

Responsible Leadership and Business Actions to achieve Sustainable Development Goals

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Introduction – the context, background information and the problem statement

‘Leadership’ is a topic that has been extensively researched through the ages, with several theories and definitions being proposed – from trait to behavioural, situational, transactional and transformational theories (Benmira & Agboola 2021). Later research moved away from focusing on one leader to treat leadership as shared or distributed among many people and as a collaborative responsibility (Muller et al. 2021). With leaders having to deal with ethical and moral issues, new theories, such as servant leadership (Neto et al. 2022) and authentic leadership (Drouin et al. 2021) have emerged. Recently, the concept of responsible leadership (Maak & Pless 2006) has been proposed for leaders to be able to build and sustain relationships with a variety of stakeholders following several instances of unethical behaviour that have resulted in damaging reports about companies such as Enron, WorldCom and, more recently, Volkswagen. Sharpened with the introduction of Sustainable Development Goals (SDG) in 2015, the prime understanding that business plays a key role in resolving societal concerns shifts the lens to consider public interest rather than just private interests (Dyllick and Muff, 2016). This school of thought also views responsible leadership as a shared phenomenon. Nonetheless, it is evident that ‘Leadership’ definitions have evolved over time.

Tracing the path to responsible project management from responsible leadership, Marques and Gomes (2020) argue that while differences between management and leadership have been discussed in the academic literature, both are required in organizations; however, some people manage more while others lead more. *The Handbook of Responsible Project Management* discusses the differences between responsible leadership and responsible management in *organizations* (Marques & Gomes 2020). The roles of responsible managers and responsible leaders also overlap but they are also distinct as compared by Marques and Gomes (2020, p.150) under different themes such as action entities, mechanism, impact level, scope focus and boundaries. It is observed that while the leadership literature has been evolving in the field of ‘responsible leadership’ and differentiating it from ‘responsible management’, the project management literature has not progressed from ‘responsible project management’ except for a few publications on megaproject leadership such as (Sankaran et al. 2019; Devkar & Sankaran 2023).

The research on responsible management at the individual manager’s level has led to the development of principles of responsible management in three domains – sustainability (optimizing triple bottom line), responsibility (optimizing stakeholder value) and ethics (embracing decision making and moral excellence) (Laasch & Conway 2015). Several others have observed the integral perspective, societal interdependence, long-term impact, consequence of their actions, change and stakeholder relations as key dimensions in tune with sustainable development (Pless, 2007; Kupers, 2011; Muff et al., 2013). The United Nations on the other hand, with its ambitious agenda for 2030 have put forth 17 SDGs with 169 targets that transcend boundaries. Business cannot thrive by focussing on one or few SDGs as they are deeply interconnected. Based on the ten principles of the UN Global compact, the United Nations has come up with a principled framework for business that aim towards SDG leadership and identifies five leadership qualities as essential and necessary conditions for achieving the SDGs that

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include: **Intentional, Ambitious, Consistent, Collaborative and Accountability** (UN Blueprint for Leaders, 2017). The framework challenges business to think critically how the five leadership qualities can be applied to its business actions and its strategies in support of the achievement of the SDGs. Few crucial skills advocated include: actions must be built on strong foundations of **integrity and responsibility**, adopt holistic and **systemic solutions** to achieve the scale of impact, make **self-reflection** mandatory and consider both the **positive and negative impacts** with other SDGs.

With a focus on the SDGs and moving beyond individual/organizational benefits to societal endeavours, it becomes imperative to foremost define who is a Responsible Leader (RL) and what are their competencies? Using the theoretical lens of systems thinking approach in project management (Gozluklu and Sterman, 2022), we follow the definition and the competencies stated by Muff et al. (2020) that proclaims: ‘A responsible leader demonstrates a deep understanding of the interdependencies of the system and the own person, is distinguished by an ethical and values-based attitude, and able to build long-term relations with different stakeholders embracing their needs, while initiating change towards sustainable development’. According to their study, the RL comprises of five competency dimensions and three domains of action that include: ethics and values, self-awareness, stakeholder relations, change and innovation and systems understanding as the 5 competency dimensions combined with the 3 domains of action as: knowing, doing and being or knowledge, skill and attitude.

The above definition and its dimensions focus on the competencies of an individual leader. The insights from UN SDG framework for business leaders advocate similar dimensions for leaders, however, at the organization level. In an attempt to advance the studies on organization leaders and using the systems thinking approach, we integrate the two frameworks to identify the possibilities of synergy for further exploration as depicted in the 2x2 matrix in Table 1.

Table 1: Proposed theoretical model of Responsible Leader (adapted from Muff et al., 2020)

Leadership Focus	Domains of action / Competency dimensions	Knowledge/ Knowing	Skill/Doing	Attitude/Being
Individual mindset (I) (Micro)	Ethics and Value	Knowing what is right / wrong	Acting as a role model	Being honest and integral
	Self-awareness	Knowing oneself	Learning from mistakes	Reflecting on development challenges
Organization mindset (We) (Meso)	Stakeholder relations	Dealing with conflicting interests	UN proposed Leadership Qualities for Business Actions for SDGs	Appreciating the positive in diversity
	Change and innovation	Understanding dynamics of change		Flexible, adapting to change
Society (Us) / Transformation (Macro)	Systems thinking	Understanding inter-dependency	Dealing with complexity, ambiguity	Defining long term perspective

The RL competencies are listed in the rows while the domains of actions on the columns following Muff et al. (2020). A suggestive description of the domains of action is also provided. From the table, it is evident that the Leadership focus for SDGs will be with the organization mindset and therefore juxtaposing RL framework with the SDG framework for business leaders proposed by the UN, we posit that the actions of business would focus on the shaded cells of the matrix which is at the meso level that would be determined by the interplay of the 5 Leadership qualities. There are limited studies in this direction, more so that focus the business actions of corporates in the construction sector and therefore this serves as a starting point to explore the role of business actions in achieving the SDGs with their Leadership qualities. To this end, using the UN framework for business leaders (UN

blueprint for leaders, 2017) and integrating with the competency dimensions put forth by Muff et al. (2020), this study explores:

- What are the business actions and leadership qualities that are predominant in achieving the SDGs in the construction sector?
- How does the interdependencies of the Leadership Quality and Business Actions impact SDGs?

Brief research methodology and approach

The study was exploratory in nature and required examining the business interventions or initiatives in the construction sector that contribute towards SDGs and identifying the predominant leadership qualities in organizations which can significantly impact the outcome. In this attempt, the research design was a mixed-method approach using both qualitative and quantitative techniques to collect and analyse data. Data was collected through secondary sources. The UN blueprint for business leaders (2017) was foremost thematically coded (Braun and Clarke, 2006) to identify prominent Business Actions (BA) and Leadership Qualities (LQ) in construction and further mapped using Social Network Analysis (SNA) methods (Newman, 2018) to explicate the significance of relationships of attributes with SDGs and understand which are the BA and LQs that are most aligned with SDGs. The results were subsequently validated qualitatively using project case examples (Eisenhardt, 1989b; Yin, 2003) from leading corporates and their annual sustainability reports (such as from Tata, Reliance and L&T) that showcase their business actions to address specific SDGs. This methodology was relevant given the vast scope of research targeting various corporates who attempt to attain SDGs either through business initiatives or interventions that fall in their gamut of corporate social responsibility as also informed by van Zanten and van Tulder (2021). The unit of analysis was the business case examples in construction.

Key Findings

The UN has put forth 17 SDGs that include 169 targets. Thematically coding the UN blueprint for business leader (2017), we identified a set of 10 SDGs along with 30 associated business actions and leadership qualities relevant for the construction sector as shown in Figure 1.

SDGs	Business Action (BA)	Leadership Quality (LQ)			
SDG-6-Clean Water and Sanitation	BA1-Develop and implement holistic water strategies that are socially equitable, environmentally sustainable, and economically beneficial in watersheds around company and supply chain operations	Intentionality, Accountability	SDG-11-Sustainable Cities and Communities	BA1-Research, develop, and deploy products and services which improve access to resilient buildings, transport, green spaces, and utilities	Collaboration
	BA2-Protect and/or restore water-based ecosystems around own operations and supply chain	Collaboration, Accountability		BA2-Protect and invest in cultural and natural heritage	Collaboration, Accountability
	BA3-Ensure access to water and sanitation by addressing impacts of company and supply chain operations on local water supplies and supporting stakeholders to deliver clean water and sanitation	Collaboration, Accountability		BA3-Support access to essential services across the workplace, marketplace, and community	Ambition
SDG-7-Affordable and Clean Energy	BA1-Significantly increase energy efficiency, source remaining energy needs from renewable sources, and promote the same action across the supply chain through supplier selection and support	Intentionality, Ambition, Collaboration	SDG-12-Responsible Consumption and production	BA1-Design and adopt a responsible, circular business model	Collaboration, Accountability
	BA2-Research, develop, and deploy affordable sustainable energy and energy efficiency products and services	Collaboration, Accountability		BA2-Significantly narrow or close material and energy loops across own and supply chain operations	Ambition, Collaboration
	BA3-Develop and implement business models to deliver sustainable energy and energy efficiency technologies to new markets and communities	Accountability		BA3-Shift to a portfolio of goods and services that require and promote negligible use of resources and produce negligible waste	Ambition, Collaboration
SDG-8-Decent Work and Economic Growth	BA1-Support decent working conditions for all employees across the business and supply chain, with partnerships to build suppliers' capacity to do the same	Collaboration, Accountability		BA4-Develop, implement, and share solutions for tracing and reporting on sustainability of production and consumption across end-to-end operations and impact on surrounding communities	Ambition, Accountability
	BA2-Educate and train the labour force, focusing on vulnerable and economically disadvantaged groups	Collaboration, Accountability	SDG-13-Climate Action	BA1-Ensure climate resilience of company and supply chain operations, and the communities surrounding them	Ambition, Collaboration, Accountability
	BA3-Create decent formal-sector jobs in labour-intensive sectors, especially in least-developed countries	AMBITION, Accountability		BA2-Substantially reduce emissions associated with own and supply chain operations, in alignment with climate science	CONSISTENCY, Collaboration, Accountability
	BA4-Drive economic growth and productivity by investing in R&D, upgrading skills, and supporting growing businesses, in a way that is compatible with sustainable development	Consistency, Accountability		BA3-Shift to a portfolio of goods and services that have, and promote, negligible emissions from use	Ambition, Accountability
SDG-9-Industry, Innovation, Infrastructure	BA1-Research, develop, and deploy products, services and business models to deliver sustainable and resilient infrastructure	Ambition, Accountability		BA4-Promote climate conscious behavior and build capacity for climate action	Collaboration, Accountability
	BA2-Support inclusive and sustainable upgrading of developing country industries in global value chains	Collaboration, Accountability	SDG-15-Life on Land	BA1-Implement policies and practices to protect natural ecosystems that are affected by business and supply chain activities	Accountability
	BA3-Create innovation systems for sustainable development by providing access to finance, fostering entrepreneurship, and pooling financial and research resources in a global knowledge base	Collaboration, Accountability	SDG-16-Peace, Justice and Strong Institutions	BA1-Identify and take robust action against corruption and violence in own operations and the supply chain	Intentionality, Ambition, Accountability
	BA4-Upgrade and retrofit infrastructure and industry assets across own and supply chain operations to make them sustainable and resilient	Ambition, Collaboration, Accountability		BA2-Work with government to strengthen institutions and increase respect and support for the rule of law	Collaboration, Accountability
			SDG-17-Partnerships for the Goals	BA3-Lead on partnerships to develop and share new and existing technology, knowledge, and business models	Ambition, Accountability
				BA5-Lead on partnerships that address systemic challenges for achieving the SDGs	Intentionality, Accountability
			Sum- 10 SDGs	30 BAs	5 LQ

Figure 1: Mapping Construction sector relevant SDGs with Business Action and Leadership Qualities (adapted from UN blueprint for Business Leaders, 2017)

The 10 relevant SDGs included: SDG - 6, 7, 8, 9, 11, 12, 13, 15, 16 and 17. Further analysis was carried out using SNA methodology in UCINET software. This helped to identify the significant BAs and LQs mapped with SDG. For instance, when probed: a) Which SDGs and Business Actions (BAs) are most central? Figure 2 shows the mapping of SDGs with BAs in the construction sector.

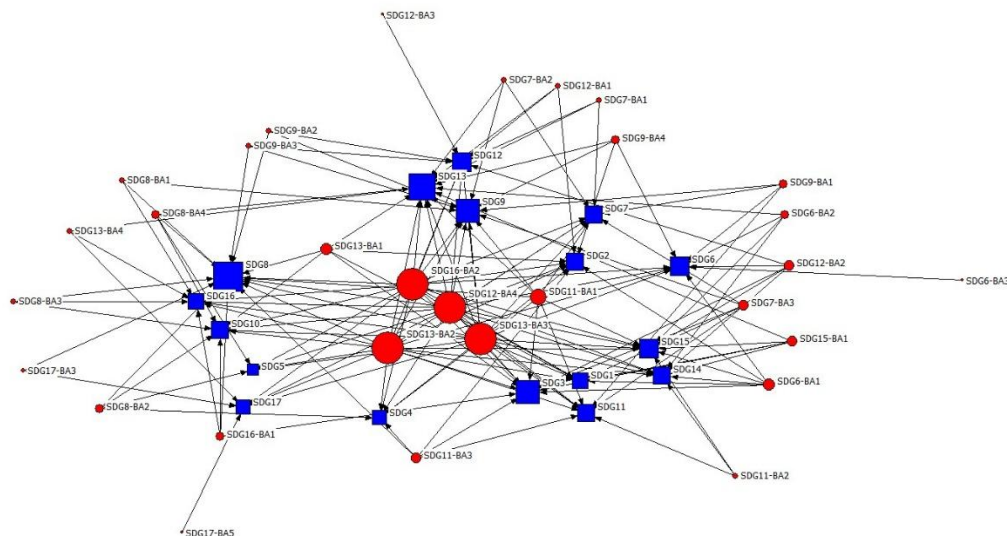


Figure 2: SDGs and Business Actions Network

Findings showed that SDG12-BA4, SDG13-BA2, SDG13-BA3, and SDG16-BA2 exhibited a high centrality measure with a Degree of 1.000, indicating their business actions are connected to the maximum possible number of SDGs in this network. These same Business Actions also showed a Closeness of 1.000, suggesting they are the most "reachable" nodes to/from all others in the network based on binarized data. Similarly, SDG8 stood out as the most central Sustainable Development Goal, demonstrating the highest connectivity (Degree), reachability (Closeness), and brokerage potential (Betweenness). In summary, the below listed SDG and their BAs are reportedly influential in the construction sector:

SDG-12-Responsible Consumption and production - BA4-Develop, implement, and share solutions for tracking and reporting on sustainability of production and consumption across end-to-end operations and impact on surrounding communities

SDG-13-Climate Action- BA2-Substantially reduce emissions associated with own and supply chain operations, in alignment with climate science. BA3-Shift to a portfolio of goods and services that have, and promote, negligible emissions from use

SDG-16-Peace, Justice and Strong Institutions- BA2-Work with government to strengthen institutions and increase respect and support for the rule of law

b) Which Leadership quality is most central and aligned to Business Actions? Figure 3 explicates the findings. The Leadership Qualities are abbreviated as: LQ1-Intentional, LQ2-Ambitious, LQ3-Consistent, LQ4-Collaborative and LQ5-Accountability.

The findings from the SNA on the BA-LQ Matrix highlighted that Leadership Quality – Accountability (LQ5) was the most central and important node in terms of its connectivity, reachability, brokerage role, and influence. It had the highest Degree (0.833), 2-Local (0.347), Closeness (0.792), and Betweenness (0.594). Leadership Quality 4 - Collaboration (LQ4) was also relatively important with a Degree of 0.600, 2-Local of 0.260, Closeness of 0.613, and Betweenness of 0.269. LQ3 – consistency had the lowest values across all measures (Degree 0.067, 2-Local 0.033, Closeness 0.380, Betweenness 0.001). Certain nodes like LQ5 and some BAs (e.g., SDG13-BA2, SDG9-BA4, SDG13-BA1) are potentially more important or influential. Conversely, BAs with low centrality scores (like SDG7-BA3, SDG11-BA1, SDG11-BA3, SDG15-BA1, and LQ3) were less structurally integrated.

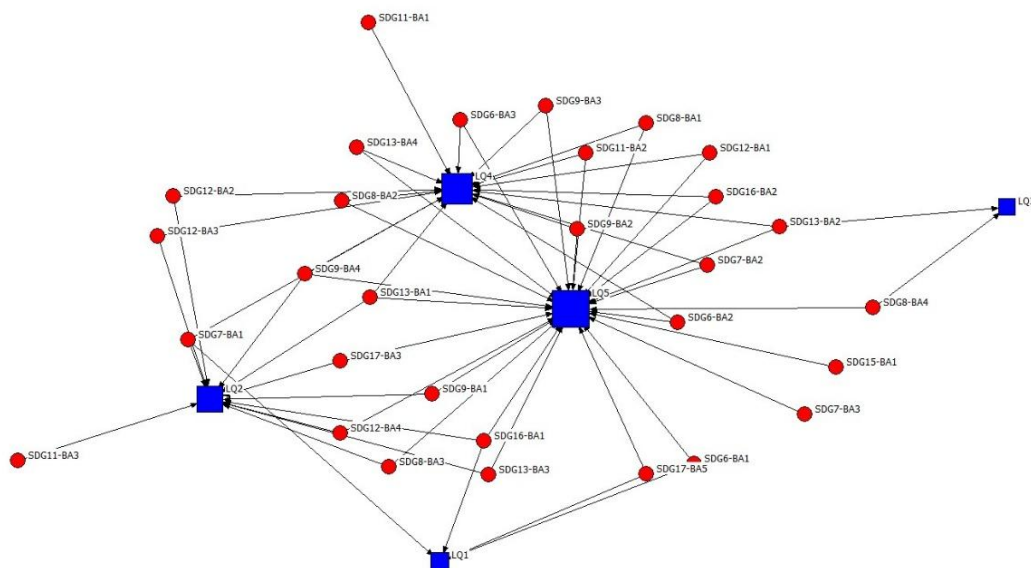


Figure 3: Business Actions and Leadership Quality Network

The findings were insightful in the context of the construction sector where the projects are complex and interdependent with multiple stakeholders. Certainly, collaboration (LQ4) and accountability (LQ5) as leadership qualities are central to business with ingrained ethical value system of the organization that is transparent and fair in its business operations as depicted in SDG16-BA2.

Administering justice and strong institution as prophesied by SDG16 is a decisive challenge across the globe, in particular, in the industries that are prone to bribery and corruption (Locatelli et al. 2022). As advocated by the UN, business can implement measures that ensure transparency of financial flows.

The SDGs are interdependent; business actions toward one Goal can support or hinder the achievement of others. In our study, SDG 8 was central to all SDGs with highest centrality and betweenness. Similarly, SDG 12-BA4 was the most central node that focus on robust sustainability reporting for end-to-end operations. In a scenario wherein, Sustainable production (SDG12) can result in less land and water pollution, with consideration of environmental impacts enhancing SDG 15, it can negatively impact SDG8 such as working conditions of labour (SDG 8), without efficient resource management or monitoring and tracking system.

The findings addressed both the Research Questions. However, in order to validate the findings, we mapped the case examples reported in the sustainability report of leading corporates like Tata Group of companies, Reliance foundations and L&T and their Business Actions with SDGs. The case examples highlight interventions / project initiatives that target specific SDGs. For instance, Tata Projects intervention for reutilization of waste concrete water for re-use of equipment cleaning and concrete curing by adopting a two-tier filtration system on its project site in Chhattisgarh. This was aligned with the SDG12 and Business Action 1 – Design and adopts a circular business model. A similar analysis was done for other companies. Table 2 showcases a few interventions mapped with SDG and their business actions from Tata Group of companies (Tata Sustainability Report, 2017).

These case examples also highlight some of the **challenges** that included: Technical, Logistics, Socio-cultural, Trust, Economic, Environmental, Institutional - local, national governing policies, regulatory frameworks, Technology, Marketing, Political and Resistance to change from traditional methods. Some of the **enablers for success** included: Stakeholder management, Participatory approach, Integrated - systems thinking approach, Technology, Consumer centric design approach, Storey telling through social media - advertising, digital online marketing, Top management commitment, Leader's personal involvement, Project manager, engineer and team support for intervention etc.

Table 2: Tata Group of Companies Business Actions to address SDGs

SDGs	Business Actions	Leading business cases from Tata Group of companies in construction and allied areas
SDG12 Responsible Consumption	BA4-Effective tracking and sustainability system. LQ-Ambition, Accountability	Tata housing led remote energy monitoring and control system for effective tracking and reporting in its Green building projects in Lead the low carbon growth initiative. Tata Rallies Mission Jaldhara and watershed management project Tata groups lead companies' partnership with various stakeholders for effective disaster management and control Sustainable source of raw material for Tata Tetley Tea product and Farmer field schools project
SDG13 Climate Action LQ-LQ2, LQ5	BA2-Substantially reduce emissions	Tata Motors CNG Buses and Electric hybrid buses. Micro grid solutions with decentralized distribution to Mulshi and Maval talukas of Pune Manufacture and use of Green products
LQ-Consistency, Collaboration, Accountability	BA3-Shift to a portfolio of goods that reduce emissions	Tata Steel project in ULCOS, an Europe-wide initiative to reduce carbon emissions in steel making by 80% with innovative solutions. Tata power and its Demand Side Management (DSM) program in Mumbai to reduce emissions.

SDG16 Peace, Justice and Institutions	BA2- Strengthen institutions LQ-LQ4, LQ5	Tatas initiative to advance scientific research and capacity building through its centers of excellence such as TISS, IISC, TIFR and NCPA. Okhai – sustainable business for handicrafts empowering rural women. Tata Housing Samarth program for hands-on skill and ready to engineer program
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Implications

The study explored the business leader qualities and their actions in the wake of Sustainable Development Goals. Integrating the Responsible Leader competency for individuals (Muff et al. 2020) and Leadership qualities identified by the UN in the blueprint for Business leaders for organizations, we built a conceptual model to focus at the Meso level- organization level leaders for their business actions and its alignment with SDGs. The study was exploratory and used secondary data to address two research questions that focused on identifying LQ and BA with sector relevant SDGs. Using SNA methodology, the study identified collaboration and accountability as key leadership qualities necessary for the construction sector and the business actions associated with SDGs that focus on sustainable production, climate change and institutions tended to be most influential. The findings also indicated their interdependencies with SDGs. The findings were further validated through case examples from Tata Group of company's initiatives. Key findings included the challenges and enablers in project success.

In perspective, it was evident that addressing SDGs require an 'outside-in' approach rather than the conventional 'inside-out' approach for the SDGs are globally proclaimed and organizations and business unit are committing to its achievement as also proclaimed by Muff et al. (2020). The Ethical Value and Self-awareness competencies of an individual in the theoretical model act as Antecedents to the Organization Behaviour that impact the consequence positively or negatively. The UN advocates a 3-step iterative process for organizations to *prioritize, act and learn*. The leadership role is therefore evolutionary and Leadership for SDGs cannot be a mere tick box exercise and future research can focus on insightful narratives and practice examples from project sites to augment the findings.

Keywords: Responsible leader, Humanitarian projects, Societal Concerns, Sustainable Development Goals, Responsible Project Leadership

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