing eco-friendly products/eco-friendly process
15. Energy saved by conservation and efficiency improvement in water and power
16. Biodiversity/wildlife conservation
17. Corporate commitment for environment by applying ISO 14001 for environmental management systems
18. Policies and practices related to recycling of materials used and produced by the firm
19. Increasing awareness for safeguarding environment
20. Company assessment on environmental impact of projects
21. Disclosure relating to disposal of waste

### *Human resources*

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22. Retirement benefits
  23. Programs for skills enhancement/training
  24. Disclosure relating to child labor grievance
  25. Promoting/training employee safety
  26. Providing health care for employees
  27. Profit sharing/share ownership programs for employees
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(continued)

(continued)

*Community development*

28. Basic employees' benefits, subsidized canteen, housing, recreational

29. Support for day care, maternity and paternity leave

30. Disclosure relating to sexual harassment grievance

31. Labor practice grievance mechanism

32. Disclosure relating to employment to women and disabled persons

33. Winning an award for being a good employer

34. Does company have established code of conduct for its employees

35. Rewards and awards for good work

*Product*

36. Investing in R&amp;D for improving product quality/new product/process development

37. Customer relationship management

38. Warranty for the product

39. Carries out customer satisfaction survey

40. Certifies under ISO 9000 series

41. Received award for product quality/innovation

42. Disclosure of customer's complaints

43. Product safety

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# Chapter 3

## The Changing Organisational Practices of Third-Sector Organisations in Mandated CSR in India



Avadh Bihari

**Abstract** This paper presents the changes in organisational practices of third-sector organisations (TSOs), which are the immediate partners of corporations in implementing CSR projects. The paper employs the theoretical framework of institutional isomorphisms—coercive, mimetic, and normative. The data has been collected through in-depth interviews with eleven officials from six TSOs, five officials from three corporations, and two academicians from two universities located in Mumbai and Delhi, India. The findings are presented through five key themes: changes in planning and designing of CSR projects, implementation, monitoring, reporting and documentation, and funding. These changes have taken place in TSOs through coercion, mimicking the other organisations, or by following the dominated norm in their environment to gain legitimacy and secure funds. The newly institutionalised practices by corporations have helped TSOs achieve their vision, in turn leading to sustainable businesses. However, TSOs have faced challenges in imbibing these practices. The TSOs have been compelled by corporations to adopt business practices so that they can produce calculated results. There has been a continuous tussle between the corporations and the TSOs in implementing some of these new practices imposed by the corporations. The paper concludes that TSOs have to retain their autonomy and understanding of ground realities, without which they become an extension of the corporate funder. Further, corporate and TSOs require an understanding of each other’s work culture to develop mutual respect and work towards the goal of sustainable development of the communities.

**Keywords** Third-sector organisations · Corporate social responsibility · Non-governmental organisations · Institutional isomorphisms · Mandated CSR · Sustainable businesses

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### 3.1 Introduction

The collaboration between corporations and third-sector organisations<sup>1</sup> (TSO) is on the rise. One of the significant factors to reinvigorate this relationship is the decreasing role of the state and the expanding role of private players in a nation's social welfare activities (Austin 2000; Kamat 2004). The shrinking scope of the welfare state created challenges for TSOs in accessing resources that led to drying up of traditional funding opportunities for the TSOs (Kamat 2004). This consequent resource crunch pushed the TSOs towards the corporations to secure funding to intervene in the communities. Further, with ever-increasing prominence, the corporations dominated the custodianship of developing the communities. The primary reason why corporations took up the philanthropic role was safeguarding the business and profits from the unrest in the communities (Austin 2000; Kamat 2004; Filho 2010).

The relationship between corporations and TSOs is not new and has seen a shift from a confrontational to a confrontational-collaboration role (Arenas et al. 2009). Traditionally, the engagement between corporations and TSOs had been aggressive and confrontational, which soured their relationship (Baur and Palazzo 2011; Burchell and Cook 2013). However, in the current scenario, a significant majority of TSOs are delivering services to the communities in collaboration with the corporations (Rasche et al. 2013). Thus, a collaboration continuum has been created that represents three major forms of collaboration: (a) philanthropic, (b) transactional, and (c) integrative (Austin 2000), and India has witnessed all the three characterisations of this collaboration continuum.

The literature on Indian Corporate Social Responsibility (CSR) informs about multiple forms of corporation—community engagement that started taking shape by the 1990s (Das Gupta 2012; Sundar 2013, as cited in Chatterjee and Mitra 2017). These engagements ranged from direct engagement by corporations in the communities, to various collaborative forms such as through corporate foundations, or by partnering with the state or with the Non-Governmental Organisations (NGO). Sundar's (2013) research showed that the foremost aim of these collaborations between multiple organisations was to reach out to the affected communities (Chatterjee and Mitra 2017). This included giving donations, philanthropic contributions, and partnering with NGOs to achieve a specific goal (Chatterjee and Mitra 2017). Recently, Section 135 of the Companies Act, 2013 (a legislation passed in the Parliament of India to mandate CSR) made collaboration an accepted norm by allowing corporations to implement their CSR projects in partnership with other legal entities as prescribed in the law (Chatterjee and Mitra 2017). The legislation supports collaborative models, acknowledging the vast nature of transformation expected from CSR (Bergman et al. 2019).

In most of the mechanisms adopted in CSR projects in India, either by corporations or CSR foundations, it is the TSOs which implement them on the ground (Ambasta 2017; Chatterjee and Mitra 2017; Gupta 2014; Williams 2017). The challenge is

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<sup>1</sup> Third-sector organisation (TSO) is an umbrella term for organisations, which neither belong to the public sector (the state) nor to the private sector (profit-making organisations) (Defourny 2013).

that a majority of the TSOs in India (out of 3.3 million) lack ‘professionalisation’ (Chatterjee and Mitra 2017) and need capacity-building support to enhance their efficacy (Gupta 2014). Chatterjee and Mitra (2017) argued for professionalisation of the TSOs in India, where the TSOs should learn how to professionally present themselves to corporations. This created space for corporations to intervene in the functioning of TSOs to increase their efficacy and sustainability.

The increasing collaboration between corporations and TSOs also resulted in constant one-sided scrutiny of TSOs, with a growing demand for transparency and accountability of public money (Baur and Palazzo 2011). Whether government or private, the funding bodies demanded optimum and effective utilisation of resources provided to TSOs. Moreover, corporations put additional pressure on TSOs to provide quantifiable inputs and outputs. Corporations advocated TSOs to adopt business practices to achieve higher efficacy in CSR projects and uphold business and management practices in TSOs (Baur and Schmitz 2012; Dart 2004). Dart (2004) presented four varied forms of business-like attributes in community service organisations based on his study in Canada. These were ‘business-like goals, business-like organization in terms of service delivery, business-like organization in terms of management, and business-like organizational rhetoric’ (Dart 2004, p. 8).

TSOs and corporations share a symbiotic relationship. TSOs require corporate for sustained funds to run and expand the scope of their programmes (Ebrahim 2003; Baur and Schmitz 2012). Similarly, corporations require TSOs for the knowledge and skills they possess to intervene in the community and implement their CSR projects (Ebrahim 2003; Baur and Schmitz 2012). By attaching themselves to credible TSOs, corporations achieve credibility for themselves. Although both these parties complement each other, the corporation plays a dominant role. This paper explores the changes sought in by corporations in TSOs, which create a space for business practices to get absorbed into TSOs’ functioning.

The discussion on TSOs being business-like promoted the adoption of practices and tools developed by the private sector and replicated by small non-profit organisations (NPOs) (Beck et al. 2008). On the contrary, another perspective in the literature pointed out that the private sector and NPOs are fundamentally different in their resources, culture, and institutional aspects (Beck et al. 2008). The tools developed by the private sector might not even work in large NPOs (Lindenberg 2001 as cited in Beck et al. 2008). It is crucial to understand that there are limitations of context and there is a high possibility of mismatch in the purpose of the tools and organisation’s mission (Beck et al. 2008).

This paper explores changes in the practices of TSOs brought under the influence of corporations after the enactment of the Companies Act, 2013 in India. The legislation ‘mandated CSR’ (p. 2), not only through funding but also through the mechanisms adopted to fulfil the mandates (Sarkar and Sarkar 2016). The paper also explores how TSO officials understand and present these changes. The legislation is new, and it becomes essential to understand its effects not only on the overall domain of CSR and corporations, but on their partners as well. CSR has become a significant funding source for TSOs in India, as there is a massive reduction and stricter regulations in accessing foreign funds (Doane 2016; Sundar 2017). These conditions

have made TSOs heavily dependent on CSR funding and allowed corporations to significantly affect their organisational practices to achieve their goals effectively and attain sustainability.

### ***3.1.1 Theoretical Framework—Applying Institutional Isomorphisms***

DiMaggio and Powell (1983) proposed the neo-institutionalism theory which explained why organisations in an environment resemble each other and look similar over time. This similarity to function by several organisations in the same field is known as isomorphisms (Scott 2008; BoxenBaum and Jonsson 2017). Institutional isomorphisms went beyond generalised assertions of similarity in organisations, analysed external and technical environment, and attributed that similarity in organisations come by adapting to the elements of dominant environment (BoxenBaum and Jonsson 2017). The three most popular isomorphisms through which organisational practices spread are coercive, mimetic, and normative isomorphism (Powell and DiMaggio 1991; BoxenBaum and Jonsson 2017).

Coercive isomorphism is a consequence of the pressure exercised on organisations by the state or other influential organisations by forcing them to adopt certain practices, else face sanctions (Powell and DiMaggio 1991; BoxenBaum and Jonsson 2017). Pressure is exerted through various strategies, such as persuasion, force, collusion, or invitation, using formal or informal channels (Powell and DiMaggio 1991). Mimetic isomorphism is the outcome of uncertainty in the environment, which leads an organisation to adopt practices of more prominent and successful organisations (DiMaggio and Powell 1983). Normative pressures stem mainly from professionalisation, imbibed in officials through similar professions and training (BoxenBaum and Jonsson 2017). The professionalisation aims to create values that can be used and spread by trained professionals in their organisations. Normative isomorphism is encouraged to filter out practices, which are not in sync with widely defined professionalism (DiMaggio and Powell 1983).

Research studies conducted with the theoretical framework of institutional isomorphisms raise concerns about the loss of creativity and innovation of the organisations due to homogenisation (Ramanath 2009; Claeys and Jackson 2012; Kontinen and Onali 2017). Ramanath (2009) studied the changes in the interactions between the government and three NGOs in India, which changed from aggressive to cooperative in a housing project. Ramanath did not contest the presence of isomorphic changes in the organisations, but went beyond the overall processes and looked into micro-processes. Due to micro-reasons of resource dependency and strategy of these organisations, Ramanath's study found variations in the adaptation of organisational practices. The author concluded that due to differences in responding to the dominant environment, organisations are inherently heterogeneous, rather than homogenous (Ramanath 2009).

Clayey and Jackson (2012) examined the bent towards institutional isomorphism of 14 non-profit organisations (NPOs) in South Africa in their study using institutional theory. The study showed that there are isomorphic effects of management practices in NPOs, pushing NPOs to become more business-like organisations. The study's main argument was that NPOs mimic business practices emanating from global governance of international aid to gain legitimacy in the sector. The study also found that organisations adopt business practices so that they can be labelled as professional organisations. The authors concluded that despite these isomorphic effects in NPOs, there is space for organisations to produce alternatives and not become homogeneous, which needs to be explored. Further, the authors condemned the idea of a one-size-fits-all approach and commented that homogenisation could turn out to be detrimental.

A study conducted by Kontinen and Onali (2017) with three Finnish development NGOs raised a critical point about the homogenisation of organisations. The authors argue that NGOs seek legitimacy and acceptance from upward and dominant global players, which leads to homogenisation. If the legitimacy is sought downwards, i.e. from the communities and target groups, then there will be variation in the structure of the organisations. Similarly, Kontinen and Onali (2017) observed that organisations adapt to management practices of mainstream development to look professional and get accepted. Initially, this happens under the pressure of donors, though, it takes an automatic form after the professionalisation of an organisation.

Given this context, this paper aims to understand the changes in existing organisational practices of TSOs in India, through formal or informal pressure after the enactment of the Companies Act, 2013. The presence of coercion is blatant in the corporate-TSO relationship. The paper explores various avenues for mimetic processes taking place in the TSOs' environment to transform their organisational practices as per the requirement of the CSR legislation. The paper uses normative isomorphism to explain how a dominant culture was created where corporations defined professionalism for TSOs. The paper primarily deals with the perspective of TSO participants and explores how they view the institutionalisation of their organisational practices.

## 3.2 Methods

The institutionalisation of TSOs in India has been ongoing since the sector has achieved a strong position in the social development field. However, the corporations' role in compelling the TSOs to redesign their functioning in CSR projects is a contemporary phenomenon in India. The enactment of the Companies Act, 2013 and subsequent changes in corporations have affected the practices of a majority of TSOs implementing CSR projects in India. This required an in-depth inquiry to explore how TSOs are dealing with the changes in the structure and processes, developed and dominated by corporations in India. This paper aims to identify the changes taking place in the practices of TSOs and the reasons behind them.

### ***3.2.1 Selection of Participants***

The author employed purposive sampling method (Bryman 2012) to address the proposed questions by interviewing relevant participants from TSOs. The units of this study are TSOs engaged with corporations to intervene in the communities. As there are large number of organisations engaged in CSR, the author used criteria to select the TSOs, at the first level, and participants from these TSOs, at the second level. These criteria were as follows: (a) TSOs implementing CSR projects since a decade; and (b) participants with CSR project experience of a decade. These criteria were applied to explore how TSOs comprehended the changes in their organisational practices after the CSR mandate became effective in 2014. The criterion of a decade-long experience was applied to capture the experiences of organisations with voluntary CSR.

The author attempted triangulation of views by bringing data from multiple relevant stakeholders of CSR in India: TSOs, corporations, and academicians. The views of corporate were required to understand their reasons behind introducing changes in organisational practices of TSOs. Moreover, TSOs selected in this study were engaged in implementing CSR projects, thereby necessitating the corporate view in this study to bring in a different understanding. Three categories of corporations were selected to be a part of this study—private, multinational, and government corporations to bring in diversity. The academicians' inputs were crucial as they had seen the changes in landscape of the TSOs and were capable of giving a historical view on the TSOs and the changes that had come in to date.

After a discussion with officials from three corporations about their implementing partners, six TSOs were selected for the study, two from each corporation. The selected TSOs were informed about the study, and permissions were sought to conduct interviews. After deliberations with the contact person from TSOs, participants were selected from two verticals in the TSOs—project implementation and top management. This criterion was applied to capture the changes occurring at policy and decision-making as well as implementation stages. This paper also includes the data obtained from two senior-level academicians teaching at two Indian universities. They were engaged in and contributing to the field of CSR through their roles as academicians as well as practitioners. Both the academicians provide consultancy services to the corporations and TSOs: design CSR policies and programmes, conduct research studies, recommend, evaluate, and assess CSR interventions spread across India. An overview of the participants is presented in Table 3.1.

### ***3.2.2 Data Collection***

The author interviewed a total of 18 participants: 11 officials from six TSOs, five CSR officials from three different types of corporations, and two interviews of academicians as mentioned. Three in-depth semi-structured interview guides were

**Table 3.1** Profile of the participants

S. No.	Designation	Type of organisation	Code	Implementing partner of
1	Executive Director	Third-sector Organisation	TSOP-1	Multinational Corporation
2	Senior Manager	Third-sector Organisation	TSOP-2	
3	Assistant Director	Third-sector Organisation	TSOP-3	
4	Manager—Fund Raising	Third-sector Organisation	TSOP-4	
5	Program Officer	Third-sector Organisation	TSOP-5	Private Corporation
6	Program Manager	Third-sector Organisation	TSOP-6	
7	Director	Third-sector Organisation	TSOP-7	
8	Program Manager	Third-sector Organisation	TSOP-8	
9	Head—Fund Raising	Third-sector Organisation	TSOP-9	Central Public Sector Enterprise
10	Manager—Fund Raising	Third-sector Organisation	TSOP-10	
11	Head—Fund Raising	Third-sector Organisation	TSOP-11	
12	CSR Lead	Multinational Corporation	Corp-1	
13	Associate—Community Relation	Private Corporation	Corp-2	
14	Manager—CSR	Private Corporation	Corp-3	
15	General Manager—CSR	Central Public Sector Enterprise	Corp-4	
16	CSR Officer	Central Public Sector Enterprise	Corp-5	
17	Professor	Deemed to be a University	ACAD-1	
18	Professor	Private University	ACAD-2	

Source Authors own

designed, one for each of the participant types: corporation officials, TSO officials, and academicians. The interview questions were guided by the theoretical framework of institutional isomorphisms (Dimaggio and Powell 1983; Matten and Moon 2008) and the author’s professional experience with CSR and TSOs. The interview guides were divided into four major components: (a) changes in the planning stage (prior to

implementation); (b) compliance with the legislation; (c) exploring the implementation process; and (d) changes in organisational processes and structures. The aim was to explore the changes and the understanding of participants about these changes. The interviews were conducted in English and Hindi, as per the convenience of the interviewee. The average duration of the interviews was 66 min. The interviews were recorded in audio format on a mobile phone, with prior permission of the participants. The study was located in Mumbai, known as India's financial capital, and has the presence of highest number of organisations. All the organisations in this study have their head office or registered office in Mumbai, thereby making it an ideal location for this study.

### ***3.2.3 Data Processing and Analysis***

The interviews were transcribed immediately after conducting them to understand the emerging themes and fill in gaps in data in the next interviews. The interviews conducted in Hindi language were translated into English, retaining the original essence of the views expressed. Further, the interview transcripts were imported into Atlas.ti data analysis software for coding and analysing the data. Open codes were created in the first round without any restrictions. The codes were, then, checked for their coherence with the research questions and the theoretical framework. Several rounds of coding were conducted to sharpen and merge similar codes, categorise patterns in the data, and create macro-codes. These macro-codes, then, were classified into major themes (called families in Atlas.ti) and checked again for their applicability with the research questions and the theoretical framework. A process of thematic coding and analysis was done to discover themes and patterns in the data (Given 2008). Based on the finalised themes, this paper presents the changes in organisational practices of TSOs through five themes: (a) planning and designing of CSR projects, (b) project implementation, (c) monitoring, (d) reporting and documentation, and (e) CSR funding.

## **3.3 Findings**

### ***3.3.1 Planning and Designing of CSR Projects***

Most of the TSO participants shared that strict changes had come in the planning and designing of CSR projects after the enactment of the CSR legislation. At the proposal stage itself, the TSOs had to provide bifurcation of project components and rationalise every component for clarity and accountability. The proposal was now expected to be more detailed with bifurcated budget. A TSO participant commented



that corporations, at times, rejected proposals if core components such as monitoring and detailed budgeting were missing in the proposal.

If an NGO is planning a project on malnutrition and applying for funding to a corporation, then a proposal needs to capture the details of intervention. Earlier in the voluntary CSR period, these were mentioned briefly under headings – malnutrition intervention – procurement of medicines, instruments, and the amount. Now, NGOs need to mention how they will intervene in the communities (step-wise details), procure those medicines, the exact costs of those medicines, details of instruments, who will be the beneficiaries, and the exact cost. (TSOP-5, Programme Officer, TSO-3)

Earlier it was just a proposal and budget in an elementary form and not bulky. Now, corporations ask for professionally designed proposals and budgets. NGOs have to sell their idea, like a sales professional does it in a corporate. So, the whole approach has shifted in the development sector as well. (TSOP-3, Assistant Director, TSO-2)

Suppose, an NGO does not present monitoring and evaluation aspect in its proposal and does not factor audit in the budget that means they have not considered these exercises or they are trying to pull out budget for these activities from some other head or would compromise somewhere. So, we examine these aspects as well when an NGO submits a proposal. (Corp-3, Manager, Private Corporation)

Earlier it used to be a consolidated budget with broad budgetary heads. Now, corporations demand specific budgetary heads with a complete breakdown of costs. There is a minimum of two heads in a budget – human resources and programmatic cost and an organisation needs to balance them. The HR cost should not go beyond thirty percent, to some extent, forty percent, and the rest is programmatic cost. Human Resources remain the same; the programme cost is further bifurcated activity-wise. (TSOP-5, Programme Officer, TSO-3)

All TSO participants shared about the new practice of submitting a fresh proposal every year, in consultation with corporate. The proposal had to include new activities, revised plans and targets, and cost of the project. This was introduced after the mandated CSR, with long-term NGO partners, without altering the core intervention. Further, corporations demanded that annual proposals should be formulated after conducting primary or secondary need assessment exercises.

The project proposal is submitted every year before we make a new MoU effective. There is a review of the last year's performance, our requirements for the coming year, and what can be done differently in the upcoming year. If a company is supporting girls' education programme, they might want us to add a personal hygiene component, which works to recede girls' dropout rates. (TSOP-11, Head—Fund Raising, TSO-6)

We conduct surveys, interview community members, and they tell us what their needs are and which interventions should be taken up. We also go to the field, collect data, and analyse the common needs to design our interventions based on the data. Based on these exercises, we design projects and present it to a corporation to get funds. (TSOP-7, Director, TSO-4)

### ***3.3.2 Project Implementation***

The TSOs had incorporated management practices in implementing projects to style it like a corporate, with a clear timeline, plan, and achievement of milestones. All the TSO participants shared that the implementation of their projects was further

strengthened by adopting the multi-stakeholder approach. This was also substantiated by the corporate participants as they recognised the potential of multiple stakeholders working together. A multi-stakeholder collaboration included corporation as the funder, corporate employee volunteers, TSO, state authorities, communities, and consultancies.

The clarity and meticulous planning of projects have brought in a lot of transparency and accountability in the implementation. During voluntary CSR, there was not much of accountability. A two years' project was stretched up to five years. Now a two-year project gets over in two years and measures are taken to ensure that this is being done. So, a lot of corporate gyaan (knowledge) has gone into designing development sector interventions. (TSOP-2, Senior Manager, TSO-1)

The social component of the project involves the broader community. We do realise that we cannot remain in one location indefinitely. For the intervention to be sustainable, it ultimately has to be owned by the local community. In that respect, we have a lot of grass-roots level interactions with parents of students, engaging them with the project, making them understand what we do and what the girls are receiving. We also form village education committees, committees of mothers, to keep them always abreast and updated about the project and the changes we see in the girls' performance. (TSOP-10, Manager—Fund Raising, TSO-6)

What we co-created with our NGO partner was an extremely donor-dependent intervention that was not sustainable. Realising this, we got our sales and marketing professionals to volunteer with the NGO partner for six months and transform the project into a self-sustaining one. It is good that we have done it that way because the NGO is implementing similar projects in partnership with other corporations. So, now they have a business model that is ready to be replicated. (Corp-1, CSR Lead, MNC)

Our company has remarkable case study of a location where we did not provide a single brick for toilet construction, but each toilet had our company's branding. During a visit, one of our senior officers saw the branding and asked us the reason. The community answered that they received information from our company's awareness drive implemented through an NGO. The awareness drive informed the community about Swachh Bharat (Clean India) initiative and funds available to construct the toilet. This helped them approach the government office, fill in their application, and receive funds to construct the toilet. They were thankful to the corporation for that facilitation and creating the bridge. (Corp-3, Manager, Private Corporation)

TSO participants shared that they had strengthened project implementation with the help of technology to implement projects, such as teaching through mobile tablets. Mobile tablets in educational intervention helped the staff disseminate coursework effectively. A corporate participant also shared that TSOs were emphasising on creating and disseminating interventions digitally, specifically in the education sector.

Digital mobile tablets are part of our everyday intervention with the school-going girls. So, these tablets are preloaded with educational content that works offline. This means that even if the programme is implemented in the country's remote parts, students can access the content without worrying about internet availability. (TSOP-10, Manager—Fund Raising, TSO-6)

We have provided e-learning classes and created digital classrooms in the schools located in our intervention areas. We have equipped twenty-one schools with a digital unit each. Our kit includes a projector, screen, and power-supply system, which have been installed in schools so that students can access digital learning programmes to enhance their performance. We

have created digital classrooms, which also included the school syllabus. The project aims to bring down the dropout rate, develop interest, and raise the attendance level of students. (Corp-3, Associate—Community Relation, Private Corporation)

The intensive and mechanical implementation practices posed some significant challenges for the TSOs. Several instances were shared by the TSO participants, where corporations compelled them to perform dual or additional job roles without additional financial support to staff for the new task.

Additional job roles overburden the ground-level workers. For instance, one of our corporate funders asked us to incorporate the sustainability component in our project and we complied with their request. But there were no additional funds allotted for the same. The existing community workers were not trained for the new role and most of their time went into performing their core duties. They are masters in their job roles, but they are given additional charge to create sustainability of the interventions for which they are not trained. (TSOP-3, Assistant Director, TSO-2)

### **3.3.3 Monitoring**

All the TSO participants shared that there was a new rigour in monitoring of CSR projects, done through field visits and reporting by corporate officials, but it was described as an added burden. Corporations monitor the progress of the implemented project at set intervals through field visits, which had become frequent. It was found that very few corporations eventually used these monitoring reports to take stock of the CSR projects.

We had a few review meetings with corporations, in which they asked pertinent questions, which meant they had read the monitoring reports. The questioning was not in terms of pinpointing and finding faults, like the NGO had not achieved the target or some activity was not completed. The discussions were always focused on how we can improve. Some of the corporations treated NGOs as expert community development agencies and asked for suggestions to improve. (TSOP-4, Manager—Fund Raising, TSO-2)

The study found out about the monitoring mechanisms used by TSOs before the legislation as well, which were rigorous in nature. These TSOs had strict processes and procedures and conducted diligent monitoring exercises, much before the corporations demanded it post-CSR legislation.

We had an independent monitoring and evaluation team, which I think many NGOs did not have. In that sense, we were entirely professional and already had monitoring systems in place even before the CSR mandate came into effect. We have been monitoring data quite professionally for a decade now. The same exercise continues after the CSR legislation with a lot more rigour. (TSOP-4, Manager—Fund Raising, TSO-2)

We were always meticulous with our work. Our accounts have been sound, our monitoring system has been rigorous, because we monitor the progress of every beneficiary through their parents. Only the structure has changed because of mandated CSR. We have records of 46 years of our work and beneficiaries. (TSOP-9, Head—Fund Raising, TSO-5)

Some of the TSO participants shared monitoring strategies of their organisations. A TSO participant shared that they have dedicated monitoring teams as they are a national-level organisation. Another participant spoke about the introduction of third-party assessments of the trainees to monitor their progress made through their skill training. A TSO participant also shared about existing staff doubling the roles and conducting monitoring, as they function in limited geography and do not have resources to hire dedicated staff for monitoring.

We have incorporated the component of third-party assessments. Also, we have internal monitoring done through our local operations team in each location, who visit the centres regularly. Apart from that, there is a team of dedicated monitoring and evaluation staff who visit the skill training centres, as per the project requirements. (TSOP-1, Executive Director, TSO-1)

For monitoring, there are field staff and they keep the logbooks in which they note down all the details. We also conduct a team meeting every month. We have a campus at one of our locations; all our cluster in-charges gather there to have an extensive discussion before finalising and submitting reports to the donors. These reports provide details of progress made at the cluster-level interventions. (TSOP-7, Director, TSO-4)

We have feedback forms for the community. We go to the community once a month. So, every programme head would go to the programme area, meet the community beneficiaries, and understand how the implementation of programme is taking place. Besides, the directors also visit the community once in six months, they talk to the community members, and understand how the entire programme is being carried out. (TSOP-5, Programme Officer, TSO-3)

### ***3.3.4 Reporting and Documentation***

Some of the TSO participants, who were directly handling the reporting vertical of their organisations, shared that their corporate partner had introduced new structures and frequencies of reporting in the mandated CSR. The reporting was divided into various forms such as qualitative and quantitative reporting which was further bifurcated into impact reports, case studies, and narrative reports. The frequency of report submission ranged from weekly to annually. The study found that TSOs did not have any scope of negotiation in these timelines and they were compelled to adhere to them to sustain with continuous CSR funds.

Every corporation has its reporting formats and requirements for their CSR projects, and every corporate understands the reporting differently. So, we have to customise the same material and submit it in the format mandated by corporations. (TSOP-9, Head—Fund Raising, TSO-5)

In the mandated CSR, we received the formats from corporations and we needed to strictly report in that format. Corporations demand target-wise report every month. Our funders do not ask much of the qualitative information in the report. We need to provide a little qualitative, but more of detailed quantitative information, in terms of numbers and targets. (TSOP-7, Director, TSO-4)

Donors give us reporting formats; inform us about the frequency of reporting, which has changed from annual to quarterly and weekly. I understand that a corporation needs a report in a specific format, but that format may not work for all the projects. A common format of

reporting by the government had been shared but that was very basic in nature. Nevertheless, corporations try to put it in their thematic verticals, however that may not suit every sector. One project may be of infrastructure; another may be people centric; one may be related to health and other may be related to the environment. I do not think it is so easy to put it in these little compartments that a CSR Board can understand. (TSOP-11, Head—Fund Raising, TSO-6)

All the TSO participants shared that the new reporting mechanism in the mandated CSR had brought in the required seriousness in reporting. The changes are appreciated for a variety of reasons. The new format had strengthened the reporting vertical of the organisations, in general. The TSOs were able to track projects efficiently, which gave them time and scope for mid-course corrections. The study found that strict and detailed reporting helped TSOs to create an accountable image, required in today's competitive space of funding.

The TSO participants spoke about the challenges of new reporting structures as well. The study found that relatively larger TSOs had resources and experience to oblige with ever-increasing demands of corporations, but the smaller TSOs struggled in complying with them. The regional and small-sized TSOs informed that their staff responsible for reporting were not well trained. Further, many of them handled multiple responsibilities, and preparing reports was one of them. Moreover, the new frequency of reporting had created undue pressure on the field staff. Their core work was compromised because a substantial portion of their time went in to reporting. Furthermore, frequent reports did not show change in the socio-economic conditions as social development interventions take time in demonstrating a noticeable change, thereby making reporting exercise futile.

Monthly reports have become a big issue for us, of-late, with some partners where they ask us to report anything every month, even in one line. In our intervention, we provide two hours of academic support every day. If there are no assessments, there is not going to be much to report. But, they insist us to report even with one photograph and one line report to comply with the norms. (TSOP-11, Head—Fund Raising, TSO-6)

Some of the TSO participants questioned the increased frequency of reporting, which, without feedback and dialogue, became a formality and proved to be ineffective in achieving the sustainability of interventions.

With a lot of companies, we wonder if they ever read our reports. Some of them read and analyse, but for a majority of them, it is submitted as a monthly report to comply with the laid guidelines. There is never a discussion on the submitted report with many companies. They will hound NGOs to send it, but once we send it, nobody reviews those reports. (TSOP-11, Head—Fund Raising, TSO-6)

### **3.3.5 CSR Funding**

The TSO participants were unanimous in their opinion on how the total CSR grant received from a large number of corporate funders, after negotiations, was insufficient to implement a project smoothly. The study found that corporations asked

for justification of the cost of every component, but if they find any of the components unnecessary, they remove it without any discussion, ultimately affecting the project. Some of the TSO participants shared that a corporate decreases administrative costs to conform to their set upper limit, which they found to be impractical and ill-informed.

Corporations negotiate and cut down the project cost a lot in the final budget. Also, they used to sanction funds for staff and infrastructure in the voluntary CSR period. However, nowadays, they do not fund infrastructure anymore. Even they do not match the actual salary of staff and count the hourly or daily work or make part payments and provide minimum amount. (TSOP-7, Director, TSO-4)

It was also found that corporations had predefined CSR geographies and sectors for allocating CSR funds, which led to a concentration of funds. TSOs had to choose between either losing funding or being compelled to work with these restrictions to secure funding to survive.

There are a couple of companies we have reached out to for funding, but they wanted us to work around Powai area in Mumbai, India. As an organisation, we were not keen to work in Powai because in our approach of work we identify indicators by analysing the Human Development Index (HDIs), and then we identify the most vulnerable areas and most vulnerable informal settlements within Mumbai. Corporations shared that they were keen to implement a project in Powai. But, we declined it as Powai was not one of our identified areas. So, finally we did not work. (TSOP-4, Manager—Fund Raising, TSO-2)

Some of the TSO participants shared that corporations were still using low-cost selection methods in social development projects, similar to the low-cost tender practices in their business operations. The low-cost selection method was based on business principles to cull out the maximum output from minimum input. Many corporations invited proposals from TSOs to implement their projects and selected a TSO based on their pre-decided criteria of low cost. This was found to be one of the adverse effects of the CSR mandate, affecting the design of CSR interventions.

The cost of skill training is not increasing with time. This is perhaps due to the competition or maybe the availability of high number of skill training organisations. For instance, if I quote INR ten crores to implement a project, a corporate can find several organisations that may be ready to implement the same project in INR five crores. Some corporations are paying INR seven thousand per trainee; some are paying INR ten thousand, which affects the cost. So, the focus is on the cost. If an NGO claims that they can provide training to a candidate in INR five thousand that does not mean a corporate should give INR five thousand. Corporations are not looking at the quality or the outcome and want to maximise the output with the least input. (TSOP-1, Executive Director, TSO-1)

Now, 90 days of employment linked skill training is not mandatory. There are organisations implementing 45 days' of skill training programmes and compromising quality. The 90 days' design was better because trainees used to get the opportunity to learn more from soft skill activities. There are lots of other skills to be given other than trade specific skills to these candidates and those should be included in the training package mandatorily. Who will prepare them in soft skills? The employability is not increased only by technical or mechanical skills; it is much more than that. But that is not being focused upon, neither by the government nor by the corporate. (TSOP-1, Executive Director, TSO-1)

### 3.4 Discussion

Third-sector organisations have played a transformative role in making corporations socially responsible by keeping a critical eye as watchdogs and as collaborators by implementing their CSR projects (Arenas et al. 2009; Muthuri and Gilbert 2011). The findings of this paper show that the effects of mandated CSR in India are not limited to corporations, but to their other stakeholders as well, such as the TSOs. The TSOs are under significant pressure, worldwide, to adopt managerial practices to plan and implement development projects effectively and also become sustainable (Suárez and Hwang 2013; AL-Tabbaa et al. 2014). The dominant pressure from funding agencies makes TSOs adopt management tools like strategic planning, evaluation, frequent monitoring, and taking services of professional consultants to become business-like (Suárez and Hwang 2013). This section discusses the findings with relevant literature and the theoretical perspective of institutional isomorphisms. It will present the micro- and macro-effects of coercive, mimetic, and normative pressures on TSOs in their environment, which led them to change their organisational practices.

The mandated CSR was enacted with the principle of making corporations accountable and transparent, which also affected their partner TSOs and their overall design of projects in India. *Planning and designing* of an intervention by a TSO has become an annual activity, under the pressure of corporations. A TSO has to provide details of every component mentioned in the project proposal—programmatic and financial. The TSOs need to be extra cautious in their planning while proposing interventions for non-profit—business collaboration (NBC). Any deviation or difference from what is stated in the proposal and what is delivered can adversely affect the TSOs functioning and reputation (AL-Tabbaa et al. 2014). Moreover, clarity in communication grants legitimacy to TSOs as they deal with multiple stakeholders, such as communities, corporations, governments, while incoherence can affect their partnerships.

The coercive and mimetic isomorphisms (DiMaggio and Powell 1983) were clearly at work in the initial phase of the legislation where corporations made it mandatory for TSOs to plan annually. However, corporations organised training and workshops for TSOs to make TSOs aware of their needs and how to plan and propose accordingly. With this, a norm was created by corporations that was replicated by multiple TSOs and their staff in several organisations, thereby creating a homogenous culture. TSOs had started employing professionals from management background so that they get to understand what corporations wanted. These were trained professionals with an awareness of using the management tools required in new forms of planning in TSOs, thereby decreasing the trust deficit between non-profits and corporations (Suárez and Hwang 2013). Suárez and Hwang (2013) in their study discussed that adoption of standard tools by TSOs helped them gain legitimacy in their practices while dealing with corporations. This primarily helps them in planning their goals effectively and gain corporations' trust that the funds provided to TSOs would be used effectively with greater transparency.

The meticulous planning and designing of CSR projects with the incorporation of management practices has transformed the space of *implementing* interventions by TSOs. In the changing socio-economic environment, there is increased pressure on TSOs to perform like corporations by adopting their management practices (Baur and Schmitz 2012; AL-Tabbaa et al. 2014). The infusion of managerial practices to TSOs also took place by enhanced corporate employee volunteering programmes. Further, the promotion of multi-stakeholder approach has strengthened TSOs' interaction with communities. The professionalisation of TSOs and their staff can be seen here through expansion of their networks and increasing interaction with corporations, which disseminates the desirable models rapidly (Dimaggio and Powell 1983). The increased interaction with corporations also introduced TSOs with various technological advancements to implement development projects. However, there were negative features as well in which corporations coerce TSOs to adopt measures to produce mechanical results. Corporations, at times, ignored the difference between mechanical production and a social development project and aimed to get results in an input–output framework, for instance, achieving sustainability in a development project in a year.

*Monitoring* of projects was stringent prior to the legislation as well, but only in large-sized TSOs. However, corporations' demands led to strengthening of the monitoring exercise of the TSOs partnering with corporations in the mandated CSR. Coercive isomorphism is observed here as a large majority of TSOs find it tedious to engage in new monitoring standards—frequent and rigorous—developed by corporations. The TSOs were compelled to accept these conditions as they have to secure the funding for their survival. The new monitoring practices were described as mechanical, quantitative, and compliance-oriented. The literature argues that TSOs often develop a cultural barrier against dominant adoption of management practices because of differences in values guiding TSOs and corporations (AL-Tabbaa et al. 2014). Practically, corporations dictate monitoring practices in CSR projects; however, there is yet to be a set norm on monitoring scales and practices. Further, a large number of corporations did not pay for these administrative exercises by keeping the administrative cost cap up to five per cent of the overall project cost.

The vertical of *reporting and documentation* had witnessed a massive change in the mandated CSR. However, there was least negotiation available in this space, like monitoring, as the corporations had set formats and timelines. These were developed to adhere to the norms and report to the government. Moreover, there was inclusion of all types of reporting, but the efficacy of various reporting formats is yet to be assessed. The coercive isomorphism is blatant in reporting. Although frequent reporting has provided space for mid-term corrections in interventions, but only a few corporations made use of it. Many corporations do it to adhere to their policy norms.

*CSR funding* has increased in the mandated period (Sarkar and Sarkar 2016; Chatterjee and Mitra 2017). The competition between TSOs to secure funding has become severe because of increasing number of TSOs and reducing avenues of fund sources for them (AL-Tabbaa et al. 2014). This has further increased the accountability of corporations and made them question and mistrust TSOs for every head proposed by



the TSOs. This has also resulted in sanctioning poor budgets that leads to compromises in quality of implementation. In most cases, the TSOs did not have a say in the decisions related to geographical and thematic areas of interventions, leading to a concentration of thematic interventions in similar geography. As a result, some TSOs resort to changing their focus areas and geographical regions to secure funding, which results in poor implementation. Moreover, the new funding patterns display a power imbalance, where the corporations design rules, such as low-cost selection and govern the game.

Corporations look for credible, accountable, and transparent TSOs to partner, as that affects their brand. This pushes TSOs to conduct a self-evaluation, understand their strengths and weaknesses to partner with corporations with greater clarity. However, this paper signals at the forceful adoption of management practices as corporations provide funding to organisations, thus displaying management traits in implementing interventions. The power balance between the TSOs and corporations differs based on the intensity of the projects. If the projects are ad-hoc and small scale, the corporations play a powerful role as they have the resources. In a scenario of large-scale interventions, TSOs play an important role in designing and implementing, and they perform as powerful partners because of their field knowledge. However, in TSO-business relationship, TSOs are generally less powerful (AL-Tabbaa et al. 2014). Consequently, the power imbalance does not allow the weaker partner, that is, the TSOs, to apply its full potential in achieving the goal.

### 3.5 Conclusion

The period from 2014 onward is best defined by the most crucial changes in the interactions between TSOs and corporations—from confrontational to collaborative. The mandated CSR has directly affected corporate practices, which in turn has affected their development partner—TSOs, and compelled them to change their organisational practices. The third sector is one of the major links in materialising CSR interventions from on-paper to the ground. The mandated CSR has been able to bring seriousness and rigour from planning to implementation of CSR projects. It has the potential for wider impact of the interventions, provided that the issues faced by TSOs are also tackled. In the present scenario, TSOs are compelled to make these changes, which ultimately hamper the project. The changes in monitoring exercise, in principle, would enhance the impact of projects, but it should be used as an enabling exercise and not as a mere formality or to fault-find. Similarly, changes in types of reporting and its frequency have brought in a routine, but did not necessarily bring a change in practice on a large scale. The changes in the practices should not be a burden on the organisations implementing interventions on the ground.

The paper clearly shows the applicability of institutional isomorphisms framework through which corporations have largely pushed uniformity in the functioning of the participating TSOs, making them homogenous. There are hints of variations in the practices adopted by each participating TSO to deal with the pressure, but

the larger design of organisational practice is similar to all the TSOs. Subsequently, there are issues and challenges, such as losing autonomy, no scope for negotiations, and domination of the funding agency. The institutionalisation of new practices in TSOs should take place only after thorough deliberations of their usage and should not be enforced on them. This will increase their efficacy as well as positively reinforce the concept of sustainability. Further, TSOs need to retain their autonomy and understanding of ground realities, without which they become an extension of the corporate funder. These results suggest that corporate and TSOs require an understanding of each other's work culture to develop mutual respect and work towards the common goal of sustainable development of the communities.

The study has also opened up new areas of inquiry for future researchers. Researchers working on the effectiveness of CSR interventions need to look beyond the programme designs and results and explore the whole relationship of corporate and TSOs. Also, the institutionalisation of TSOs needs further exploration on a larger scale in the newly mandated CSR in India, which is an exclusive phenomenon globally. It is important to understand that CSR-led community development can be structured by management practices to an extent, but cannot overshadow the knowledge and experience of the third sector in social development.

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# Chapter 4

## The Role of Institutional Mechanisms in Inducing Corporate Socially Responsible Behaviour: A Study into the Garment Sector of Bangladesh



Nika Salvetti and Ronald Jeurissen

**Abstract** This study intends to contribute to a better understanding of which institutional mechanisms influence the transition along the corporate social responsibility (CSR) developmental path, what the bottlenecks are to this transition and what might help in overcoming these bottlenecks, in order to stimulate the adoption and implementation of sustainable business models. Drawing on the neo-institutional theoretical approach, the study analyses which neo-institutional mechanisms—coercive, normative and mimetic—influence CSR development and how. The proposed a priori template is then applied in the specific case of the ready-made garment sector of Bangladesh, where 25 experts were consulted through semi-structured and structured interviews. The study argues that all types of institutional mechanisms are indeed relevant, and that they exercise different influences through specific institutional pressures in each phase of CSR development. However, it is only with enforcement mechanisms targeted at compliance that the reluctance to apply CSR can be overcome. But engagement approaches are necessary to move beyond compliance and philanthropy towards higher levels of CSR. This study is based on limited empirical qualitative research. An extended sample could be used to assess CSR responses to institutional stimuli in both qualitative and quantitative terms as well as to integrate empirical research into individual behaviours. Nevertheless, this study extends the application of neo-institutional theory in the context of CSR/sustainability. In particular, it helps in identifying those institutional pressures within each mechanism that can influence the adoption of more sustainable and responsible business models.

**Keywords** Neo-institutional theories · CSR stage development model · Garment sector · Bangladesh

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## 4.1 Introduction

The initial premise for this paper is that corporate social responsibility (CSR) needs to be institutionalized if it is to meet new societal demands for more responsible corporate behaviour. Organizations interact with institutional norms, values and regulations in the institutional environment at the macro, industrial and local levels, in which they operate, and institutionalization takes place at the moment they accept and commit to shared values and socially responsible behaviour (Selznick 1992; Di Maggio and Powell 1983; Campbell 2007). Moreover, institutionalized norms, rules and values help organizations design, implement and monitor socially acceptable practices, thus applying sustainable business models (Jackson and Apostolakou 2009; Salvetti and Nijhof 2017).

By analysing what extrinsic forces influence a company's responsible behaviour, neo-institutional theory should be valuable in addressing this argument. In this research, extrinsic motivations are meant as the perceptions of local business leaders of the local and macro-institutional mechanisms that lead to action. Thus, local business leaders will behave in a more socially responsible manner if the institutional factors coercively, mimetically or normatively influence them to do so (DiMaggio and Powell 1991; Meyer and Rowan 1977; Scott 2008). As such, business leaders may decide to behave responsibly due to their perceptions of institutional mechanisms and pressures, in order to promote their corporate reputation, avoid fines or lawsuits, or respond to societal demands which, if not addressed, would undermine their legitimacy and maybe even their survival (Scott 1987; Oliver 1991; Suchman 1995).

In such an analysis, it is best to focus on a specific context in which there are many developments regarding institutional mechanisms. A relevant sector to address from a CSR perspective is the ready-made garment sector (RMG sector) in Bangladesh. In 2012 and 2013, this sector saw several tragic incidents due to irresponsible business practices. Furthermore, stakeholders along the entire supply chain of the RMG sector are demanding change and increased levels of CSR. However, these demands come from actors with diverse powers, legitimacy and interests, resulting in often unclear and even contradictory demands on local business leaders. Furthermore, research shows that companies in the RMG sector apply CSR to varying degrees reflecting all the stages of CSR development (CSR Centre 2012; Rahman et al. 2008).

The main research question this paper sets out to address is: *'What institutional factors influence local business leaders in the garment sector of Bangladesh to behave in a socially responsible manner?'* To address this main research question, the research focuses on understanding what induces a transition from one CSR cultural phase to the next; what factors undermine such a transition; and finally, what factors can contribute to overcoming potential bottlenecks in this transition.

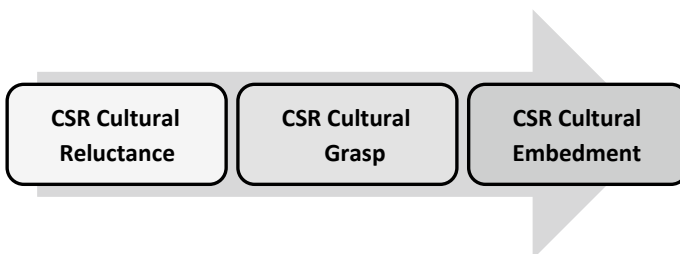
## 4.2 Company Evolution Through the CSR Development Stages

This paper aims to gain deeper insights into the institutional factors that drive local business companies, in the garment sector of Bangladesh, to move beyond philanthropy and compliance towards higher levels of sustainability performance. We use socially responsible behaviour as a synonym for CSR responsiveness, which takes into account how CSR develops through different stages in a specific cultural context (Maon et al. 2010; Aguilera et al. 2007; Bansal and Roth 2000). Thus, CSR behaviours are all those actions and practices, beyond philanthropy and compliance that a company undertakes, following a decision by its leaders to address its impact on society, the environment and the local community in a concerted effort with other stakeholders while incorporating their expectations (Kytte and Ruggie 2005; Basu and Palazzo 2008).

To help visualize the dynamics of CSR behaviours, this paper refers to the models of CSR development that assume that companies have different levels of acceptance, understanding and implementation of CSR principles at different points in time (Maon et al. 2010). These models emphasize the dynamic nature and evolutionary path of CSR development along which CSR behaviours become the expression of increasingly complex and systemic initiatives in response to greater societal challenges. This research takes as its starting reference the cultural stages of development by Maon et al. (2010) with specific adaptations adopted from Dunphy et al. (2003), Zadek (2004) and Raynard and Forstater (2002). Looking at the cultural and moral levels, Maon et al. (2010) identify three main phases through which the CSR development path evolves (Fig. 4.1).

### 4.2.1 CSR Cultural Reluctance

Initially, CSR is largely considered a constraint and ignored. This provokes opposition to adopting any CSR activities if they are not primarily focused on improving



**Fig. 4.1** Author's elaboration of CSR development stages. *Source* Adapted from Maon et al. (2010)

financial returns. Organizations ignore stakeholders' claims and disregard any potentially negative socio-environmental and wider economic impact of its activities. CSR is not perceived as part of the organization's values and beliefs, and thus, the organizational culture does not support CSR. In this phase, organizations will not be ready to adopt and apply any sustainable business model.

### ***4.2.2 CSR Cultural Grasp***

Over time, CSR is progressively recognized and appreciated. It is seen as a compliance and is applied to reduce risks and protect the value of the organization's assets by reducing the negative impact on the environment and society. This is the stage where organizations gradually move beyond compliance towards achieving goals by improving efficiency and productivity; stakeholders are approached to help enhance the organization's learning path. The instrumental application of CSR leads to the gradual incorporation of its principles within the organization's culture. Organizations progressively integrate some sustainability components, but they do not entirely embed sustainability within their strategies and operations.

### ***4.2.3 CSR Cultural Embedment***

Eventually, CSR application is extended to potentially create value by deepening the relationship with stakeholders, using one's own resources to address CSR claims and progressively integrating CSR principles and stakeholders' claims into the organization. In effect, the organization embraces CSR's moral-based principles and is able to perceive the added value of CSR initiatives in creating new opportunities and driving innovation (Porter and Kramer 2006; Nidumolu et al. 2009). This is the phase where organizations adopt and implement complete sustainability models.

The consolidated model proposed by Maon et al. (2010) relies on key fundamentals that are also supportive of the theoretical framework of this study. First, the use of a CSR development model implies that each phase is not static but part of an ongoing process in which a company can develop aspects or initiatives belonging to one specific cultural stage, while at the same time carry out actions that correspond to a different stage. Second, all companies do not necessarily proceed along the entire cultural journey. There might be companies which are already sufficiently mature to carry out advanced CSR activities due, for instance, to the visionary and responsible approaches of their leaders (Maak and Pless 2006; Waldman and Siegel 2008). Third, the model takes the company as the unit of analysis and reference for the reaction to collective and societal demands; it does not address internal cultural deviations that might differ from the company's position and behaviour with respect to CSR.

### 4.3 The Neo-Institutional Framework Applied in This Research

Neo-institutional theories could help to explain if and how institutional mechanisms can motivate business leaders to adopt more advanced levels of CSR and evolve through the cultural phases of CSR development. Bansal (2005) portrays an institutional environment as a social context in which companies operate and interact. It is characterized by the outcomes of strategic interactions between informal and implicit institutional features and formal and explicit ones that generate a shared belief system that impacts on those interactions in a self-sustaining manner (Aoki 2001). As such, companies do not operate in a vacuum but are embedded in a natural and industrial setting that enables and influences their decisions and strategies (Aguilera and Jackson 2003). If new pressures and forces emerge within society, in the form of new regulations, new stakeholders' demands, technological innovation or sudden crises, organizations need to react to these changes in order to protect their legitimacy (Scott 2008; Baumann-Pauly et al. 2015). As such, neo-institutional theory can also explain why companies that are influenced by similar pressures adopt similar practices and behaviours (Adams and Larrinaga-Gonzalez 2007).

With respect to the application of CSR, the institutional perspective suggests that business leaders take account of the broader social context, i.e. the institutional environment, rather than just follow an inward-looking instrumental decision-making process (Jackson and Apostolakou 2009). The institutional environment is characterized by the interaction of different institutional mechanisms, each of them operating through specific institutional pressures. Therefore, while the institutional mechanisms indicate the coercive, normative or mimetic character of institutional factors, the institutional pressures within each mechanism define the influence of specific factors on responsible behaviour.

*Coercive mechanisms*, in the form of governmental rules and regulations and shareholders' and employees' influences, set social expectations regarding responsible corporate behaviours that are reinforced by other actors such as consumers, civil society and institutional investors (Kagan et al. 2003; Susith and Stewart 2014). The promulgation and enforcement of laws help to create a unique CSR climate, which therefore varies across countries (Campbell 2006). Normally, this process is driven by powerful stakeholders who are in a position to change a company's practices due to a strong dependency relationship (Deegan 2009). Legal enforcement generally amounts to monitoring compliance to sets of standards and criteria that, if not met, are addressed by fines and penalties. Further, it also relies on the consideration that, if companies are not compliant, they will incur financial and non-financial consequences that undermine their competitive advantage and reputation (Torugsa et al. 2011; Mackey et al. 2007; Zadek 2004). Thus, coercive mechanisms can induce the adoption of CSR as an institutionalized norm, if the level of uncertainty is high (Di Maggio and Powell 1983).



*Mimetic mechanisms* work through positive as well as negative lines of thinking. The positive motivation for imitating CSR practices could follow from considerations of pride, recognition and exemplary references, thus capitalizing on the successes of others in applying certain standards. The negative aspect relies more on the need to abide by 'norms' to avoid being expelled from the social and cultural institutional context, thereby losing competitive advantage and legitimacy. In both cases, the driving force behind imitation is uncertainty, which pushes companies to emulate others in order to retain legitimacy (Unerman and Bennett 2004). In particular, companies prefer to adopt visible and well-defined activities—such as CSR reporting, environmental audits, certifications, codes of conduct or industrial association—to achieve collective legitimacy when most of the players are engaged in the same practice (Campbell 2007; Susith and Stewart 2014).

Finally, *normative mechanisms* relate to institutional factors that arise from common values, norms or habits related to adopting specific CSR practices. Such practices are shaped by commonly observed standards as well as by cultural and working practices which have been accepted and naturally adapted by the organization because they are considered the most appropriate (Susith and Stewart 2014; Deegan 2009). Here, Caprar and Neville (2012) emphasize the essential role of institutional pressures in the adoption of sustainability, while also considering culture to be an antecedent of institutional pressures and a moderator of the relationship between institutional pressures for sustainability and sustainability adoption. With reference to the role of Islamic religious beliefs, Jamali and Neville (2011) highlight how the Zakat Principle of Islam, which requires all businesses to give 2.5% of their income to the poor, strongly influences the philanthropic adaptation of CSR. Further, Abeng (1997) argues that the behaviours of business organizations are the result of business ethics inherent to the moral (Islamic) values of their leaders.

However, to be effective, each institutional mechanism needs to be translated into concrete CSR actions and strategies that the companies implement in order to be considered socially responsible and sustainable. If institutional mechanisms are not correctly channelled and transmitted by influential stakeholders, they can be easily ignored by companies or considered only partly and momentarily (Lee 2011). In this sense, it is important to realize that institutional mechanisms are not the only factors that explains why companies apply CSR: application also depends on the influence and salience of stakeholders' interests and motivations in support (Mitchell et al. 1997; Lee 2011; Aguilera et al. 2007). Consequently, the level and intensity at which companies adopt CSR might vary depending on the influence their various stakeholders' exercise (Lee 2011; Aguilera et al. 2007; Campbell 2007; Hoffman 2001; Marquis et al. 2007) and by the type of institutional pressures each institutional mechanism activates in a particular time frame (Bansal 2005).

Thus, this paper attempts to shed light on the influence of multiple stakeholders' actions in inducing the adoption of CSR along the CSR developmental process (Aguilera et al. 2007). To achieve this, it aims to identify which institutional mechanisms (institutional factors) are relevant in each of the cultural phases of CSR and to understand which mechanisms induce a transition to more advanced CSR

phases (CSR development), which ones undermine this transition and, finally, which mechanisms might contribute to overcoming bottlenecks in the transition.

## **4.4 Methodology**

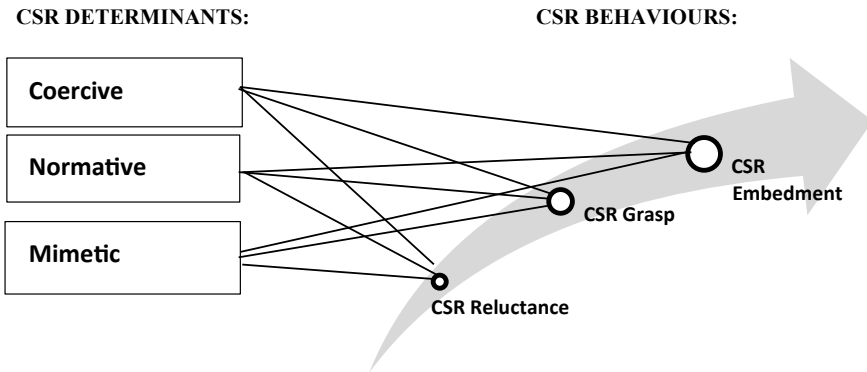
The author carried out a field research, holding semi-structured interviews with 25 experts, comprising 15 CSR experts and 10 business leaders, from companies displaying high levels of CSR performance in the garment sector of Bangladesh. The garment sector of Bangladesh was chosen for various reasons: it represents a challenging organizational field with the interference of a myriad of stakeholders employing multiple institutional mechanisms; it is a valid reference if one wants to understand and assess how business leaders apply CSR despite a challenging and often negative business environment; it has attracted international attention and pressure to address fundamental moral issues related to compliance such as unsafe working conditions and labour exploitation, and it exists within a weak regulatory framework.

### ***4.4.1 Data Collection***

The first round of data collection was intensive and extended over three years with retroactive enhancement of the information from both primary and secondary sources due to the dynamism of the sector. Fifteen semi-structured interviews with CSR experts representing different stakeholders were conducted with the aim of corroborating the findings from the literature review and also to depict the situation in the garment sector, its evolution and the main institutional drivers of CSR behaviours. All the face-to-face interviews were conducted by the researcher with field notes taken and duly transcribed. Local business leaders were chosen to represent their company's behaviour in response to the institutional need to look at the relationship between institutions and individual behaviours as institutions evolve and change (Festré and Garrouste 2016).

### ***4.4.2 Data Analysis***

Template analysis has been applied in this research as it is considered among the most useful analytical tools for guiding the interpretation of qualitative data through coding processes (King 2004). Taking the theoretical framework shown in Fig. 4.2 as a starting point, it assists in categorizing each institutional mechanism according to the main theoretical definitions and in relating them to the various cultural phases



**Fig. 4.2** Theoretical framework for the study. *Source* The authors

of CSR development. Here, it is assumed that each institutional mechanism might intermittently exercise influence in each of the different phases.

The first coding process, the identification of *descriptive themes*, helps in defining the existing relationships between each institutional mechanism and the corresponding CSR cultural phases. It shows how the different institutional mechanisms influence the various CSR cultural development phases. This initial process extended the data from the initial 25 interviews to 93 quotes by dissecting each of the interview transcripts alongside the multifaceted responses from the key informants. Moving on with the coding process and identifying the *interpretative themes*, a more detailed interpretation of the data emerges that depicts the specific institutional pressures that correspond to each of the institutional mechanisms that influence CSR development. In this way, narratives were produced that were coded into *overarching themes*, as shown in Table 4.1. Based on the template analysis, conclusions can be drawn on what, how and who influence the process of CSR institutionalization in the garment sector of Bangladesh, what bottlenecks remain and hamper this process and what can be done to overcome these bottlenecks.

## 4.5 Findings and Discussion

Over the years, the Bangladeshi garment industry has received stern criticism regarding its CSR performance, issued from several sides including media, NGOs and the scientific world. The sector has been criticized as being orientated towards short-term profit maximization, political clientelism, exploitation of workers and disregard of human rights. When the Bangladeshi garment sector started reacting to the Rana Plaza accident by showing stronger commitment towards CSR principles and practices, this was sometimes criticized as being mere green washing (Anner 2015; Chowdhury 2017a, b; Clean Cloth Campaign 2013, 2015; Quelch and Rodriguez 2013; Siddiqi 2015).

**Table 4.1** Overarching themes—motivational patterns influencing CSR development

Institutional mechanisms/CSR development phases	Reluctance	Grasp	Embedment
Coercive	Exploitative business model	CSR as the new tool for compliance (compliance enforcement)	Enforcement is necessary to drive CSR
Normative	Mistrust and greed	Philanthropy and compliance are a moral obligation and a business imperative	CSR contributes to society through innovation and engagement
Mimetic	Local market conditions	Local market demand for CSR	Pride and the need for recognition encourage the imitation of good practices

Source The authors

Based on our findings, it is not possible to empirically establish whether these multiple criticisms are true. What can be established empirically, however, is that CSR in the Bangladesh garment industry is no longer ignored or played down by the local business leaders, but that it is allegedly perceived by them as an issue that is relevant for their business. Also, the business leaders consider CSR to be a dynamic challenge, responding to shifting societal demands. CSR in the Bangladesh garment sector is gradually moving on from the reluctance phase towards the grasp and embedment cultural phases. This is the picture that we derived from our data. How can it be explained?

The transition from one CSR cultural phase to another is triggered by the simultaneous presence and interactions of various institutional mechanisms in each specific cultural phase. However, it is only when new institutional pressures, exercised by influential stakeholders, or a change in the nature of these pressures occurs that transition is triggered. Business leaders that were interviewed showed that they realized that, in order to protect their legitimacy and to coexist in the new institutional environment, they have to react and adapt to these criticism and challenges and need to change (Scott 2008; Baumann-Pauly et al. 2015). An example of this has been the formation of the Accord on Fire and Building Safety in Bangladesh (ACCORD) and the Alliance for Bangladesh Worker Safety (ALLIANCE) and the consequent enforcement of specific actions.

When looking at the institutional pressures within each institutional mechanism, it can be observed that there are still local companies reluctant to recognize the value of CSR over a more exploitative business model, while others, even if they are beginning to grasp the meaning of CSR, are still following the logic of philanthropy and compliance. Nevertheless, local companies are receiving positive impulses from a range of institutional mechanisms to start embedding CSR within their operations.

In order to address the research question ‘What institutional factors influence CSR development in the garment sector of Bangladesh?’, this research now critically analyses the overarching themes by looking at three dimensions of influence: (a) induction—the institutional factors that induce a transition from one CSR cultural phase to another; (b) discouragement/limitation—those institutional factors that inhibit this transition to a more advanced CSR phase; and (c) contribution—those institutional factors that could potentially contribute to overcoming the barriers to this transition.

(a) *Factors inducing a transition from one CSR cultural phase to another*

All institutional mechanisms—coercive, normative and mimetic—exercise an influential role in each of the cultural phases of CSR development, but the advancement from one phase to the next is promoted by the interaction between the different institutional pressures, by the shifting rationale of each individual institutional pressure and by the engagement and power of the various stakeholders in each of the CSR cultural phases.

*Interaction between institutional pressures*

As shown in the above tables, coercive, normative and mimetic institutional mechanisms are present and interact in each of the CSR cultural phases. In the reluctance phase, given a lack of government regulations to enforce CSR practices, companies try to ignore demands for CSR and instead respond to the exploitative business models of their buyers. In this phase, buyers expect to maximize their profits by taking advantage of weak regulatory frameworks and fragmented negotiation power of suppliers, thus allowing to preserve lower working conditions to the advantage of competitive prices per garment unit. Indeed, any pressures for improved CSR would struggle to achieve traction given the mistrust and greed persisting in the sector and the local market conditions that encourage irresponsible behaviours to achieve lower prices.

However, as soon as local companies realize, given the pressures from buyers, government and the market, that the survival of their business depends on respecting the minimum conditions laid down by the law, in terms of labour conditions, safety, occupational health and environmental standards, the tendency is to embrace CSR as a new tool to achieve compliance. In this case, buyers do change their expectations from denying their responsibility to enforcing a minimum level of compliance, as required by the changing regulatory system. Such tendencies are strengthened by strong local moral, religious and family values that interpret CSR, in terms of philanthropy and compliance, as a moral obligation and a business imperative.

They are also strengthened by the societal awareness provoked by the negative impacts of irresponsible business behaviours such as denying the rights of workers to good working conditions. In particular, the flourishing of trade unions and massive worker protests have played an important complementary role in convincing companies to adopt good labour practices (Donaghey and Reinecke 2018).

Once CSR is applied, even if only to satisfy basic legal requirements, local companies start to appreciate that CSR can contribute to added value, in terms of either financial returns (preferential partnership with buyers; increased number of orders;

efficiency and productivity due to innovation) or non-financial benefits such as international recognition for exemplary practices that boost their reputation and image. This appreciation is also stimulated by governmental incentives and engagement practices such as the green banking facilities offered by the Bangladesh Bank and financial incentives to promote CSR (Bangladesh Bank 2012, 2010) and a closer partnership with buyers, which lead them to embed CSR practices into their operational systems.

#### *Changing nature of institutional pressures*

Even though institutional pressures are relevant in all stages of CSR development, the nature of these pressures differ in the various CSR development stages. In the reluctance phase, governmental rules, one of the common institutional pressures in CSR development, undermine CSR because the perception is that the government is not providing clear rules or guidance on applying CSR. However, in the CSR grasp phase, the government rules become more effective because rules are ‘imposed’ as a CSR compliance requirement. This was especially the case following the reaction of the international community to the fatal accident at Rana Plaza. On 24 April 2013, the collapse of the Rana Plaza building in Savar, Dhaka, Bangladesh, which housed five garment factories, killed at least 1132 people and injured more than 2500 (ILO 2013).

When the government stimulates local companies to mainstream CSR in their operations through offering incentives, such as the provision of green investments at low interest rates through the Bangladesh Bank, the endorsement of international initiatives such as the Partnership for Cleaner Textile (PACT) programme of IFC or the multi-stakeholder ACCORD and ALLIANCE initiatives, they tend to move into the embedment phase.

Similarly, buyers’ requirements play a different role in each phase. In the CSR reluctance phase, buyers try to ignore CSR and impose an exploitative business model based on maximizing profits and squeezing costs while trying to avoid compliance. In the CSR grasp phase, buyers demand CSR that meets compliance requirements, and local companies see it as a business imperative in order to retain legitimacy and competitive advantage.

Eventually, in the embedment phase, in response to the market demand for greater sustainability, buyers use CSR as a tool for dialogue and engagement with their local suppliers to promote innovation and strengthen business partnerships.

The local culture, defined in this context as local business principles and values nurtured by religious, moral and family values, plus societal awareness and reactions, exercises an evidently influential role in all three CSR cultural phases, but again its nature changes along the CSR developmental path. In the reluctance phase, the local culture is characterized by ‘mistrust and the perceived greed of’ local companies driven by their desire to maximize profits at any cost. It is only when companies reach the grasp phase that moral values built on strong religious and family references push local companies to see CSR as a moral obligation to contribute to society, which is enacted by observing the Zakat Principles of Islam and in applying philanthropic actions.

Finally, in the embedment phase, once local business leaders understand the additional financial and non-financial value of addressing societal and environmental challenges, CSR becomes embedded in business operations.

#### *Engagement and power relationships of stakeholders*

Similarly, the characteristics of the local complex institutional environment influence the level of engagement and the power relationships among the various stakeholders in each of the cultural phases of CSR (Campbell 2007; Greenwood et al. 2011).

In the reluctance phase, CSR is largely ignored and considered as a constraint. This is justified by the weak governance system, with a regulatory framework that is inadequate to address complex structural challenges, and by weak law enforcement, as well as the uncertainty created by political instability (Labowitz and Baumann-Pauly 2014; World Bank 2014). When market conditions seek a constant supply at a lower price, factories are pushed to meet these conditions irrespective of their financial ability. This results in suppliers, as well as their buyers, acting in an interdependent relationship that exploits the weaknesses and uncertainties of the system.

Research shows that an asymmetric power relationship between the buyers/brands and suppliers exists due to the characteristics of the apparel production model (Fransen 2011), which is also aggravated by the weak law enforcement that pushes brands to replace the government in enforcing employment relations (Donaghey and Reinecke 2018). In practice, suppliers can gain a stronger position if they gain control on largest shares of the production process and a better reputation from becoming more compliant (Fransen 2011).

Consequently, as soon as the institutional environment reacts to other new institutional pressures, such as societal and market demands for greater compliance, the extent of the engagement goes beyond the boundaries of the company and embraces other stakeholders (Berg et al. 2011). At the same time, the intervention of new institutional pressures, and their interactions with existing ones, contributes to an increase in the power of relevant stakeholders to exert influence. For instance, the increasing societal awareness created by social discontent and workers' unrest (Ahmed et al. 2013), and the signing of international agreements with the International Labour Organization (ILO), brands, trade unions and consumer associations, soon become a determining institutional pressure for compliance and a potential driver of innovation and sustainability.

Finally, when the institutional environment encourages higher levels of engagement among stakeholders, as a reaction to new regulations or multi-stakeholder agreements and initiatives, and creates a market demand for sustainability and good practices by visionary leaders, innovative and sustainable approaches start to take place within local companies.

Looking at the CSR reluctance phase, when CSR is not taken into account as it is seen as a constraint, local companies are mainly driven by their international buyers seeking to minimize unit prices, despite increases in production costs, and therefore follow an exploitative business model based on maximizing profits without paying much attention to compliance (Gereffi and Lee 2016). Adopting this approach is

also enabled by the lack of clear government rules and guidelines on how to act responsibly.

The positive response of local suppliers to their buyers' requirements is explained by the neo-institutional argument on legitimacy but also by the unbalanced power relationship between the two parties. Here, on one side, there are local companies that cannot afford to lose orders due to their large production capacities while, on the other side, the price is negotiated by the buyer without due consideration of the costs along the supply chain.

Ultimately, the local market varies in terms of its demands for CSR as it does for other variables such as price and quality (Vogel 2005). If and how much CSR is required is largely determined by the motivations and social consciousness of the multiple stakeholders operating in a specific context and viewed as an organizational response to institutional complexity (Berger et al. 2007; Luo et al. 2017).

In the case of Bangladesh, the tendency is to retain low CSR standards in order to avoid altering market conditions, especially in terms of price and quality. However, the recent interference of private voluntary regulations in the form of independent monitoring and codes of conduct has pushed suppliers to meet the minimum standards of compliance (Donaghey et al. 2013). But at the same time, it has weakened the ability of government to enforce its law (Esbenshade 2004).

When looking at the other CSR cultural phases, it is useful to identify those institutional factors that potentially inhibit the application of more advanced CSR practices that go beyond compliance and philanthropy, given that, culturally, compliance and philanthropy are the common interpretation of CSR. According to Rahim (2012), laws set social expectations about responsible corporate behaviour and these are then taken as a reference by other stakeholders who will act upon them. When coercion, applied through governmental rules and regulations and buyers' requirements, focuses on compliance, local companies react by meeting the minimum standards required to retain their licence to operate, as otherwise, they would lose their export licences and more importantly would be unable to sell enough goods to utilize their production capacity. Thus, the application of CSR reflects the need to meet minimum standards rather than support for the promotion of new sustainable business models.

The myopic focus of the government on compliance can be understood by analysing the government's motivations in establishing high CSR standards. As Aguilera et al. (2007) and Campbell (2006) explain, governments, like other stakeholders, are motivated to act for instrumental, relational and moral reasons. Currently, the Government of Bangladesh feels pressure from the international community, which is threatening to review favourable trade agreements, to demonstrate willpower and commitment to rebuilding the negative image of the garment sector of Bangladesh by tackling the structural causes that caused the fatal accidents at Tazreen and Rana Plaza. The government is responding to the international pressure by promoting and endorsing multi-stakeholder initiatives to enforce compliance (i.e. National Tripartite Agreement—NTPA, ACCORD and ALLIANCE), thus following a more instrumental and relational approach. This approach has led to the emergence and persistence of private and global labour governance that are gradually replacing the role of



the government in finding and adapting appropriate public governance mechanisms (Donaghey and Reinecke 2018). As such, a moral motivation seems to be missing.

Given the high dependency relationship, buyers also exercise great influence on local companies when it comes to compliance (Deegan 2009; Donaghey et al. 2013). Indeed, all the interviewees mentioned that overseas buyers are putting more pressure on local providers to comply with minimum legal requirements. Buyers feel increased scrutiny and criticism from their own governments and societies, which urge more stringent monitoring and enforcement rules along the supply chain to induce more transparent and responsible business behaviours. In response, they 'invite' local suppliers to immediately address the negative impacts, at their own expense, by threatening to delay or reduce the number of orders placed.

Finally, effective compliance also depends on governmental capacity to put in place suitable monitoring and enforcement systems to ensure adequate application of the law (Campbell 2007). In Bangladesh, coercive governmental pressures in the CSR grasp phase would not be sufficient if these were not complemented by other pressures, such as the international multi-stakeholder initiatives of Western buyers, international trade unions and consumer associations, such as ACCORD and ALLIANCE, to ensure stricter compliance.

As highlighted by several researchers (Carpar and Neville 2012; Muthuri and Gilbert 2011), culture is a very important determinant of socially responsible behaviours by companies. In Bangladesh, companies are torn between the instrumental business drive towards 'quick and easy' profit maximization at the cost of CSR (in the reluctance phase) and the strong religious principles of Zakat which oblige Muslim business leaders to dedicate 2.5% of their earnings to poor people and also to contribute to local economic development (CSR Centre 2012). The religious element was often reiterated by the interviewees as one of the principal motivators to act in a socially responsible way, primarily by carrying out philanthropic activities to respect the Zakat principle, but also as a moral obligation to contribute to society (reflecting the CSR grasp phase).

(c) *Factors potentially contributing to overcoming the barriers to this transition*

The local and international response to irresponsible behaviour in the garment sector was to enforce compliance mechanisms to address the structural causes that threatened worker's health and safety.

The signing of the Accord on Fire and Building Safety in Bangladesh on 13 May 2013, between two global unions (IndustriALL, UNI Global) and international brands and retailers (currently over 100), laid the foundation for a five-year programme under which companies have committed themselves to ensuring the implementation of health and safety measures. At least 1700 factories were targeted for inspection. This initiative was followed by the launch of the Global Sustainability Compact, between the EU, the Bangladeshi Government and ILO on 8 July 2013, to promote improved labour standards, the structural integrity of buildings and occupational safety and health, and responsible business conduct in the RMG and knitwear industry in Bangladesh.

As soon as the inspection process started, the local suppliers of the ACCORD and ALLIANCE signatory brands opened their doors to engineering experts to check the structural and physical safety of buildings. In line with the initiatives, all inspection reports, with proposed remediation plans are published on the official ACCORD and ALLIANCE websites for further evaluation. This action prompted local suppliers to carefully implement the remediation plans at their own expense in order to avoid being fined or, even worse, losing their licence to produce and/or export. All companies have been treated equally without distinguishing between different levels of performance according to the environmental, social and governance standards (ESG). The Government of Bangladesh is the exclusive authority when it comes to deciding the fate of non-compliant companies with respect to cessation of activities, revocation of export licences or reallocation of the factories to safer areas. This inspection process has indeed promoted adherence to minimum standards, at least in terms of safety and occupational health, and it is helping to recognize CSR as a tool for compliance.

However, local garment business owners had widespread concerns that ad hoc interventions that only target certain suppliers and buyers would not be effective if other mechanisms were not put in place to ensure a level playing field. In practice, suppliers who are not covered by the ACCORD and ALLIANCE initiatives are not subject to enforcement and can still operate following the traditional exploitative business models.

Nevertheless, the rapid implementation of the remediation plan, as evidence of the commitment of local suppliers to accept the new requirements set by the government and buyers, might still be a way to build a trusting relationship between a local supplier and its buyers. Here, the company leaders that the author interviewed welcomed the initiatives as a new impulse for innovations that would address socio-economic and environmental challenges (such as their water footprint; waste; labour conditions) that were also being addressed by initiatives launched by other stakeholders. In particular, if the coercive pressures applied by buyers translate into engaged relationships between them and their suppliers, it is observed that this can result in advanced forms of CSR.

However, it is only when compliance is perceived as stimulating innovation that 'being compliant' becomes a business opportunity and a stimulus to achieve more (Nidumolu et al. 2009). This is the case when new self-regulation is the result of voluntary codes of conduct or when 'recommended standards' that go beyond existing local laws are applied by the industry or by civil society organizations. In this situation, front runner companies that apply these normative procedures may gain an advantage over their competitors when the self-induced regulations are later translated into law. Nevertheless, self-regulation alone is not a guarantee for labour condition improvement unless accompanied by other forms of enforcement (Donaghey et al. 2013; Esbenshade 2004).

Despite the evidently influential role that external pressures and industry self-regulation exercise in stimulating change, the local culture and the local regulatory framework also have to align with the new institutional environment to achieve the recognition and advanced implementation of CSR (Jones and Wicks 1999; Caprar

and Neville 2012; Campbell 2007). In this respect, the Government of Bangladesh has gradually supported CSR development as a reaction to the market demand for compliance and new societal expectations. Initially, in 2010, it approved the long-awaited proposal for a 10% rate of corporate tax exemption for those companies that spend part of their income on CSR activities. Even though such exemptions have not been widely sought, due to concerns about greater scrutiny by the fiscal authorities, it has encouraged a wider awareness and acceptance of the need to apply CSR. The amendment to the Labour Law in 2013, the increase in the minimum wage and the legalization of trade unions are other clear examples of laying the foundations for CSR development. In response to the increased demand from the business sector to learn more about CSR, the Government of Bangladesh has approved and supported the elaboration of national CSR guidelines that were launched in 2017. To move beyond compliance, the government has created financial incentives for green investments. The Bangladesh Bank has created a 2 billion Taka revolving fund to support innovative green projects, and it has also extended financing support to set up a world-class 'platinum-rated' textile unit in Dhaka. These are not only contributing towards reducing reliance on non-renewable energy sources but are also promoting environment-friendly production options that are crucial in achieving a low carbon economy (from an interview with the Governor of the Bangladesh Bank, Dr. Atiur Rahman in April 2012).

However, the research findings support the evidence that visionary leadership, motivated by strong inner moral and family values, is the leading force contributing to defining the new standards and references for responsible and sustainable practices in the garment sector of Bangladesh. As a contribution to the debate on the value of engagement versus enforcement policies in promoting CSR (Adler and Borys 1996; Nijhof et al. 2000), this research has shown that local companies recognize that a certain level of enforcement, in terms of stricter compliance requirements, is necessary to stimulate the embedment of CSR. Nonetheless, in sustaining the transition and moving beyond compliance, this research shows that enforcement mechanisms are less effective than normative and mimetic mechanisms in activating advanced CSR practices. Partial explanations for this finding can be found in the stakeholder literature, which argues that, if the actors and rules of the game change, then institutional pressures can lead to institutional change. As such, new stakeholders, with power, legitimacy and urgency (Mitchell et al. 1997), and motivated by societal pressures, might alter the established relationship between local business and existing institutions by introducing new rules, norms and standards.

At the same time, the legitimacy of local businesses might be affected by new demands and expectations that are not only driven by social and environmental considerations but also by changing market requirements. But, for new institutions and reforms that are aiming to promote greater socially responsible behaviour to be successful, they will have to complement positive existing and functioning institutions with new institutional mechanisms that ensure tangible benefits for all critical stakeholders (Fioretto 2011). Such benefits should be in terms of business returns resulting from advancing socio-economic and environmental standards and requirements. In other words, 'low labour costs' should progressively be replaced by

‘compliance’ and ‘higher CSR performance’ as the main drivers of doing business in countries such as Bangladesh.

## 4.6 Conclusions and Recommendations

The main objective of this research and this resulting paper has been to explore those institutional factors that influence CSR development in the garment sector of Bangladesh, thus stimulating the application of sustainable business models. The neo-institutional theory of isomorphism, coercive, normative and mimetic mechanisms has been empirically identified and analysed in each cultural phase of CSR development, in order to determine which institutional factors induce the transition from one cultural phase to another, what inhibiting factors undermine this transition and what enabling factors promote more advanced CSR practices. The study shows that all the institutional mechanisms considered are relevant in all the CSR development phases, but that each of them relies on different institutional pressures in each phase to inhibit or enable the application of more advanced forms of CSR.

In particular, the transition to advanced CSR phases is promoted by the interaction between the various institutional pressures, the changing nature of the individual institutional pressures and the level of engagement and power of influence exercised by the various stakeholders in each of the CSR cultural phases.

The logic of new institutionalism argues that coercive pressures guide local companies to abide by the requirements of influential stakeholders (in this case their buyers because of the dependency relationship between them) and to respond to the cultural expectations of a society which holds strong moral and family values. At the same time, when uncertainty is high, local companies tend to imitate those peers who succeed in enhancing their performance despite the challenges and scrutiny on compliance.

Furthermore, once compliance becomes the norm in defining how the garment sector is structured and organized, local companies tend to follow. When looking at the factors inhibiting CSR, a distinction can be made between those factors that discourage the application of CSR in the first place, and those that inhibit moving beyond compliance. The exploitative business model, which focuses on profit maximization at any cost, is driven by external pressures (buyers’ demands for the cheapest price) and nurtured by an inherited local business culture based on greed and mistrust.

To convert the situation to one that favours CSR, the research findings suggest looking at different approaches that would enable the application of inclusive and comprehensive enforcement mechanisms by uniformly inducing compliance along the supply chain within the garment sector of Bangladesh. These coercive mechanisms should also be complemented by activities to enhance the capacity of all societal actors to monitor the process and become the voice for more responsible behaviour. Training and education, on the principles and application of CSR, for the

future managers and leaders of the garment industry would foster the advanced implementation of CSR. The above approaches would create the foundations for compliance, but would need to be complemented by engagement initiatives to stimulate more advanced CSR practices.

In this respect, the research suggests defining clear strategic sustainability objectives to be achieved by the sector alongside economic growth targets. Thus, key goals such as reduced water and ecological footprints, energy efficiency and decent work at living wages should become the new aspirations for the industry.

To achieve such targets, technical support and financial instruments need to be mobilized, both nationally and internationally, to ensure the successful and long-term application of more advanced CSR practices. Moreover, the current business models should be redesigned to internalize the externalities and produce a more realistic and fairer pricing of garment production. Finally, buyers should be proud to share their good practices as part of a concerted effort by all stakeholders, and in the name of transparency and accountability. All these actions would ultimately contribute to regaining a good image for the 'Made in Bangladesh' tag.

Besides private forms of regulations, the role of the government needs to be revisited as an independent monitoring authority. Certifications and any forms of private regulation cannot replace the role of the Government and Trade Unions in structurally improving labour conditions or environmental standards (Bartley 2007; Donaghey and Reinecke 2018; Esbenshade 2004).

In conclusion, the research confirms the view that neo-institutional theory can contribute to understanding the factors that influence CSR development and of its transition along the CSR development path. It also addresses the need to combine neo-institutionalism with the considerations and rationale of stakeholders to highlight the influential roles that stakeholders have in both accepting and applying institutional pressures. Finally, the findings offer insights that future research can be used to identify mechanisms that could induce CSR development in complex local institutional environments which would trigger the design and application of more sustainable business models.

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# Chapter 5

## Towards Cluster-Based Sustainability and CSR Framework in Indian Small and Medium Enterprises—A Case Study on Garment Industry



Rupamanjari Sinha Ray and Tanuja Sharma

**Abstract** This chapter explores case studies on sustainability practices of some small and medium enterprises in the garment industry of the National Capital region of India along with cluster-level initiatives. Cost of implementation is a challenge for companies in garment industry; however, all companies believe that real impact could be created by pooling funds to initiate a mega sustainability project at cluster level. The chapter also presents good examples of cluster-level initiatives on spreading awareness and implementation of sustainability practices of small and medium enterprises (SMEs). It is inferred that Marshallian framework of cluster economics is well established in cluster-level initiatives of sustainability practices. It is suggested that a three-pronged policy framework based on cluster economics can further enhance impactful mega sustainability projects by pooling Corporate Social Responsibility (CSR) funds of SMEs.

**Keywords** Cluster economics · Corporate Social Responsibility · Garment industry · Marshallian framework · Small industries

### 5.1 Introduction

The sustainability practices of organizations based on triple bottom-line approach (Elkington 1998) of economic, social and environmental practices and performance today have become increasingly important from the society's sustainable point of view. Regulatory risks for some new law on environment may lead to uncertainty of firms in future (Morrow and Rondinelli 2002). For Indian small scale and medium enterprises, the environmental laws are in place, but mandatory requirements are few. Moreover, micro, small and medium enterprises (MSMEs) are vulnerable to

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any such regulatory risks without proper environmental management system developed in this sector (Morrow and Rondinelli 2002). It is imperative that small and medium enterprises (SMEs) need to gain a level of understanding on the problems of energy crisis, energy conservation and the energy markets. If the proper framework of concept, measurement of costs and benefits and environmental accounting issues are not known, it would be difficult for a firm to mitigate with the problems of climate change. But even when these were known, more important question would lie in the competitiveness of SMEs due to increasing compliance costs (Ray 2017). Exports of Indian goods have to fulfil a set of sustainability norms set by importing countries. Though the sustainable development practices are not mandated by the Government of India, but mandate for large corporations and export requirements has made the SMEs follow sustainability practices in the value chain. In the process, sustainable development strategies may prove to be a cost burden for these enterprises (Ray 2017).

There is another argument in this context. SMEs are said to be more pollution intensive due to the lack of adoption of advanced technology which needs huge investment. In this context, cluster economics could resolve such issues of costs and make the Indian SMEs both competitive and eco-friendly at the same time (Ray 2017). Vargas (2000) suggests that the success of microenterprises depends on community-based sustainable development. Community integration is necessary to promote sustainable development. Olaru et al. (2010) showed that as far as the European excellence model of quality management is concerned, SMEs in trade in Romania exhibit a poor score in integrating sustainable development. They are only concerned in meeting compliance requirements, and thus, continuous progress in integrated sustainability measure is missing (Ray 2017).

The SMEs in Indian economy had been involved in social responsibilities in a very informal manner as they do not have any mandate on Corporate Social Responsibility (CSR) under the Companies Act of 2013 (Nair and Sodhi 2012). Whether CSR can be a business strategy to gain competitive edge for an SME is a matter of debate in CSR literature (Tilley et al. 2003). Some common barriers of CSR implementation among SMEs, identified in literature, are financial constraints (Shen et al. 2015; Sweeney 2007; Arevalo and Aravind 2011; Ray 2017), lack of customer awareness, lack of standards and regulations, role of top management and lack of social audit (Shen et al. 2015). Cost of implementation of CSR in SMEs is the main challenge. There should be assets that complement new practices within organization (Penrose 1959; Barney 1986; Teece 1986). Government of India could provide tax and subsidy incentives to the SMEs in garment sector (Shen et al. 2015). Ethical standards must be defined by the government and defined and practised by the management of SMEs (Shen et al. 2015).

The motivational factors that can make SMEs implement sustainability and CSR practices in their organizations are improvement in documentation, ensuring regulatory compliance and improve efficiency (Morrow and Rondinelli 2002). In this context, this chapter tries to address an effective way to make the SMEs implement

these practices. Thus, the chapter attempts to build a framework of effective sustainability practices within the SMEs, which would become cost-effective and impactful at the same time. A theoretical framework is suggested in Sect. 5.2.

## 5.2 Theoretical Underpinning Towards Proposed Cluster-Based Framework of Sustainability Practices of SMEs

Cluster theory dates back to Marshall's work on industrial agglomeration (Marshall 1920). This theory refers to the locational advantages a particular cluster obtains through cost savings. Economies of localization provide certain network economies, specialized skill labour for a production sector and raw material proximity. Industrial agglomeration may lead to certain benefits in terms of cost advantages. However, there are certain disadvantages as well. Specialized work in a cluster leads to production inefficiency in other sectors which in turn affects diversification. Lack of diversification will not satisfy all the needs of the community in the cluster. Too much concentration of industry in a locality may have adverse environmental impact. The future generation may also suffer in terms of productive employment in the long run due to lack of diversification. In such a scenario, large-scale production houses become profitable and sustainable in the long run. For small-scale business, the formation of cluster can bring an economic growth.

Marshall (1920) emphasized three benefits in terms of cost savings. If firms are located near consumers and suppliers, shipping costs are saved. Second benefit gets accrued in terms of labour pooling in one cluster, which brings down the cost of labour. Labour pool ensures sharing of risk of losing jobs among workers. They can easily shift from one job to the other, and in this way, the organizations enhance productivity without much variance in wages. Thirdly, intellectual spillover is high in agglomeration, and therefore, perfect information is ensured. Moreover workers in a cluster can learn from each other, and industry becomes more specialized.

According to Saxenian (1996), industries can speed up their rate of innovation through shared learning if they are located in clusters. Marshall (1920) emphasizes on sharing of skill among workers from industrial cluster. Ellison et al. (2010) had stressed on a fourth factor as 'natural advantages' in their study of conglomeration of two different industries. They refer to natural factors for agglomeration and co-agglomeration. For example, abundance of minerals in Jharkhand had led to cost advantages to mining industry agglomeration in the region. Such advantages are visible in SME clusters as well.

According to Jenkins (2006), SMEs are homogeneous based on size as a defining parameter (Wilkinson 1990). Nair and Sodhi (2012) in their paper observed that SMEs in cluster can deliver quality CSR. According to authors, SME clusters can best address the social, environmental issues and economic issues at local or regional level rather than broader issues at national or global level. SME cluster as a whole

come across similar social and environmental issues. Thus, as a cluster, they may create greater impact on the society.

In various literatures, it has been argued that devoting resources for the purpose of executing CSR is limited with SMEs. However, following Marshall's theory of agglomeration on saving costs together when SME clusters work towards CSR, limited resources clubbed together as a cluster fund can provide considerable fund to carry out mega CSR projects rather than each one of them spending the resources individually on piecemeal CSR schemes. Therefore, cost-effective mega CSR projects can be implemented by SMEs together as a cluster.

Whether CSR can be a business strategy to gain competitive edge for an SME is a matter of debate in CSR literature. Nair and Sodhi (2012) argue that SMEs in cluster provide the case in favour of CSR that enhances competitiveness through economies of scale. Economies of scale can be realized through common administrative facilities of the cluster for CSR activities. Collaborative CSR can be established in the same sector or adjacent sector.

A cluster-based approach can also enhance CSR knowledge diffusion among SMEs. Most of the times, SMEs provide goods and services to the large-scale businesses. Large-scale businesses are required to follow stringent social and environmental norms as part of their CSR activities. The sustainability approach requires such firms to ensure compliance in the entire supply chain. SMEs which are in the supply chain of big business houses are therefore required to go through such compliance as per the global standards. As a result, SMEs get an opportunity for a formal exposure to CSR activities and knowledge diffusion. In a cluster if one SME gets an exposure in formal CSR, the other SMEs would learn and adopt faster through sharing and diffusion, thus reducing the cost of implementing CSR. This is in line with Marshall's third theory of cluster of intellectual spillover.

Another advantage of operating in a cluster is that social and environmental issues faced by the SMEs are common, thus together in a cluster SMEs can respond effectively to these social and environmental issues. Nair and Sodhi (2012) had given an example of a foundation of SMEs in a cluster which effectively addressed the problem of child labour. The SMEs in the cluster had faced major issues to market their products in international markets as they were supposed to have used child labour. To revive back their market and get a competitive edge, this foundation started campaigning against child labour and thereby taken necessary actions to prevent child labour. In the process, they started undertaking major CSR projects for education of children under Sarva Shiksha Abhiyan (Education for All) Government of India Campaign. A single SME might have been able to bring about community impact like this.

However, in a cluster set-up, the common activities may get affected due to difference in ownership style, entrepreneurial leadership and management perception. Moreover, SMEs have less stringent compliance requirements, also, the CSR is not mandatory, and thus, not all SMEs in the cluster would be interested in a formal CSR approach that would involve initial expenses but lead to sustainability. Unless and until there is a public policy framework of cluster economies to facilitate or promote CSR activities, individual organizational approaches may fail to drive CSR in SMEs.

A study by the United Nations Industrial Developmental Organisation (UNIDO 2008) presented the Enterprise Social Responsibility (ESR) of seven geographical clusters out of which five are from India. The sustainability of ESR initiatives is dependent on enterprises' profits. Enterprises, which ran under losses, did not have any social initiatives. However, irrespective of profit or loss, each enterprise continued with employee welfare activities. Collective initiatives at the cluster level were largely missing. Thus, this chapter tries to explore a cluster-based approach of policy framework for effective implementation of sustainability practices among SMEs.

### 5.3 Research Questions

Following a Marshallian framework of cluster economics, the following research questions are explored in the context of sustainability practices:

- (a) Is there any innovative sustainable initiatives undertaken at the cluster level?
- (b) What are the perceived benefits from cluster-level initiatives?
- (c) Is there any locational cost advantage of cluster-level activities on sustainability initiatives?
- (d) Is there any possibility of fund pooling at cluster level for sustainability practices that creates positive impact?
- (e) Is there any knowledge spillover through clusters for implementation of sustainability practices?
- (f) What could be a proposed framework of sustainability and CSR practices for SMEs?

### 5.4 Research Methodology

A multi-stakeholder approach (Freeman 2015) was adopted for this study. Stakeholders include experts from the industry, who were heading the clusters; experts who were involved in knowledge dissemination on various aspects of sustainability compliance mechanism; and officers of garment industry, who were heading sustainability and CSR practices of companies. Exploratory study based on qualitative case-based research methodology was conducted.

#### 5.4.1 Data Collection and Sampling Methodology

Secondary and primary data of three garment clusters from North India were collected. Two of these garment clusters were chosen for primary study. Companies were selected based on convenient and snowball sampling.

Semi-structured interviews were conducted, and the duration of each interview lasted for 90 min with experts from the industry and also with four companies. A total of 11 interviews were conducted that led to theoretical saturation. A thematic content analysis was conducted on the transcripts of the interviews and practices of the companies.

### **5.4.2 Unit of Analysis**

Unit of analysis is the respondent expert or the officer of a company or a cluster.

### **5.4.3 Criteria for Selecting Garment Sector**

There is a significant presence of SMEs in garment sector in India. Resource usage is heavily biased towards labour in this industry. They are major manufacturers and suppliers of garments to large organizations, selling to end consumers. Before demonetization in 2016 by the Indian Government, 40% of the products were exported. The industry experienced low profit margins due to disproportionately higher raw material costs and price volatility (Source: CRISIL Research, 2015). To overcome this challenge, export incentives were designed under Foreign Trade Policy of 2015. But exports fell to approximately 24% in the years following demonetization. The market size of ready-made garments sector had been in Indian Rupees (INR) 4460 billion in Fiscal year (FY) 2018 and rose to INR 4734 billion in FY 2019 but showed a decline in FY 2020 to INR 4659 billion due to COVID pandemic lockdown (Source: CRISIL Research, 2021). Exports of readymade garments varied from INR 1077 billion in FY 2018 to INR 1128 billion in FY 2019 but declined to INR 1098 billion in FY 2020, due to pandemic. The sector had posed severe environmental threats, particularly from the regulator, on issues related to water conservation, energy conservation and waste management. Cluster-level initiatives of the Government of India in this sector were phenomenal that helped in the growth of this industry amidst such adversities. Thus, this sector has been an ideal sector for this study.

### **5.4.4 Description of Sample**

Three major clusters were selected for studying what innovative sustainability practices were being undertaken. These are Apparel Exporting and Promotion Council (AEPC), Ludhiana knitwear cluster and Okhla Garment and Textile Cluster (OGTC). Primary study was conducted in AEPC and OGTC, while Ludhiana cluster was studied based on secondary data available. For organizational units, a convenient

sampling from OGTC and non-OGTC cluster was selected. Under OGTC, one small-scale and two medium-scale units responded. Another small unit, which was not part of OGTC, was selected. Neetee Clothings Pvt Ltd was part of OGTC, whereas Addagio Overseas was selected for a comparative study with the other three units of OGTC. The other two organizations included in the study are medium-scale economically sustainable units of OGTC, Matrix Clothings Ltd and Afflatus International. All OGTC companies were 100% export-oriented units (EOUs).

## 5.5 Major Findings

The major findings have been subdivided further to analyse the different initiatives of the clusters, benefits accrued through these initiatives, challenges of SMEs, plausible locational advantage of cost savings, fund pooling and knowledge spillover. This brought together the proposed model of cluster economy framework for sustainable development practices that would be discussed at the end.

### 5.5.1 Cluster-Level Innovation

- One of the major issues identified by AEPC was compliance of labour laws. Minimum wages were provided to workers in documental evidence, but there was an ambiguity in whether the workers were receiving the full amount. This malpractice was mainly due to increased competitiveness of this sector in the export market. AEPC had designed a guideline and toolkit known as 'Driving Industry towards Sustainable Human Capital Advancement' (DISHA). The guidelines had been framed to make the garment sector aware of the Indian labour laws and their comprehension. AEPC tried to imbibe the above practices among members through a proper reporting toolkit known as DISHA toolkit. All the Indian laws under the various principles were well defined, and what DISHA members should follow are clearly stated in the guidelines and toolkit. The objective of DISHA programme was to promote SMEs in the garment sector in international market, with better compliance standards as demanded by the European buyers. AEPC had no direct initiatives for CSR or sustainable development practices of the companies in garment sector. There was no mechanism for the association to make the DISHA members to implement the best practices in their companies.
- Ludhiana Cluster had been very successful in sustainability measures. In 2008, 69% of Ludhiana knitwear cluster had one policy in CSR and sustainable development (UNIDO 2008), i.e. 'Taking care of Labour'. They used to spend 90% of the CSR expenditure in labour welfare. Later on, two major initiatives were undertaken for environmental sustainability: Conservation of energy in dyeing industry and waste elimination and productivity improvement in knitwear manufacturing. Energy conservation included fuel and electricity in dyeing industry.

Water practices included leak detection, reuse of cooling water from singeing, reuse of cooling water from pre-shrink, reuse of cooling water from air compressors, condensate recovery from the process machines, reuse of process water from bleaching subject to evaluation of the quality and reuse of water from mercerizing (SGS report financed by Small Industries Development Bank of India (SIDBI)). These initiatives led to huge savings in water and other equipments in just one month. Fuel savings had some features: recovering heat from hot rinse water, pre-screening coal, maintaining steam traps, recovering heat from smokestack, insulating pipes, valves and flanges, energy savings from leak detection, energy savings from reuse of cooling water, energy savings from the reuse of condensate. Energy savings included optimization of compressed air system and power factor improvement. Waste elimination through process improvement was undertaken in cutting department, sewing and finishing departments of knitwear SMEs that led to a projected annual savings of Rs. 702,000 (SIDBI study prepared by Rajesh Bheda Consulting and APEX).

- The following initiatives were undertaken by OGTC in promoting sustainability:
  - i. Carbon footprint project had aimed to reduce carbon emissions in SME member organizations, in association with Cool Earth and GIZ. This project was initiated to make the companies 'Go Green' by measuring, reporting and highlighting the sustainability strategies to combat global warming. Cool Earth had ushered in with the 'CDP certified software' to measure carbon footprint.
  - ii. OGTC had imparted training to differently abled individuals for employability in garment industry, with the help of the NGOs—Action for Ability Development and Inclusion, Delhi (AADI) and Red Balloon, Delhi.
  - iii. Organized health check-up camps like cancer awareness programmes in garment industry were organized.
  - iv. OGTC played a pioneering awareness drive against child labour, not only for manufacturers, but also for vendors and sub-contractors.
  - v. Women empowerment—Women from 'Below Poverty Line' families were trained in stitching with the help of AEPC, where the women were identified by the NGOs.
- Sustainability initiatives of the SMEs under study and cluster-level initiatives identified that the motivators to drive major innovations were environmental compliance and employee welfare.
- Cluster-level initiatives were appreciated by the companies and opinions were inclined in favour of a Mega CSR project by pooling funds. Benefits from cluster-level initiatives were perceived by the companies in terms of employee welfare or carbon/water foot-printing measures. Initiatives like pooling funds for Gurgaon Jail prisoners' livelihood enhancement were effective.
- All the innovations made at cluster level were non-binding on companies. Thus, the innovations were brought in without the assurance of implementation at the organizational level.



### 5.5.2 Major Initiatives in the Four Garment SMEs

The sustainability initiatives of the four companies under study are presented in Tables 5.1 and 5.2.

From Table 5.1, it is evident that small-scale companies were doing much less and were compliance-driven to meet the needs of domestic and export markets, while the medium-scale companies were better positioned in terms of energy conservation and pollution reduction activities adopting innovative measures. Depending on the profit and the proactive nature of the top management, some initiatives beyond compliance were observed in the medium-scale industries.

From Table 5.2, employee welfare emerges as the most common across all the four organizations. Employee retention had been a challenge in garment sector, and such schemes would help to achieve this objective followed by training skills and women empowerment. Training schemes were designed for employees in small-scale sector, while these initiatives were undertaken for community along with employees in medium-scale organizations in the study. The medium-scale organizations were able to have more widespread community services due to the Companies Act, 2013 mandate on CSR. However, a holistic CSR agenda had been missing in all the organizations that could usher in with a major impact on community. All four organizations believed that impact could be created through mega CSR project at cluster level through pooling of funds.

**Table 5.1** Showing environmental sustainability practices of SMEs in garment sector

Company name	Scale of operation	Areas of environmental responsibilities
Addagio	Small	Environmental initiatives are present mainly on water pollution and conservation, air pollution but all are at bare minimum and compliance-driven
Matrix clothings	Medium	Engaging highly in reducing air and water pollution, water and energy conservation and occupational health and safety
Neetee clothings	Small	Stressing more on occupational health and safety and usual compliance-driven initiatives in water- and air-related
Afflatus	Medium	Highly engaged in energy conservation, carbon and water footprinting reduction measures through life cycle assessment

Source Authors' data collection from field research

**Table 5.2** Showing social sustainability measures by companies in the garment sector

Company name	Type of company	Employee welfare	Training to employees or community people	Engagement in community services
Addagio	Small	Present in the form of employee welfare schemes provided under government schemes	Only for employees	No community services
Matrix clothings	Medium	Highly engaging	Both employees and community	High participation in community services by running several tailoring schools, blood donation camps and awareness campaigns
Neetee clothings	Small	Present in the form of employee welfare schemes provided under government schemes	Only for employees	Community services under various state government schemes and also by being part of Udyog Vihar Cluster and OGTC sustainability measures
Afflatus	Medium	Highly engaging	Both employees and community	High participation in community services by running several tailoring schools, blood donation camps and awareness campaigns

Source Authors' data collection from field research

### 5.5.3 *Benefits of Sustainability Initiatives in a Cluster*

The thematic analyses of all eleven interviews on benefits, challenges and how cluster can help in bringing positive impact on sustainability and CSR practices are presented in Table 5.3.

**Table 5.3** Showing thematic analysis of interviews of respondents

Themes	Sub theme 1	Sub theme 2	Sub theme 3
International competitiveness	Environmental compliance and cost constraint	Compliance with labour laws	Sustainability practices lead to branding
Newness of CSR and sustainability	Cost effectiveness	Low profits	Compliance
Challenges in implementation	Compliance and cost constraint	Role of top management	Lack of awareness and motivation
Cluster-based implementation	Green and energy initiatives	Life cycle assessment	Employees' welfare and occupational health and safety standards
Benefits of implementation at cluster level	Government subsidies at cluster level and concessional interest rates	One-time investment of software and no additional costs	Export marketing assistance

Source Authors' own work

### 5.5.3.1 Compliance and Cost Constraint

The European buyers are especially very particular about the supplier's compliance standards in garment industry. They look into all the compliance parameters of the exporting country and try to monitor closely whether the garment company is following all the environmental and social compliance norms of their own country. If these suppliers follow their own country's compliance standards, then the European brand buyer would accept their products; otherwise, they would reject.

The main challenge of the Indian SMEs in garment sector has been to comply with all the social and environmental compliance standards of India. Social compliance also required that these companies abided by the labour laws of the country. This sector historically was reserved for small-scale sector since 1951. This implied that investment and production were limited to a threshold level, pertaining to small-scale industry (SSI). In such cases, labour laws were not strictly followed, and the idea was to protect the small-scale units from competition and also guarantee employment. As part of economic reforms, de-reservation of this sector under SSI had been implemented since 1997. However, the degree of consolidation was low due to labour law stringencies, and most of the units remained small- and medium-scale units. Paying minimum wages in the SME sector was a challenge in terms of the costs to the companies. European Union (EU) follows International Labour Organisation's (ILO) norm of minimum wages. Most of the SMEs cannot provide minimum wages. If they had to export their products, they either had to pay the minimum wages, thereby increasing the costs. If they had to remain cost-competitive, then avoidance of the data was the only way out.

While medium enterprises were able to manage sustainable development practices in their companies, small-scale sector had difficulties but still able to overcome cost

constraints. The real challenge lies with the microenterprises with cost-effectiveness, and thus, microenterprises are more pollution intensive and not able to follow the environmental norms, thereby losing out on competition.

### **5.5.3.2 Newness of Sustainability Practices to SMEs**

Sustainable development practices and CSR initiatives were very new concepts to the garment sector, particularly to SMEs. Their profits being very low, they did not fall under the purview of CSR policy under the Companies Act. Some of these companies who were doing CSR activities were undertaking them voluntarily and not due to any mandate. However, such percentage was very low. Unless there is some awareness and motivation from the top management level, it is very difficult to motivate employees in delivering sustainability practices.

### **5.5.3.3 Benefits Perceived in a Cluster Framework**

- i. Implementing sustainable development practices particularly by reducing energy consumption and becoming more energy efficient, was effective only through clusters. Foundation of MSMEs had been working towards this goal for microenterprises of different clusters.
- ii. Sustainability measures by SMEs promoted through clusters are more successful, and Ludhiana (in the state of Punjab, India) knitwear cluster is a good example of creating energy conservation policies among SMEs.
- iii. Many measures at OGTC had promoted cost-effective measures and demonstration of green initiatives. OGTC had been able to successfully launch these programmes. However, not all members had been able to successfully implement sustainable development initiatives by OGTC. Initiatives were mainly to comply with the Indian laws on labour standards and environmental standards. Thus, the garment industry had been focussing mainly on occupational health and safety standards and employee welfare in order to gain international market access.
- iv. For Lean Manufacturing, the SMEs receive 80% of the project cost of Lean implementation from the government as subsidy, cluster-wise. The remaining 20% of the project costs were divided equally among the firms. The project costs of Lean implementation amounted to Indian Rupees (INR)—3.5 million. A Lean cluster comprised of 6–10 units. Other government assistance was received by MSMEs, for example, loans received at concessional interest rates and export marketing assistance.
- v. Implementation of life cycle assessment of a complete manufacturing process, measuring carbon footprint and water footprint and reporting the same by the companies, required cluster-level initiatives. The international buyers demand life cycle assessment of products at each stage of manufacturing, and this was the reason why government should promote such endeavours at a large scale.

It should be made mandatory by the government. This way a lot of carbon emissions and other environmental pollution can also be reduced. There was only one-time cost involved on software package. The Federation of Indian Chamber of Commerce and Industry (FICCI) has been implementing such measures under the scheme of Eco-Invent in 20 OGTC factories.

- vi. All experts and officers, interrogated, perceived that pooling funds for a mega CSR or sustainability project could create a positive impact towards social and environmental sustainability. This would replace piecemeal approaches of small projects individually by SMEs with limited fund and no major impact.

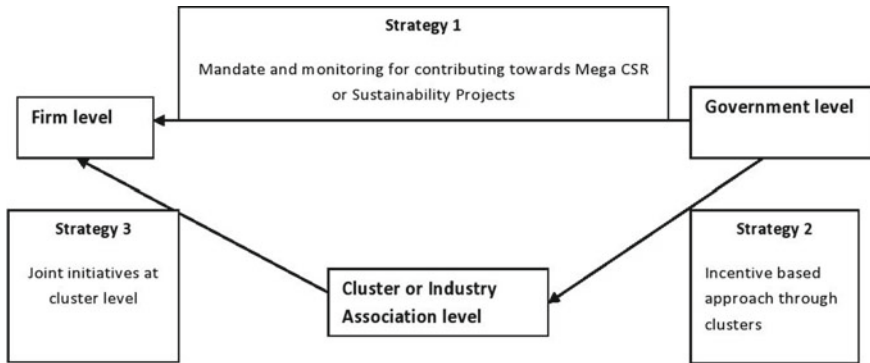
## **5.6 Proposed Framework of Cluster-Based Sustainability Practices of SMEs and Concluding Remarks**

Application of Marshallian framework in this study could be analysed as follows in the context of sustainability practices of SMEs:

- a. Cost advantages are evident from the study in terms of government subsidies, interest exemptions and assistance from clusters to carry out sustainability practices within organizations. For example, the Lean implementation scheme of the textile and garment sector was receiving far better acceptance than expected just because the scheme was linked to subsidy from government.
- b. Knowledge and technology diffusion are observed in the works of clusters of AEPC, OGTC, foundation of SMEs and Ludhiana knitwear clusters.
- c. The projects that had been studied were implemented in an individualistic firm-level approach. Some joint initiatives through a mega CSR project could be thought of by pooling funds from SMEs. In such a manner, cluster-level initiatives would be more successful to make the SMEs contribute together for a greater cause of creating impactful socio-economic upliftment.

In a Marshallian framework, location advantages are already enjoyed by SMEs due to being part of a cluster. Though such advantages were not visible in this study, but mega projects need pooling of funds, and such pooling could only be possible through location factor. Government can create incentive-based policies in terms of awards and recognitions and as a mandate, such that more participation is ensured at the cluster-level initiatives. The cluster initiatives of the Ministry of MSMEs are more focussed towards growth of MSMEs. This could also be substantiated with more focus on sustainable growth of MSMEs by making the clusters emphasize on these issues. Thus, the proposed public policy framework is depicted in Fig. 5.1.

The three-pronged strategy suggests a public policy framework that ensures participation of SMEs in sustainability practices as a mandate from the government through cluster-level mega CSR or sustainability projects, by pooling funds. Incentives are to be provided by the government to the clusters to carry out the sustainability projects at the cluster level that would benefit all the SMEs. The joint initiatives



**Fig. 5.1** Three-pronged proposed cluster-level public policy framework. *Source* Author's own proposition

would ensure sustainable development without affecting SMEs profitability through joint initiatives.

This three-pronged strategy can ensure better sustainability practices that not only would take care of cost constraints by pooling funds, but also can result in better profitability of SMEs in the international garment market, through enhanced branding due to sustainability practices.

The future scope of this research is envisaged as quantitative analysis survey-based research that can be conducted at Pan-India level to identify the major barriers of sustainability practices in SMEs.

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# Chapter 6

## Building Sustainable Businesses with the 3 R (Reduce, Reuse, Recycle) Philosophy—Emerging Economic Models in the Solid Waste Management Sector



Surekha Routray

**Abstract** Exponential surge in inhabitants, high population density of urban areas, diverse cultures, changing food habits, and lifestyle have seen unresolved problems in terms of municipal solid waste especially in emerging economies like India. The problem is further compounded with the reduced lifecycle of products in the production of exogenous amounts of commercial waste. The unsorted solid waste at source, social taboo, citizen's attitude, poor assessment, inadequate strategies, unorganized informal sector of waste, and unplanned fiscal and poor implementation of government policies have opened a broad gap that needs to be addressed. Apart from the governmental interventions, the private sector will also play an elemental role in the establishment of a more balanced usage and spending pattern among the citizens. The non-perishable solid waste sector has seen the influx of several unique start-ups that have identified this gap and have started ventures using the 3 R concepts as the underlying basis for their business. This study is to understand the economic models that ensure the sustainability of these businesses by taking 3 start-ups as test cases and analysing their potential to scale keeping the sustainability aspects intact with the existing awareness level and maturity of buying behaviour of the consumer base in India. It would delve into the potential of these companies to ratchet up recyclability and create a momentum of circular rethink among the consumer base.

**Keywords** Solid waste management · Sustainable business models · Waste management · Case study

### 6.1 Introduction

Exponential surge in inhabitants, high population density of urban areas, diverse cultures, changing food habits, and lifestyle have seen unresolved problems in terms of municipal solid waste especially in emerging economies like India. The problem

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is further compounded with the reduced lifecycle of products in the production of exogenous amounts of commercial waste. A broad gap that needs to be addressed has been created by several technical (unsorted waste at source, poor assessment, informal and unorganized sector) and tactical (social taboo and citizen's attitude) issues. This gap is further broadened by the unplanned fiscal and poor implementation of government policies. The volume of waste is projected to increase from 64 to 72 million tonnes at present to 125 million tonnes by 2031. Untreated waste (a mixture of biodegradable or wet waste and non-biodegradable waste) from Indian cities lies for months and years at dumpsites where land was originally allocated for developing landfills for safe disposal of only the residual waste. India is experiencing rapid urbanization while remaining a country with physical, climatic, geographical, ecological, social, cultural, and linguistic diversity (Isher Judge Ahluwalia Utkarsh Patel 2018).

“Municipal solid waste (MSW) is defined as waste collected by the municipality or disposed of at the municipal waste disposal site and includes residential, industrial, institutional, commercial, municipal, and construction and demolition waste” (Hoorweg et al. 2015). Construction and demolition (C&D) waste is used to be defined as part of municipal solid waste until recently, but Solid Waste Management Rules (2016) have taken C&D waste out of the definition and C&D Waste Management Rules 2016 have been separately notified.

## 6.2 Municipal Solid Waste Scenario in India

The latest available official estimates of MSW generation from the Central Pollution Control Board and the Ministry of Urban Development, Government of India, have officially estimated the annual MSW generation for 2014–15 at 52 million tonnes. Assuming an urban population of 440 million in 2017 (based on projections from United Nations population estimates) and per capita daily waste generation of 450 g, the MSW generated for 2017 comes to 72 million tonnes. This does not include electronic waste which is estimated at close to 2 million tonnes in 2017 and a major unknown, i.e. construction and demolition waste for which the estimates range from a mere 10 million tonnes per annum to an enormously larger volume of 520 million tonnes per annum, with some suggesting that C&D waste is about 30% of the total waste.

“According to the Ministry of Urban Development, Government of India (MoUD), 72.5% of the total solid waste generated in the country is produced in cities with a population of more than 0.1 million; of this, the 35 million-plus cities account for approximately 35% of the total garbage generation. The remaining 3955 urban centres produce only 17.5% of the waste” (Municipal Solid Waste Management Manual, CPHEEO 2016). In metro cities in India, an individual produces an average of 0.8 kg/waste/person daily. As per the Central Pollution Control Board (CPCB) of India, the per capita waste generation has increased at an exponential rate (0.26–0.85 kg/day) (CPCB India 2018).

### **6.3 Current Mechanisms for Solid Waste Management in India**

“The Report of the Task Force of the Planning Commission (2014) states that MSW typically contains 51% organic waste, 17% recyclables, 11% hazardous, and 21% inert waste. It is estimated that approximately 80–90% of the municipal waste is disposed-off in landfills without proper management practices and open burning, leading to air, water, soil pollution” (Ahluwalia and Patel 2018; Joshi and Ahmed 2016).

A considerable portion of the untreated waste is also dumped irregularly at the outskirts of towns or cities, leading to leaching and causing groundwater as well as surface water contamination and simultaneously emitting gases that leads to air pollution. Waste dumps have been known to have detrimental impacts on the environment and societal health. Collection and transportation of unsegregated waste lead to dumping in the open, which is the major cause for leachate and gaseous emissions besides causing a fowl and fetid surrounding environment. Decomposition of biodegradable waste under anaerobic conditions in the open dumps leads to the release of methane which causes fires and explosions and is a major contributor to global warming. Rancid odour is also a serious problem, particularly during the summer when average temperatures in several region of India can reach 45 °C. Another serious ailment is from the discarded tyres at dumps which collect water and become the breeding ground for mosquitoes, increasing the risk of diseases such as malaria, dengue, and West Nile fever. Uncontrolled burning of waste at dumpsites releases fine particles which causes respiratory disease and environmental smog. Open burning of MSW and tyres emits 22,000 tonnes of pollutants into the atmosphere around Mumbai (in the state of Maharashtra, India) every year. The impacts of poor waste management on public health have been documented, with increased incidences of nose and throat infections, breathing difficulties, inflammation, bacterial infections, anaemia, reduced immunity, allergies, asthma, and other infections.

### **6.4 Role of Government in Solid Waste Management in India**

Solid waste management is considered a state subject and the responsibility of the state government to ensure that the practices deployed in all the cities and towns for solid waste management are appropriate Municipal solid waste management (MSWM) being the statutory responsibility of the urban local bodies (ULBs) is usually looked after by the Public Health and Sanitation Department, as one of its many-fold duties. The ULBs are required to plan, design, operate, and maintain the SWM in their respective cities/towns. India’s 4378 municipalities are expected to be allocated Rs. 1.41 lakh crores under Swachh Bharat Mission 2.0 handling waste. Between 10 and 50% of the municipal budget is allocated for SWM, and between 30

and 50% of the total staff are usually engaged in SWM. The role of the central government is broadly to formulate policy guidelines and provide technical assistance to the states/cities whenever needed. It also assists the state governments and local bodies in human resource development and acts as an intermediary in mobilizing external assistance for the implementation of solid waste management projects. Incorrect choice of technology, lack of public participation, financial constraints, and institutional weakness are factors that prevent a ULB from providing satisfactory service. The ULBs need both support and guidance to manage solid waste scientifically and cost-effectively.

The attention on the part of city officials to the collection of segregated waste and its transportation, treatment/processing, recycling, and safe disposal is still in a nascent stage. Most of the cities in India are still found collecting mixed type of waste (Ahluwalia and Patel 2018), and the enforcement of an appropriate centralized/decentralized treatment system is found missing. While the principles of solid waste management are being better understood and more discussed in the public domain, no Indian city has achieved a holistic solution to the challenges of solid waste management. Consumer behaviour patterns in Indian cities have also not adapted to facilitate the process of management of this waste by segregating organic or biodegradable waste from other waste at the source of generation. The situation has become severe for most of the municipal authorities as a proper assessment of the SWM is not done before suggesting and implementing the strategies. An effective strategy for managing waste has to start with the segregation of solid waste at the source of generation and the treatment of different components of the waste in appropriate and different ways, thereby reducing the residual waste that may otherwise go to landfills.

## 6.5 Towards Sustainable Solid Waste Management

Swachh Bharat Initiative, the Indian government's flagship programme to deal with waste collection and its effective management, is expected to provide immense growth opportunities to various upcoming start-ups that are focusing on providing innovative solutions. They are focusing on finding creative scientific procedures to deal with the generated waste while aiming at safer disposal.

The India waste management market can be segmented by waste type (industrial waste, municipal solid waste, hazardous waste, E-waste, plastic waste, and biomedical waste), disposal method (landfills, incineration, dismantling, and recycling), and type of ownership (public, private, and public-private partnership). By 2025, the waste management market size in India is projected to be worth ~ United States dollar (USD) 15 billion with annual growth of around 7%. There is, thus, a growing urgency to detect blind spots and sustainable and commercially viable solutions. The need of the hour is a more proactive involvement of the community and private players and start-ups to do an in-depth analysis of the underpinning problems and to provide rapid and affordable solutions.

### **6.5.1 Sustainable Business Model for Solid Waste Management by Reduction—Case Study**

At a household level, segregation to two major categories of solid waste would be classified as compostable waste and non-compostable waste. The compostable waste comprising food waste and kitchen waste can be easily converted to bio-compost and is now a trending household feature in the urban and more socially aware consumer base. The non-compostable waste consists of an array of products ranging from plastic, metal, glass, e-waste, etc. In the majority of the urban and rural landscape of India, segregation into all the sub-components of the non-compostable waste is not feasible leading to reduced reusability. Moreover, contamination of the non-compostable waste is a deterrent to the further processing and usability of the solid non-compostable waste. *Sanitary waste consisting of sanitary napkins and diapers is one of the crucial contaminating agents in municipal waste.* The contamination of the waste also leads to several health hazards like skin infections, hepatitis, cancer, and HIV to name a few.

In India, around 353 million women and adolescent girls use various sanitary products and generate menstrual waste. This number is growing with each passing day, thereby magnifying the scale of the impending problem. An average healthy woman has up to 450 periods which is 3500 period days and can generate up to 125 kg of non-biodegradable waste through her menstruating years. Studies show that one sanitary pad could take from 500 to 800 years to decompose as the plastic used is not biodegradable. Most sanitary pad varieties used a combination of materials mostly comprising cellulose, superabsorbent polymers (SAPs), plastic back sheet, and bonding gum/glue, most of which does not decompose easily and remain in the environment (polluting soil and water sources).

When sanitary pads, particularly those with SAP, are burned (in the open, in burning chambers, or low-quality incinerators), they release toxic chemicals (dioxins and furans that are known carcinogens) that are harmful to health. Though incinerators have been promoted as the most accessible solution for dealing with menstrual waste, most incinerators lack certification that they meet emission standards set by the Central Pollution Control Board (Menstrual Waste Management Report, Water Aid India 2019). Low-cost incinerators typically burnt at low temperatures lack mechanisms to control the release of toxic emissions (that are carcinogenic). These incinerators are potential health hazards for girls, students, school staff, and community members who use the incinerator or live in close proximity to these machines.

PadCare Labs Pvt. Ltd, founded in 2018 by Ajinkya Dhariya, has come up with a unique and scientifically proven solution that addresses the problem of disposing of sanitary waste.

Ajinkya, a mechanical engineering student aged around 20 years from Shri Guru Gobind Singhji Institute of Engineering and Technology, Vishnupuri, Nanded, Maharashtra, struck with the magnanimity of the problem during his weekend getaway with friends to a scenic spot near Pune. The sight of a bunch of used sanitary napkins hanging from a Jambul (Java Plum) tree on a cliff, blotting a picturesque view

of nature as if to symbolize the pervasive and damaging consequences of modern lifestyle, struck a deep cord of angst, and he resolved to work towards finding a solution for this problem that was being swept under the rug for ages. With determination and resolve, he embarked on a new journey altogether—the journey of bringing about positive and significant changes in the menstrual waste disposal system with a larger vision of safeguarding women, waste pickers, and Mother Earth.

He analysed the existing solutions, identified the lacuna points, and conducted research, and after constant refinements to the envisioned technology, he came up with an innovative product “PAD CARE”. The young core team that was instrumental in the designing of the product included Shriniwas Adhe (Design and Development Engineer), Jesha Shah (Industrial Design), Asawari Kane (Research Scientist), Akash Patil (Product Engineer), and Anaya Sheth (Communication Lead).

PadCare is an automated hygiene management system in the form of odourless collection bins and a centralized recycling unit that generates harmless, recyclable output out of used sanitary napkins. PadCare is a National Accreditation Board for Testing and Calibration Laboratories (NABL) and Maharashtra Pollution Control Board (MPCB) certified hygiene solution.

Through multi-step mechanics, it breaks down absorbent sanitary waste into two by-products—cellulose and plastic. With the capacity to process 3000 pads a day, it is a smokeless and silent device with an anti-rust and stainless steel body. With ingrained sensitivity to female privacy, it enables carbon-negative menstruation and ensures compliance to SDG.5 The device has a consumer-friendly design requiring minimal staff training for operations and comes with a 5-year warranty and easy maintenance. Requiring 3-phase power and a 0.5 kWh system for operations, it carries out 5 key activities which are: disintegration, disinfection, decolourization, deodorization, and deactivation.

Once the waste is processed in the central processing unit where it goes through a fully mechanized 5D process, it is broken down into two by-products—cellulose and plastic, which can be utilized to make other products such as tables and pots. The output is 99.99% disinfected and safe to handle. It gives a complete hygiene roadmap and calculates the sanitary waste footprint along with providing monthly impact certificates which gives a clear idea about the kilograms of carbon, landfill area, etc., saved through the device.

The revenue model is a subscription-based model to ensure ease of entry into the market and constant interfacing with the customers. The financial projection forecast shows an operational break-even at 100 installations.

A smaller more personalized option of the solution is the installation of the PadCare Bins. **PadCare Bin** is a part of a larger preprogrammed hygiene management system that generates harmless, recyclable output out of used sanitary napkins.

It is inserted in individual washroom cubicles where women can privately and safely dump their used menstrual absorbents. PadCare Bin can store pads for up to 30 days without any odours or infection issues and are completely touch-free. The waste collected in PadCare Bins is collected on a weekly or fortnightly basis based on the footfall. It is further transported to the city’s centralized PadCare processing unit

where cellulose and plastic output is generated out. The Collection Bins which have an Internet of things (IOT) device installed in them are cloud connected for volume tracking and work on vapour phase technology to protect from vaginal infection.

With a sleek polypropylene (PP) and acrylonitrile butadiene styrene (ABS) body, it has an easy-to-use one-step process and is powered by a battery.

Bins are embedded with patent-pending PadCare Vap technology which enables pathogenic lock and eliminates all bad odours generated by the waste, creating an overall hygienic, safe, and pleasant washroom experience for women. The potential customer segments for the product would be:

- Information technologies (IT) corporates
- Universities
- Banking industry
- Airports
- Green buildings
- Revenue streams for entrepreneur
- Subscription/direct sell
- Recurring cost of consumable
- Output material
- Data for extended producer responsibility EPR
- This revolutionary product has been appreciated and supported by Tata Trust, Infosys Foundation, Toilet Board Coalition, Dassault Systems, Biotechnology Industry Research Assistance Council (BIRAC), Federation of Indian Chambers of Commerce and Industry (FICCI), Centre for Innovation Incubation and Entrepreneurship (CIIE), and NITI Ayog. In the first phase of implementation, it has been installed in 4 TI buses where it supports 350+ weekly beneficiaries, saved over 80 kg of carbon, and has led to a 77% reduction in urinary tract infection (UTI) cases.

The ability of the product to address an impending issue has enabled it to receive a pre-order of 24.25 lacs yearly contract for 2021–2022, and 11.75 lacs orders are in funnel via Maharashtra State Innovation Society (MSIS). It is a National Accreditation Board for Testing and Calibration Laboratories (NABL) and Maharashtra Pollution Control Board (MPCB) certified hygiene solution.

With 8 Corporate proposals in the discussion, it has revenue projections of 5.3 million for 21–22 it is expected to service around 100 organizations by June 2022 and touch revenue numbers of 20+ Cr by 25–26. The addressable market size stands at more than 71,000 organizations of various sectors and a potential revenue base of 8+ billion.

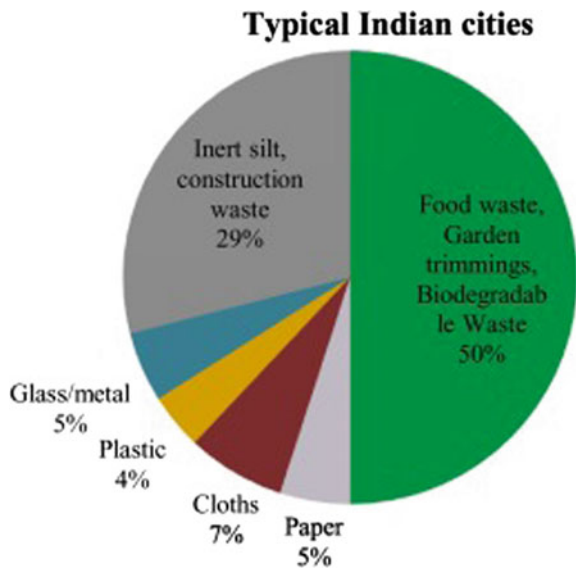
### 6.5.2 Sustainable Business Model for Solid Waste Management by Reuse—Case Study

Based on the volume of waste generated, its composition, and how it is managed, it is estimated that 1.6 billion tonnes of carbon dioxide (CO<sub>2</sub>)-equivalent greenhouse gas emissions was generated from solid waste treatment and disposal in 2016, or 5% of global emissions. This is driven primarily by disposing of waste in open dumps and landfills without landfill gas collection systems. Solid waste-related emissions are anticipated to increase to 2.38 billion tonnes of CO<sub>2</sub>-equivalent per year by 2050 if no improvements are made in the sector (Fig. 6.1).

Around 67 million tonnes of food is wasted in India every year which has been valued at around 920 billion. Annually, close to 21 million metric tonnes of wheat rots in India; according to the 2018 BMC data, “Mumbai generates close to 9400 metric tonnes of solid waste per day, from which 73% is food, vegetable, and fruit waste, while only 3% is plastic”. *Food waste accounts for nearly 50% of emissions.* Food that ends up in landfills creates methane gas which is 25 times more damaging to the environment than carbon dioxide (unece.org/challenge).

Food waste is an intact energy resource that ends up in the landfill where it rots and emits greenhouse gases in the environment, thereby heating the atmosphere and leading to unfavourable climate change. Food loss and waste (FLW) is an economic cost to businesses and society. FLW represents almost 60% of the food industry’s environmental footprint. Much of this waste and its environmental footprint is entirely avoidable.

**Fig. 6.1** Composition of India waste. *Source* Ahluwalia and Patel (2018)



The magnanimity of this problem calls for immediate attention and is addressed at all points of the food chain. The intervention at the last link between the processed food and landfill has been attempted by several entrepreneurs. One such interesting intervention is the efficient conversion of food waste to biogas and organic fertilizers.

The zero-waste system proposed at a household or commercial scale can be achieved by the use of the domestic and commercial decomposer systems that have the ability to handle waste and transform it into soil amendment or/and a renewable source of energy. This idea has been commercialized by an Indian start-up called Flycatcher Technologies, which provides a sealed microprocessor-controlled waste management system with an integrated feed station that helps households to small business enterprises to produce energy. The microprocessor converts the trash into various forms of energy like biogas, organic fertilizers, etc., which are clean sources and also which do not have any harmful impact on the environment and its biodiversity.

Dr. Kabir J. Udeshi with over 10 years of professional and management experience has taken on a global challenge with creativity and skill. Dr. Kabir Udeshi has an undergraduate degree from the University of Pune and a master's and doctoral degree from the University of Michigan, Ann Arbor. As an inventor, he is constantly experimenting and developing systems from microscale to large scale. Some of the units developed by him are being used by the largest refineries in the world.

Dr. Udeshi was greatly affected by the piles of waste and litter all over the city in Mumbai, and in 2010, when there was one that appeared very near to his house, he took on a self-commissioned challenge of processing waste to make his house zero-waste one. After this mini success, he saw great potential to create commercially viable models for realizing the vision of a sustainable future where every house and organization process its solid waste into resources. Keeping this vision in mind, he founded Flycatcher Technologies LLP. His partner in this journey has been Richard Dias, who is a renowned figure spearheading responsible waste management in India. He is one of the lead figures in setting up and managing the integrated waste management facility at Salegaon, Goa (a Union Territory in India); his extensive knowledge in the field has culminated in the creation of the tools needed for conveniently processing food waste at the source. Navneet who is also a part of the core team comes with 25 years of experience in design and manufacturing and makes sure things are sustainable. There were several rounds of experimentation before the anaerobic digestion process was perfected and made commercially viable. During this experimentation phase, much needed support was provided by Biotechnology Industry Research Assistance Council (BIRAC) and Startup India.

Flycatcher Technologies provides end-to-end solutions related to waste management, through its advanced bio-digesters. The bio-digesters feed off wet waste to generate both biogas and a natural fertilizer. Flycatcher provides a controlled waste management system with a sealed microprocessor and an integrated feed station for installation at homes and small companies that transform the trash into energy in the form of biogas and residual mass to organic fertilizers.



The unique aspect of the technology is that there is no residue left behind after the treatment. The material which is used to build Flycatcher Technologies' digesters itself is recyclable too.

Flycatcher Technologies offers two digesters, namely "The Rhino Digester", which is a system automated microprocessor-controlled system, which is equipped with an integrated crusher and can be installed on a terrace or a compound. The Rhino can treat from 20 to 5000 kg of kitchen waste per day to produce organic fertilizer as well as biogas.

The Rhino Digester System is a completely sealed (no odour) and automated microprocessor-controlled system with an integrated crusher. It can be installed on the terrace or the compound with minimum site work. The technology has been patented and requires minimum manpower for its operation. The biogas produced is 60–70% methane, and the rest is CO<sub>2</sub>.

The other model is the "Amazing Dedko Digester", which can treat 2 kg waste per day, and the biogas it generates can save up to 30% in liquefied petroleum gas (LPG) costs. The Dedko can be used for individual homes or small offices. It provides a convenient and hygienic way of disposing of organic waste and generating cooking gas on the premises. It also provides organic fertilizer for the garden while contributing to the cleanliness of the neighbourhood and the community.

The Dedko and Rhino Digester Systems use the principle of anaerobic bacterial digestion as its core. The systems have millions of bacteria that work with the internal mechanisms. The bacteria process the organic waste into organic fertilizer and fuel gas. The fuel gas that is produced as a result of this breakdown is stored in a balloon bag or cylinder and is readily available when required for cooking.

Each product has over 250 unique parts that are chosen for their quality and ability to be recycled after the operational life of the product.

The waste management appliances are installed at the source of waste generation (restaurant, canteen, or house). They convert all food waste into immediately usable resources—fuel gas and organic fertilizer. Users get economic benefits, while the community rises to tackle a global challenge—a sustainable, hygienic waste management method.

Since the inception of the organization, they have sold over 60 digesters and have enrolled quite a few prestigious clients. They now offer a product range that covers the needs of a single family up to a large hospital and are ranked as one of the top 5 waste management companies in the world.

The Dedko is priced at Rs. 25,000, whereas the Rhino has a price range between Rs. 0.2 million and Rs. 2.2 million depending on its capacity. The team is currently working on the next version of the Dedko which will be offered as an online product, hence the name, eDedko.

With waste management becoming one of the most pressing issues in the country, such an invention of an affordable and convenient waste digester for the masses shows a step towards positive and sustainable change. The price point and consumer friendliness open up a vast section of the consumer base that can benefit from the intervention while contributing towards the environment.

### **6.5.3 Sustainable Business Model for Solid Waste Management by Recycling—Case Study**

The total solid waste generation in the country is estimated to be 68.8 million tonnes/year (188,500 TPD). Only 43 million tonnes of waste is collected, 11.9 million tonnes is treated, and the rest is dumped in landfill sites (Lahiri 2017). This opens up great opportunities for creating business models that can simultaneously benefit society and the start-up.

Recycling is when waste is converted into something useful. It greatly decreases the amount of waste that needs to be treated, the handling cost, its disposal to the nearest landfills, and the adverse environmental impacts. It also conserves natural resources and lessens the amount of energy required to produce new products. Upcycling and downcycling are two frequently used words when it comes to recycling. Upcycling signifies upgrading a commodity by different processes/techniques of recycling. An example of upcycling is making roads out of cheap plastic. Downcycling signifies denigrating a commodity by different processes/techniques of recycling. For example, downcycling happens when high-quality plastics at high temperatures are broken down into different lower-quality plastics.

Non-biodegradable waste recycling involves the mechanism of recovering and reprocessing reusable substances that otherwise would end up as waste. The recovered material can be transmogrified into useful products that can pre-empt utilization of virgin resources in manufacturing. The use of recycled materials usually reduces the energy needed to manufacture a product compared to manufacturing the same product with virgin resources. This helps save energy and correlated greenhouse gas (carbon dioxide, methane, etc.) emissions across the multiple phases of the product lifecycle, e.g. during extraction and manufacturing, and from decomposition. Some commonly recyclable materials include materials like paper (all variants), cardboard, glass, plastics, scrap metals, etc.

Of the major subcategories that come under non-biodegradable solid waste, the key base materials that have been highlighted and that have seen a lot of work happening are commodities like plastic, paper, and glass. What has not been picked up by the radar has been some interesting elements like fabric and tyre tubes. According to some estimates, up to 25% of the fabric is lost during the garment cutting and making process. Considering India is a global hub of apparel production, there is a substantial quantity of pre-consumer waste emerging from local production units and tailoring set-ups. Surprisingly, there is still no consolidated study on estimating these amounts. With limited research available on these aspects, the quantities of waste generation are yet to be credibly estimated. What is known, however, is that *textile waste is the fifth-largest source of municipal solid waste in India.*

Shailaja Rangarajan started ReChakr Solutions Pvt. Ltd. in 2016 with the flagship brand of Rimagined. Equipped with an engineering degree from Osmania University, a master's in business administration from National Institute of Technology (NIT) Trichy, Tamil Nadu, and 15 years of experience as a business consultant with one leading IT consultants of the country, she started from scratch in the solid waste

management sector as a volunteer in Bangalore. This exposure gave her critical insight into the crisis that humans are creating for themselves with the volumes and the nature of the garbage being generated. After extensively working in the sector for over 5 years, she realized that mainstreaming conscious consumption was essentially one of the sustainable methods for creating a better and habitable planet. She also strongly propounds that upcycling has to be actively promoted as an alternative lifestyle for making an impact and to ease the pressure on the virgin resources consumption while reducing the overall waste generation.

The journey of Reimagined started with a few products on an online store to the current number of more than 800 products. It was paving a way for a sustainable lifestyle with their upcycling methods. The core thought behind all the upcycled alternative was to create products that every customer might need as part of everyday consumption. The primary base material used was mostly repurposed material which helps to increase the material lifetime. With a retail store in Indiranagar, Bangalore, and an online store which caters to a global audience, they are charting a new and untrodden path towards conscious consumerism.

As all their products are handcrafted to infuse a sense of individuality, it also opens up opportunity windows to provide dignified employment to a team of marginalized women and traditional artisans. Assured and sustained income is a by-product that comes from harnessing their skills and empowering them to take control of their lives with dignity and pride. The skill sets they learn while working with Reimagined are also channelizing them into the mainstream workforce.

Recycling and upcycling of products to create a new range of products that would be acceptable by the Indian public from the aesthetic, economic, and psychological perspective was a big challenge. The key parameter that was considered during the selection of the base material was the quantity of the raw material that could be procured at any given point of time, the consistency of the quality of raw materials, and the price at which it is procured. Denim and fabric waste was a thought-provoking area to start with as they met the majority of the decision-making parameters for the selection of the base material. The rejects from the fabric manufacturing units that are the pre-consumer waste for fabrics and denim were procured, and over 800 different stock keeping units (SKUs) have been created during the journey. These SKUs range from personal clothing range, accessories, home furnishings, and home decors. The range of materials available under a fabric and denim category gave the designer a lot of room to experiment with the product range and price range. The Indian market is still in a very nascent stage when it comes to upcycled products for personal uses like the clothing range. The acceptance of products like bags and home décor is preferred as the products are not coming in direct contact with the body. The use of pre-consumer waste for making the clothing range does help in breaking down these sociocultural barriers a little, but there are other challenges too. The price point of the products is an area of concern as the Indian consumer has the preset mentality that recycled/upcycled products should be cheaper as the base materials are waste materials, hence would have been procured at a lower cost. The efforts that go into the translation of the waste to a product that can be reused are underestimated, and the social responsibility for supporting the cause is absent in the country. In this context,

Europe is a more mature market where the acceptance of these products is much higher and the impact that these products have on the climate is greatly appreciated.

Tyre tubes are another waste material type that have been gaining a lot of popularity and are currently being looked at as the replacement for leather. Most of the tyres and inner tubes are made from butyl rubber, a synthetic material that takes more than 100 years to biodegrade. In fact, the rubber disintegrates into microplastics, one of the common pollutants of oceans and soil. The quality of the tyre tubes is usually consistent across all brands and is easily available as post-consumer waste. The malleability and the texture of the rubber tyres open up the scope for a diverse product profile ranging from laptop bags and cross shoulder bags to household décors like lampshades and table décor items. As most of the items are handmade, there is substantial empowerment and employment generated alongside the broad cause of creating an awareness wave for conscious consumption.

To date, they have transformed **120+ MT** of material and created 500+ varied products across categories with the help of 30+ talented team members.

During the last five years of the entrepreneurial journey, the impact numbers include:

15,000 pairs of jeans, 250 g of fabric, 5000 kg of wood, 1000 kg of yarn, and 350 kg of glass that has been upcycled by this enterprise. Approximately 400/mT of CO<sub>2</sub> emissions have been avoided by rerouting this waste, and a social cost of \$ 34,400,000 (86\$ social cost per tonne of CO<sub>2</sub> in India) has been avoided. The enterprise is currently employing more than 35 women and exporting its products to countries in Sri Lanka, USA, Switzerland, Germany, and the Netherlands. Shailaja has been the Winner of Yes I am the Change Challenge (2018) and the Winner of “Action for India” Rimagined-Best Social Enterprises (2019).

The journey which started with around 50 SKUs and 10 partners now stands at 800 SKUs, three production units, and revenue of around INR 50 million per annum.

The team responsible for taking these ideas to the next level along with the founder consists of Sarita Basur—Cofounder (Strategy Design and Operations), Debopriya Biswas (Operation Head, Kolkata Unit), Maitri Ravishankar (Design Consultant, Apparel), and Rutuja Dubai (Wood Scrap Design and Operations).

Creating products out of waste that will be accepted and appreciated by the market is not easy. The process involves several demanding and time-consuming steps like collecting the waste, sifting it, sorting according to the categories, cleaning the relevant items, and finally designing the product. Each product is given a score, providing the purchaser with additional information like the decomposition rate of the base material or its environmental footprint, thereby creating an indirect awareness towards our environment.

The workflow pattern for Rimagined has been to procure waste first and then get the design team to brainstorm over what can be made from it. This needs a lot of creative and focused effort, in-depth research, understanding of the material and playing around with it, and design experimentation before the transformation.

The company displays a great sense of responsible leadership by being intensively invested in the well-being of its workers. They ensure employment with dignity by

providing alternative livelihood opportunities to women from marginalized communities and providing them with skill sets that will enhance their employability index.

Rimagined has currently developed a workforce of women in different cities that have expertise in handling specific types of waste material and curating products from them. For example, the entire workforce at the Kolkata Unit is dedicated to working with denim and converting them into a range of products like carpets, rugs, and bags.

## 6.6 Conclusion

Core to the vision of waste management in India is the use of wastes as resources with increased value extraction, recycling, recovery, and reuse. The waste management sector needs to include attractive and profitable businesses with clear performance requirements imposed by the urban local bodies (ULBs), with financial penalties applied when waste management services are not working effectively. Finance for waste management companies and funding for infrastructure must be raised from waste producers through a waste tax. Information on future quantities and characterization of wastes is essential as this determines the appropriateness of different waste management and treatment options.

Waste segregation at the source is elemental to waste management as it allows much more efficient value extraction and ambit for recycling. Segregating dry (inorganic) and wet (biodegradable) waste would have substantial benefits and should be the concern of the waste producer.

Visionary project development by ULBs is essential for long-term waste management planning with active participation from the private sector and non-governmental organizations (NGOs). Structured and definitive roles and responsibilities need to be assigned to the relevant stakeholder with unbiased monitoring and evaluation mechanisms to create sustainable systems. The reliability of the modelled structure must be validated, and an adequate testbed must be provided for innovations in waste management to flourish. Experiences and best practices from different projects should be shared between different demographics and different social groups of India to foster learnings. Sustainable and commercially viable waste management strategies must ensure maximum resource utilization from waste and the safe disposal of residual waste through a synergistic combination of large-scale governmental measures like the planned development of engineered landfills, waste-to-energy facilities, and innovative approaches by private players. Future waste management in India must involve extensive participation from the informal sector and the waste creators at an individual level.

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# Chapter 7

## Sustainable Urban Spaces: A Case Study of an Indian Smart City



Nayan Mitra and Khushboo Mehta

**Abstract** The 17 sustainable development goals backed by 169 targets drive each minute social, geographical sector to work towards sustainability so that no one is left behind. Goal 11 specifically speaks of making ‘cities and human settlements inclusive, safe, resilient and sustainable.’ Since 2016, multi-stakeholders including administrations as well as civic bodies have made conscious efforts to create self-sustaining urban spaces among many of their other initiatives. This paper specifically delves into understanding some of the projects undertaken in various parts of the world through secondary research and documents a case study of an Indian Smart City through interview technique backed by secondary research. Interestingly, some of these individual and/or collective ingenuities are replicable models that can easily be adopted in various other locations.

**Keywords** Sustainable development goals · Urban spaces · Sustainable cities · Smart cities · Case study · SDG 11

### 7.1 Introduction

The success of the sustainable development goals (SDGs) as laid down by the United Nations (U.N) is largely dependent on the actions initiated and implemented at the local levels. Each geographical unit individually and collectively plays a key role in driving sustainability as a culture. A U.N report points out that over 60% of the world’s population is expected to live in cities by 2030, an escalation from the current 50% (United Nations SDG 2015). In this context, Zubi and Radovic (2020) observe that ‘cities have significant potential in contributing to resource demand management (e.g. infrastructure, awareness, policy interventions and community engagement) and urban climate-related strategies (adaptation and mitigation)’. Romanelli (2017) further opines that a key to make cities sustainable lies in “implementing a ‘smart

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cities approach” that is “supported by the ‘Helices’ model as engine and driver for innovation and development, for knowledge and creative ideas.”

## 7.2 Sustainable Cities: Asian Case Studies

However, one of the biggest challenges the world faces today is to develop sustainable and green cities as cities often struggle with a wide range of issues such as societal, environmental and economic. The topic of ‘sustainable cities’ is gaining momentum, and both global and local communities are coming together to make more greener spaces by adopting sustainable urban practises. Though a smart city does not just encompass building an environment with green technology, it includes urban communities playing a decisive role in urban planning. The global trend now is to stimulate sustainable urbanization by updating the hardware of the built environment with green technologies that affects social, economic and environmental development (Fig. 7.1). There are various countries that try to adopt sustainable practices in their own way in order to have an equitable utilization of resources and healthy standards of living. Outlined below are a few case studies from Asia, where considerable amount of work has been undertaken in the area of building sustainable cities.

### Dubai

Recent scientific studies demonstrate that Dubai’s ecosystem and biodiversity are under great threat due to global warming and human activity. Also, due to the rise in population, urban cities are heavily dependent on natural resources such as water, energy and other resources. Keeping in mind climate and environment in focus, United Arab Emeritus (UAE) and Dubai introduced sustainable city planning in harsh

SUSTAINABLE CITIES		
Social development	Economic development	Environmental development
<ul style="list-style-type: none"> <li>-Education and Health</li> <li>-Food and Nutrition</li> <li>-Green Housing and Buildings</li> <li>-Water and Sanitation</li> <li>-Green public transportation</li> <li>-Green energy access</li> <li>Recreation areas and community support</li> </ul>	<ul style="list-style-type: none"> <li>-Green productive growth</li> <li>-Creation of decent employment</li> <li>-Production and distribution of renewable energy</li> <li>-Technology and innovation</li> </ul>	<ul style="list-style-type: none"> <li>-Forest and soil management</li> <li>-Waste and recycling management</li> <li>-Energy efficiency</li> <li>-Water management (including fresh water)</li> <li>-Air quality conservation</li> <li>-Adaptation and mitigation to climate</li> </ul>

Fig. 7.1 Pillars of achieving sustainability of cities. Source Adapted from Hegazy et al. (2017)



climates using Leadership in Energy and Environmental Design (LEED) assessment strategy.

In fact, Dubai's sustainable city concept emphasizes eco-tourism alongside environmental protection and awareness. This means, in over 46 ha of land, 500 townhouses and villas, an eco-resort and environment-friendly infrastructure has been built. This sustainable city is designed in such a way that over 2700 residents can sustain, producing 10 MW (megawatt) peak solar production of energy and organic food from its farms and biodomes. Residents can use their private vehicles on a ring road surrounding the city which is centrally located, photovoltaic (PV) covered parking lots that are 90 m walkable distance from the farthest villa, from where they can walk or take the electric carts provided by the city itself (El-Bana et al. 2015).

### **Singapore**

Limited space and rising population growth have compelled Singapore into moving towards urban solar which means the city can install solar panels on building rooftops. Currently, the Solar Energy Research Institute of Singapore (SERIS) is working on developing high-efficiency, lightweight solar technologies. And for that, the Economic Development Board (EDB) is seeking investment in research projects that investigate transforming vertical building facades into surfaces that maximize energy production, whether through coatings or cladding.

### **Japan**

Japan has introduced projects in the space of environment and energy efficiency and natural resource management; one of the examples is being the use of technology, i.e. information and communication technology (ICT) for water-conscious urban development. To prevent water leakage or excessive water wastage, the city came up with a system which can regulate and control the water flow via a special sensor. This system monitors water pressure as per the requirement in specific regions. In order to achieve the goal, community awareness and local intervention are needed and that is why citizens of Fukuoka (a city in Saitama in Japan) are being made aware about the significance of water with the help of many civic engagement activities. In fact, the water consumption by Fukuoka citizens is the lowest among all of Japan's major cities.

## **7.3 Smart City Concepts: India**

Under the leadership of Prime Minister Narendra Modi, the Smart Cities Mission in India was launched on 25 June 2015. The mission aims to promote cities by facilitating building up of core infrastructure, green and sustainable environment and at the same time providing a decent standard of living to the citizens with the help of application of 'smart solutions'. Yet another objective of this mission is to enhance economic growth and living standards through integrating economic, social and environmental aspects of the city. Thus, there has been great emphasis on



**Fig. 7.2** Six (indicative) fundamental principles of smart city in India. *Source* Smart Cities Mission (2021)

sustainable and inclusive development in these ‘smart cities’ which could serve as a replica or act as a lighthouse to other upcoming cities. With the help of a two-stage competition process, 100 cities have been selected to be transformed into smart cities.

As a centrally sponsored scheme, the central government has provided financial assistance of over (Indian rupees) INR 480 billion in a span of 5 years which indicates that each city has received on an average INR 1 billion annually. This equal amount has also been given by the State/Urban Local Bodies (ULBs). More resources are being collected through convergence, from ULBs’ own funds, grants under the Finance Commission, innovative finance mechanisms such as Municipal Bonds, other government programs and borrowings. Focus has been laid on the participation of the private sector through public–private partnerships (PPP). Citizen’s aspirations were also included in the Smart City Proposals (SCPs) made by the selected cities (Smart Cities Mission 2021).

However, according to the Smart Cities Mission (2021), in India, there are no specific term or template of a smart city that has been laid out, but six ground principles are being used to define the concept of smart city, as has been put forward in Fig. 7.2.

Currently, India has 100 smart cities with 5151 proposed projects and INR 2050 billion proposed investments (Making a city smart 2021). Among these 100 smart cities, we will discuss the case study of New Town in the state of West Bengal to the east of India and how it has adapted to sustainability through solar projects.

The case study has been collated through a mix of secondary and primary research. The data in the primary research has been collected through an interview technique that ‘involves two or more people exchanging information through a series of questions and answers’ (Pressbooks 2021); while the secondary research has been culled from the New Town Kolkata Development Authority (NKDA) direct report and sources.

## 7.4 Case Study of New Town Smart City, West Bengal, India

The New Town smart city falls under the jurisdiction of the New Town Kolkata Development Authority (NKDA) that was formed in November 2008 to serve the dual purposes of ‘establishing new business centres to reduce the mounting pressure on the existing Central Business Districts (CBD)’ and ‘increasing housing stock supply by creating new residential units’ (NKDA 2021). Under the able leadership of its Chairman, a career bureaucrat, Mr. Debashis Sen, has initiated several sustainability projects that integrate people, planet and prosperity under its ‘Smart City’ mission, viz.

- Integrating solar energy innovations through canal top, rooftop, solar tree and solar benches to name a few to create sustainable micro-urban spaces;
- Creating a network of cycle ecosystems including cycle tracks, cycling training and public bicycle sharing scheme;
- Tree plantation in partnership;
- Segregation of solid waste and creating electricity from wet waste and recycling dry waste, thereby enabling operation of a 5 MT/day bio methanation plant as well as the Zero Shop of NKDA;
- Introducing electric buses and (electric vehicle) EV charging stations;
- Encouraging urban farming including commercial floriculture and honey production for self-help groups;
- Creation of composting plants and rainwater harvesting projects;
- Embedding waste plastic in paver blocks and roads;
- Making local markets plastic-free;
- Wastewater recycling and use in grasslands;
- Creating streets for people;
- Using solar water pumps for irrigating parks;
- Plants on concrete metro pillars and other vertical gardens;
- Using LED street lights with dimming options;
- Densification of New Town and vertical city plan.

While each one of the projects undertaken leads to sustainable intervention and is a step closer to attaining the SDG 11 goal and its targets, we will discuss at length the interventions undertaken by NKDA in the area of solar projects in this paper. Due to uncontrolled consumption of energy mainly from fossil fuels, the global environmental issues such as air pollution are steadily on the rise; renewable energy solutions are considered to be appropriate to enhance human, economic, social and environmental conditions (Salvarli and Salvarli 2020). In fact, eco-innovation focuses on the state-of-the-art usage of renewables, energy pricing, policy and smart grid technologies (He et al. 2019).

### 7.4.1 *Solar Projects of New Town Kolkata*

New Town Kolkata, identified as a ‘green smart city’ and ‘solar city’, lays primary emphasis on sustainability. It promotes the usage of green energy so that the dependency over conventional energy sources can be diminished by a certain quantum. In addition, NKDA is dedicated to harnessing the energy consumption of at least 10% from solar energy, by committing to its use in public spaces for community lighting and street lights. In the year 2013, it was acknowledged as a ‘solar city’ under the Ministry of New and Renewable Energy, India, and ever since then, the city has committed itself to its solar journey by promoting modern innovative solar projects—both on-grid and off-grid in various regions within the city, obliging to a capacity of 746.98 kWp (Kilowatt Peak).

**ON-GRID PROJECTS:** Currently, NKDA is dealing with 11 leading operational on-grid solar projects, where the power harnessed from these projects is transmitted to the electricity grid, thus promoting renewable energy sources. These initiatives are able to produce 3,683,253.76 units of power as on 25 March 2021, which converts to 3,432,792.50 tonnes of reducing carbon footprint as well as cost reduction to the tune of INR 25,561,781, considering the cost of electricity to be INR 6.94/kWh.

Electricity generated from such projects is utilized in public spaces such as street lighting or local lighting in various areas of the city. An example of this is the power generated from the 12 kWp rooftop solar SPV at the NKDA office building that caters to the lighting needs of the NKDA office itself. Yet another example is the self-sustaining electricity generated from the solar installations at Rabindra Tirtha, a multi-facility auditorium infrastructure.

Besides these, five solar trees and four solar benches have been set up at the New Town’s Smart Street and New Town Fair Ground. Every solar tree, having a capacity of 1 kWp, has an on-grid arrangement, where each tree having twenty leaf-shaped solar panels to trap sunrays. As on 25 March 2021, five solar trees produced 371 units of power, which converted to 345.77 tonnes of reducing carbon footprint and cost reductions of INR 2574.74, given that the prevailing electricity price amounted to INR 6.94/kWh.

**OFF-GRID PROJECTS:** In addition to the on-grid projects, various off-grid solar projects have also been launched by NKDA in order to achieve its sustainability vision, viz.

- (a) **Solar panels with LED street lights along Link Canal:** Four units of solar panels, each of about 5 kWp capacity, have been placed along the banks of the 1.7 km stretch of the Link Canal in Action Area 1. This route has been lit up with **136 LED lights** whose power is generated through solar panels along the canal. All of this results in an inactive stretch into an active solar zone. Without any dependence on the conventional power grid, this whole network of solar-generated LED lights showcases a great sustainable option to lighten up public areas in New Town.

- (b) **Solar lights at green verges and near New Town Cricket Ground:** In order to improve the safety and security of desolate public spaces, a total of 893 solar street lights have been set up along the paths of the green verges at Action Areas 1 and 2. Every solar light is operated on a self-sufficient and renewable off-grid model. This means a 12 W LED light is put up on a pole where a solar panel is installed, and this energy output is kept in the loop box or battery box near the bottom of the pole providing power to LED light. Moreover, 48 off-grid self-sustainable solar-powered LED street lights have been set up along the pathways outside the New Town Cricket ground. Due to no dependence on the external grid, these are absolutely self-sustained units having no need of extra wiring or electricity cost.
- (c) **Solar lights on the pathway around the boundary of eight NKDA playgrounds:** Across this smart city, NKDA has built eight playgrounds, and every playground has a pathway around its edge. Overall, 123 solar LED lights were envisioned to be placed along the pathways of such playgrounds, out of which 115 lights have already been installed in seven playgrounds. Every light is of 2000 lm power. These lights, having a solar panel on top of it, operate on an off-grid, self-sustained model trapping the sunlight. Like those in the green verges, the solar energy harnessed by the panel is kept in the loop box or battery box near the bottom of the pole providing electricity to the LED light.
- (d) **Solar pumps used for gardening:** Six solar pumping stations have been installed in six different gardens in New Town, including Eco Park, Tall Tree Nursery, Deer Park, Clock Tower Plantation and Smart Tree Library to water the urban gardens. Without any outside dependence on the grid, every pumping station is self-sustainable and operates by an off-grid system. Each one is equipped with a solar panel to trap sunlight. In addition to this, the pumping station has a capacity to keep the trapped solar energy, which is then used to pump the groundwater into the reservoir. Thereafter, the extracted water is pulled out via tube well, as and when necessary, for watering the gardens where they have been constructed. Each 2 hp solar-powered pump is self-reliant, thus having no recurring energy costs. The overall region watered by these pumps is over 10.2 ha.
- (e) **Solar stud lights at Smart Street:** Yet, another addition to the off-grid solar intervention has been setting up of 1340 solar stud lights on New Town's Smart Street and 120 solar stud lights across six locations, covering 4.5 km. In March 2021, a waterproof compact device 'solar stud' consisting of a solar panel on top to harness the solar energy, LED on the sides of the appliance and a circuit and battery inside for keeping up and harnessing the solar energy for lightening up the studs were installed to light up the Smart Street in New Town. Each solar stud is self-sustaining, without any external dependence on energy, and the batteries in each solar stud have enough capacity for energy storage serving as a good backup lasting up to three days. In the case of lack of sunlight owing to bad weather and rain, if the panels are not able to produce solar energy, they still remain useful. Also, each stud light device has a sensor

which helps the stud lights to get switched on/off automatically as per daylight hours, thus declining the human intervention and manpower for its operation.

- (f) **Solar panels on nine containerized toilets:** In NKDA, containerized toilets have been considered to be an appropriate sustainable solution. Each of the nine containerized toilets has been installed with solar panels of 2 kWp capacity atop in an off-grid arrangement in order to enhance its sustainable feature. The solar power generated by them is then utilized to illuminate the lights within the containerized toilets.
- (g) **Solar radar for vehicle speed monitoring:** Solar radar for vehicle speed monitoring is yet another modern solar intervention launched by New Town. A total of 30 solar radars are currently proposed to be installed in NKDA, out of which 23 have already been set up, and the remaining 7 will be installed soon. An all-in-one device solar radar along with a solar panel traps the sunlight and serves as a toolbox to convert the solar energy into electricity. Power generated from the solar is harnessed to operate the radar. With the help of this smart eco-friendly way, the problem of vehicle over-speeding in the city is being monitored. The way solar lights have been installed at green verges; these solar radars run on an off-grid mechanism.

Although these are some of the eco-innovations undertaken by NKDA in the last few years, moving step by step towards attaining sustainability by using non-conventional sources of energy like solar power, ‘true sustainability requires vision and long-term commitment, in addition to responsible leadership’ (Borland 2009). Mr. Debashis Sen as the Chief Sustainability Architect of NKDA in his role as the Chairman envisions many more solar projects in the future like building a 1000 kWp on-grid canal-top solar power plant, 180 kWp Solar Dome at Eco Park and so on. Moreover, under his leadership, NKDA is pledged to create a sustainable ecosystem, and paying attention to renewable energy is one of the major components of the sustainability structure. The city’s engagement towards solar power has been made clear through the fact that several provisions and needs around solar panel installation in its building rules have also been included. NKDA provides a reduction on property taxes to the tune of 10% for buildings that install solar energy units.

## 7.5 Conclusions

As the developing countries generally face societal and economical challenges, it often results in environmental challenges too. That is why many efforts have been made to adopt sustainable urban development and design to improve the quality of life of its inhabitants as well. India is a strong advocator of solar power and the National Solar Mission targets to attain 100 GW of solar power output by 2022 (Alisjhabana 2019). As a consistent source of energy and long-term sustainable solution, solar energy has a great potential to meet the electricity needs of India’s

growing population. However, like all great projects, it requires the partnership of public, private and people to come together to attain success.

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# Chapter 8

## Impact of Changing Consumer Behaviour on Sustainability



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**Abstract** 2020 will be looked back upon as the year which changed the way we lived, worked and consumed. Consumption of goods has been increasing since the wars, with steady rise in global incomes. We are consuming up to ten times more of everyday items such as potatoes, sugar and clothes than we did fifty years back. The impact of this on the earth has been devastating, with carbon dioxide (CO<sub>2</sub>) emissions now well set to heat up the earth up to 4 °C more than pre-industrialisation era, by the turn of the century. Unless industries drastically reduce emissions and place sustainability at the centre of their business models. The number of organisations committing to sustainable processes has been increasing as has been sustainability reporting. However, a key input to ensuring future viability of sustainability is consumers demanding more responsible products and services. This paper will present data on changing consumer behaviour and demand, especially post-COVID-19. It will consider the following data sources, to arrive at conclusions—global consumer trends as reported by selected journals, a survey of consumer behaviour of a random sample of individual consumers, literature review of resulting change in the industry and a case study of ibis Hotels/Accor Group. The paper looks at presenting the consumer trends that may aid or impede the progress towards sustainability and achieving the 1.5° climate target.

**Keywords** Responsible consumerism · Sustainability · SDGs · Climate change · Consumer behaviour

### 8.1 Introduction

Goal 12 of the sustainable development goals aims at ensuring sustainable consumption and production patterns. The global population will reach 9.5 billion by 2050 (World Population Prospects 2012), and 3 billion middle-class consumers will join the global economy by 2040 (World Bank and International Monetary Fund 2013).

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Sustainable consumption is an urgent need if the limited resources of the planet are to support this growing population with an increasing ability to spend.

Conversations on sustainability have moved from the 21st Conference of Parties (COP 21), periodic conventions held by United Nations Environment Program (UNEP), World Business Council for Sustainable Development (WBCSD) led conferences to global business events, such as The Davos Agenda (World Economic Forum 2021). Sustainability reporting has increased over the years (Mishra et al. 2021) and is part of Board Meeting Agendas of most top corporates.

Consumers' choices account for 64% of global emissions (Oxfam 2020). Even those organisations that choose to invest in building sustainable value chains would need customers to pay a premium or increase demand substantially for more responsible products or services to become financially viable.

COVID-19's impact on businesses has been varied, depending on the size and nature of business. While large organisations may have agreed to a 'green recovery' and accelerated their adoption of low-carbon processes, medium and smaller organisations, who may have been fence-sitters on the sustainability adoption process, have shifted focus to keep their organisations afloat (World Bank Report 2020). This may have forced a sizeable number of MSMEs to put their sustainability agenda in the back burner. Micro-, small and medium-sized enterprises (MSMEs) contribute up to 45% of India's manufacturing output as per the 2013 report published by the Ministry of MSME, India. No sustainability programme in the country can be impactful if this sector does not adopt it. International markets, brand reputation, leadership vision and sufficient capital to invest in sustainability can help larger organisations make their value chains more sustainable. But smaller and local players need customer demand to push them towards procuring, producing and distributing more responsibly.

## 8.2 Objectives

The paper aims at achieving the following objectives:

- Present an overview of changing consumer behaviour, if any, towards sustainable consumption;
- Explore the link between changing consumer behaviour and uptake of sustainable business processes of existing organisations;
- Explore the link between changing consumer behaviour and emergence of new sustainable businesses.

## 8.3 Methodology

This paper follows the following three steps to arrive at the relationship between customer expectations and adoption of sustainable processes by businesses.

- Literature Review: Review was done of articles and journals on changing customer expectations and consumer trends. Special attention was given to any changes in consumer behavior resulting from the COVID 19 pandemic.
- Online Survey: An online survey was conducted to understand how consumption behaviour has changed, if at all, on a random sample of 100 people. 75% of them responded.
- Case Studies of Indian Businesses: Based on results from the literature review and online survey, two top areas of change were arrived at. Case studies of organisations that have responded to these two change areas have been captured, with a focus on Accor Group of Hotels.

## 8.4 Findings

- Consumers have been demanding more sustainable products and services, across the globe. The pandemic has made people more conscious of health and well-being. This is reflected in their increase in demand for healthy and natural food.
- Organisations have begun to make changes which demonstrate their concern for communities and the health of the planet.
- New organisations are emerging, which provide sustainable services and products.
- The pandemic has increased the need for hygiene, and single-use plastics are being considered as more hygienic than natural fibres. This has hindered the move towards a single-use plastic free world.

### 8.4.1 Literature Review: Changing Consumer Expectations

The pandemic has led to significant changes in consumer behaviour, accelerating the adoption of trends which had already begun, before COVID-19. In this section, research by the four 'most-recommended' consulting firms in 2020 according to Forbes, commonly referred to as the 'Big Four', and other select research papers have been studied, to present changes in consumer behaviour and their expectations from products and services, over the past three years.

COVID-19 has increased percentage of people shopping online to approximately 10% higher than before but reduced the total amount of consumption significantly according to a report by the United Nations Conference on Trade and Development in 2020. Globally, tourism and travel consumption has fallen by 75% and fashion and accessories by 43%. Both these sectors have a high carbon footprint. The highest carbon emitter, agriculture industries have seen a drop of 11% in global consumption (NetComm Suisse eCommerce Association 2020).

75% consumers in the USA have shifted to a different brand or mode of shopping according to McKinsey & Co's industry report (Indian Consumer Survey 2020). 8% of them have moved to organic/natural produce and 11% to a brand that promotes

local products. Another report by them shows that India and China have increased their single-use plastic usage, because of health and hygiene. On one hand, global demand for organic food has increased as emphasis on health has heightened, but on the other hand, sustainable packaging has suffered a hit for the same reason. Change in consumer behaviour varied vastly across countries. India appeared at the top of the list with 96% consumers having changed their behaviour over 2019. However, 68–70% of those changes are expected to be sticky (McKinsey & Co. 2020). Indian consumers continue to choose products and services based on their price, with far lesser importance to organic and purpose-driven products. 27% more Indians are ordering food online, 38% more are ordering grocery online, and close to 80% of them intend to continue this trend post-COVID-19 (Charm and Grimelt 2020). The demand for single-use plastic has also gone up significantly, because of these two factors.

The shift towards health and fitness has been an increasing trend even before COVID-19. 57% Indian consumers spend on health and well-being according to Boston Consulting Group (Jain 2019). 40% spend on healthier food, and same percentage of people are walking short distances rather than taking a cab. 50% consumers prefer buying local over international brands, especially in food, beverages and personal care products. These trends could reflect on the Indian consumer moving towards more sustainable consumption.

Based on changing realities of the Indian consumer, a focus on e-commerce and agile supply chains will be critical to keep consumers satisfied according to Accenture's industry report called 'How will COVID 19 change the consumer', published in 2021. There is no mention of 'purpose-driven' or 'sustainable' organisations. Additionally, data and digital capabilities will need to be built as consumers move increasingly online (Gupta and Batra 2021). There is no mention of any demand for sustainable products and services. Similarly, industry reports by Ernst & Young published under the category 'EY Future Consumer Index' in 2021 focus on inventory management and data analytics to win over consumers post-pandemic. Their comprehensive report on the changing consumer landscape in post-COVID-19 world, which has a survey of 1060 Indian consumers, talks about the need to avoid stock-pileup and start utilising artificial intelligence to manage changed consumer behaviour but nothing about an increase in demand for sustainable products. Therefore, both the firms' recommendations to manufacturers avoid any reference to moving towards sustainable processes.

Spiritual consumption is a trend that has emerged among Indian consumers during COVID-19 (Mehta et al. 2020). The Indian consumer is opting for the local grocery store, over bigger brands, to show solidarity with them in the time of economic downturn. There is a move to focus on essentials and find satisfaction in lesser things than before and reuse and recycle products. This shift to non-material satisfaction may pave the way to sustainable consumption.

India has the largest number of millennials in the world, and consumption by this segment of the population is significantly larger than that of the others (Deloitte 2019). The 18–35 years age group has been getting increasingly focussed on health and well-being. According to the report, 45% of the millennial population consumes

organic or some form of health food as well as indulges in physical activities to keep fit. It further says that millennials look for nature-based, ayurvedic or organic products for their personal care products. An encouraging trend noted by Deloitte is that more than half of all consumers were concerned about whether the products and services were delivering new sets of values, such as creating social impact, as compared to traditional values of price and convenience. And 63% of this segment was willing to pay a premium for these values. The ‘KONNECTED to Customer’ report by Deloitte (Consumer Industry Report 2017) suggests that organisations need to follow the triple bottom line approach, of creating economic, social and environmental value, to build positive brand image and remain competitive. Sustainable business processes, specifically in sourcing, packaging and greenhouse emissions, are gaining traction in India, as per the same report.

Price Waterhouse Coopers (PwC) reports on the retail sector and Indian consumers, for the past 3 years, do not mention sustainability, as a market requirement nor as a strategy for future success. Innovation and rethinking value is mentioned, which may imply looking at more efficient and thereby sustainable processes, but it has not been mentioned specifically in any of their reports. A 2016 report by Federation of Indian Chamber of Commerce and Industry (FICCI Industry report 2016), in partnership with PwC, called ‘Shaping Consumer Trends’, does mention the Indian consumer getting conscious of how her consumption impacts the environment. It states that ‘reading ingredients’ is now a common habit, and increasing number of consumers is moving towards natural and organic products.

#### 8.4.1.1 Key Findings

With a few exceptions, these are what top consumer research papers have arrived at, over the past three years:

1. The focus on health and well-being is increasing. This is leading to an increase in demand of natural, organic produce.
2. Millennials are concerned about the people and planet impact of the products and services that they consume.
3. COVID-19 has increased the use of single-use plastic. This is attributed to the increased focus on ‘hygiene’.

While research on overall consumer trends exists, the following areas need further research, being large contributors to climate change and pollution:

- Plastic as a packaging material—Plastic contamination has reached the lowest and highest points in Earth, Mariana Trench and the Everest according to UNEP. Reports mention the increase of single-use plastic due to COVID-19. Consumer behaviour research did not provide any evidence of whether consumers have reduced their plastic use as packaging material.

- Transportation choice—Other than specific reports on the automobile sector, there is not much data presented on whether consumers have made sustainable transportation a conscious choice. There is data available on more focus on fitness which may imply an increase in walking, cycling, jogging, but it is not clear whether these are chosen over car use.
- Recreation choice—The tourism sector is one of the largest employers in the world, and number of travellers were expected to reach 1.6 billion in 2020 according to the World Trade Organisation. While tourism has slowed down over the year because of COVID-19, there has been a spike in ecotourism. Tourism industry has high carbon footprint but also one in which carbon neutral initiatives are making progress as seen in the proceedings of the United Nations Climate Summit held in 2019. More clarity on the shift in consumer behaviour towards travel for leisure is needed.

#### **8.4.2 Primary Research**

To get more information on the gap areas mentioned above and further clarity on food consumption patterns, the food industry being one of the largest in the world and the highest greenhouse gas (GHG) emitter according to the United Nations Environment Program, an online survey using Google forms, was conducted on a random sample of people above the age of 18 years. Demographic information was not gathered, except that the sample had college students and working professionals from India.

For the purpose of this survey, the respondents were requested to select the activities/items that they were consistently doing, for more than 50% of the time. The option of selecting multiple activities or no activities was provided. A qualitative section on other consumption behaviour changes that they have observed in themselves was a mandatory section. The questionnaire is presented as Annexure 1.

Based on the literature survey, the following four areas were probed, through the questionnaire, in which respondents were requested to point out which of the following behaviours were now consistently being done by them:

1. Food consumption pattern:
  - a. Eating organic and/or natural foods
  - b. Eating locally grown food
  - c. Eating food packaged using sustainable material
2. Consumption of goods other than food:
  - a. Consume goods which use less resources, like water, energy, etc.
  - b. Consume goods which use local materials
  - c. Consumer goods packaged using sustainable material
3. Preferred mode of transportation:
  - a. Walking, cycling for short distances

- b. Public transport
  - c. Electric vehicles (those in the process of purchasing electric vehicles, was also captured)
4. Behaviour during and planning holidays:
- a. Choosing eco-resorts, LEED certified or any other green hotels
  - b. Minimising consumption of water, energy and other resources during stay.

A fifth question was added to corroborate data being gathered on packaging in the first two questions. This is an important consumer behaviour shift in India, as gathered through observations and through the author's work in sustainable consulting. World bodies are concerned about the increased use of single-use plastic, and the focus for World Consumer Rights Day 2021 was to 'Tackle Plastic Pollution'. However, the literature review did not provide much data on it. Therefore, further information, to validate the author's observations as well as the responses to the first two questions, was gathered through the following question:

5. Preferred packaging material:
- a. Personal shopping bag
  - b. Natural fibre-based packaging
  - c. Less or no packaging.

#### **8.4.2.1 Research Findings**

Responses from 75 respondents were analysed. The percentage of 'Yes' responses are captured below. 'Yes' response was defined as choosing the specific item consistently for more than 50% of the time.

The respondents had to give a qualitative response on any other changes that they have made or elaboration on any of the sections mentioned above. Their 'as-is' responses are presented as Annexure 2.

#### **8.4.2.2 Key Findings from Primary Research**

The respondents corroborated the consumer studies carried out by the 'Big Four' consulting firms on the shift towards more healthy food options. Almost 62% respondents claimed to have made a shift towards organic and natural food, making this the second most significant behaviour change, relative to the other activities in the questionnaire (Table 8.1). Eating more natural, more vegetarian and more organic is also mentioned in the qualitative section of the questionnaire, but the number is not significant.

The most significant behaviour change, with 89% respondents claiming to have made it, is the move to non-plastic packaging. 'Plastic packaging' is the section where the least number of respondents, 5.5%, has responded with 'none of the above', implying that most of them are taking some step to reduce plastic usage

**Table 8.1** Changes in consumption behaviour

Consumption item in questionnaire	'Yes' responses (%)
<i>Food consumption</i>	
Organic/natural food	61.6
Local food like millets, etc.	47.9
Food packed in natural material/non-plastic	39.7
None of the above	13.7
<i>Consumption of all goods (including food)</i>	
Less energy, water-intensive goods	27.4
Natural, local raw materials	47.9
Goods packed in natural, non-plastic material	52.1
None of the above	19.2
<i>Packaging</i>	
Carrying own shopping bags—non-plastic	89
Buying non-plastic packaged goods	43.8
Refusing unnecessary packaging—choosing lesser packaged goods	54.8
None of the above	5.5
<i>Transportation choice</i>	
Walking, cycling, instead of car, for short distances	48.6
Public transport	39.2
Electric vehicles	24.3
None of the above	17.6
<i>Choice of holiday accommodation</i>	
Eco-friendly accommodation, LEED/other green building certifications	37.8
Less water, energy, resource use in accommodation	62.2
None of the above	23

Source Online survey conducted by author

(Table 8.1). This is further validated by the qualitative section where more than 40% have mentioned some action to reduce plastic, ranging from carrying their own cutlery to water bottle.

About 'shopping in general', more than half the respondents have picked the non-plastic option, again establishing that this is an important element for them (Table 8.1). In the qualitative section, more than 30% respondents have mentioned 'reducing shopping' and that they are focussing on less, as compared to before.

The responses to the 'transportation choice' section show close to half the population has claimed to start walking, cycling for close destinations. This is not reflected in the qualitative section.

The section on 'holiday accommodation' shows that 62% people are conscious of the resource, material and energy usage while on holiday (Table 8.1). This ties

in with the fact that more than 30% respondents have reduced their consumption overall and would continue this behaviour when travelling for leisure.

Based on the above data, the following emerge as significant consumer behaviour changes:

1. Shift to healthier food options, specifically organic and locally grown.
2. Reduction in plastic packaging and overall plastic use.
3. Reduction in overall consumption of goods.

### 8.4.2.3 Impact of Consumer Behaviour Change on Industry

#### Food

The trend of shifting to healthier food options has led to two apparent changes—first, an increase in manufacturers of organic food, almost doubling from Rs. 1200 crore in 2019 to more than Rs. 2000 crore in 2020 according to the Associated Chambers of Commerce and Industry of India ASSOCHAM. Even before COVID-19, Indian organic exports rose to Rs. 5151 crore in 2018, up by 50% from 2017 (Agricultural and Processed Food Products Export Authority APEDA Statistics). The second change is the food served in hotels and restaurants. Total area under organic cultivation has increased more than five-fold, from 11 to 57 million ha in 2016 as per a joint report of ASSOCHAM-EY published in 2018.

I Say Organic, an organic food company, started in 2011 to deliver pesticide-free food directly from farmer groups to Delhi/National Capital Region customers. Starting with ten orders per day, they now deliver more than 100 orders per day, thanks to the increase in demand for organic fruits and vegetables. They plan to reach fifty cities in the next five years.

Online grocery firm, BigBasket, has increased its focus on organic food over the past two years. In 2019, its revenue from organic food products was expected to be Rs. 250 crore (Business Standard 2019). Millets and other indigenous grains have made a comeback in BigBasket and other online stores, over the past couple of years.

The organic milk market specifically has seen substantial growth over the past few years, with customers demanding hormone-free, unadulterated milk. The Indian market grew at a CAGR of 30% from 2014 to 2019 (India Organic Milk Market 2020). Number of new players came into the market during COVID-19, and a lot of them diversified to organic vegetables and further into organic grains and other products. Farmery started with organic milk and dairy products in 2015. In 2020, during COVID-19 lockdown, it forayed into organic fruits and vegetables. By the end of 2020, farmery had added other organic products, with a focus on locally grown millets and other grains, into its product portfolio. This story is replicated throughout the country by innumerable small- and medium-sized enterprises, who are seizing the opportunity presented by the demand for organic and natural produce in India.



## Plastic

The survey showed that consumers are conscious of single-use plastic and are trying to reduce it, through various means like carrying their own shopping bags. Commerce and industry ministries have been advising e-commerce industries to reduce single-use plastic in packaging (Press Trust of India 2019). Food and Consumer Affairs ministry banned use of plastic bottles and single-use plastic products in all its departments from 15 September 2019 (Press Trust of India 2019). Other government establishments and buildings have also banned use of plastic folders, cutlery and other single-use plastic items. On March 2020, GMR Hyderabad International Airport Ltd announced their airport to be single-use plastic free. Food and beverages outlets in the airport have moved to eco-friendly cutlery and packaging material since 2020, and this is a trend followed by outlets across the country.

World's largest restaurant chain, McDonald's, has been making steady strides towards removing plastic from its food packaging. McDonald's India went plastic free in its South and West India outlets, after many states announced the ban of single-use plastics in 2018 (Financial Express 2018). Besides removing plastic covers and cutlery, they changed the design of one of their popular ice-creams, Mc Flurry, so that the plastic covers that were previously required could be done away with. Better product design is being adopted by many organisations, such as Coca Cola, to reduce the need for plastic packaging.

Amazon claims to be working towards reducing single-use plastic, which had been reduced to 7% of their total packaging material, in 2020. Amazon India claims to have removed single-use plastic packaging originating from all 50 of its procurement centres (Business Standard 2020). Flipkart reduced its single-use plastic packaging by 25% in 2019 and is looking at moving to 100% recycled plastic in its supply chain by 2021 according to an article in Mint (Nandita 2019)

India has seen the removal of plastic carry bags from government-owned outlets and eventually all large retail chains, over the past few years. Small business outlets and local grocery shops still give out plastic carry bags. Consumers in my survey seem to overwhelmingly claim to carry their own shopping bags. More research on whether this behaviour is being embraced by others and what would enable adoption of this behaviour change would help push small outlets to make a forced shift to sustainable carry bags.

### 8.4.3 Case Study—Accor Group/InterGlobe Hotels

Hotels can be considered to be a microcosm of our world, with numerous industries working together, networks and communities consuming and producing for the larger group, the hotel guests. Additionally, food and beverage (F&B) sector, a significant part of hotels, is one of the highest carbon emitting industries in the planet and also the space where maximum consumer behaviour change is being observed. By presenting a study of sustainability processes in a leading global hotel organisation

and its partner in the Indian subcontinent, this paper hopes to provide insights into how some of the large sustainability measures pan out in the real world of business.

Personal interviews with Mr. Shwetank Singh, Business Head, Asset Management and Development, ibis Hotels, and Mr. Sylain Laroche, Director of Operations, ibis Hotels India, and General Manager, ibis New Delhi, were conducted to gather information on how Accor globally and InterGlobe hotels in the Indian subcontinent, approach sustainability. Mr. Laroche shared data on Accor's global sustainability program, called Planet 21 as well as on ground experiences of what customers expect from a star rated hotel chain. Moreover, documents created to spread awareness of Accor's focus on sustainable and healthy food, and other sustainability initiatives were shared with the author, for the purpose of this paper. Through their inputs on reaching the fine balance between customer satisfaction and sustainability, insights into the future roadmap of sustainability in hospitality industry and industries in general have been presented.

InterGlobe hotels is India's leading hotel development company with a presence in 13 landmark cities. In 2004, InterGlobe Enterprises partnered with the Accor Asia Pacific Company to set up the ibis chain of hotels in India, Nepal, Bangladesh and Sri Lanka.

Accor is a world-leading augmented hospitality group which has been offering unique and meaningful experiences in almost 4800 hotels, resorts and residences across 100 countries, for the past 50 years. They host 600,000 guests per day across the globe and employ 300,000 employees, each of who can play a role in improving planet and people health.

Accor has been pioneering sustainability efforts in the hospitality space. It was the first hotel business to establish an Environment Department, in 1994. Their 'positive hospitality' approach has been focussing on providing the customers with an enriching experience while reducing the impact of their operations on the planet, since 2016.

Planet 21 documents Accor's commitment to positive hospitality through its sustainability commitments for 2021. Following are the commitments:

1. Remove single-use plastics.
2. Stop violence against women.
3. Promote gender equality.
4. Source local and sustainable food (move towards healthy and sustainable food).
5. Reduce food waste (strive towards zero food waste).
6. Reduce meat.
7. Support solidarity projects (work with local communities).
8. Reduce carbon footprints (move towards carbon neutral buildings).

Accor's commitment to healthy food is summarised in this quote by Amir Nahai, Chief F&B Officer, '*We feed our guests like we would feed our own family, in a responsible way*'. Healthy and sustainable food is a focus area for the organisation. Table 8.2 points out the nine commitments that the group aspires to achieve.

In terms of energy management, the following steps are taken as follows:

**Table 8.2** Accor's healthy and sustainable food commitments

TO REDUCE FOOD WASTE BY AN AVERAGE OF 30%	By rolling out an extensive food waste-reduction program and by giving food products a second life
TO FAVOUR LOCAL FOOD SUPPLIERS AND SEASONAL PRODUCE	By offering at least ten regional products and ensuring that 75% of our fruits or vegetables are seasonal
TO INCREASE OUR SELECTION OF ORGANIC PRODUCTS AND SUPPORT AGROECOLOGY	By ensuring that our breakfast, lunch and dinner selections include at least two key products (e.g. cereal and fruit) that are organic—preferably not imported. Or by offering certified agroecological products
TO PREFER SUPPLIERS COMMITTED TO ANIMAL WELFARE	By providing free-range or cage-free eggs (shell and liquid) only. And by working with our suppliers so they gradually adopt animal welfare practices
TO BAN ENDANGERED FISH SPECIES AND PROMOTE RESPONSIBLE FISHING	By banning six endangered fish species, as well as locally threatened fish from our menus. By sourcing wild and farmed fish products from sustainable fisheries (MSC or ASC certified), where available
TO ELIMINATE SINGLE-USE PLASTIC	By removing plastic straws, stirrers and pics from our restaurants or bars and providing eco-friendly alternatives only if necessary or on request. By using plastic alternatives where these are available (take-away containers, individual breakfast portions, coffee pods, bottled water, etc.)
TO REMOVE CONTROVERSIAL FOOD ADDITIVES AND REDUCE FAT AND SUGAR	By banning controversial food additives from five key products. By reducing fat and sugar content in our food. By cutting out palm oil or ensuring that we use sustainable palm oil (certified by RSPO, Rainforest Alliance, or other organic labels)
TO SERVE RESPONSIBLE COFFEE OR TEA	By offering responsibly-produced coffee or tea at breakfast (certified by Rainforest, FairTrade, Organic, WFTO, etc.)
TO CATER FOR A RANGE OF DIETARY NEEDS	By offering balanced menus including vegetarian dishes and by catering for other special dietary needs and intolerances (gluten-free, dairy-free, etc.)

*Source* Adapted from Accor Global Document on 'Healthy and Sustainable Food', 2019

- Measure and analyse water and energy consumption on a monthly basis. Act to address any malfunction.
- Respect standard water flows for all showers, taps and toilets.
- Ensure proper wastewater treatment.
- Use energy-saving lamps.
- Recycle hazardous waste.
- Recycle two types of waste: paper, glass, cardboard or plastic.

While the organisation is taking action to make its operations sustainable, customer involvement is critical in making these viable in the long run. The customers are made aware of the Planet 21 agenda. The following steps are also taken, which require customers to embrace sustainability:

- Default reuse of linen for stays longer than one night.
- Offer at least two eco-friendly toiletries (shower gels, soaps and shampoos).
- Display the key Planet 21 communication markers provided by the brand.
- Use eco-label cleaning products.
- Ban plastic straws, stirrers and cotton buds.

However, customer expectations may sometimes impede some of these efforts. In ibis India, the move to replacing plastic bottles in rooms was met with resistance, questioning the hygiene of an unsealed glass bottle. The organisation had to invest in a glass bottle sealing plant which raises cost per bottle substantially. Close to 20% of the guests have been demanding separate shampoo and soap containers, rather than the eco-friendly, refillable multipurpose cleanser provided by the hotel.

Mr. Singh and Mr. Laroche shared the dilemma that not just hotels but all service organisations face today. Is this sustainability practice going to meet with the experience standard that the customer expected? Unless the customer appreciates that these measures help improve the health of the planet and herself it is going to remain an uphill task for organisations.

Summarising the case with learnings from both the company officials:

- Steps need to be taken keeping in mind customer priorities. To align customer priorities with the company's sustainability agenda requires awareness creation.
- While large interventions like shift to renewable energy and green buildings are taking place, they take time and money. Making small changes in every step of the value chain might be a smarter way to address the sustainability goals.

## 8.5 Limitations and Scope of Study

The scope of the paper was limited to analysing business journals, consumer responses to an online survey and interviews with the leadership team of one global organisation, to arrive at an understanding of how consumers impact sustainability in business. The following are limitations of the paper:

- Business journals formed the basis of the literature review. Shifting consumer behaviour as part of behavioural economics or psychology journals can be studied to understand this concept better.
- The number of respondents for the online survey was 75. A larger population can be studied to arrive at a better understanding of changes in consumption patterns.
- Multiple business-to-consumer organisations could have been studied, to understand how consumers impact organisation decisions on sustainability.

## 8.6 Conclusion

The objectives of the paper were to present data on changing consumer behaviour if any and explore the links between this changing behaviour and sustainable business processes and rise of sustainable businesses.

While not all journals mention significant shifts towards sustainable consumption, 100% of the literature on changes in consumer behaviour by the Big 4 consulting firms state inventory management and increased use of digitisation as a key strategy for remaining in business post-COVID-19 according to BCG, PwC, Accenture, Deloitte, McKinsey & Co., 2019, 2020 reports. The business community has been focussing on the use of artificial intelligence (AI) to anticipate customer needs and provide customised solutions, to reduce need for stock according to Forbes (Valet 2020). These steps address the third trend mentioned above—reduction in overall consumption of goods (Table 8.1, Annexure 2). Most of the journals show that consumers across the world have started becoming conscious of their lifestyle choices. The primary research data shows that health and well-being are emerging as key decision criteria, when selecting goods and services. Awareness of natural, clean and healthy food is growing, and people are willing to pay a premium for it. Ill-effects of plastic were well known, and customers in India were moving towards plastic-free packaging and products. However, COVID-19 has created a heightened need for hygiene, which has got linked with plastic, leading to resurgence of single-use plastic. Small entrepreneurs are emerging, addressing the growing demand for organic food. Large organisations are pushing ahead with their sustainability agendas, despite slump in business due to COVID-19 and the preceding recessionary conditions. Accor Group is committed to its Planet 21 agenda and is doing its best to accomplish it, despite pushback from some of its customers.

Customers have helped create opportunities for local and sustainable businesses, especially as awareness of well-being and solidarity with fellow beings increased during COVID-19. This feeling of compassion for people and planet can ensure that all businesses turn towards creating goods and services that once again make our planet healthy and joyful.

## Annexure 1: Online Questionnaire

Thank you for participating in this study. The objective of this questionnaire is to understand how, and if, the way you consume goods and services has changed over the past two years.

*Instruction:* Tick the options that best describe your behaviour in the past two years. Please only tick those options which define how you behave more than 50% of the time. You can select more than one option for each question.

1. Over the last couple of years, while deciding the kind of food to buy, I have been consistently
  - a. Opting for organic and/or natural foods
  - b. Opting for locally grown food
  - c. Opting for food packaged using sustainable material
  - d. None of the above
2. Over the last couple of years, when I buy goods, I consistently
  - a. Look for goods which use less resources, like water, energy, etc.
  - b. Look for goods which use local materials
  - c. Look for goods packaged using sustainable material
  - d. None of the above
3. Over the last couple of years, my preferred mode of transportation has been
  - a. Walking, cycling for short distances
  - b. Public transport
  - c. Electric vehicles (those in the process of purchasing electric vehicles, was also captured)
  - d. None of the above
4. Over the last couple of years, while selecting a holiday destination and while on holiday, I consider the following to be important
  - a. Choosing eco-resorts, LEED certified or any other green hotels
  - b. Minimising consumption of water, energy and other resources during stay
  - c. None of the above
5. Over the last couple of years, I consistently do the following, while shopping:
  - a. Carry a personal shopping bag
  - b. Look for products which have natural fibre-based packaging
  - c. Look for products which have less or no packaging
  - d. None of the above

## Annexure 2: Qualitative Responses to the Online Questionnaire

The following are other changes in consumption behaviour that the respondents said they have made. Their comments are presented below ‘as-is’:

1. Just really making an effort to think thrice before buying anything. Do I need it? Is it produced by large corporations? Can I delay buying it?
1. Watching the electricity and water consumption in the house
2. Installed rooftop solar panels
3. Though aware of the ecological impact of plastics and packaging, I am sorry to say that I feel I am not doing enough. I try not to take plastic bags to carry goods. Try to remember to take my cloth bag. My observation is that if we order online the amount of packaging is huge, and I dread to think of what it is doing to our planet. I therefore advocate the mom and pop store and the small businesses where we physically go to buy our needs as a more sustainable
4. Not ordering food as often
5. Started segregating kitchen waste for home composting and reduced consumption of water and electricity as much as possible
6. Reusing a lot more than before
7. Eat more vegetables and less meat product
8. Started consuming less of everything
9. Stop using consumable goods as far as possible. Given up on toothpaste, toothbrush and shampoo
10. Use of more bicycle instead of using car or bike. Calculating the carbon footprint at my house
11. Lesser consumption, avoiding travel as much as possible, reliance on locally grown stuff rather than exotic stuff
12. Reusing the plastic bags already in house for garbage. Home composting
13. Buying less overall; carrying own water bottle everywhere
14. Read more to become aware
15. Moved as not completely in some points. This questionnaire is making me think more
16. Started growing vegetables on roof, simultaneously look out for authentic organic vegetables
17. Home composting, waste segregation, use of light emitting diode (LED) bulbs
18. Reducing the variety within a type of food, cook at home more regularly, avoid falling into buying stuff because of marketing gimmicks, spending time with kids outdoors rather than buying the 5th video game or 11th toy car—show kids how much they have and buying more will hurt trees and earth. They get it
19. Switching off lights/heating when not needed
20. Ensure minimal energy requirements across all seasons
21. Eat home cooked, not buy clothes trying to use old ones and hand me downs

22. Carrying water bottle
23. Talking to others about being conscious
24. Have been trying to make few products at home, for example, shampoo, cream and toothpaste. Tried and succeeded few times at sweet shops to pack stuff in my own containers. This can be done at restaurants too, and I do not use food delivery services
25. I have not taken any particular step for carbon footprint but have taken a few steps to reduce my water footprint
26. I am a communicator, a learner and step by step trying change into sustainable way. I try to save water consumption, carry my bag for shopping, try to reduce single-use plastics and during travel especially to wildlife habitats, try to leave no trace behind
27. Less wastage, no plastic and less packed food
28. Car pooling, agroforestry
29. Avoiding giving and taking plastic bags
30. Use less resources like water and detergent when it comes to cleaning
31. Less private transport, simple boiled food cooked at home. Minimum use of electricity including gadgets like AC, etc.
32. Car pool
33. Evaluating local produce
34. Increased cultivation of home-grown vegetables
35. Carry my own bottle
36. Less shopping
37. Always keep a pair of spoon and fork with me to avoid using the plastic cutlery outside
38. One tries to minimise one's carbon footprint by flying less, using less non-recyclable materials et al.
39. Waste segregation, composting at home and planting more trees
40. Yes, avoid unnecessary travelling. Whenever I do, I try to travel using public transport
41. We are just a few who try such steps. Do not see much change in consumption pattern from masses
42. Travel less
43. Reduced use of air conditioning, keeping car pollution under check
44. Moving away from bulk buying and stocking products on offer and discount
45. Reusing old materials
46. Stopped buying package drinking water and decomposition of kitchen waste at home
47. We as a family are doing our best to try and be as environment aligned and friendly as possible!!
48. Using cycle as mode of transportation
49. Using wooden cutlery, recycling of goods
50. I try to use only what is needed. And I try to limit my needs
51. Composting
52. Switch off as many devices as possible, remote working



53. Everything possible at my end. From using menstrual cup to carrying my own container for takeaway, preparing my own organic shampoos, face creams and so on
54. I have tried to reduce use of plastic by carrying own fabric bag while going out for shopping
55. Educate myself regarding the same
56. Have become more conscious of my choice. This questionnaire also made me more conscious
57. No air conditioners used at home
58. Recycling
59. Less use of mobile phone
60. Limited the use of personal cars. Reduced the number of cars from 3 to 1
61. Shopping less, not just eco-friendly. There is no such thing as eco-friendly shopping in my opinion
62. Started higher rating electrical/electronic devices particularly 5 star rating (by certified authorities) and hence it will save energy and operating cost
63. Big no to plastics, avoid wastage of fuel and power, inclined towards a healthy lifestyle
64. I do not shop unless I specifically need an item, be it clothing or aesthetic
65. I intentionally did not buy a diesel vehicle even when the diesel was cheaper.

(Nine people answered 'Have nothing more to add', to this section).

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# Chapter 9

## 9F Framework to Build Sustainable Education Systems: A Conceptual Analysis



Meeta Sengupta

**Abstract** Education has always been the path to sustainability, but education within itself has had a challenging journey to achieve its stated goals—access, equity, quality and achievement, among others. The education sector suffers, as do other sectors, from a short-term decision-making horizon, whereas the impact of our decisions now lasts through generations. It is critical to be able to frame education in a way that leads to sustainable outcomes at the very least. To be sustainable in its processes is a bonus, and to be sustainable in its intent is to have won the battle.

**Keywords** Sustainable education · SDG 3 · SDG 4 sustainable development · Systems approach

### 9.1 Introduction

Education is identified as a key element of sustainability-focused strategies in many contexts and levels. Signatories to the Talloires Declaration promise to ‘educate for environmentally responsible citizenship’. Agenda 212 that declares that education ‘is critical for achieving environmental and ethical awareness, values and attitudes, skills and behaviour consistent with sustainable development and for effective public participation in decision-making’. The critical role of education has been reconfirmed recently in the formulation of the sustainable development goals 3 and the Global Action Programme on Education for Sustainable Development 4 (Association of University Leaders for a Sustainable Future 1994).

There are three ways to look at sustainability and education. One is from an input perspective, where education becomes a vehicle to teach sustainability and therefore builds sustainability curriculum and its delivery mechanisms. Much work has already been done on this, and the sustainable development goals have trickled down through national curricula to school levels. This is the first approach and the simplest one. The second way to look at sustainability and education is to look at it from the outcomes

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perspective, where we seek to assure ourselves that education delivers sustainability goals. This is a tougher ask, as many social impact measurement toolkits are fairly new and being tested in contemporary projects.

Sustainable education has been defined as ‘a change of educational culture, one which develops and embodies the theory and practice of sustainability in a way which is critically aware. It is therefore a transformative paradigm which values, sustains and realises human potential in relation to the need to attain and sustain social, economic and ecological wellbeing, recognising that they must be part of the same dynamic’ (Sterling 2001: 22). This has been restated by Bateson (1997), who states, that “Our machines, our value systems, our educational systems will all have to be informed by (the) switch, from the machine age when we tried to design schools to be like factories, to an ecological age, when we want to design schools, families and social institutions in terms of maintaining the quality of life, not just for our species, but for the whole planet” (Bateson, 1997:84).

Our approach is the third, a systems approach. We propose a nine-factor framework (9FF) that includes all the factors of education that are essential to creating an education system. These factors include ecosystem influences, internal pressures and value creation pathways. Each of the nine factors, and the elements within, impact each other. This creates conflicts, dissonance, trade-offs, choices, and decisions within and across the factors of education. We posit that sustainable education can only be achieved if each of these framework factors is aligned within the education system.

## 9.2 The Context

The context of education is different which makes it very difficult to sustain any gains, which is especially a challenge for sustainable education. The milestone gains for sustainable education are slow to arrive, tough to hold on to and difficult to hold on to once achieved. This is where our proposed framework can be used as a tool to realign the education system, whether at the school level or when designing curriculum, assessments or even autodidactic systems.

The key challenge in education is one of connecting the dots, because the dots are too many and too dynamic. The 9FF is one way of ensuring that no one or nothing gets left behind. Whether education is seen as a public good or a private enterprise, the framework has sustainability built into its application as a decision-making model.

## 9.3 The Approach

With the understanding that education is complex, hyper-dynamic, multivariate and forward looking, we look at all the elements that make up the education world. We look at traditional management frameworks such as the five forces model (Porter

1979) and others and select one that fits our quest. We then extend the framework to customise it to the concerns and priorities of the education sector. Thus, we identify the factors that make education and place them in a framework in a manner that lends itself to constructive analysis and sustainable solutions.

Having designed the framework, we describe its factors and then begin to draw insights into the challenges it can resolve. Finally, we draw trajectories through the framework to show how education systems with varying perspectives can be built while embedding sustainability.

## 9.4 Choosing and Defining the Factors of Education

While management is classically derived from armies, enterprises and projects, it is essentially a study of systems that seek a goal which has traditionally been to win, to grow, to make profits, to be efficient and so on. In order to find solutions that enable it, experts have built models such as Porter's five forces model, the PEST/LE model, SWOT analysis and more, which are now part of everyday management training.

Sterling (2008) lays the criteria for sustainable education to be fivefold. Sustainable education implies four descriptors: educational policy and practice which is sustaining, tenable, healthy and durable.

- Sustaining: It helps sustain people, communities and ecosystems;
- Tenable: It is ethically defensible, working with integrity, justice, respect and inclusiveness;
- Healthy: It is itself a viable system, embodying and nurturing healthy relationships and emergence at different system levels;
- Durable: It works well enough in practice to be able to keep doing it.

We base our framework on another classic approach in management literature and practice and enhance it for the education sector. The management framework of **people, process and purpose** (Bartlett and Ghoshal 1994) which emphasises, among other things, the need to 'move beyond strategy, structure and systems to a framework built on purpose, process and people'. This makes an excellent foundation to our sustainable education framework.

The education sector, as has been noted above, is a little more complex than other sectors, and this means that there are some factors that critically impact it. These are fundamental to the making, maintaining and sustaining of any education enterprise or system.

'Meanwhile, the rapid changes taking place in the globalising world call for major educational reform in which the needs of all students are taken into account, the natural resources of the educational environment are not depleted, and the young generation is optimally prepared to meet the demands of the future world' (Van den Branden 2012).

Taking cognisance of not just the complexity, but also of the enormity of the ask, the framework extends the three key factors to include those that are critical to

decision-making and the design of sustainable education. The factors that make up education include not just people, purpose and process, which is adequate to describe most other sectors. Education needs a few more factors that are offshoots of the main three, and we include them here.

In addition to **Purpose**, which represents the reason for doing things, we add **Philosophy**, which in education is a key driver representing the ideology, the values and the very belief system that enables that particular endeavour. Purpose and philosophy themselves play out in two ways, and we add these too: **Progress** and **Performance**. In any other sector, these would be seen as outcomes, but here in education, both have a deeper role, often progress and performance being both the motivator and the inherent driving force that enables learning. This makes it a factor of education, as much as its measures demonstrate outcomes. We include these as separate factors.

We recognise **People** as the most important factor for education, as is in our foundational model. People have a special role in the education sector, because not only is it run by people, as in other sectors, but the very reason is that the value addition, the transformation and growth are of people. The act of learning puts people at its very centre, in many different types of roles. Education, interestingly, while a universal goal, multinational in its reach and transnational in practice, is very local in its delivery. Even as one looks at its people, most are local to the institution, and again, this is evidenced by most education being managed by local districts or authorities. The discussions on local languages as a medium of education also show how important our next factor **Context** is to the sector. Context matters here much more than in any other sector for many reasons, primarily because it is about people, who are naturally rooted in local contexts, and prior experiences. Context is key to sustainability too, as it represents local ecosystems that are ecological, emotional, social, cultural and of course legal. Context subsumes and assumes society, the collective of the people, and the external culture. Context lies both within and outside of the education system and well within our framework. The two factors of context and philosophy form the foundational substrate of the framework.

**Process** was the third of the original triad of factors, and to that, we add two more: **Resources** and **Structures**. All three are essential inputs into education systems, and much of what ails or succeeds in this sector depends upon these three factors. Resources were such an important factor of education that till recent decades, all education data was measured only in terms of inputs or resource allocation. Processes lie at the core of education delivery, and it represents the churn that enables learning. We place it at the centre of our framework for this very reason. Structures are almost sacred to most venerable institutions in education. We do not refer to physical infrastructure here that is categorised under resources. Here, we mean organisation, management and leadership structures that guide, direct and govern education.

### 9.5 The Nine Factors: Elements, Behaviours and Impact

Our framework (Fig. 9.1) has nine forces, or factors, each of which is made of the elements that drive education. As placed in the framework, we note that context and philosophy are foundational factors of education; resources and structures are supporting factors; people, process and purpose are core factors; progress and performance are peak factors, most visible at the top.

While some factors have fundamental impact, some strategic and others are even more significant in having a daily impact in each classroom. All the factors are equally important, and it is the alignment of all factors that can deliver a key economic goal—inter-temporal sustainability.

We now identify the elements that drive education and observe the characteristics, behaviour and impact of the factors and elements.

**The first factor of education is people.** This is the human aspect of education and enables all education and its elements to be listed as the roles people play in education. Human elements include various categories, such as learners, teachers, leaders, parents, carers, support staff, vice chancellors, volunteers, tutors and indeed local support for educational institutions. Community governance, both formal and informal, is also led by people, and they too are included as elements in this factor. Education technology (Edutech) may have reduced the people aspect from delivery, but instructional design, content, sales and all the other functions are still people-driven. The factor of ‘people’ brings to the fore the animate aspect of education represented by behaviours, moods, emotions, influence, interactions, expressions and more.

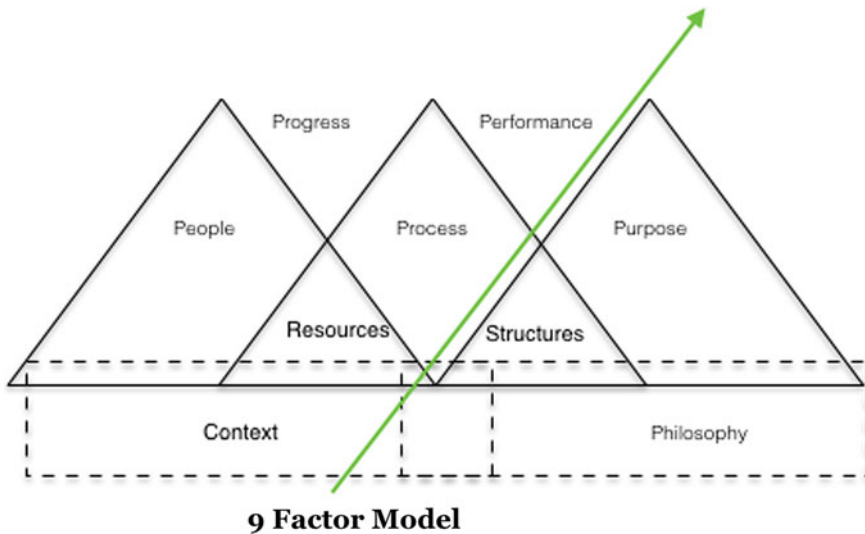


Fig. 9.1 Nine-factor model framework. Source Author’s own

The people impact on education outcomes is well documented. For example, take school principals. ‘Across six rigorous studies estimating principals’ effects using panel data, principals’ contributions to student achievement were nearly as large as the average effects of teachers identified in similar studies. Principals’ effects, however, are larger in scope because they are averaged over all students in a school, rather than a classroom (Grissom et al. 2021). The positive contribution of good teachers, heads, administrators, supporters, instructional designers and more is acknowledged.

Here, in adding this factor, it is noted that there is one other key aspect that makes education different from most others. Since it is all about people, it is almost impossible to standardise. The input, value add and output are all people, and every factor making this happen is also run by persons. Since every human is unique, this means no two education transactions are identical, nor can they be predicted to have the same outcomes, even if the inputs and treatment are identical. For example, a class may be taught in the same manner, but each student will learn differently. This makes it incredibly difficult to measure, across factors. This brings dynamism, almost hyper-dynamism and unpredictability, as well as momentum and more to the factors of education.

**The second factor of education is context.** Context is critical to any education effort because it comprises not only the current ecosystem for the learner, but also the priors that help or hinder learning. The elements of context are ecological, global, national, social, political, geographical, historical and more—anything that makes up the ‘situation’ in which education happens. This will also include the prior knowledge of the student who learns or the prior experience of the educator or even promoter and leader of the educational institution, as it impacts beliefs about learning. Context interacts with other factors such as philosophy (discussed later) to select the kind of education that will work for that area or culture, as Benham notes for India (Benham 1975).

The context of education impacts the quantum, quality and even the possibility of education. For example, in some conservative places, sex education cannot be taught safely, and this is because of their context. Creating safe spaces is the first ask for learning to happen, and this local context is determined by the wider context placed outside. A classic example of geography as context is the concept of the Boat school (UNICEF 2015) in Bangladesh, where the Sunderbans delta does not offer stable land and is a fragile ecosystem. By moving learning to a boat, the climate risk is mitigated. Other contexts continue to apply to learning there; for example, the language of learning will be local and aspirational, so both Bengali and English. Context determines and influences all the other factors of learning.

**The third factor of education is philosophy.** One of the oldest factors, it is at the root of all education, shaping it. Indeed, sustainability itself is a philosophical approach that builds itself into our framework. Philosophical approaches predate Socrates and are best referred to here in summary. It is here, in philosophy that epistemological questions pointing to the other factors of education identified in the 9F framework find discussion. Older philosophical approaches are too vast to receive more than a quick summary here, or to raise questions about colonised representation of knowledge and



the blinkers to older, sophisticated university systems. These philosophical concepts and debates continue to inform current and contemporary educators on the design of sustainable education systems. Philosophies at their simplest inform curriculum, as taught to teachers. ‘These educational philosophical approaches are currently used in classrooms the world over. The chosen philosophy of the education system informs curriculum and pedagogy directly, both elements of a factor of education discussed later—process. Let it be read that factor of philosophy feeds every other factor, and the other factors find themselves rooted in the chosen philosophy.

The elements of philosophy here are the various approaches that enable education. Progressivism would have a different approach to essentialism, as would reconstructivism. These approaches not only impact curriculum, pedagogy and process, but also still funding and revenues. The ‘theories’ of education too emanate from these approaches, even as D. J. O’Connor published *An Introduction to Philosophy of Education* 1957 in which, among other things, he argued that the word “theory” as it is used in educational contexts is merely a courtesy title, for educational theories are nothing like what bear this title in the natural sciences. We bring that up here to emphasise not only the exceptionalism of education, both in thought and practice, but also the diversity and depth of the debate on this factor. The rootedness of education values, beliefs and practices in philosophy, however, forms common ground to all these debates, as does the indisputable fact that there are disputes and trade-offs in choosing an underlying philosophy for each education system, and the discovery mechanism for each, within the factor.

**The fourth factor of education is purpose.** Purpose is the why of education. This is the factor that points to the reason and helps decisions around the arrangements of education. This is also the factor of education that influences many other factors becoming one of the criteria in the choice of their elements. Purpose in turn is fed by the factors of context and philosophy, and unless these are aligned, the system cannot sustain. This paper illustrates this directly, where context and philosophy directly point to purpose (Kumar 2017).

While purpose forms the practical guide for education systems, it also interacts with other factors mentioned later both as an organising principle, selection mechanism and outcome generator.

Purpose, within itself, is a fairly complex factor and involves many trade-offs for system design. The purpose of each student, guardian, parent, teacher, head, governor, owner, sponsor and administrator could be different, and this could be varied at the individual or group levels. So, the purpose of one student could be to learn and become rich, another student may come to school to be safe, and another may attend for personal growth. A parent may need childcare or future economic security. The purpose of a school may be fame or to create citizenry. For a country, it may be a public good or incoming foreign exchange. At each level, multiple purposes may exist, but they cannot all be met without infinite budgets, and so choices must be made. The mechanics of this choice making is outside the scope of this paper but will make for useful further work.

**The fifth factor of education is structure(s).** Structures refer to the organisational arrangements that build, manage, direct and watch over to progress education. These include elements such as leadership positions, organisational design, hierarchies, articles of association, contractual and policy arrangements that define the nature of the education system. For example, the structures of a primary school will be different from that of a university, and these will be different from that of an examining board. Structures are largely static, seemingly immovable even in the face of reasonable disruption. Structures give stability to an organisation and within education are often credited with the longevity of its institutions.

Structures are the visible, tangible part of education. They can be as small as a single teacher village school and as big as multilateral agencies developing global compacts for education. National-level agencies, including ministries and institutes, create policy, implementation and funding pathways for national and global goals in education. Structural elements such as departments, professorial chairs and knowledge centres enable global goals such as the SDG to be implemented across the world, for example, the UNPRME which has spawned work that sits across our factors, including resources. An example is being the teaching case study on Human Rights at Decathlon (Baumann-Pauly et al. 2020). This, and other conferences, webinars, collaborations create research, reports and other curriculum and assessments which are channelled via international-, national- and local-level bodies, each a peg on the structural map of education practice. Academic institutions offer their own structural types and have their uses, as to training organisations and teacher-led research movements. Their impact may be local, but often grows and operates in global networks. These networks are a less directly visible structural factor of education than research or delivery institutions such as school chains, large universities or education ministries.

**The sixth factor of education is resources.** This is a critical factor in education since it is both scarce and pervasive, at least the need for it is pervasive. It is a rare education system that can survive without resources, and one needs a safe space for starters. Resource elements include infrastructure, safe spaces, curricula, books, Internet, devices, electricity, paper, pencils, pens, colours, instructional manuals, playgrounds and more. Resources are the most visible aspect of education, even more than people, since even educational apps on mobile phones are elements of resources, as are many aspects of blended and hybrid learning. These resources may or may not need the direct engagement of an instructor but depend upon their success on the engagement level of the learner. Resources represent the input aspect of learning and for a very long time were seen to be a measure of the value of education, as reiterated so: ‘who believe that spending more on education produces better results’ (Pritchett and Filmer 1999). Indeed, Pritchett and Filmer highlight the challenges of the factor: resources by stating that ‘the existing literature shows that the marginal product per dollar of inputs not directly valued by teachers is commonly 10–100 times higher than that of inputs valued by teachers’ (Pritchett and Filmer 1999).

The big challenge in the factor of resources is twofold: the ability to stretch it to meet the scale of the system and the quality of the spend. These are often

optimisation problems in managing resources, while a utopian system of education would have enough for all students. So, a device often has to be shared between three students, or the computer lesson has to be scheduled for when electricity and connectivity are both present. Resource crunch has a direct impact on the outcome of education, this is why the quality of the spend becomes a critical factor. How people (factor) manage resources is one way of auditing uses. The other way is to assess whether resource allocation is in line with the philosophy and purpose of the institution. An education establishment built on the principles of equity and access would ensure connectivity and the availability of devices. This was noted before the pandemic struck and changed the access route paradigm, as quoted here, ‘Policy recommendations are to expand device access and internet among those who lack them and ensure students can access materials needed for school related activities via mobile technology’ (Moore et al. 2018). The quality of the resource spend depends upon how well it is used as was evidenced during the global pandemic of 2020 where more formal papers are awaited.

The quality of the resource is critical from sustainability lens. From the Reduce, Reuse, Recycle mantra to Social Impact indices that measure how well the resource has been used, and the negative and positive impact of such resource utilisation. The roots of this work, like in development economics, where externalities were included in project costing are now seen as a significant element of resource choice and use when building for sustainable education. This has been noted as recently as the Copenhagen consensus assessment of education resource use and targets where historical and recent progress was recorded.

**The seventh factor of education is process.** This is the ‘way’ things are done and includes the elements of pedagogy, procedures, training, feedback loops, assessment frequency and standards, invigilation policies, project mentorship, peer learning approaches and so much more. Process elements are the everyday practice of education delivery, and it is these processes that create school cultures. Processes depend wholly upon the way they are worked on by people or designed by people and so often reflect their abilities or prejudices. A process, whether run by an administrator or by an artificial intelligence system, is based upon its priors and therefore often carries legacy loads. This is why often processes are seen as slow, unresponsive or retrograde. The quality of an education system is highly dependent upon its processes, because these are at the centre of the system and everything turns according to the process.

Education processes interact with all of the factors of education, but most of all with resources and people. Processes are the engine of the education system, and the quality of the outcome and output depend upon the process. Creasy astutely observes, “the contemporary discourse of education as a means by which children and young people can reach their potential will also be considered as a way in which the process model of education comes to accepted” (Creasy 2018). How these processes are run and how much investment and care they receive are critical to the quality of education. Education leadership is held accountable for this, and indeed it can be said that it is only if ‘Process’ is done well, only then can a good education be

delivered. The feature of interconnectedness discussed below as a key component of sustainable education is wholly dependent on good processes and process elements. If the curriculum content does not include an understanding of context, for example, climate change, or the ideas of public good, or even empathy and fairness, then the process element would have failed from the point of view of sustainability. If the process of behaviour management is more punishment-driven and not balanced, again, long-term sustainability goals would be impaired.

Processes are the agent of change and must be geared towards delivering sustainable equilibria across time. This seemingly paradoxical statement is the essence of good processes. If the current processes are creating dissonance, say if the factors or elements are working at cross-purposes, it is this factor, process, that must also act as the agent of the discovery engine to figure out what is wrong. A long queue outside the administrator's office to pay school fees indicates a need to have alternate, maybe online ways of making payments. A parent-teacher meeting with only metric-based feedback indicates a skewed process neglectful of holistic development. A drop in sports trophies won by the school or college may indicate a process or a resource problem, but needs a process to fix the gap. The factor process is not just the driver, but also the doctor of the education system. It can sustain only if the process includes self-repair and self-improvement mechanisms. Sustainable processes are well-governed mechanisms.

**The eighth and ninth factors of education are progress and performance.** These are often seen as outcome and outputs of the education process, often related. 'Output and outcome are different, but they are not independent of each other' (Schreyer 2012). However, in our framework, they are factors. Our framework accounts for multiple cycles of education, and the outcomes of each cycle form the access pathways for the next. A student who has completed their school can access university and so on. A previous qualification, a performance, works as a motivator to learn more, and progress does this at a deeper level. Ability, motivation, enablement and progress are 'factors' of education. Progress and performance also impact behaviours and cultures and work as a feedback loop to processes, people and for resources.

Performance is always demonstrated and can be measured with ease. Performance includes output elements such as examination results, position in league tables, memberships of societies, awards won and other visible, current and measured markers of success. Progress elements include the outcome of education such as attainment levels, employment destinations, social and emotional stability, economic mobility, self-efficacy and more. Knowledge and skills are easily performed, whereas attitudes and behaviours or indeed innovative application of knowledge and skills are often progress markers that are clocked at different times, off the education cycle. For a system, progress also includes exceeding community trends for student progress, improving the performance of the bottom half of the cohort and similar achievements. Progress often cannot be measured, especially in the short term. Progress is often not visible in the moment and shows up years later, often not directly attributable to the education received.

Performance is more popular, bringing more instant results and thus rewards to the people—students, teachers and administrators. For this reason, ‘performance’ is preferred over progress even in defining purpose-based goals. So, it might be easier to measure performance on standardised tests that can be cleared via memorisation rather than check for progress across holistic parameters. For this, the choice of assessment is an element of ‘factor’; ‘process’ is skewed in favour of ‘performance’. This makes for an efficient system but does not serve us when we seek sustainable education. Progress on social and emotional parameters, on school adoption of SDGs, on advancement of measures that include sustainability goals are all progress parameters that are not easy to measure, but important elements that shift the paradigm towards sustainability.

## **9.6 The Nine Factors of Education Framework and the Economic Process: Why Does It Work**

There are many ways of using the nine factors of the education framework. It can be used to tease out inherent challenges to building a sustainable system. It can be used to chart trajectories of growth of sustainable and fragile systems and thus design intervention pathways. It can be used to bring efficacy to intra-factor elements in line with other factors and to enable intra-factor adjustments. It can also be used to assign specific combinations to solve system-level problems. The model lends itself to building and repairing education systems for the greater good. All of these are outside the scope of this paper which focuses on describing the framework, how it works and what it does. When aligning the factors of education to ensure sustainability, these economic fundamentals are at work.

### **1. Transactions**

Transactions are the means of identifying educational activity. Some would say that the act of teaching is a transfer of knowledge, vide ‘transfer is often considered a hallmark of true learning’ (Barnett and Ceci 2002), which may not bear out in the face of new studies in social and emotional learning. In any case, transactions are the medium of education, and this is how the elements and factors operate. These transactions add up to either align to each other or to create disturbance. It is this aggregation that forms the basis of designing good educational systems. For example, if transactions in the factor of resources do not happen on the agreed timeline, then schools and classes will not be able to run their processes, and people fall off their progress and performance targets. This transactional chain is the essence of good education delivery. For each goal, target or outcome, there is a transactional chain that sends signals of well-being or distress, and our framework amplifies this to design fixes and realign.

### **2. Trade-Offs**

Within each factor of education lie various elements that are often at odds with each other, and one needs to make trade-offs and choices. Resources are always constrained, and one needs to choose, for example, whether to prioritise sports equipment or better software with the same money. One needs to weigh the cost and benefits of, for example, four types of pedagogical processes in the same year group and, as a team, or as a teacher, choose which is the most appropriate. A school or even an examination board—any educational unit—would be a very confused one if it were based on a multiplicity of philosophies and must pick one over the other. Having too many types of ‘purpose’ does not work too well, for it leads to burdensome, often impossible set of goals to achieve. Here too, our framework shows up these units where choices have to be made and intra-factor conflicts between elements resolved.

These trade-offs may map traditional economics, but when viewed with a sustainability lens, we realise that the framework nudges the factors to be in alignment with each other in making these choices. So, if the internal shakeout in the ‘factor’ called ‘purpose’ is to maximise student achievement, this aligns with the ‘factor performance’ to get maximum marks, awards and scholarships. However, the ‘people’ factor reminds us that students grow not just academically, but also through social and emotional growth, that has to be in tandem. If these are not aligned, there is a chance that there will be mental wellness issues. This falls out of line with our sustainability perspective, which requires wellness and the ability to perpetuate good outcomes. Our framework, thus, is able to operate using economic approaches such as trade-offs but does not fall in the trap of traditional economics to impair sustainability.

### 3. Discovery

The framework is a tool of discovery and enables Schumpeterian creative destruction, even innovation, technological advancement and shifts within the system, in order to foster sustainable solutions. In resolving conflicts and making choices, many ‘processes’, ‘resources’ and even ‘structures’ prove to be redundant. This is shown up at the transactional level, where hold-ups, disturbances, inefficiencies, dissatisfaction and other ‘people’-driven emotions show up. Indeed, a litmus test of trouble is negative emotions in the ‘people’ factor, which then triggers a process of discovery for a sustainable equilibrium within and across the ‘factors’ in the ‘framework’. There are many mechanisms that enable this discovery that are outside the scope of this paper, and further work will yield insightful discoveries.

### 4. Value

The nine-factor framework showcases the value creation in education and also enables insights into contiguous concepts such as valuation, price and wealth, all within the education context. The diagonal line from ‘resources’, through ‘processes’, and on to ‘performance’ is the traditional ‘value chain’ of any production process including ‘education’. ‘People’ and ‘resources’ enter the system and are processed to add value and demonstrate the value add through ‘performance’. ‘Performance’ yields value in the form of marks, rankings, league table performance and so on. These can be exchanged for jobs, money and more in the world outside of education. This value add, from the ‘Performance’ is then the reward for the ‘Factors’

of Education, and in a Sustainable system must be distributed fairly. A system out of alignment will fail at it, and again, the 'people factor' will show up dissonance, almost like the canary in the mine that warns of trouble ahead.

Progress too shows value, but not in instant exchangeable units. Student destinations, student contributions to society, lifetime achievements and so on are rewards to the factor of 'progress' that are value creating in the long run and create sustainable outcomes beyond one generation. Another progress outcome that represents value discovery is the longevity of the institution, its reputation, credibility and ability to open doors for alumni and all 'people' associated with it.

Progress or the greatest value that is created within education system is the generation of knowledge and its intergenerational transfer of this immeasurable wealth. Like all wealth, it builds on itself, each generation adding to the cache and improving upon it. The academic process combined with the productivity gains of the information age creates, retains and even destroys to renew knowledge in ways that makes all our lives better. This is not always enhancing of sustainability, and this is where our framework comes to the rescue again. Value creation and wealth creation are sustainable only if they align the 'factors' in the framework and share the benefits across them. If 'people' are damaged (mental or physical well-being, emotional disturbances or even demotivation to learn and grow), then it signals trouble. The Framework is a bellwether of value too, signaling trouble if its foundational factors are awry. The factor Context, for example includes elements such as society, or climate change. Any disturbance in society, such as local crime will impact local education. A weather disturbance due to climate change will impact education. Ensuring that the framework is aligned, its burdens and rewards shared and ensures sustainable futures.

## 5. Social Sustainability

One of the key goals of economics has been social sustainability, for no man is an island. Equity has always been a key goal, and our nine-factor framework enables that by including cycles of education, iterations, multiplicities (e.g. curriculum as resource when used and process when being made) and layers of education systems. It also takes an inter-temporal lens that enable concepts such as educational lag, education premiums, hidden curriculum valuation, intergenerational privilege to find room within the framework. Not only progress within an educational cycle but also education-led mobility across generations is envisaged here, indeed sustainable educations are about the greater good and public welfare. This is where, for example, public libraries as a resource feed the utilitarian value chain to 'performance', but when the returns to this resource fall short, our framework comes to the rescue with 'progress' as another way to assess value, not just to the individual.

The 9F framework is a useful tool for enabling education systems that create value and mobility across social classes, economic classes and geographical (visa classes), and it does that by acknowledging the impact of 'context', and 'resources' on 'people' (the left one-third of the framework) and works to mitigate lags through 'purpose'-driven 'processes' and 'structures'. Now, so far, these processes and structures have not removed inequity, but that is because we have not placed them in this framework,

and faced up to the stark differences between the left and the right half of the 9F framework. Keeping this in balance is the task, or the dissonance will show up in ‘people’ and spread through the framework and will need to be fixed by bringing discovery gains such as productivity of resources, innovative technologies or other creative renewal tools. In this, we are now aided by this five-step understanding of the process of attaining sustainability via transactions, trade-offs, discovery, value and thence to this step—Sustainability.

## 9.7 Conclusion

The nine-factor framework is an emergent approach to bring sustainability to education, for education itself has a multiplier effect on societies, decision-making, behaviours and attitudes to our well-being. The 9F framework takes an intergenerational, inter-cyclical, inter-systemic and even and inter-factor look at making and using education for sustainability. Within the framework, it allows for inter-factor and intra-factor conflicts and shows how a whole framework approach to resolving these conflicts enables sustainable education.

Since this is early work, emerging at the cusp of education and sustainability and at the edge of economics, there is much work to be done. Concurrent work is on progress on drawing up pathways to building responsible education systems, on taxonomies of the elements, on exploring the roles of elements in the flow and stock states, on the challenges to responsible education highlighted by the 9F framework, on intervention trajectories for rebalancing, on understanding the nature of rewards through the framework factors. Future work will need to include distribution of metrics and tools to assess iterative flows within and along the 9F framework.

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# Chapter 10

## Future of Work and Sustainable Business Models: How Sustainable Entrepreneurship Can Create Added Value



René Schmidpeter and Patrick Bungard

**Abstract** The future belongs to sustainable business models which can be proven by current successes. Several companies are now writing success stories based on a management paradigm which aligns sustainability and profitability, rather than seeing them as contradictions (Bungard in *CSR and business models*. Springer, Berlin, Heidelberg, 2017). Sustainable business models are characterized by their integration of social, ecological and economic factors in a single model. Such models demonstrate entrepreneurial solutions for the social challenges of the twenty-first century which eventually bring profitability (Schneider and Schmidpeter in *Corporate social responsibility: responsible corporate management in theory and practice*. Springer, Berlin, Heidelberg, 2015). Two megatrends especially are very important: the rapid pace of digitalization and sustainable development (Hildebrandt and Landhäußer in *CSR and digitalization—the digital transformation as an opportunity and challenge for business and society*. Springer, Berlin, Heidelberg, 2017). Both the trends are closely interlinked; for example, sustainability offers huge business potential, while digital transformation provides major opportunities for execution. The combination of these two global megatrends will lead to changes in economic systems and a profound transformation in the professional world (Spieß and Fabisch in *CSR and new worlds of work—changing perspectives in times of sustainability, digitalization and industry 4.0*. Springer, Berlin, Heidelberg, 2017). However, entrepreneurs are faced with the choice of whether or not to consider the impact of these new business models on their operations. In this regard, the question also arises as to how these ambitious challenges can be implemented.

**Keywords** Sustainable development · Digitalization · Sustainable entrepreneurship

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## 10.1 Economic Change Increasingly Influences the World of Work

Economic changes are becoming an increasingly important factor in the world of work. Due to digitalization, our economy is changing at a rapid rate. The Internet of things, big data, robots and Industry 4.0 are now part of reality (Schmidpeter 2017b). However, the question remains whether these changes also benefit people. We already know today that many professions particularly in production, sales, administration and creative areas such as editing and design will undergo major changes or even vanish. Especially, the potential decline in employment for middle-skilled workers poses one of the greatest challenges for the work environment. In addition, more and more data relating to the job is being collected and stored.

With the help of bio-detectors, the motivation and moods of employees are becoming increasingly more transparent. Health data is also being collected systematically. This combination of data from different areas enables far-reaching predictions to be made about working time, resource expenditure and actual output through human resource analyses. Based on algorithms, individual employees or groups of employees and their behavior can be continuously analyzed and their work performance be assessed. Professional and private spheres are getting closer, and formerly personal spaces of freedom are at the brink of extinction. This systematic assessment on employees will have a significant impact on the corporate culture. It is therefore necessary to equip the process positively with clear rules. An increased transparency and the knowledge accumulation will further allow flexibility of the working environment. Thus, it will increase the efficiency pressure of an individual in the economy.

Due to demographic change in Europe, the pressure for automation and increased work efficiency is further exacerbated as the future of work encompasses a low share of young high performers, longer working lives and flexible working conditions. Many operations will no longer be carried out on the basis of a salaried employment relationship, but in structured networks of freelancers.

Globally operating “crowd workers” help in processing orders via online platforms. The time and place of supply are no longer of primary importance. Irrespective of their location, external as well as internal employees can be virtually present at any time. This will lead to an increase in globalization of work processes and thus to greater competitive pressure between employees. Meanwhile, this shift in the nature of work is driving a greater sense of personal responsibility for work-life balance.

The far-reaching changes in these boundaryless ways of working come across different socialization processes. The current generation has a strong will for more individual freedom for self-determined work. Due to the reconciliation of private life and work, they often see work as the only way to self-fulfillment. Therefore, they want their work to contribute toward pressing social goals helping to find purpose in their lives (various studies on Generation Y). Gen Y is usually highly motivated and critically questions previous processes and business models. For example, hierarchies

are no longer seen as up to date, and the need to meet one's own requirements at work is also extremely demanded at work.

Over the past few years, according to their own set of beliefs, the older generation has established the existing structures and processes. This means fully separating work and personal life. The concept of successful career goes hand in hand with traditional values of a stable family life with clearly defined roles for men and women and young and old. The impending dynamic change therefore threatens their life's work which is understandable but not always beneficial. A close cooperation between the young and old can make our economy suitable for the future. However, an important question remains here is how both generations can jointly leverage opportunities and bear risks.

## **10.2 New Modes of Thinking and Behavior Are Necessary**

Vast technological advances—especially in the areas of artificial intelligence, new energy and mobility concepts, digital networking and powerful robot—strongly influence companies' business models and value creation processes. Major companies believe that 30–40% of their value creation needs to be restructured or entirely transformed. This also implies that every second job needs to be redefined or replaced in the future. In view of these rapid developments, new models of thinking and behavioral patterns are required. Such individual and collective learning processes will overcome the alleged discrepancies between the current and the future economies.

This new work culture is a result of networking, flat organizational structure, a high speed of innovation and a high degree of failure tolerance. Therefore, leadership can no longer be a full-time position. Instead, it is now carried out with different employees on a part-time basis.

Moreover, decision-making will be based on solving future problems. This means that the employee dealing with a specific challenge will be given more freedom and responsibility in the decision-making process. As a result, effective decisions can be taken more quickly. However, this calls for an open-mindedness and tolerance fostering joint success of all employees.

## **10.3 Knowledge Transfer and Multigenerational Collaboration Are Crucial**

New methods of knowledge sharing and innovative ways of gathering and using information are becoming important. Employees' willingness to share knowledge within the company and to engage in joint solutions to problems is essential as a prerequisite for the free transfer of knowledge and the empowerment of employees.

Valuable tools such as job rotation and teamwork assist in building up a collective knowledge base and then sharing it within the company. Also, coaching and mentoring and work in tandem help in transferring knowledge across departmental boundaries. Multigenerational collaboration is also playing an increasingly vital role in this process.

However, this is not a unidirectional approach, and even experienced employees can learn a lot from junior employees. There are also new or different requirements for specialists and managers affecting leadership qualities in a company. In order to have problem-solving skills within the team, good leadership is marked by values and setting aside personal opinion.

Such healthy leadership behavior and a value-based leadership culture will be of great significance in the future as it will generate both entrepreneurial and social values in an ever-globalized world (Hänsel and Kaz 2016). The issue of a general qualification, education and lifelong learning plays a particularly important role. This ever-increasing theme “team development” focuses not only on individual learning processes but also on shared knowledge management. The subject of “team development” is becoming increasingly important. It is not just about individual learning processes, but about collective knowledge management because every five years, the knowledge available worldwide doubles, and half of the knowledge acquired stays up to date for only four years.

## **10.4 Challenge: Current Management Is Still Driven by Outdated Theories**

It is surprising to find that the current strategic management actions are often governed by the obsolete management theories of the 1990s. Old theories are characterized by an often-one-dimensional model toward financial goals or “profitability” (shareholder value) and not on sustainable growth or “prosperity.” This new management paradigm outlines an economic sense which takes equal considerations of social, ecological and economic impacts in management decisions (Wunder 2017).

An outdated way of thinking, rigid hierarchies, inflexible work and decision-making structures in companies prevent employees to be accountable for their actions. However, it enhances the ability to cooperate between departments. That is why, due to internal competition and incorrect incentive systems (e.g., high individual bonuses), administrative knowledge used for own personal interests should be substituted by cross-departmental cooperation, diversity of thoughts and inclusiveness of employees across all hierarchical levels. This will enable necessary learning processes and collective decision-making processes, and the full potential of each individual employee can be utilized for business success. This requires a fundamental cultural change which focuses primarily on sustainable corporate strategy, trust, personal responsibility (Schram and Schmidpeter 2017).

It is evident that such cultural change means setting aside familiar processes accompanied by major certainties and acceptance issues. Such acceptance issues will be a key factor for professionals and managers. Employees must “want” and “be able” to lead the change. Participation programs, communications programs and further training programs will therefore continue to grow (Bungard 2015).

## 10.5 Currently, Global Challenges Transform Every Sector

This emerging principle of “sustainable management” is also becoming increasingly urgent in light of the global challenges we face. Not only does one-sided shareholder value thinking result in internal collateral damage, but external stakeholders are also affected by them. The ever-dwindling resources, the demographic changes and finally the heavy losses in the financial crisis can no longer be overlooked because profits in an increasingly globalized economy cannot be made at the cost of people or the environment in the long run, unless this whole system breaks down.

Banks are especially affected by increasing business impact as in view of digitalization, they lack business models helping in boosting the economy. Initially, they resorted to newly created (self-referential) financial markets. However, these became increasingly volatile and unstable due to the formation of economic bubbles. Hence, sustainable finance, sustainable investment and the financing of sustainable start-ups will become key issues in the future in order to build a sustainable relationship between the intended social impact and the necessary entrepreneurial success (Schulz and Bergius 2014).

Meanwhile, the energy sector is facing major challenges. It must find answers to the decentralization of energy generation and democratization of the energy market (Hildebrandt and Landhäußer 2016). Instead of large-scale centralized power plants, digitalization will lead to an increasing focus on the networking and cooperation of decentralized energy generation. This will require the major energy companies to shift more and more into collaborative networks. The media industry has been dealing with the new networking and communication possibilities of the Internet for a long time now, and these have made what used to be highly lucrative publishing business models meaningless. New open access models and interactive publishing media will gradually replace the traditional “top-down” processing, thus transforming collaboration between artists, authors, editors and the audience.

And Germany’s no doubt most important industry, the automotive sector, will have to undergo a major transformation. Many leading German suppliers are already increasingly looking to intensify their cooperation with large American IT companies. The automotive and entertainment industries are moving ever closer together and presenting far-reaching innovations and concepts in the field of “smart cars” (e.g., automated driving, networked information systems, car offices, new mobility concepts such as car sharing). Furthermore, the advancing digitization as well as societal concerns about climate change, emission values and urbanization will continue to drive the introduction of zero-emission drive systems and therefore rewrite the

history of mobility. This also has far-reaching effects for the working environment, where IT know-how is increasingly needed rather than the conventional skills of engineers. Thus, the internal work environment has been drastically changed.

All of these developments have resulted in wide-ranging challenges for organizations over the past few years in the shaping of their value creation structures and processes (D'heur 2013). The digitalization described at the start of this article in particular reinforces this long-needed development and implementation of new sustainable corporate approaches on a positive note. Digitalization creates openness about the real effects and the actual benefits of whole industries. It promotes a new way of thinking and the emergence of new businesses focused entirely on consumer value and human needs.

## 10.6 Sustainability Must Be Considered in an Entrepreneurial Perspective

Though higher corporate sustainability goals have been defined in recent decades with the focus on reducing environmental and social impacts, the positive impact of sustainability has not been acknowledged for the company's value creation. Instead, sustainability was often seen as a purely defensive and limiting approach that hindered economic performance. If one thinks of sustainability from a consistently entrepreneurial perspective, it goes far beyond a mere mitigation approach (Schmidpeter 2017a). After all, it is important for entrepreneurs today to help, manage or improve the positive impact of their activities. As per this vision, corporates should not focus on minimizing the damage, but rather in adding the value to the society. Moreover, this new corporate social responsibility (CSR) paradigm "positive value creation" is also the basis for the required innovation processes in business.

These two CSR paradigms are focusing on both positive (creating positive impact) and negative (avoiding negative impact) impacts of business activities. And for that, different types of business models can be classified: firstly, business models having positive social impact to both business and society; secondly, business models having positive impact to business but negative impact to society; thirdly, models having negative impact to business but positive impact to society; and lastly, business models that have negative impacts to both business and society.

The "CSR typology of business models" shown in Fig. 10.1 list these broad business model types. Here, the *X*-axis describes the general trend, i.e., whether negative impacts are to be minimized, while the *Y*-axis describes if positive impacts can be achieved. Category I includes companies whose business models are not designed to solve social problems, nor do they pursue the goal of minimizing negative impacts. Business models in this category are referred to as "expiring business models," expiring in the sense that companies from this category are increasingly disappearing from markets because society revokes their license to operate. Numerous examples of companies in this category can be found in the energy and automotive sectors.

Creating positive impact	Intended	III “Negative Side Effect” Business Models	IV “Sustainable Business Models”
	Not Intended	I “Expiring” Business Models	II “No harm” Business Models
		Not Intended	Intended
	Avoiding Negative Impact		

**Fig. 10.1** CSR typology of business models. *Source* Authors’ own

Category II is called “no harm business models” because companies of this category aim at minimizing their negative impact on society. These companies have realized the importance of the traditional CSR paradigm and understand the correlation between sustainability and corporate success. CSR or sustainability reports issued by most large companies show that such approaches have been taken. On the basis of a diverse range of key performance indicators and reporting standards, the reports illustrate clearly how the company is reducing its negative impacts. However, unfortunately, the societal added value desired may be achieved along with negative side effects such as “negative side effect business models” in the field of car sharing. Sharing cars have positive environmental effects and enhance efficiency. However, it leads to an increase in the volume of short-distance trips in large cities.

Category IV “sustainable business models” includes companies that are committed to the new CSR paradigm, implement it within organizations by doing no harm and also have a positive impact on society. The model shown in Fig. 10.1 does not focus on the moral motive of giving altruistically, rather the economic and societal relevance. The aim of this “new” CSR approach from Category IV is not to breakdown the competitive principle—as social reformers often like to portray it. On the contrary, it broadens the market opportunities through the ever-new possibilities of digitalization and win–win strategy. This can only be successful if all three dimensions of sustainability (economic, ecological and social) are integrated together. Moreover, existing management approaches and instruments must be adapted accordingly. An open society and a social market economy should not be substituted by noneconomic activities. In the age of digitalization, possibilities of entrepreneurship can be used efficiently and effectively to solve pressing social challenges.



Digitalization and sustainable development are thus a great opportunity to rethink freedom and responsibility. However, they also create new risks through the integration of work and private life, which places new challenges on the personal management of the individual and the manager's social responsibility because digitalization is also creating increasing speed pressure.

More and more decision-makers and employees realize that corporate responsibility does not just mean the defensive compliance-oriented approach, but is increasingly also a proactive management approach focusing on human needs. CSR is not simply about "do no harm" but about creating "added value for the environment. It also means to "design the business model and the work environment in such a way benefiting everyone by identifying the issues relevant to the business model!" like the company can solve as effectively social issues as possible than other players and can equally benefit from them.

## 10.7 CSR as a Management Paradigm to Create Sustainable Business Models

An increasingly popular corporate practice in management paradigm emerges in creation of sustainable business models. Because in terms of CSR, sustainable business models play a major role in corporate success. They describe how companies can align their social, ecological and economic impact with the demands of the market and its complex global challenges. Thus, such business models serve as the basis of sustainable business management. Until now, such views have often been overlooked in the discussion about sustainability, CSR and digitalization. Thus, there is an urgent need for a systematic discourse between the current discourse on CSR and the questions around Industry 4.0, digitalization and sustainable business models. In this way, the jobs for tomorrow can be efficient, effective and aligned with human needs. Also, digitalization will be an opportunity for sustainable business. And, in addition, the management paradigm of sustainable business provides an urgently needed guide to meet the challenges faced by digitalization.

All references and other related works are published in the management series CSR (Series Editor René Schmidpeter): <http://www.springer.com/series/11764>.

*Translated from German by Khushboo Mehta.*

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# Chapter 11

## State of the Art of Corporate Social Responsibility Practices and Sustainable Development Goals in India During the COVID 19 Pandemic



Anushree Poddar, Sapna A. Narula, and Muneer Ahmad Magry

**Abstract** COVID 19, a pandemic that initially erupted in China, spread across the world in months and led to the mortality of millions of people. The pandemic has evolved like a multi-layered trap for the developing and populated nations that lack resources and infrastructure to tackle this catastrophe. India, being a developing nation, got impacted by COVID 19 very severely, killing millions of people, and displacing and impacting the livelihoods of millions. To take control and tackle the situation, the government announced a nationwide lockdown for more than a month. Further, to control the impact on government-developed infrastructure, it sought the help of the corporate sector from which they received a grant via means of corporate social responsibility (CSR). The government came out with a series of notifications to facilitate the inclusion of COVID 19 in the CSR aspect which is discussed in detail in this paper. COVID 19 also has affected the achievement of the Sustainable Development Goals (SDGs), which also has a direct link with CSR. The paper also walks through the effect that COVID 19 has had on all the 17 SDGs and how CSR can facilitate overcoming that. Overall, this paper talks about the state of the art of corporate social responsibility practices and Sustainable Development Goals in India during the COVID 19 pandemic and the future landscape.

**Keywords** COVID 19 · Coronavirus · Sustainable Development Goals · Corporate social responsibility · India · Pandemic · Business

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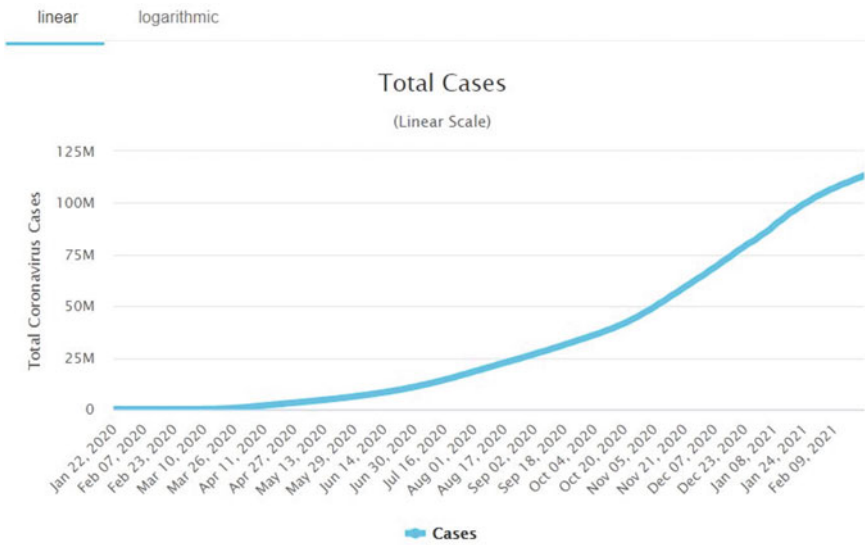
## List of Abbreviations

COVID 19	Coronavirus disease 2019
CSR	Corporate social responsibility
GDP	Gross domestic product
IMF	International Monetary Fund
MCA	Ministry of Corporate Affairs
MDGs	Millennium Development Goals
PM	Prime Minister
PPE	Personal protection equipment
PSUs	Public sector units
RT/PCR	Reverse transcriptase PCR
SDGs	Sustainable Development Goals
UN	United Nations
WHO	World Health Organization

### 11.1 The COVID 19 Landscape

The COVID 19 outbreak was initially reported on 31 December 2019 in Wuhan City, Hubei Province, China (Lu et al. 2020; WHO 2020). Both developed and developing countries have got affected due to it. During the initial days of the outbreak of COVID 19, people across the globe failed to understand its gravity. The social and physical distancing norms and protocols were violated. Ignorance and unpreparedness across the globe caused a severe increase in positive cases (Reshi et al. 2020; Sohrabi et al. 2020). COVID 19, being a novel pandemic, threw grim challenges to the governments across the world, who were not fully equipped to face this epidemic (Shen et al. 2020; Yu et al. 2020; Phan et al. 2020; Gallego et al. 2020). The total COVID 19 active cases across the globe as of 25 February 2021 stood at 113,274,543. Figure 11.1 depicts the cases including deaths and recovered or discharged patients (cases with an outcome).

The most affected countries in terms of deaths and active cases were the USA followed by India, Brazil, Russia, the UK and France (World Health Organization 2020). The World Health Organization (WHO) termed it a global health emergency, and an open risk of vulnerability was identified regarding the poor healthcare infrastructures in developing nations. In response to this health emergency, international agencies like the European Union mobilized a (US dollar) \$US 10 million research fund to “contribute to more efficient clinical management of patients infected with the virus, as well as public health preparedness and response” (European Commission 2020). The UK government also provided a fund of \$US 25 million for developing a COVID 19 vaccine (BBC 2020). The strongest measures taken by the countries across the globe included shutting down their international as well as domestic borders. The

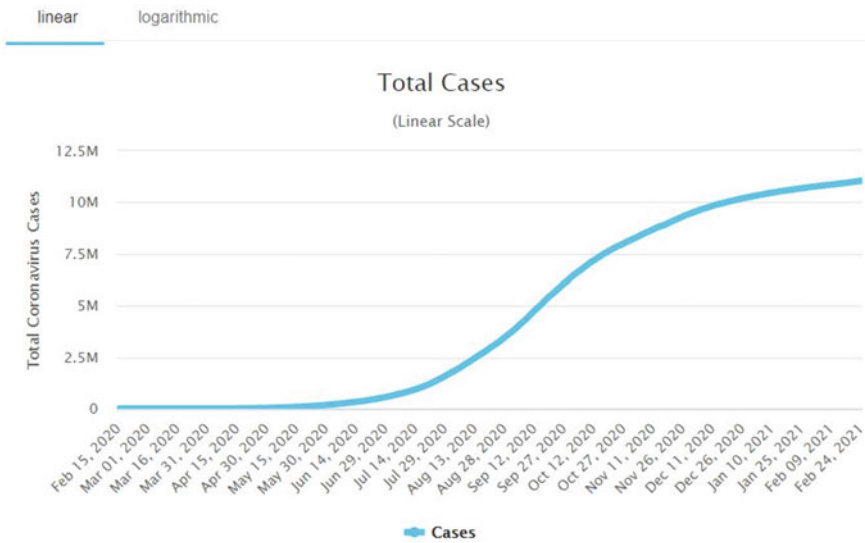


**Fig. 11.1** Global COVID 19 cases included deaths and recovered or discharged patients (cases with an outcome)

governments of developing nations introduced some initiatives for the social protection of the underprivileged in response to the COVID 19 outbreak (Gentilini et al. 2020).

India being a developing nation has been experiencing the severe threat posed by COVID 19, and efforts are underway to combat the catastrophe caused by it. The central government of India took state governments into consultation and imposed strict lockdown across the country. The first lockdown period started from 24 March 2020 to 14 April 2020, and the government, after reviewing the on-ground situation, extended the lockdown till 3 May 2020. Figure 11.2 shows the trend of the increase in the COVID 19 cases from the date when WHO declared COVID 19 as a pandemic till 25 February 2021.

The government of India in its 1946 Report on the Health Survey and Development Committee (Bora Committee) had highlighted the need for a plan for a three-tier healthcare system (Kumar and Gupta 2012). Since then, nine other committees have been formulated to ascertain the healthcare-related issues, the latest being the National Commission on Macroeconomics and Health, 2005. This report had also highlighted the poor infrastructure and institutional problems in the healthcare sector (Kumar and Gupta 2012). After 2013, the Companies Act on corporate social responsibility came into being and the private-sector companies started investing into the healthcare system in India as part of their social responsibility but at a very minimal rate (Poddar et al. 2019). Also, the companies whose business verticals are mostly in the healthcare system are not significantly investing in the healthcare infrastructure development as part of their CSR (Poddar et al. 2019). In fact, in India, the healthcare



**Fig. 11.2** Trends of COVID 19 cases in India. *Source* World metre

system is mixed and inclusive that includes both private and public actors. However, the private healthcare system is mostly concentrated in urban areas (Sheikh et al. 2015) leaving 70% of the rural area vulnerable.

The pandemic outbreak highlighted an urgent need for efficient responses for essentially required goods and services. There had never been such an emergency, till now, to ensure procurement and supply of equipment crucial to control the outbreak of a disease for such a huge population in such a short time (Swayamsiddha and Mohanty 2020; Gupta et al. 2020). With such a big population and rising positive cases daily, there has been a huge demand for personal protection equipment (PPE), surgical and N-95 masks, ventilators and testing kits, and it became necessary to look for solutions domestically (Reshi et al. 2020; Roy et al. 2020). Indian entrepreneurs, corporate houses and companies stepped in and contributed in every possible way. The government also provided certain relaxations to Indian corporate houses by amending the Corporate Social Responsibility Law of 2013. As per the circular issued by the Ministry of Corporate Affairs on 10 April 2020, companies can donate for COVID 19 and it shall be covered under their year marked mandatory spend towards CSR (Ministry of Corporate Affairs 2020).

Keeping in view the above, it is evident that the COVID 19 pandemic has created havoc across the globe and both developed and developing nations have been impacted severely. Countries have been galvanizing all their resources together from healthcare infrastructure to healthcare workers, donations and private-sector funding, to fight against the impact of COVID 19.

India too faced the heat of COVID 19 severely though the government has been proactive in curbing the increase in infection and deaths. The government of India has

put forth various initiatives to contain the spread of COVID 19, it included strict lockdowns, establishment of health care infrastructure, procurement of essential equipment and providing of food and shelter to millions of displaced and migrant workers. The Government of India has received a lot of private-sector funds as part of its social responsibility, which has helped it in the establishment and procurement of COVID 19 medical care equipment and provides relief to the displaced people.

In this paper, we examined the scenario of corporate social responsibility (CSR) of India in the pre-COVID 19 outbreak and the contribution of CSR funds towards COVID 19 containment. Further, this paper highlights the impact of COVID 19 on Sustainable Development Goals (SDGs).

The paper is divided into four major sections.

- Section 11.1 discusses the landscape of COVID 19 across the world focusing majorly on India.
- Section 11.2 briefly discusses the CSR landscape in India and builds upon the contribution of the corporate sector towards COVID 19 management in India, through CSR programmes.
- Section 11.3 discusses the state of contribution towards SDGs by the Indian corporate and how COVID 19 has come as a major roadblock in progressing towards the SDGs. It also looks into the possible areas of contribution by the corporate sector in helping India achieve the SDGs amidst COVID 19.
- Section 11.4 talks about the future course of action and the way forward for dealing with the pandemic.

## 11.2 CSR and COVID 19 in India

Indian companies have a strong history in terms of serving their community in the form of charity or donation to strengthen their religious conduct or assistance to the underprivileged groups (Agrawal and Sahasranamam 2016; Aguinis and Glavas 2012; Alhaddi 2015; Pandey and Pattnaik 2017; Arevalo and Aravind 2011; Bhalachandran 2011; Khandelwal and Bakshi 2014; Debeljak et al. 2008; Rohini and Mahadevappa 2010). The government wanted to formalize these practices as the corporate sector has unlimited potential to serve the country and help in its upliftment. In a developing country where there is a lot of potential for development, formalized structures give more effective results (Lenssen et al. 2011; Agrawal and Sahasranamam 2016; Chatterjee and Mitra 2017; Desore et al. 2016; Palakshappa and Chatterji 2014). Therefore, with this view, the Ministry of Corporate Affairs amended Section 135 of the Companies Act, 2013, and made it mandatory for the Indian companies beyond a certain threshold to mandatorily pursue corporate social responsibility practices. A company having a net worth of over \$US 80 million or a turnover of over \$US 160 million or net profit of \$US 0.8 million during a financial year has to spend 2% of the average net profit that is generated during the three immediately preceding financial years towards CSR activities (Chatterjee and Mitra 2017; Agrawal and Sahasranamam 2016; Crifo and Forget 2015; Das Gupta and Das

Gupta 2008; Ghosh 2014; Mishra and Suar 2010; Sharma 2013; Pattnaik and Shukla 2018; Singh 2010). The activities in which the company can spend its CSR fund are mentioned in Schedule VII of the Companies Act (Annexure 1).

### **CSR and COVID 19 in India**

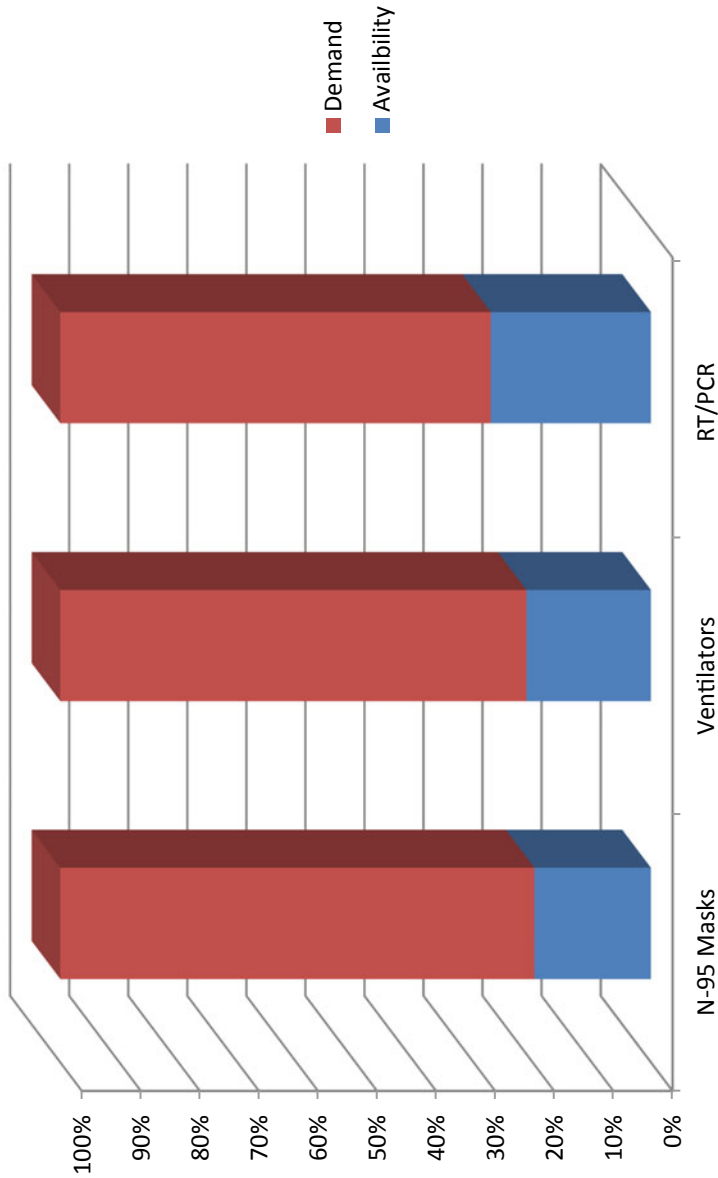
To combat the upsurge of COVID 19 cases in the country, the need for medical care infrastructure was urgent. The procurement of equipment and the establishment of medical care centres required a lot of financial aid. As reported by the Press Information Bureau of India, the medical equipment as of 3 May 2020 was insufficient to cater to the situation arising from COVID 19. The demand for N-95 masks was more than 20 million, for ventilators 75,000 and for RT/PCR kits 3.5 million, while the available/received stock were 4.9 million N-95 masks, 20,000 ventilators and more than 1.3 million reverse transcriptase PCR (RT/PCR) kits (Sharma et al. 2020) (Fig. 11.3). The government was not in a position to handle this situation alone; thus, corporate houses of India were taken on board. In this regard, the Ministry of Corporate Affairs, Government of India, issued a notification on 23 March 2020 to ease out the flow of financial contributions received from companies and issued some relaxations for CSR fund spending. The government thus issued three separate notifications that are relevant to CSR in India. The first notification reads the inclusion of COVID 19, the second notification reads the inclusion of incubators, and the third notification talks about the mode of CSR expenditure.

The *first notification* issued by the Ministry of Corporate Affairs stated that since COVID 19 has been declared as a global pandemic by the WHO the Government of India has taken the lead and decided to treat COVID 19 as a notified disaster; thus, the funds spent on COVID 19-related activities shall be covered in the existing items of Schedule VII of the Companies Act, 2013. This notification allowed the addition of expenditure provided towards fighting against COVID 19 to the list of permitted avenues for CSR expenses.

As per the *second notification* for the inclusion of incubators, the Ministry of Corporate Affairs has relaxed the conditions for fund allocation towards incubators. Previously, academic institutions were eligible to receive funds under CSR for incubator set up, but the revised notification has broadened the context of eligibility. The new notification permits all incubators that are supported by any state or central government/agency to be eligible.

The *third notification* issued by the Ministry of Corporate Affairs is regarding the CSR rules 2014. The rules define the procedures of CSR expenditure. This notice reads that in case the companies would like to divert their existing CSR money towards fighting COVID 19, they would need to ensure that healthcare and/or disaster relief is already a part of their CSR policy or else suitable amendments to the CSR policy need to be made. Another aspect of the CSR rules 2014 is that it provides explicitly for the money to be spent. This means that if a company manufactures sanitary masks, they cannot simply donate masks and count the expense against them towards their CSR expenses.





**Fig. 11.3** Demand and availability of medical care equipment in India during the second phase of lockdown in 2020. *Source* Press Information Bureau, Government of India

### **11.2.1 CSR Spending and COVID 19**

The funds utilized for COVID 19 under CSR come under items (i) and (xii) of Schedule VII relating to the promotion of health care, including preventive health care and sanitation, and disaster management (notification attached as Annexure 2). The committees for CSR in various corporate houses have been very swift in speeding up processes and getting timely approvals, which has also led to various situations that are discussed below.

#### **11.2.1.1 The Response of Corporate Houses and CSR Towards COVID 19**

The research conducted by India Development Review forecasted that around \$US 53.23 million will be generated by corporate houses and public sector units (PSUs) that include Tata Trusts, Larsen & Toubro, Reliance Industries, ITC, Hero Group, State Bank of India, Vedanta and Infosys, among others, by the end of the second lockdown (India Development Review 2020). Out of the total fund generated, 89% was diverted towards relief work that covered food and shelter for the displaced and migrant workers. The 89% fund contributed about 54% towards the Prime Minister Cares Fund or State Chief Minister Relief Funds. A significant amount of \$US 42.7 million was focused on the activities that included scaling, testing and access to medical and sanitation supplies and equipment. Apart from this, some of the corporate houses came forward to support innovation and entrepreneurship initiatives. It provided a much-needed catalyst for med-tech entrepreneurs to ramp up the testing and production of COVID 19-related products.

#### **11.2.1.2 The Impact of Funding**

The corporate houses diverted their funds into immediate relief of frontline workers, livelihood support and social protection, and working beyond their business verticals and geographical locations of operation. Their corporation towards the Prime Minister (PM) Cares Relief Fund allowed the government to take care of all activities related to the COVID 19 outbreak.

Amid lockdown, the notification issued by the Ministry of Corporate Affairs (MCA) on 10 April 2020 states that the salary payment and wages in normal circumstances or under lockdown are a moral and statutory obligation of the company. During the lockdown, no alternative means of livelihoods were available to the people. Thus, it will not fall under CSR purview. However, the same notification highlights that “any ex gratia relief payment provided to fight COVID 19 shall be admissible under CSR expenditure”.

### 11.3 State of the Art of Sustainable Development Goals and COVID 19 in India from CSR Perspective

India is a member nation of the United Nations (UN). It has pledged to work towards the achievement of the Sustainable Development Goals set up by the United Nations which has 17 goals and 169 targets (Hopkins 2016; Klein 2016; UN SDGs 2016). These goals apply to both developed and developing nations. These goals are related to all the spheres of life. The goals range from poverty alleviation, gender equality, water and sanitation, biodiversity conservation to world peace. These goals were pledged in 2015, and the UN has set the target to achieve these goals by 2030. The world was already falling behind in its efforts to achieve them. Moreover, the COVID 19 crisis has led to widespread concerns across the globe in terms of economic slowdown, which may cause serious problems in sustaining the livelihoods of people after the pandemic has gone. This certainly is acting as a roadblock to achieving the Sustainable Development Goals.

The COVID 19 pandemic has put forth challenges to the global economy. It is reported that investors have moved approximately \$US 90 billion out of emerging markets in the first three months of the pandemic. The International Monetary Fund (IMF) has also predicted that global growth may fall to 3% and that will lead to the worst global recession in history.

A study conducted by Vos et al. (2020a, b) highlighted that global gross domestic product slowdown by 1% will have an impact on livelihoods and would increase the poverty of about 14 million people. The most affected region would be Sub-Saharan Africa. In the Asia-Pacific region, the apprehensions are that there will be a drop in global demand that is predicted to cost an estimated US \$172 billion from trade alone, equivalent to a 0.8% drop of the gross domestic product (GDP) of the region. Of more immediate concern is the COVID 19 crisis's impact on fiscal position, which exacerbates the risk of a new debt crisis in the region.

In India, people are majorly employed by the private sector. As per the Ministry of Statistics and Programme Implementation, Government of India, the labour force participation rate stood at 49.8% in the 2017–18 fiscal year. Private-sector companies like food and beverages, tobacco, textiles, chemicals, non-metallic products, construction are major employers. Due to prolonged lockdown, the daily wage earners and migrant workers have faced its heat by losing their jobs, while the private-sector employees faced trouble as investments were hit harder.

The COVID 19 pandemic has led to a situation where it has been felt that the pandemic had a significant impact on Sustainable Development Goals. The SDGs directly impacted are decent work and economic growth, no poverty, goal zero hunger, good health and hygiene, gender equality, quality education among others. The SDGs succeeded the Millennium Development Goals (MDGs) by the UN which did not have the provision for the contribution of the corporate sector in achieving them. It was considered to be a loophole in the MDGs; therefore, when the SDGs came into being, the provision for the corporate sector involved was included (Hopkins 2016; Le Blanc 2015; Panigrahi 2016; Rosati and Faria 2019). The activities listed

in Schedule VII of the Companies Act and the goals of the SDGs are overlapping as discussed in Table 11.1. This gave room to the corporate sector to contribute towards the SDGs.

It is evident from Table 11.1 that CSR and SDGs go hand in hand and also that COVID 19 affects both CSR and the SDGs. Therefore, Table 11.2 is developed keeping in view the significant role that the corporate sector can play in achieving the SDGs amidst COVID 19. They can help the country come out of this state of crisis by channelizing their CSR funds during and post-pandemic.

## 11.4 Future Roadmap

Corporate social responsibility in India has come to aid the ongoing fight against COVID-19. The well-developed and structured CSR policy has provided much relief in terms of funding and spending on establishing medical care centres, procurement of equipment and other relief operations in terms of food, shelter and livelihoods to mainly the rural and migrant workers and labourers in India.

The COVID-19 pandemic is evolving, and the positive cases are increasing daily. The government along with civil organizations is taking every possible step to flatten the curve. But as India has a poorly developed healthcare system, the need of the hour is to make the maximum number of medical care equipment readily available and administer the vaccine to a majority of the people. To achieve this, funding plays a crucial role. Corporate houses have stepped in to help the government in establishing medical care centres by investing from their corporate social responsibility fund. It is argued that all CSR funds allocated towards COVID-19 relief could be sent directly to the central PM Cares Fund. This will prevent duplication and overlap of efforts that are bound to happen when companies take up such activities individually. The corporate sector's CSR spending could be aligned with governmental efforts, rather than making individual decisions on where the money should be spent. It is also argued that the decentralization of the CSR fund could be result-oriented; the funds could be used to provide income support to workers who lose their jobs due to pandemic-led shutdowns and demand contraction. The CSR funding can address the variables emerging as a result of COVID 19, by preventing the loss of livelihood and ensuring that India stays on its path to progress towards the SDGs.

**Table 11.1** SDGs mapped with Schedule VII activities of the Companies Act, 2013

CSR activities as per Schedule VII of the Companies Act, 2013	Sustainable Development Goals
(i) Eradicating extreme hunger and poverty	SDGs 1 and 2 It aims at achieving food security, improving nutrition and promoting sustainable agriculture so that it eliminates malnutrition and poverty to a major extent
(ii) Promotion of education	SDGs 1, 4 and 8 It promotes education, which in turn would enhance employment and better livelihood opportunities for people. Skill development especially focused on women, children, the elderly and the differently abled will also help alleviate poverty
(iii) Promoting gender equality and empowering women	SDGs 1, 4, 5, 8 and 10 It promotes gender equality and helps women, children, differently abled and elderly by sheltering them, educating and empowering them and giving them livelihood opportunities. This helps reduce inequalities
(iv) Reducing child mortality and improving maternal health	SDGs 2, 3 and 5 Ensuring the healthy lives of children born of all genders and the mother is of utmost importance. They should not be a victim of malnutrition and die due to hunger
(v) Combating human immunodeficiency virus, acquired immune deficiency syndrome, malaria and other diseases	SDGs 1, 2, 3, 6 and 12 Poor living conditions of people let waterborne diseases surface. Sustainable consumption and production need to be promoted. In such conditions, proper intake of nutrition is of utmost priority. Swachh Bharat's (Clean India) mission should be acted upon
(vi) Ensuring environmental sustainability	SDGs 6, 7, 9, 11, 13, 14 and 15 This covers a wide range of SDGs as environmental sustainability can be achieved by improving the water and sanitation facilities, infrastructure, encouraging renewable energy sources, making resilient cities, working towards climate change, maintaining and improving the quality of flora, fauna and marine life
(vii) Employment enhancing vocational skills	SDGs 8, 10 and 11 Livelihood generation is possible by working on the skill development of people of the country so that they can become employable. This will, in turn, reduce inequalities and make cities resilient

(continued)

**Table 11.1** (continued)

CSR activities as per Schedule VII of the Companies Act, 2013	Sustainable Development Goals
(viii) Social business projects	SDGs 7, 9, 12 and 17 Business projects in the area of renewable energy, infrastructure and innovation, sustainable consumption and production with global partners should be promoted
(ix) Contribution to the Prime Minister's National Relief Fund or any other fund set up by the central government or the state governments for socio-economic development and relief and funds for the welfare of the Scheduled Castes, the Scheduled Tribes, Other Backward Classes, minorities and women	This may cover all the SDGs as funds can be allocated to any of the projects in operations by the central government or relief welfare association
(x) Other matters may be prescribed	This provides a scope for inclusion of all the SDGs

Source Poddar et al. (2019)

## Annexures



### Annexure 1

Section 135 and Schedule VII as discussed by the Ministry of Corporate Affairs under the Companies Act, 2013, is as under

#### *Section 135*

- (1) Every company having a net worth of rupees five hundred crores or more, or turnover of rupees one thousand crores or more or a net profit of rupees five crores or more during any financial year shall constitute a Corporate Social Responsibility Committee of the Board consisting of three or more directors, out of which at least one director shall be an independent director.
- (2) The Board's report under Subsection (3) of Section 134 shall disclose the composition of the Corporate Social Responsibility Committee.
- (3) The Corporate Social Responsibility Committee shall
  - (a) formulate and recommend to the Board a Corporate Social Responsibility Policy which shall indicate the activities to be undertaken by the company as specified in Schedule VII;
  - (b) recommend the amount of expenditure to be incurred on the activities referred to in clause (a); and
  - (c) monitor the Corporate Social Responsibility Policy of the company from time to time.
- (4) The Board of every company referred to in Subsection (1) shall

**Table 11.2** Effect of COVID 19 on the SDGs ad CSR

SDG	Effect of COVID 19 on the SDG	Suggestive CSR practices for corporate during and post-pandemic
 <p>1 NO POVERTY</p>	<p>Due to sudden loss of income, families/individuals who fall just above the poverty line are falling below the poverty line rapidly</p>	<ul style="list-style-type: none"> <li>• Rural livelihood development and employment generation</li> <li>• Social assistance programmes</li> </ul>
 <p>2 ZERO HUNGER</p>	<p>There is a massive disruption in the production and distribution of food to the needy</p>	<ul style="list-style-type: none"> <li>• Meal distribution programmes</li> <li>• Dry grocery distribution</li> <li>• Development of tribal communities in the remote areas producing non-timber products</li> </ul>
 <p>3 GOOD HEALTH AND WELL-BEING</p>	<p>The healthcare system has borne the brunt of the pandemic. Therefore, a lot of efforts to restore the infrastructure are needed and also to equip for future such emergencies</p>	<ul style="list-style-type: none"> <li>• Sponsor medical equipment in the hospitals</li> <li>• Awareness campaigns on COVID 19 post-pandemic regarding how to lead a precautionous life</li> <li>• Health check-up camps post-pandemic</li> </ul>
 <p>4 QUALITY EDUCATION</p>	<p>This has had a major effect on the education sector as the schools have been shut due to the virus and they do not seem to be opening before COVID 19 is completely out of the picture. This has caused the schools to adopt remote learning platforms that are not accessible by all as only the elite can afford it. The less privileged students are suffering immensely, and this will hit the momentum of ongoing research</p>	<ul style="list-style-type: none"> <li>• Provide remote learning facilities to less privileged students</li> <li>• Invest in research education</li> <li>• Promotion of education through providing awareness, motivation and scholarships</li> </ul>
 <p>5 GENDER EQUALITY</p>	<p>The lockdown caused due to this pandemic has increased domestic violence cases significantly. The healthcare workforce has women working in them who are at a huge risk of infection. Expecting mothers are not getting adequate care due to the social distancing norms</p>	<ul style="list-style-type: none"> <li>• Initiatives to fight against violence against women</li> <li>• Focus on providing pre- and postnatal care to the mothers</li> </ul>

(continued)






**Table 11.2** (continued)

SDG	Effect of COVID 19 on the SDG	Suggestive CSR practices for corporate during and post-pandemic
	<p>The supply of water has got affected which is a very crucial measure to curb COVID 19 infections. Hygiene issues are coming up and causing diseases of other kinds as well</p>	<ul style="list-style-type: none"> <li>• Water treatment plants</li> <li>• Sanitation facilities</li> <li>• Water distribution to necessary areas</li> </ul>
	<p>The shortage of staff during the lockdown has disrupted electricity generation. This affects the living conditions of people. This is a matter of great concern in rural areas</p>	<ul style="list-style-type: none"> <li>• Companies with core competence in electricity generation should help people in the affected areas</li> <li>• Promotion of renewable sources of energy like solar and wind</li> </ul>
	<p>Due to the lockdown, the migrant workers and daily wage earners are facing a tough time in fetching jobs for themselves. This is causing a sudden increase in unemployment levels</p>	<ul style="list-style-type: none"> <li>• The daily wage earners should be provided with compensation and given work</li> <li>• Train the workers to produce essentials which can help them earn</li> </ul>
	<p>COVID 19 has a direct impact on the infrastructure development of both rural and urban areas</p>	<ul style="list-style-type: none"> <li>• Uplifting and supporting the tourism industry post-pandemic</li> <li>• Work on unfinished infrastructures like roads and buildings should be continued</li> </ul>
	<p>COVID 19 is increasing the inequality gap between the privileged and the underprivileged, as the ones who do not have a financial buffer have got immensely affected</p>	<ul style="list-style-type: none"> <li>• Rural development</li> <li>• Providing employment opportunities to the less privileged</li> <li>• Economic support to the poor</li> </ul>
	<p>The urban slums are facing a huge crisis during the pandemic. The social distancing norms are tough to be implemented there</p>	<ul style="list-style-type: none"> <li>• Providing people in vulnerable areas with safety equipment</li> <li>• Awareness programmes to generate knowledge in urban slums</li> <li>• Sanitation facilities to be provided</li> </ul>

(continued)




**Table 11.2** (continued)

SDG	Effect of COVID 19 on the SDG	Suggestive CSR practices for corporate during and post-pandemic
	<p>The production and consumption cycle of goods and services have come to a complete halt, which is not sustainable. This is disrupting supply chains</p>	<ul style="list-style-type: none"> <li>• Crop harvesting needs of labour and machinery (harvesters, threshers, tractors) should be provided for</li> <li>• The production of non-essentials has to be supported once the industries reopen</li> <li>• The distribution of the commodities needs to be taken care of especially for the perishable commodities</li> </ul>
	<p>The focus of the people has shifted from climate change to pandemic. However, the environmental footprint has significantly improved due to less movement of people and goods</p>	<ul style="list-style-type: none"> <li>• Climate change needs constant monitoring</li> <li>• The reduced environmental footprint should be maintained, and companies should bring that in their process</li> <li>• Awareness regarding how to maintain the reduced footprint should be given</li> </ul>
	<p>The focus of people has shifted from marine life which needs constant care. The food chain has also got disturbed</p>	<ul style="list-style-type: none"> <li>• Efforts to restore the food chain should be taken</li> <li>• The fish breeding season has to be restored</li> </ul>
	<p>Animals dependent on humans for food and care have suffered due to the lockdown</p>	<ul style="list-style-type: none"> <li>• Animals dependent on humans need a nutrition program in place</li> <li>• The food chain needs to be restored</li> </ul>
	<p>The conflict between the rich and poor or between countries should be prevented as the pandemic has the most devastating effect where people are not in the harmony</p>	<ul style="list-style-type: none"> <li>• Efforts should be made to bring the community closer</li> <li>• Efforts should be made to develop empathy and provide help to the needy</li> </ul>

(continued)

**Table 11.2** (continued)

SDG	Effect of COVID 19 on the SDG	Suggestive CSR practices for corporate during and post-pandemic
	<p>This is the time for the world to come closer and help each other with the infrastructure and financial needs of the needy communities and countries</p>	<ul style="list-style-type: none"> <li>• Fund allocation towards the needy communities</li> <li>• Financial aid to the ancillary and small-scale industries</li> </ul>

Source Author(s) own

- (a) after taking into account the recommendations made by the Corporate Social Responsibility Committee, approve the Corporate Social Responsibility Policy for the company and disclose contents of such policy in its report and also place it on the company’s website, if any, in such manner as may be prescribed and
  - (b) ensure that the activities as are included in the Corporate Social Responsibility Policy of the company are undertaken by the company.
- (5) The Board of every company referred to in Subsection (1) shall ensure that the company spends, in every financial year, at least two per cent of the average net profits of the company made during the three immediately preceding financial years, in pursuance of its Corporate Social Responsibility Policy.

Provided that the company shall give preference to the local area and areas around it where it operates, for spending the amount earmarked for corporate social responsibility activities.

Provided further that if the company fails to spend such amount, the Board shall, in its report made under Clause (o) of Subsection (3) of Section 134, specify the reasons for not spending the amount.

Explanation—For the purposes of this section, “average net profit” shall be calculated in accordance with the provisions of Section 198.

**SCHEDULE VII**

Activities which may be included by companies in their Corporate Social Responsibility Policies Activities relating to:

- (i) eradicating extreme hunger and poverty;
- (ii) promotion of education;
- (iii) promoting gender equality and empowering women;
- (iv) reducing child mortality and improving maternal health;
- (v) combating human immunodeficiency virus, acquired immune deficiency syndrome, malaria and other diseases;
- (vi) ensuring environmental sustainability;
- (vii) employment enhancing vocational skills;

- (viii) social business projects;
- (ix) contribution to the Prime Minister’s National Relief Fund or any other fund set up by the central government or the state governments for socio-economic development and relief and funds for the welfare of the Scheduled Castes, the Scheduled Tribes, Other Backward Classes, minorities and women; and
- (x) other matters may be prescribed.

## Annexure 2

### OFFICE MEMORANDUM

**Subject: Clarification on contribution to PM Cares Fund as eligible CSR activity under item no. (viii) of the Schedule VII of Companies Act, 2013.**

The Government of India has set up the Prime Minister’s Citizen Assistance and Relief in Emergency Situations Fund (PM Cares Fund) with the primary objective of dealing with any kind of emergency or distress situation such as that posed by COVID 19 pandemic.

2. Item no. (viii) of the Schedule VII of the Companies Act, 2013, which enumerates activities that may be undertaken by companies in the discharge of their CSR obligations, inter alia provides that contribute to any fund set up by the Central Government for socio-economic development and relief qualifies as CSR expenditure. The PM Cares Fund has been set up to provide relief to those affected by any kind of emergency or distress situation. Accordingly, it is clarified that **any contribution made to the PM Cares Fund shall qualify as CSR expenditure under the Companies Act, 2013.**
3. This issues with the approval of competent authority.

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