

Corporate sustainability: The role of co-creation of value by multiple stakeholders in the food and beverage sector of Pakistan

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Abstract

Burgeoning consumer demands result in the depletion of resources and cause environmental degradation and social distress. The emphasis on addressing this issue inspires various business organizations to incorporate sustainable business practices, which not only enable them to fulfill the demands of the current population but also preserve for the next generations to satisfy their needs. Many business organizations have understood that they are unable to resolve sustainability issues in isolation and require the involvement of diverse stakeholders to integrate resources for sustainable outcomes. This thesis aims to understand the processes through which social interactions between business organizations and their stakeholders mutually create values for sustainable outcomes.

To fulfill the desired objective of this research, this thesis uses a multiple case study research design to have an in-depth understanding of the value co-creative processes in the food and beverage sector of Pakistan. A conceptual framework is developed to structure the empirical work, which comprises of six conceptual categories including values, stakeholders, motivations, service ecosystem, resources, and outcomes. The findings from the fieldwork identify diverse aspects of value co-creation processes. Firstly, it categorizes various stakeholders of companies who are directly or indirectly associated with sustainable outcomes. Secondly, it recognizes companies' practices, accountability relationships with stakeholders, and unique factors in the business ecosystem as additional significant aspects of value co-creation processes. Thirdly, the empirical analysis highlights that the aspects of value co-creative processes, such as values, motivations, resources, stakeholders' relationships, company practices, and factors in the business ecosystem are interconnected. Further, the study also identifies that the complex and interdependent aspects of value co-creation process are holistically developing an integrated framework for corporate sustainability.

Overall, the findings depict that corporate sustainability is a proactive approach, which requires concerted efforts from companies and stakeholders to jointly create long-term values by the creation of accounts beyond economic focus and articulating social and environmental outcomes. We can also infer that sustainability is not a stand-alone approach, as it is dependent upon various values, motivations, resources, factors, and relationships in an ecosystem. Integrating various aspects of value co-creation processes demands companies to build capacities by taking into account values, motivations, and resources of different stakeholders, which are relevant in developing a sustainable future. Thus, creating mutual values for the benefits of all the parties involved.

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Abbreviations in the main text

| | |
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| ACCA | Association of Chartered Certified Accountants |
| AMENA | Asia, Middle East & North Africa |
| AWS | Alliance For Water Stewardship |
| BISP | Benazir Income Support Program |
| BPNC | Balanced Plant Nutrition Company |
| CCBPL | Coca-Cola Beverages Pakistan Limited |
| CCI | Coca-Cola İçecek |
| CEWRI | Climate, Energy, and Water Research Institute |
| CGF | Consumer Good Forum |
| CSP | Corporate Social Performance |
| CSR | Corporate Social Responsibility |
| CSV | Creating Shared Value |
| DART | Dialogue, Access, Risk Assessment, Transparency |
| DID | Difference-in-Differences |
| EPA | Environmental Protection Agency |
| ESG | Environmental, Social, and Governance |
| FEE | Federation of European Accountants |
| FMCG | Fast-Moving Consumer Goods |
| G-D | Goods-Dominant |
| GDP | Gross Domestic Product |
| GRI | Global Reporting Initiative |
| HEIS | High-Efficiency Irrigation System |
| IFC | International Finance Corporation |
| IIRC | International Integrated Reporting Council |
| IMF | International Monetary Fund |
| IPO | Intellectual Property Organization |
| IR | Integrated Reporting |
| KPMG | Klynveld Peat Marwick Goerdeler |

| | |
|-------|--|
| KPI | Key Performance Indicators |
| MOU | Memorandum of Understanding |
| NGO | Non-Government Organization |
| NOC | No Objection Certificate |
| PARC | Pakistan Agriculture and Research Council |
| PFA | Punjab Food Authority |
| PMYBL | Prime Minister Youth Business Loan Program |
| PwP | Performance with Purpose |
| RBV | Resource-based View |
| SDG | Sustainable Development Goals |
| S-D | Service-Dominant |
| SEA | Social and Environmental Accounting |
| SFI | Sustainable Farming Initiative |
| SOP | Standard Operating Procedures |
| TVM | True Value Methodology |
| WASH | Water, Sanitation, and Hygiene |
| WET | Water Education for Teachers |
| WHO | World Health Organization |
| WoS | Web of Science |
| WWF | Worldwide Fund |
| WWF-P | Worldwide Fund -Pakistan |
| UN | United Nations |

Chapter 1

Introduction

1.0 Background of the study

Maximizing shareholders' value is the primary intent of business organizations (Friedman, 2007) and for attaining this objective, such organizations are remorselessly over-utilizing resources causing environmental and social distress (Johnson, 2012; Tencati and Pogutz, 2015). Wilson (2003) argues that although businesses are accused of causing some unsustainable conditions, they can play a significant role in sustainable development. The quest for sustainable development emerges in the 1970s when the Brundtland Commission uses this term in its report entitled 'Our Common Future' (WCED, 1987). With time, the debate on sustainability elaborates on the need for incorporating economic development, environmental protection, and social wellbeing at the same time. Meanwhile, a strong plea has been witnessed for business organizations to incorporate social and environmental aspects into their practices to promote sustainable development (Elkington, 1998; Bansal, 2005; Dahlsrud, 2008; Eweje, 2011; Adams *et al.*, 2016; Kross, 2017).

There has been a shift in business organizations' approach, from a traditional profit-making paradigm to a triple-tier concept of sustainable development that seeks to balance social, environmental, and economic objectives (WCED, 1987; Elkington, 1998). This has been accelerated since the 2030 Agenda for Sustainable Development adopted at the United Nation's (UN) Sustainable Development Summit on 25 September 2015. The success of this agenda lies in its implementation and, for this purpose, governments and societal actors have a pivotal role to play (Leisinger, 2015). Indeed, an increasing number of governments pay much attention to various aspects of sustainability, to mitigate environmental risks, to overcome the challenges of scarcity of resources, and to promote overall sustainable development (Corrigan, 2014). As governments alone cannot achieve this objective, it is crucial for business organizations to proactively and pre-emptively identify sustainability issues in developing sustainable business practices for 'corporate sustainability' (Wilson, 2003; Bansal, 2005; Dahlsrud, 2008; Eweje, 2011). After a long debate, the term 'corporate sustainability' has emerged as an organization's approach for economic development, environmental protection, and social wellbeing at the same time (Elkington, 1998; Kross, 2017).

Individual business organizations do not possess all the knowledge, expertise, and resources to achieve sustainability objectives on their own (Biggemann *et al.*, 2014; Kazadi *et al.*, 2016; Pera *et al.*, 2016; de Oliveira and Cortimiglia, 2017). The involvement of multiple stakeholders

in the entire value chain is therefore required to pool in resources to jointly create values for the betterment of the society at large (Clark and Holiday, 2006; Whitmer *et al.*, 2010; Talwar *et al.*, 2011; Scandeliuss and Cohen, 2016). The concept of creation of value through mutual interaction stimulates many researchers towards incorporating the idea of joint creation of value in corporate sustainability literature (Trencher *et al.*, 2013; Eccles *et al.*, 2014; Arnold, 2015; Aquilani *et al.*, 2016; Arnold, 2017; Keeys and Huemann, 2017; Aquilani *et al.*, 2018). However, doing so also raises issues about the difficulties in identifying how knowledge from multiple stakeholders can be integrated to meet sustainability objectives. This notion recognizes the need to mobilize and share knowledge, expertise, and resources of multiple stakeholders through mutual interactions. The concept of mutual interaction gives rise to the logic of co-creation of value, which depicts that stakeholders and organizations can collaborate to integrate resources for mutually valued outcomes (Weaver, 2008; Ribeiro-Soriano and Urbano, 2009; Trencher *et al.*, 2013; Arnold, 2015; Aquilani *et al.*, 2016; Arnold, 2017; de Oliveira and Cortimiglia, 2017; Keeys and Huemann, 2017; Aquilani *et al.*, 2018).

The diverse literature on corporate sustainability and co-creation of value by stakeholders demonstrates that numerous businesses have adopted measures to sustain themselves by incorporating stakeholders' views (Biggemann *et al.*, 2014; Scandeliuss and Cohen, 2016; Keeys and Huemann, 2017). However, very little research has been geared towards identifying the processes through which multiple stakeholders can collaborate and co-create values that are reflected in organizations' sustainable outcomes (de Oliveira and Cortimiglia, 2017). Previous literature highlights an avenue to seek for accountability relationships between business organizations and their stakeholders to co-create values for sustainable outcomes (Skaržauskaitė, 2013; Arnold, 2015; Arnold, 2017; Bebbington *et al.*, 2017; de Oliveira and Cortimiglia, 2017; Keeys and Huemann, 2017). Here, the accountability relationships are based on managing stakeholders' relations by the business organizations to interact and exchange resources with them for mutually valued sustainable outcomes. This thesis addresses this unexploited opportunity by recognizing the construction of multiple accounts¹ through the accountability relationships between business organizations and diverse stakeholders, to co-create values for sustainability.

1.1 Aims of the study

The basic intent of this thesis is to understand the processes of business organizations' interactions and collaborations with multiple stakeholders to mutually create values in the food

¹ Here the account refers to the narration of any social activity including various aspects of stakeholders' interactions, either for economic interests or beyond (social and environmental benefits).

and beverage sector of Pakistan, and how these jointly created values are reflected in organizations' sustainability outcomes². Based on the main research objectives, the thesis intends to answer the following research questions:

RQ1: Who are the important stakeholders for business organizations to co-create values for corporate sustainability?

RQ2: What processes are required to co-create values by multiple stakeholders?

RQ3: How are co-created values reflected in the organization's sustainable outcomes?

Possessing all the resources to develop sustainable practices is beyond the control of a single organization, which encourages organizations to interact and exchange resources with other stakeholders, who possess the desired resources (Ren *et al.*, 2015; Kazadi *et al.*, 2016). Interaction between companies and myriad stakeholders is a social activity and it is viewed as giving, receiving, and constructing accounts (Gray *et al.*, 2014). Arrington and Francis (1993) argue that the development of accounts is a ubiquitous human activity that goes beyond the conventional nature of accounts, which mainly focus on economic interests. Here, accounts are the description of social interactions among companies and their diverse stakeholders to understand accountability relationships for their mutual sustainable outcomes. These accounts can take many forms depending upon the nature of the relationship between companies and their stakeholders. To understand these accounts, this thesis is using a multiple case study research design to have an in-depth understanding of an interesting and reflexive process of multiple accountabilities. Where accountability is considered as the obligation of a company to account for its activities in its relationships with stakeholders, take responsibility to perform desired activities, and disclose accounts transparently. Multiple accountabilities produce accounts, which are not just based on economic returns, but also social and environmental outcomes, and manifested in the relationships among companies and stakeholders (Gray *et al.*, 2014; Killian and O'Regan, 2016). The entire process requires motivations from companies and various stakeholders to contribute through diverse platforms to co-create values and then companies are enabled to incorporate those values into their sustainable practices (Pera *et al.*, 2016; de Oliveira and Cortimiglia, 2017).

To fulfill the objectives of the current thesis and to answer the research questions, an eclectic conceptual framework is developed by taking the concepts of cooperation and resource exchange from service-dominant (S-D) logic by Vargo and Lusch (2004), adapting the

² Business organizations and companies are used interchangeably in this thesis.

components of value co-creation process from the studies of Saarijärvi *et al.* (2013), Mahr *et al.* (2014), Leclercq *et al.* (2016) and de Oliveira and Cortimiglia (2017), and the concept of accountability and construction of accounts during entire process from Gray *et al.* (2014) and Killian and O'Regan (2016). The rationale behind taking the concepts from multiple theoretical lenses is twofold: (a) not a single theory can fully explain the holistic processes of value co-creation for sustainability; and, (b) most of the literature on value co-creation is marketing based and lacks in theoretically explaining the accountability relationships among companies and stakeholders for providing multiple accounts for sustainable outcomes. The dual logic inspires us to borrow concepts and theories from management, marketing, and accounting disciplines to frame our conceptual framework (explained in detail in Chapter 3). Here an interpretive approach is used within the case study to understand the processes of co-creation of value while maintaining a focus on sustainability. This research is aimed to logically understand the value perceptions of companies and their stakeholders and highlight collaborative activities between companies and their stakeholders to jointly create values for sustainable outcomes. However, comprehending these values is subject to the construction of their meanings in a particular social context.

1.2 Study rationale

According to the UN estimates elaborated by Worldometers, the current world population is 7.8 billion people, and this population is expected to grow to 10 billion by 2056³. Population growth is relative to the increasing demand and consumption of consumer products. Fatemi and Fooladi (2013) also narrate that to keep up with the growing population, it is important to realize how to fulfill the increasing consumer demands. A recent report by Carrington (2020) in The Guardian⁴ highlights that since 1970, the world population has been doubled and material consumption has quadrupled in the same period. On the one hand, material consumption due to the rising production of goods and services is depriving many regions of this world of water, forestation, and various other resources; and on the other hand, it is generating excessive waste, not only at the time of production but also at the time of consumption. Only 8.6% of the materials consumed every year are recycled and the rest of them are mostly emitted and discarded in the environment if not in use (Carrington, 2020). Esposito *et al.* (2016) disclose that the world is generating almost 1.3 billion tons of solid waste every year, which is expected to reach 2.2 billion by 2025. Moreover, Boyd (2017) highlights that the over usage of consumer products is increasing the waste in the form of bags and bottles, especially on beaches. Boyd

³ World population, available at: <https://www.worldometers.info/world-population/> (assessed on: 30/09/2020)

⁴ The Guardian is a British newspaper. Available online: <https://www.theguardian.com/uk>

(2017) reports Ellen MacArthur Foundation's prediction that this bitter reality would result in more plastic in oceans than fish, by 2050. The issues of increasing waste with rising consumption are a wake-up call for the industry, to address the crises and put greater effort in developing a sustainable future. It is also inspiring companies to introduce sustainable business practices through cooperation and involvement of multiple stakeholders in the entire value chain (Clark and Holiday, 2006; Whitmer *et al.*, 2010; Talwar *et al.*, 2011).

The current thesis focuses on fast-moving consumer goods (FMCG), which are used for fulfilling the everyday demands of consumers and accounts for the most frequent consumer expenditure. FMCGs normally include goods with a shorter useful life and contain a wide range of diverse products that consumers normally find in supermarkets (Jaray, 2005). FMCG industry is segmented based on product types, for example, food and beverages, personal care, healthcare care, and home care (Statista, 2019). The food and beverage sector is the largest and growing portion in the FMCG industry, and it is expected to grow in the future as well (see Appendix A). The purpose of choosing this sector is the escalating level of consumption of FMCG products and their level of waste contribution in the environment, which calls for sustainable approaches in this sector. The Guardian report demonstrates that out of 100.6bn tonnes of materials consumed globally per year, 21.3% goes into the production of food and beverage products (Carrington, 2020). According to Lucintel (2012) global food and beverage retail market is continuously growing, due to increasing Gross Domestic products (GDP), excessive consumer spending, and changing lifestyles, tastes, and preferences. Fatemi and Fooladi (2013) also predict that global food production requires to be almost double in the next 30 years to fulfill the increasing demand. Mcgrath's (2017) report in Forbes highlights that Nestlé, PepsiCo, and The Coca-Cola Company⁵ are the largest food and beverage companies in the world. To conduct this research, these three companies are selected as distinct cases, which are studied in detail regarding their stakeholder collaborations and interactions for co-creation of values and how these co-created values are reflected in the respective companies' sustainability outcomes. All three companies studied have practices for stakeholders' engagement, which are evident from their publicly available information. However, there can be differences in the practices of these companies in various economies around the globe.

For this thesis, the food and beverage sector of Pakistan is selected to understand the processes and practices of Nestlé, PepsiCo, and Coca-Cola to co-create values through multiple

⁵ Globally it is called The Coca-Cola Company (TCCC) and within Pakistan it is named Coca-Cola. In this thesis we will be using The Coca-Cola Company for its global practices and Coca-Cola for Pakistan's context.

stakeholders for sustainable outcomes. The case of Pakistan is extremely interesting from various perspectives:

(1) Pakistan is a developing economy, with an increasing population and rising demands from consumers. Household consumption statistics from The World Bank (2019) shed light on the increasing trend of household consumption expenditure in Pakistan (see Appendix B). The World Bank (2018) consumption statistics also reveal that within household consumption expenditures, the food and beverage sector consumption displays the largest share in Pakistan (see Appendix C). A business analysis report by Plunkett's research limited on the food and beverage sector also depicts that food spending accounts for more than 40% of the total consumer spending in less developed countries, for example in Pakistan and Nigeria (PRL, 2019). To fulfill the increasing demand from consumers, companies are accused of excessive resource utilization. For example, Neo (2018) reports that Pakistan is one of the most water-intensive economies and over usage of water by companies predicts absolute water scarcity in Pakistan by 2025. Statistics also highlight that on the one side Pakistan's water usage rate is the fourth highest in the world and on the other side there is an alarming situation for Pakistan as being ranked third in terms of water shortage in the world. The highest consumption in the food and beverage sector reflects its highest demand which is directly proportional to the utilization of resources to fulfill consumer demands. Increasing demand coupled with resource scarcity, for example, water depletion, pinpoints the opportunities for the business sector to make it sustainable.

(2) Pakistan is culturally, politically, and religiously an interesting state for businesses, and whenever any multinational enters Pakistan, it requires to adjust itself according to certain religious and cultural facets of the country. Unstable political conditions, cultural diversity, and religious aspects develop a challenging business ecosystem, which largely influences the development of sustainable business practices and companies' relationships with various stakeholders.

(3) Currently, there are 559 listed companies in Pakistan, but unfortunately, many companies have little knowledge about sustainability. A report by the Association of Chartered Certified Accountants (ACCA) explains the sustainability landscape in Pakistan and recommends increasing awareness for companies, capacity-building workshops for sustainability, policy-level interventions, sustainability disclosure practices, and recognition of the company's sustainability efforts (ACCA, 2017). Multinational companies and various international organizations are promoting the concept of sustainability in Pakistan and providing awareness regarding its importance. All these abovementioned aspects direct the attention towards

understanding the sustainability landscape in Pakistan and to recognize the processes and practices of large multinationals to collaborate with stakeholders to co-create values for the identification and execution of sustainability agendas in Pakistan.

1.3 Methodology

To understand the intricacies of value co-creation processes among companies and stakeholders, a framework has been developed after a thorough literature review. Three elements of the value co-creation process are identified, which are: values, actors, and engagement platform (Saarijärvi *et al.*, 2013; Mahr *et al.*, 2014; Leclercq *et al.*, 2016). These elements, however, are deficient in defining the drivers and outcomes of this process (de Oliveira and Cortimiglia, 2017). In addition, these studies generally ignore the exchange of resources, which is fundamental for the co-creation of value (Vargo and Lusch, 2004; Vargo *et al.*, 2008). Vargo and Lusch (2004) argue the salience of resource exchange and integration to co-create values, where resources can either be operand (physical) or operant (proessional or non-physical) in nature (Constantin and Lusch, 1994). For this PhD thesis, it is important to identify the types of resources exchanged among companies and their stakeholders for the co-creation of values for sustainable outcomes.

Based on reviewing and understanding the literature, the following conceptual categories of value co-creation processes are identified to establish the framework for the current thesis: values, multiple stakeholders instead of actors, motivation as a driving force, resources, service ecosystem, and outcomes of the process (see Chapter 3 for details). Where, value is taken as subjective perceptions of stakeholders to consider anything valuable or significant from their lived experiences (Zeithaml, 1988; Mathwick *et al.*, 2002). It depicts that value is very much related to the context in which it is realized and evaluated. To understand the value co-creative processes, the current research uses a multiple case study research design. Three distinct cases, which are, Nestlé, PepsiCo, and Coca-Cola are selected and studied in detail regarding their processes of joint creation of values with stakeholders for sustainable outcomes. As the current thesis is focused on sustainability initiatives of the companies, that is why those stakeholders are identified who are sharing and exchanging resources with companies for meeting sustainability objectives.

To answer the first research question, a documentary analysis of the company's global sustainability reports of five years (2014-2018) and website sources is conducted. The documentary analysis informs us of the sustainability initiatives of the companies, their outcomes, and stakeholders involved in all such activities. Stakeholders identified through documentary analysis are clustered into the following seven stakeholder categories: company

representatives, academic and research institutes, customers, suppliers, regulatory bodies, alliance and business partners, and international associations. Similar stakeholder categories are recognized in the context of Pakistan and contacted for interviews. Purposive sampling is used to ensure variations in the stakeholders' responses, mainly to realize their motivations for the construction of multiple accounts to co-create values for sustainable outcomes (Bryman and Bell, 2015).

To answer the research questions (2) and (3), further interviews are conducted with company representatives and diverse stakeholders in the food and beverage sector of Pakistan. Interviews are conducted from the identified stakeholder categories on the basis of the conceptual framework developed for this study. Data from the company reports, official websites, and interviews develop our understanding of the value co-creation processes for sustainability. The empirical work from the case study informs four important elements of the value co-creation process for sustainability, which are: stakeholders, motivations, values, and sustainability. During the process of value co-creation, companies and their stakeholders are found to be accountable for their actions towards each other, society, and the environment. It is observed that various stakeholders are motivated to create accounts through interaction and resource exchange to jointly create values for sustainable outcomes. Fieldwork reveals that the entire process of co-creation of value with multiple stakeholders is either facilitated or hindered by following three important aspects: statement of work defined by the identification of sustainability issues and companies' practices to achieve those objectives; engagement platforms to communicate and exchange resources among companies and different stakeholders; and, business ecosystem shaped by various factors and stakeholders' relationships (these elements and aspects are mentioned in Figure 1.1).

1.4 Findings of the study

The findings of this study depict that all the aspects identified through empirical work assist companies to mutually create values with stakeholders to promote sustainability. The study identifies that the most widely focused sustainability areas for the companies studied in the food and beverage sector of Pakistan are water conservation, responsible sourcing, waste management, nutrition, and human rights. The identification of these sustainability agendas is an ongoing process, which takes input from global teams, companies' and stakeholders' values, motivations, resources, and the business ecosystem. The current thesis argues that various aspects of value co-creation processes highlighted above are interlinked and help companies to identify, prioritize, and execute sustainability agendas. Values are realized and mutually created in the entire process of identification, planning, and execution of sustainability objectives.

These values intrinsically or extrinsically motivate companies and stakeholders to pursue towards achieving sustainable outcomes. Three types of values are identified as significant value categories inferred from the responses of companies and their stakeholders, which are: ethical values, mutually beneficial values, and values associated with the sale and utility of the product. Both motivations and values are shaped by the business ecosystem, which is a collective system of various factors and the collaboration and interaction among these factors to either support or hinder business activities.

Companies and stakeholders are important components of the business ecosystem and are accountable for their actions in a particular context. The accountability that arises as a result of the relationship between companies and stakeholders produces various numbered and narrative accounts. These relationships are facilitated through various channels in a business ecosystem to interact and exchange resources for sustainable outcomes. Companies use diverse formal or informal communication channels to interact with different stakeholders, which vary according to the type of stakeholder and the nature of companies' relationship with that stakeholder. These communication channels are found to facilitate the exchange of various resources, categorized into operand and operant resources. In each relational encounter, every party involved is responsible to take actions and provide accounts for those actions. These accounts are created through collaboration, interaction, and resource exchange among companies and stakeholders, and jointly create values for the parties involved. We can infer that companies, their stakeholders, motivations, resources, and relationships are entwined to form an integrative framework, which mutually creates values that are manifested in the sustainability outcomes of the food and beverage companies in Pakistan.

1.5 Study contributions

The study contributes through recognizing the relationship between the co-creation of values by multiple stakeholders and sustainable outcomes. The value co-creative processes identified in this research present diverse aspects of this process, which are integrated into sustainable outcomes of the companies. The study highlights that multinationals have distinct processes and practices for sustainability, but it is recognized that local and global focal sustainability target areas can be different. Variances in sustainability objectives and targets are dependent on various aspects identified in this research. A better understanding of these aspects, for example, motivations, values, and ecosystem, can guide companies to recognize sustainability perceptions of stakeholders, requirements from the ecosystem, and needs for sustainability awareness.

The thesis contributes through categorizing important stakeholders, who can influence, and are influenced to develop formal and informal relationships with companies to enhance sustainable development. The empirical analysis can be used in multiple ways, for example: (i) to understand the motivations and values of diverse stakeholders to co-create values for sustainability; (ii) to identify and categorize resources of various stakeholders to better access the type of resources that each stakeholder possesses and is willing and able to exchange; (iii) to understand the accountability relationships between companies and stakeholders for sustainable outcomes; and, (iv) to propose strategies for policymakers, where business organizations can improve their stakeholder management and capture more values from them. Moreover, as it is identified that the notion of sustainability is not well-recognized in Pakistan, that is why this thesis highlights the significance of this issue in Pakistan, as well as, it also sheds light on how the values co-created with stakeholders can be utilized to establish innovative strategies for corporate sustainability.

The thesis also brings extensive knowledge that will be used in theorizing the impact of co-creation of value on corporate sustainability, as there is very little research on understanding the influence of co-created values on the company's sustainable business practices and outcomes. Another important contribution of this study is the identification of a linkage between the sustainability accounting and reporting process and value co-creation processes for sustainability. Both sustainability accounting and reporting process and value co-creation processes for sustainability begin with the identification of focal sustainability areas and further proceed to achieve sustainable outcomes. However, it is identified that value co-creation processes discussed in this research either overlap or provide input for various stages of sustainability accounting and reporting processes. In this way, this thesis opens avenues to understand a new perspective on sustainability accounting in relation to value co-creative processes for sustainable outcomes, in other sectors and regions as well (see Chapter 9 for details).

1.6 Structure of the thesis

The title of the thesis – Corporate sustainability: The role of co-creation of value from multiple stakeholders' perspectives in the food and beverage sector of Pakistan– highlights the focus of the study through developing an account on the collaborative relationships among companies and multiple stakeholders to co-create values for sustainable outcomes. This introductory chapter gives an overview of the study with its objectives and research questions, brief theoretical and methodological aspects of the study, the rationale behind conducting this study, and theoretical and practical contributions. The remainder of this thesis is structured as follows:

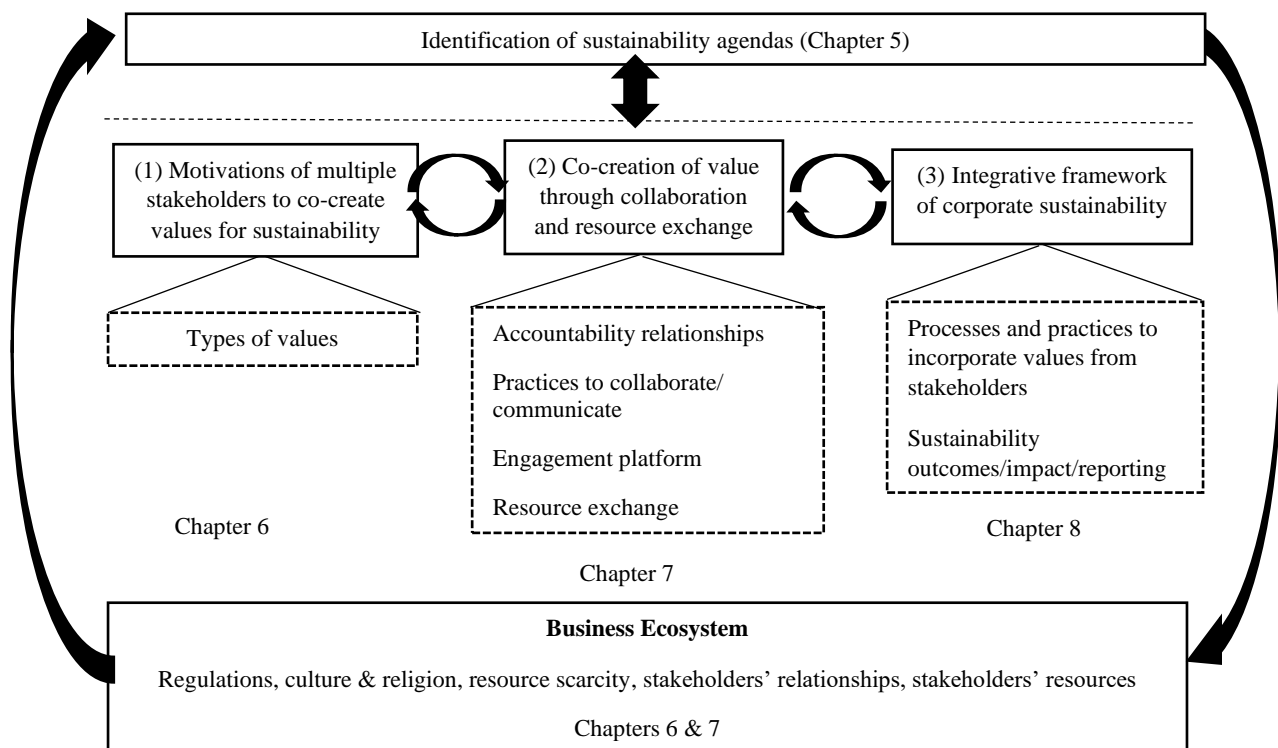
Chapter 2 provides a comprehensive and critical review of the diverse literature on corporate sustainability and co-creation of value with stakeholders. This chapter demonstrates the theoretical contributions of academics in incorporating various fields and theoretical perspectives into the sustainability domain. The literature review recognizes the development of collaborative linkages between organizations and various value chain partners, as an approach towards corporate sustainability. Extant literature sheds light on the significance of partnerships and collaborations between academia, industry, government, and civil society, to achieve sustainability. The salience of collaborative relationships inspires business organizations to involve multiple stakeholders for developing innovative strategies and eliminating wasteful efforts from their business activities. This chapter also demonstrates that many studies intend to establish the linkage between collaborative co-creation of value and corporate sustainability, but the results in terms of explaining the relationship between co-creation of value and corporate sustainability are obscure. Thus, guiding us to develop a multi-stakeholder conceptual framework of the value co-creation process for corporate sustainability.

Chapter 3 elaborates on a conceptual framework of value co-creation processes, which is drawn on the concepts and constructs from various theories and research findings discussed in Chapter 2 to frame the current thesis. The study identifies the following six conceptual categories of value co-creation processes for sustainability: values, multiple stakeholders, motivations of companies and stakeholders to jointly create values, resources exchanged during this process, service ecosystem, and the outcome of the process as reflected in sustainability initiatives and outcomes of the company. Empirical data is collected based on these six conceptual categories of the value co-creation processes.

Chapter 4 demonstrates the methodology adopted to conduct this research by highlighting the following aspects of research methodology: philosophical assumptions behind the study, research design for data collection and analysis, ethical considerations, and study context. An in-depth case study research is conducted in the food and beverage sector of Pakistan to understand the value co-creative processes in the real-life context. Three cases in the food and beverage sector of Pakistan are selected and explained in detail to understand the context and significance of the study. Data collection and analysis involve techniques to collect primary and secondary data, along with interview strategy, transcription, coding, and analysis techniques. Data from multiple sources, such as the company reports, official websites, and interviews, inform our understanding of the value co-creation processes for sustainability. The analysis of

empirical findings from the fieldwork⁶ is presented in four chapters: Chapter 5, Chapter 6, Chapter 7, and Chapter 8. The whole process of value co-creation is illustrated in Figure 1.1, which depicts the aspects identified from empirical work and patterns that emerged from the empirical data. The following significant aspects are covered in the subsequent chapters respectively: (1) identification of sustainability issues of the companies on a global level and from Pakistan’s perspective; (2) motivations of stakeholders to co-create values for sustainability; (3) co-creation of values by the companies through interaction and resource exchange; and, (4) integrative framework of corporate sustainability.

Figure 1.1: Overview of the empirical work



Chapter 5 identifies and describes the global and local sustainability agendas of the companies in the food and beverage sector. It is revealed from the fieldwork that subsidiary company sustainability agendas are in line with the global parent company, as the targets normally come from the global leadership teams. However, the business ecosystem, including local regulations, culture, religion, scarce resources, stakeholders’ pressures, and relationships may modify the global sustainability agendas (explained in the subsequent chapters). Fieldwork highlights focal sustainability areas in Pakistan. This chapter also highlights that empirical analysis on the value co-creation process is also aligned with the integrated framework for sustainability performance measurement by Schaltegger and Wagner (2006) and stakeholder engagement framework in

⁶ Fieldwork includes all the data collected by the researcher through interviews from Pakistan, documents, and web sources.

the sustainability accounting and reporting process by Kaur and Lodhia (2018). The sustainability accounting and reporting process begins with the identification of sustainability issues and progresses with the sustainability accounting and reporting stages. Both processes explained here—multiple stakeholders’ value co-creation and sustainability accounting and reporting—are parallel to each other, where the value co-creation process either overlap or provides input to the stages of the sustainability accounting and reporting process.

Chapter 6 sheds light on the motivations of companies and their stakeholders, which are categorized into intrinsic and extrinsic motivations. These motivations are influenced by the values of companies and stakeholders, which are further shaped by the business ecosystem. Where values are considered as subjective perceptions of companies and their stakeholders to consider anything valuable from their lived experiences in the context of Pakistan. It is also explained that both the motivations and values of companies and stakeholders are shaped by the business ecosystem, which supports or hinders the activities of companies. Fieldwork reveals three important factors in an ecosystem, which are: regulations; culture and religion; and, resource scarcity. However, collaborations and interactions among these factors to support or hinder business activities are discussed in the next chapter. Understanding motivations, values, and factors in the ecosystem help companies to identify sustainability issues.

Chapter 7 discusses the processes and practices by which companies interact and exchange resources with diverse stakeholders to co-create values. Here the major focus is to identify the practices that are employed by companies to interact and exchange resources with stakeholders to achieve sustainable outcomes. This chapter sheds light on the accountability relationships among companies and their stakeholders for the creation of accounts and identification of communication channels, which are used to exchange resources in these relationships. It is argued that companies are using an integrative framework to collaborate, interact, and exchange resources with stakeholders, which is the basis of value co-creation. Moreover, collaboration and resource exchange provide input to the sustainability accounting process, where companies require interaction and resource exchange to identify sustainability issues, plan activities, set targets, and execute sustainability initiatives. The entire process of sustainability accounting is affected by the ecosystem in which all stakeholders, their relationships, and resources are embedded.

Chapter 8 focuses on understanding the processes, through which mutually created values are shaping the company’s sustainable practices. The integrative framework for sustainability emphasizes the need of assessing and utilizing stakeholders’ relationships and resources in sustainable planning, accounting, and reporting. Here the company’s practices to integrate

stakeholders' resources for sustainability are identified, which are reflected in sustainability outcomes. This chapter also sheds light on companies' disclosure of sustainability information and impact assessment either in the of quantified accounting outcomes or non-quantitative narratives.

Chapter 9 concludes the thesis by revisiting and discussing research questions and approaches to riposte those questions. It also highlights the contributions of the thesis in the academic and managerial field and provides some possible future research avenues.

Chapter 2

Literature review

2.0 Introduction

This chapter aims to review and understand the literature on corporate sustainability and co-creation of value by stakeholders. To deepen our understanding of the relevant concepts, this chapter is divided into five main sections. Section 2.1 sheds light on the significance and roots of corporate sustainability, its impact on organization's performance, and its measurement tools. Section 2.2 discusses the concepts of value and co-creation of value, along with the theoretical underpinnings and measurement scales of value co-creation. Whereas section 2.3 states the significance of multiple stakeholders and their role in the co-creation of value. Section 2.4 identifies the interlinkages between co-creation of value and corporate sustainability and the final section 2.5 summarizes the entire literature review along with the identification of untapped research opportunities in developing objectives and research questions for the current research study.

2.1 Corporate sustainability

Discussions on sustainability can be traced back to the UN Conference on the Human Environment held in June 1972.⁷ The need for incorporating economic development, environmental protection, and social wellbeing is introduced by the Brundtland Report entitled 'Our Common Future' (WCED, 1987). The core premise of this report is to understand that sustainable development fulfills the needs of the present generation and ensures that future generations will not be deprived of their basic needs. Moreover, sustainable development is not considered to be a fixed state of equilibrium, but a process, which focuses on developing harmony among exploitation of resources, investment decisions, technological development, and institutional changes (WCED, 1987; Linton *et al.*, 2007). This section provides an in-depth understanding of corporate sustainability. Subsection 2.1.1 discusses the concept of corporate sustainability and the role of business organizations in sustainable development, while Subsection 2.1.2 presents the theoretical foundations of corporate sustainability and its development with time, followed by Subsection 2.1.3, which highlights the strategic perspective on corporate sustainability. Subsection 2.1.4 explains sustainability accounting followed by the impact of sustainability on organizational performance in Subsection 2.1.5.

⁷ The conference was based on developing principles for guiding human beings in preservation and enhancement of the environment. See full report at: <http://www.un-documents.net/aconf48-14r1.pdf>

Subsection 2.1.6 discusses sustainability disclosure and a brief overview of the measurement tools of corporate sustainability. The entire section is summarized at the end.

2.1.1 *The role of business organizations in sustainable development*

Lee (2014) argues that the Brundtland Report motivates practitioners and policymakers to pursue their attention towards sustainable development. It became central in framing the discussions at the UN Conference on Environment and Development in June 1992, also known as the Earth Summit. Accordingly, the UN General Assembly established the Commission on Sustainable Development in December 1992 to monitor and promote sustainability and to implement the objectives discussed at the Earth Summit (see Appendix D). The Earth Summit highlights that “sustainable development calls for concerted efforts towards building an inclusive, sustainable and resilient future for people and planet”. The Brundtland Report and the UN agreements and conventions on sustainable development have gained traction and salience from multiple stakeholders, broadly speaking policy institutions, Non-Government Organizations (NGOs), public and private companies, who are unanimously endorsing it (Bebbington and Unerman, 2018). The debate on sustainability has moved beyond recognizing the mere responsibilities of the government and policymakers to achieve this goal. Concerted efforts from businesses are also required to contribute to the development of sustainable business practices for ‘corporate sustainability’.

Johnson (2012) states that “When we view economic activity through the lens of financial numbers such as profit, cost, income, GDP, it becomes a quantitative abstraction, completely separated from the concrete activities that produce such numbers. Indeed, corporations are seldom held accountable for the true social and environmental costs of their actions, including polluted air and rivers, toxic food, scarred landscapes, scarce or tainted water, discarded human lives and communities” (p. 5). Business organizations are significant components for economic development and, therefore, they are required to be more proactive in balancing the drive of sustainability with social equity and environmental protection (Wilson, 2003). Bansal (2005), Dahlsrud (2008), and Eweje (2011) also shed light on this issue that interests of the society and businesses can develop a sustainable business sector. However, awareness is required that there should be a fundamental transformation in the ways businesses and society consume natural resources, if we are to make progress on pressing environmental issues, such as ecosystem degradation and global climate change (Hall *et al.*, 2010; Tencati and Pogutz, 2015).

Levitt (1958) and Friedman and Friedman (1962) argue that, previously, organizations’ focus was on the outcomes in terms of profits and losses and the impact of their business practices on their shareholders. Now, businesses recognize that corporate growth and profitability are

important elements, but it also requires corporations to pursue societal goals, in terms of justice, equity, and environmental protection. Elkington (1998) states that businesses and societies can find approaches that will move towards all three goals—environmental protection, social wellbeing, and economic development—simultaneously, called a triple bottom line approach,⁸ which can lead towards sustainable development. The Dow Jones Sustainability Index summarizes corporate sustainability as a “business approach that creates long-term shareholder value by embracing opportunities and managing risks deriving from economic, environmental and social developments” (Kross, 2017, p. 12).

Organizations need to understand that sustainability is an opportunity, rather than a threat (Machiba, 2010), and linking responsibility with opportunity allows business organizations to actively contribute to the goals of sustainable development. The role of businesses regarding sustainable development has been discussed as a ‘responsibility’ to society, which serves as a need to eliminate the negative effects of businesses (Carpenter and White, 2004). In this regard, Dresner (2002) argues that sustainability is maintaining a balanced tension among four central aims: environmental protection, social justice, economic development, and intergenerational equity. It sheds light on the ethical viewpoint of sustainability, as Baumgartner (2014) argues that justness, equity, and ethics are the core focuses of the normative interpretation of sustainable development. The ethical view of sustainability infers that every company should be a sustainable company, but in the reality of market-based economies, companies should be economically successful (Laudal, 2010). Therefore, organizations are required to embed socially and ethically proven ethos into their business activities to provide insights for corporate sustainability management, such as innovation, productivity, and cost savings, which are necessary for corporations to prosper and survive sustainably (Baumgartner, 2014; Idowu *et al.*, 2015). Organizations require a transformation in their thinking to deal with morally infused issues, and they further require to create and validate this thinking into organizational practices and policies (Bebbington and Larrinaga, 2014).

2.1.2 Theoretical underpinnings of corporate sustainability

Researchers from the past few years tend to provide theoretical foundations for this emerging field (Bansal and Gao, 2006; Etzion, 2007), which could help managers in organizations to understand sustainability in more detail. It is identified that the Brundtland Report highlights the importance of industry in sustainable development, which is the starting point for

⁸ The triple bottom line concept of sustainability consists of; social equity, economic, and environmental factors, was coined by John Elkington. He also used the phrase, “people, planet, and profit” to describe the triple bottom line and the goal of sustainability.

management researchers to focus on the issue of sustainability. In general, the theoretical underpinnings of corporate sustainability research are embedded in the following multiple perspectives: stakeholder theory, the resource-based view (RBV) of the company, corporate social responsibility (CSR), and contingency theory.

Stakeholder theory by Freeman (1984) develops a stronger relationship between companies and their stakeholders based on trust and co-operation, in attempts to help companies meet their business objectives and to get competitive advantages. Various studies have incorporated stakeholder theory to explain corporate sustainability (Wilson, 2003; Lozano *et al.*, 2015; Reypens *et al.*, 2016). For example, Wilson (2003) argues that stakeholder theory suggests the company's own best economic interest to work in the direction of sustainable development, which strengthens the company's relationship with stakeholders and in return helps to meet business objectives. In contrast, another stream of research considers competitiveness to be an important driver of corporate responses to sustainability and uses the lens of RBV (Wernerfelt, 1984; Barney, 1991) to address the sustainability issues and to get a competitive advantage. The supporters of RBV assert that the organization's internal resources and capabilities can achieve a competitive advantage through addressing sustainability issues (Sharma and Vredenburg, 1998; Branco and Rodrigues, 2006; McWilliams and Siegel, 2011; Formentini and Taticchi, 2016). In addition, the external environment of organizations also plays an important role in motivating organizations' behavior towards sustainability. Wolf (2014) incorporates the resource dependence theory of Pfeffer and Salancik (2003) to elaborate on the impact of external pressure groups on organizations, to pursue sustainability. The inclusion of social and environmental issues in various business activities pinpoints the concept of CSR (Van Marrewijk, 2003). Wilson (2003) states that CSR is closely connected with the notion of sustainability. Both CSR and corporate sustainability lead towards a common future, focusing on a balanced environment, economic viability, and social responsibility dimensions. Some studies assert that corporate sustainability is the ultimate goal of an organization, while CSR is an intermediate stage. Moreover, corporate sustainability is more proactive and strategic because it focuses on establishing strategies and business models to achieve sustainability objectives (Van Marrewijk, 2003; Idowu *et al.*, 2015). In this regard, Schaltegger *et al.* (2015) identify the implication of contingency theory (Fiedler, 1964; Scott, 1987), in an attempt to elaborate organizational external and internal drivers, which motivate managers to establish optimal courses of action for considering sustainability issue seriously.

So far, this Subsection has revealed that no single theory is established to present the holistic concept of corporate sustainability. Lozano *et al.* (2015) take a lead in this regard and by linking

corporate sustainability with multiple theories, they propose a new theory, called ‘sustainability-oriented theory of the firm’. Specifically, this theory demonstrates that companies are profit-making entities comprised of resources and networks of relationships with multiple stakeholders, and, most importantly, companies’ employees can be the main contributors towards building sustainable societies through economic, environmental, social, and time dimensions. Currently, the key features of the sustainability-oriented theory are being used in the corporate sustainability domain (Aquilani *et al.*, 2018). However, this theory still lacks in morally defining the roots of sustainability, as both organizations and their members bear moral and ethical responsibilities (Hess, 2013; Dubbink, 2015). The moral dimension of sustainability is incorporated by Ha-Brookshire (2017) in moral responsible theories of sustainability. Ha-Brookshire (2017) asserts that corporate sustainability has taken roots from morality and proposes two theories based on morality: (i) the moral responsibility theory of corporate sustainability; and, (ii) the moral responsibility theory of sustainable supply chain. Ha-Brookshire (2017) argues that organizations need to consider their moral responsibilities if they want their businesses and supply chains to be sustainable.

The lack of consensus on a single theory implies the absence of any general agreement on the theoretical underpinnings of corporate sustainability. As many studies argue that the inclusion of numerous theories and other social science disciplines can overcome various issues of sustainability, as depicted in Table 2.1.

Table 2.1: Diverse nature of corporate sustainability

| Author(s) | Purpose of Research | Methodology | Major Conclusions |
|--|--|---|--|
| Qi <i>et al.</i> (2013) <i>Corporate Social Responsibility and Environmental Management</i> | To explore the influence of stakeholders on the implementation of green products and green process innovation. | Stakeholder theory: the dataset is based on a survey on the state corporations’ social responsibility, undertaken by the World Bank and the China Center for Economic Research. | The study enriches the literature on green innovation and stakeholder theory. |
| Bebbington and Larrinaga (2014) <i>Accounting, Organizations and Society</i> | To explore possible links between the sustainable development literature and accounting. | An exploration from the literature over the perceived lack of progress made by social and environmental accounting (SEA) towards addressing sustainable development. | The study introduces the term of sustainability science and suggests that innovation is required to address the morally infused problems in organizations. Also, there is a need to explore how knowledge is created, validated, and translated (or not) alongside policy and practice settings. |
| Wolf (2014) <i>Journal of Business Ethics</i> | To test if sustainable supply chain management can contribute positively to the reputation of an | The resource dependence theory: a dataset of 1,621 organizations in 32 countries/regions and in | The study finds that stakeholder pressure and sustainable supply chain management both contribute to an organization’s sustainability performance. |

| Author(s) | Purpose of Research | Methodology | Major Conclusions |
|---|--|---|---|
| | organization as a 'good citizen'. | various industries collected from the Sustainalytics database. | |
| Biggemann <i>et al.</i> (2014) <i>Journal of Business & Industrial Marketing</i> | To address the question of how value can be created through social responsibility programs or other means. | The use of qualitative research data gathered from two embedded case studies in New Zealand. | Sustainability is built with the participation of many interconnected entities, that are, suppliers, manufacturers, retailers, or more generally stakeholders. Co-creation should be aimed to minimize negative social and environmental impacts and to foster sustainable development. |
| Schaltegger <i>et al.</i> (2015) <i>Australian Accounting Review</i> | To examine whether different managers deal with different types of sustainability information to provide a contingency-based foundation for optimization of the accounting information system. | The contingency theory; a dataset of 116 sustainability role-instances of managers identified in interviews with 54 managers within 16 German and UK companies. | Both physical and environmental information is fundamental to all management roles, indicating that they may be considered fundamental for sustainability-oriented decision-making in general. |
| Arnold (2015) <i>Ecological Economics</i> | To examine how water companies, implement sustainability requirements in their management. | The evolutionary theory; the relevant data of 110 German water-supply and distribution companies from May 2012 to December 2013. | The study suggest that water industry needs a change towards sustainability and develop a forward-looking strategic plan. There is an imbalance between the application of tools regarding managing tasks and sustainability principles. There are differences between large companies and small and medium-sized enterprises facing sustainability requirements. |
| Reyeps <i>et al.</i> (2016) <i>Industrial Marketing Management</i> | To advance the understanding of value co-creation and value captured in the multi-stakeholder setting. | The stakeholder theory; a qualitative, grounded theory methodology; 29 in-depth semi-structured interviews with key informants from various stakeholders in the European medical information framework. | The study presents a multi-level cyclical process framework for leveraging value in multi-stakeholder collaborations and visualizes these collaborations as a value space in which all stakeholders are uniquely positioned. The study provides novel insights into the systemic, multi-actor nature of value co-creation and supports collaborators in maximizing value for both individual stakeholders and the network as a whole. |
| Scandellius and Cohen (2016) <i>Industrial Marketing Management</i> | To improve the knowledge of how organizations can manage diverse stakeholders to improve value chain collaborations towards more sustainable practices. | A multiple case study methodology, involving in-depth interviews with senior directors in the food and drink value chain in 20 organizations from June 2011 to April 2012. | This study develops a framework to depict the value of a branded sustainability program as a useful platform for stimulating collaboration and co-creation from diverse and/or competing stakeholders. |
| Arnold (2017) <i>Journal of Cleaner Production</i> | To find causal relationships between co-creation (tools), relationship | Innovation workshops; an exploratory multiple case study on nine mainly German-based | The study points out that an organization-wide strategic approach promoting sustainable development is necessary. The |

| Author(s) | Purpose of Research | Methodology | Major Conclusions |
|---|---|--|---|
| | management, and corporate sustainability activities. | companies from March 2006 to December 2011. | sustainability co-creation process at an early stage can provide information to companies for developing sustainable products and services, or they can even co-produce sustainable consumption options. |
| Keeyes and Huemann (2017) <i>International Journal of Project Management</i> | To address (a) how do projects co-create broad benefits with stakeholders, reflecting holistic integration of sustainable development? (b) at what stage in the project lifecycle, does sustainable development benefits co-creation begin? And, (c) what elements support project co-creation? | An exploratory case study through a conceptual framework; semi-structured interviews with 5 individuals conducted from October 2013 to February 2014, documentation review, and literature review. | The study provides insight and theoretical contributions to the concept of sustainable development in benefitting co-creation of value and contributes to enhance benefits management. |
| Shapira <i>et al.</i> (2017) <i>Journal of Cleaner Production</i> | To examine potential contributors and hindrances of the design thinking process with regards to strategic sustainable development, and to create a prototype of an integrated process that could help achieve more strategic and sustainable outcomes. | Maxwell's (2012) interactive model for qualitative research design; action research; experts' feedback. | The study produces a prototype of an integrated process in which the framework for strategic sustainable development is included throughout as add-ins to use in concert with the existing process. |
| Simões and Sebastiani (2017) <i>Business Ethics Quarterly</i> | To address the nature of the interface between corporate sustainability and corporate identity at both the strategic and instrumental levels. | An empirical qualitative study in two countries in Southern Europe; in-depth interviews, observations, and physical artifacts of identity (digital and printed documents). | The study reports a symbiotic relationship between corporate sustainability and corporate identity. It scrutinizes how corporate sustainability and corporate identity are integrated at the strategic and operational levels, and establishes distinct patterns at the interface of corporate sustainability and corporate identity. |
| Aquilani <i>et al.</i> (2018) <i>Journal of Cleaner Production</i> | To integrate the key features of the 'sustainability-oriented theory of the firm' into the value co-creation approach. | An integrative framework. | The theoretical study puts forward a new framework to integrate the 'sustainability-oriented theory of the firm' principles. |
| De Jesus and Mendonça (2018) <i>Ecological Economics</i> | To analyze evidence regarding different factors helping and hampering the development of a circular economy. | A dual approach—review on a corpus of academic and non-academic articles from the Web of Science (WoS) and Scopus databases and on a set of contrasting examples of grey literature. | The study argues that the combination of the innovation systems' view with transformation turn in innovation studies provides an appropriate perspective for understanding the transition to a circular economy. |
| Awasthi <i>et al.</i> (2018) | To establish a mathematical | The predictive analysis using a simple linear | The study shows a strong linear correlation between global e-waste |

| Author(s) | Purpose of Research | Methodology | Major Conclusions |
|--|--|--|---|
| <i>Science of the Total Environment</i> | relationship among economic growth, population, and e-waste amount and to uncover the future projection of e-waste amount with a comparison among 28 European countries. | regression between e-waste and GDP at the purchasing power standards in 28 European countries from 2009 to 2014. | generation and GDP, indicating that the best fit for data can be reached by comparing e-waste collected volumes and GDP at the PPS. |
| Cha <i>et al.</i> (2018) <i>International Journal of Hospitality Management</i> | To analyze the factors influencing the adoption of sustainable business practices in the private club industry. | Three-step hierarchical regression analyses; the study is part of a collaborative research project with the Club Managers Association of America. The final number of usable responses for all analyses was 221 (13.8%) after eliminating incomplete data. | The study highlights the important role of board support on general managers' and chief operating officers' intention to adopt sustainable business practices, emphasizing the unique structure of private club governance. |
| Zhou <i>et al.</i> (2018) <i>European Journal of Operational Research</i> | To review the literature on data envelopment analysis applications in sustainability. | Three citation-based approaches—citation chronological graph, main path method, and Kamada–Kawai algorithm; a directional network based on citation relationships among on data envelopment analysis articles published in journals indexed by the WoS database from 1996 to March 2016. | The study fills a gap in the literature on data envelopment analysis by conducting a systematic survey on data envelopment analysis applications in sustainability, showing that sustainability is an area that is gaining interest, and data envelopment analysis has been proved to be an appropriate evaluation method for sustainability in the literature. |

The diverse literature on corporate sustainability as depicted in Table 2.1 shows that studies from a wide range of disciplines incorporate multiple perspectives and theories either in explaining sustainability or to find sustainable solutions for various industries. Some studies focus on internal organizational aspects by using theories such as RBV (Barney, 1991) and moral responsibility theory of corporate sustainability (Ha-Brookshire, 2017); some research studies on sustainability emphasize on external organizational aspects by using resource dependence theory (Pfeffer and Salancik, 2003); few studies include both internal and external organizational factors and use theories such as contingency theory (Fiedler, 1964); and, some sustainability studies highlight the importance of engaging diverse stakeholders in the short and long run, by using stakeholder theory (Freeman, 1984) and sustainability-oriented theory of the firm (Lozano *et al.*, 2015). A large number of prior and current studies focus purely on the environmental aspects of sustainability and identify various environmental strategies to get competitive advantages for companies in terms of efficiency/cost savings, risk reduction,

product differentiation, and new product development (Ambec and Lanoie, 2008; Zhou *et al.*, 2018). However, the aim of corporate sustainability is not just to protect the environment only, but to ensure that the environment, economy, and society complement each other (Idowu *et al.*, 2015). The emphasis of the matter stimulates business organizations to develop strategies that could sustain organizations, not only environmentally and economically, but also socially.

2.1.3 Strategic perspective on corporate sustainability

The relationship between management practices and social and environmental challenges is initially recognized by Post (1991), Roome (1992), Shrivastava and Hart (1992), and Schmidheiny (1992). Since then, various qualitative and quantitative studies have been conducted to explore and elaborate on this relationship. The increasing demands for natural resources, for example, clean water, crude oil, woods, and metals are depleting these resources, which will soon diminish their supply, causing an alarming concern for business organizations. Therefore, it is crucial to understand the needs to achieve future development that is economically viable, socially equitable, environmentally sustainable, and, most importantly, ethically acceptable (Heyd, 2010). Hahn and Figge (2011) suggest that companies can establish trade-offs between three important capitals, which are environmental, social, and economic, without any priori predominance to assess corporate sustainability (Bansal, 2005). Federation of European Accountants (FEE) states that “sustainability should not be a separate policy but integrated in the entity’s strategy and business model” (2011, p. 5). Many companies are directed towards taking initiatives, which could transform them to be more sustainable with changes in business models or organization’s strategies (Klettner *et al.*, 2014; Schrettle *et al.*, 2014; Dočekalová and Kocmanova, 2016).

Understanding sustainability and its related internal and external organizational factors help business organizations to decide their efforts for sustainable development (Etzion, 2007; Rivera-Camino, 2007). Internal factors help the development of sustainable strategies and they are supported by the organizational internal environment. These factors include relevant supportive policies, resources, internal infrastructure, as well as an established performance evaluation system within the corporation (Hutton *et al.*, 2007; Law, 2010). There are various external factors, which may facilitate sustainability or cause certain barriers to corporate sustainability, including laws, regulations, social pressure, market trend, and competition (Bansal and Roth, 2000; Skodvin and Skjærseth, 2001). Analyzing internal and external factors suggest that companies need to understand various sustainability initiatives and identify which initiatives are suitable for them. For example, companies in the manufacturing industry can focus on developing green products by adopting new technologies, to consume less resources

and cause fewer emissions. But sustainability is not just about protecting the environment, it is much more than this. That is why social wellbeing should also be considered to ensure that in the long-run sustainability account for all the social and environmental costs and benefits (Fatemi and Fooladi, 2013). Schaltegger and Wagner (2006) argue that corporate sustainability can be viewed as a result of the company's efforts to identify and resolve issues to move towards its goals of sustainability. This means that companies require to identify issues, to minimize the negative impacts of their operations, and to enhance the positive outcomes of their businesses on the environment and society. That is why there is a strong plea in the management discipline to incorporate sustainability into business strategy. Adams (2017) explains it by establishing accounting practices for sustainable development. The study sheds light on a complex interrelationship that influences the value creation abilities of the organizations. It also stresses the need to incorporate greater skills for non-financial reporting and auditing for creating more value. After interviewing board chairs and non-executive members of listed companies in the Johannesburg Stock exchange and the Australian stock exchange, the study reveals the process of contemporary value creation, which is also known as integrated thinking. It is elaborated through the role of the board of directors for managing environmental, social, and governance (ESG) risks to grab opportunities and to establish strategies for creating value. Adams (2017) argues that the value creation process is initiated by the external contextual factors, such as social, environmental, and institutional, to identify ESG risks and opportunities. Organizations incorporate these risks and opportunities to develop strategies to create values represented through corporate reporting and governance practices. However, differences in governance and reporting frameworks in different regions can influence the differences in value creation perspectives.

Broadly speaking, the UN 2030 agenda for sustainable development persuades governments and businesses to transform societies into more sustainable societies. This vision aggravates the need to design and implement sustainable strategies by businesses. Leisinger (2015) argues that companies who pursue their direction towards sustainability have to focus on emissions reductions, green energy, and control their use of non-renewable resources. They should also invest in business models that could produce products and services within the reach of low-income groups and develop alternatives for non-biodegradable products. Many companies have started to give more attention to environmental concerns, as they aim to secure the future existence of their resources and business (Karagülle, 2012). Nidumolu *et al.* (2009) argue that companies are developing new business models or molding previous models, according to

changing circumstances, to deal with sustainability issues.⁹ It is identified that major issues that businesses are confronting these days are climate change, resource scarcity, using renewable resources, promoting equity, and reducing carbon emissions. Dealing with all such environmental issues is beyond the control of a single business or a single industry (Porter and Kramer, 2006), that is, a single strategy cannot be a solution for all businesses and industries. Formentini and Taticchi (2016) also assert that companies differently embed sustainability in their business models or strategies (Bocken *et al.*, 2014), moreover, they also measure and disclose their performance differently (Taticchi *et al.*, 2013). The reason behind this logic is the difference in the internal environment of companies, as both external developments and internal strengths and weaknesses need to be considered when integrating sustainability issues into business strategies (Eccles *et al.*, 2012; Engert *et al.*, 2016). Gittell *et al.* (2012) argue that companies need to understand that sustainable business practices should present an opportunity for creating shared value, provide meaningful benefits to society, and make profits to the businesses. It means that each company is responsible for identifying its own sustainability issues and rank them in terms of their potential impacts. For example, Toyota has achieved a competitive advantage through differentiation, by focusing on the fuel-efficient hybrid vehicle, Prius. Similarly, Stonyfield's emphasis on providing preservative-free, healthy, organic yogurt is another sustainable approach through its minimal resource use and energy consumption in the manufacturing process.

Review of the strategic aspects of the past business cases for sustainability highlights that companies, which show great interest in a stable and functioning social environment, have gained a competitive advantage, while those who fail to realize this have suffered losses (Idowu *et al.*, 2015).¹⁰ It depicts that business organizations, which are moving towards sustainable investment in products, services, and the region, are not only ethical but also secure their corporate interests. After all, what is good for society is also good for the company; business and society are interwoven. However, there is not any generalized all-encompassing strategy, which could lead to sustainability and at the same time give a competitive advantage to the company. Klettner *et al.* (2014) state that many companies have shifted their strategies towards developing more sustainable business models, rethinking direction, and restructuring core

⁹ Waste Management of the United States, the \$14 billion market leader in garbage disposal, who identify the \$9 billion worth of reusable materials in the waste, which is carried to landfills each year by Green Squad unit (Nidumolu *et al.* 2009).

¹⁰ ENRON, Lehman Brothers, and TEPCO, suffered serious consequences for irresponsibly externalizing costs in order to generate profit at the expense of society, which resulted in a lose-lose situation for them and more seriously for their stakeholders (Hayes-Roth, 2011).

business processes, for sustainable development. It is also realized that progress towards corporate sustainability significantly relies on human decision-making and capabilities. Hence, it can be argued that companies, who have realized the long-term impacts of sustainability, are incorporating sustainability into their business strategies by establishing governance mechanisms, and implementing and controlling sustainability initiatives, through managing relationships with both internal and external stakeholders, especially with their supply chain partners (Wilding *et al.*, 2012; Formentini and Taticchi, 2016). Whichever strategy is developed and implemented by an organization, will surely have an impact on the long-run organizational performance. Therefore, organizations should be vigilant when developing sustainable strategies and initiatives, which ultimately affect both analyst recommendations and long-term investment decisions (Ioannou and Serafeim, 2010; Idowu *et al.*, 2015). Organizations require to develop a framework to deal with diverse sustainability issues and how to report their positive or negative impact on the environment and community. Conventional accounting lacks in dealing with the issue of sustainability information disclosure, which stimulates existing accounting frameworks to scrutinize and review the need to establish reporting guidelines to disclose ESG data, which is also termed as sustainability accounting.

2.1.4 Sustainability accounting

Schaltegger and Burritt (2005) argue that sustainable business development is a process towards positively influencing the economy, environment, and society, and sustainability is the outcome of this process. The outcomes of sustainability in terms of economic gains, social wellbeing, and environmental protection are required to be realized by not only the companies but also by the stakeholders who are directly or indirectly affected by these companies. Here, companies require an accounting and reporting system to collect, analyze, and communicate sustainability information (Schaltegger *et al.*, 2006). Previous studies argue that sustainability data disclosure emerges from social accounting, which accounts for and reports beyond the economic issues of the company (Owen, 2008). Gray *et al.* (2014) also support this argument and state that sustainability accounting has taken roots from social accounting, which is the universe of all possible accounting.

Dealing with reporting aspects beyond the economic issues of the company highlight the importance of accounting discipline in addressing sustainable development. Burritt and Schaltegger (2010) provide a review of the sustainability accounting literature and identify views on two important paths. The first path is a critical theory perspective, which takes sustainability reporting as a short lived concept due to an insufficient understanding of sustainability. This view argues that sustainability accounting may lead to a problematic

unsustainable situation. The second path presents a positive impact of sustainability accounting on managerial decision making and further divided into three themes, which are: inside out, outside-in, and twin-track approach. The inside-out approach takes sustainability reporting as a driving force for incorporating sustainability related issues in developing organizational strategies. It suggests that managerial decision-making is dependent on: (1) type of data either monetary or physical; (2) scope of data that is related to past and future; and, (3) range of data as sustainability is a long-range concept. The purpose of sustainability accounting in the inside-out approach is to utilize monetary and physical information to take managerial decisions for monetary and environmental gains. As compared to the inside-out approach, the outside-in approach requires multiple stakeholders as a driving force for sustainability accounting. However, it is also mentioned in this study that sustainability accounting still lacks in identifying social and environmental risks and opportunities (Aras and Crowther, 2009; Burritt and Schaltegger, 2010). Another issue that arises is ignorance of the quality of sustainability data disclosure by the receivers of such information. Due to this reason, sometimes information providers, such as companies, may reduce the quality of sustainability data disclosure. The third theme is twin-track approach which takes both inside-out and outside-in approaches together as a driving force to integrate sustainability accounting for managerial decision making. Understanding three approaches of sustainability accounting unlock avenues for developing conventional accounting through sustainability accounting. The managerial path focuses on accounting as a source for introducing standards for measuring sustainability information and lays the foundation for solving various organizational problems as compared to the critical perspective which considers sustainability accounting a source of unsustainable situations (Burritt and Schaltegger, 2010).

Bebbington and Larrinaga (2014) introduce 'sustainable science' aiming to integrate accounting discipline into sustainable development. Sustainable science is an emerging way of thinking to enhance knowledge, resolve various issues different in nature, and require a multidisciplinary approach to address them. In this way, accounting interactions with sustainable development are providing new avenues for further research. This study takes two approaches, namely full cost accounting and sustainable consumption and production to propose opportunities in accounting. Full cost accounting takes into account the external cost of the organization and can be a way to develop an interlinkage between sustainable development issues and the organization. SEA can also contribute to seek a transformative way to sustainable production and consumption. Certification schemes provide an arena for this purpose, as they provide incentives to producers and inform consumers about sustainable

characteristics of products and processes. The study invigorates accounting research into the sustainability science domain, which is further explored by the researchers (Bebbington *et al.*, 2017).

Continuing with the development of sustainable accounting, Bebbington *et al.* (2017) discuss the developing nature of SEA and the challenges this field is facing in its relation to sustainable development goals. The study draws three themes for future researches on accounting for sustainability. Firstly, the complex, multi-dimensional, and multi-disciplinary nature of sustainable development creates a problem space for SEA and accountability. For such complex accounting projects, relationships among companies and stakeholders are to be recognized to understand the accountability relationships and practices. Bebbington *et al.* (2017) use the term 'sustainable science' for this multidisciplinary approach to resolve the issues in sustainability and to distinguish accounting and accountability. The second theme that emerged from this research is how to incorporate accounting in sustainable development research. One approach is to elaborate accounting with accountability, where abuse of power results in accounting practices with unsustainable results. Accountability, this way offers an understanding of the accounting discipline as an independent force that creates evidence-based narratives. Killian and O'Regan (2016) also shed light on the motivations of account giving organizations to study various aspects of social and environmental reporting, which links accountability with accounting. The last theme that emerged from the study of Bebbington *et al.* (2017) is to determine with whom to engage for sustainable development. Engagement is to be considered as a diverse opportunity to work with multiple disciplines for sustainability research that may shape accounting research to understand everyday practices. This engagement can be in the form of communication with diverse stakeholders. Perrini and Tencati (2006) argue that interaction with stakeholders requires organizations to firstly identify stakeholders and then need to be accountable to them as well.

Adams (2004) defines accountability as "the 'giving of an account' encompassing [...] both the 'account' itself and the process followed in providing that account to stakeholders" (p. 732). The definition depicts that accountability involves the obligations of companies to give an account of their activities and provide the means through which these accounts are reviewed and evaluated by the stakeholders. Organizations require diverse communication channels to provide these accounts to stakeholders. Owen *et al.* (2001) argue that organizations can communicate with their stakeholders through a variety of means, which can be through reports or direct engagement with them. We can suggest that all social activities can be viewed as giving and receiving accounts. Arrington and Francis (1993) shed light on the development of

accounts as a ubiquitous human activity. Supporting this nature of accounts, Gray *et al.* (2014) assert that there isn't any a priori reason for restricting accounts to conventional terms or organizations only. Accounts can be thought of as giving, receiving, constructing, and understanding of various aspects of human interaction. All accounts, either formal or informal, pose interest for organizations as they are linked with economic and financial accounting, as well as environmental and social aspects. That is why it is very important to study the nature of accounts while focusing on corporate sustainability.

Understanding the nature of accounts directs our attention towards realizing the nature of sustainability accounting and processes of sustainability reporting. Kaur and Lodhia (2018) argue that sustainability accounting and reporting develop an accountability system that manages sustainability information and communicate it to the stakeholders. Kaur and Lodhia (2018) use the integrated framework of Schaltegger and Wagner (2006), where the sustainability accounting and reporting process commences with the identification of sustainability issues and progresses with strategies to achieve those goals. The outcome of this process is sustainability reporting, which according to the Global Reporting Initiative (GRI)¹¹ (2013) is the entire process of “setting goals, measuring performance and managing change towards a sustainable global economy – one that combines long term profitability with social responsibility and environmental care.” (p. 85). Reporting is considered a key communication channel of the company's material aspects of sustainability information to the stakeholders. Where the material aspects are dependent on stakeholders' interests and expectations. Kaur and Lodhia (2018) argue that sustainability accounting and reporting represent the current sustainability performance of the organizations subject to the context, such as sector, local, regional, or global, in which environmental and social issues are realized. We can infer from the abovementioned studies that sustainability accounting and reporting are required to understand the processes of gathering and dissemination of sustainability related information and performance, which is often described as a source of value creation for the organization (Perrini and Tencati, 2006). Another, important point to be considered at this stage is, that sustainability performance not only creates value for the organizations but also can create advantages for various other stakeholders, as also explained by McWilliams and Siegel (2011). Cho *et al.* (2015) argue that organized hypocrisy and organizational façades together can increase the possibility of generating benefits for various stakeholders through incongruence between a corporation's talk and its actions. However, business organizations' main focus

¹¹ GRI is an independent international organization that has pioneered sustainability reporting since 1997. See details at: <https://www.globalreporting.org/information/about-gri/Pages/default.aspx>.

always remains on the profit maximization of their businesses, that is why there is still an ongoing debate on whether the sustainability initiatives are economically beneficial for the organizations or not.

2.1.5 Impact of corporate sustainability on an organization's performance

The neoclassical theory,¹² in particular from the agency theory perspective,¹³ suggests that investment in sustainable issues can raise an organization's costs unnecessarily, thus creating a competitive disadvantage for the organization (Jensen and Meckling, 1976; McWilliams and Siegel, 1997; Jensen, 2002; Friedman, 2007). Contrary to this, another stream of research suggests that the employment of an organization's resources for positive social and environmental performance results in significant managerial benefits rather than financial benefits to shareholders (Brammer and Millington, 2008). McWilliams and Siegel (2011) argue that sustainability is a source of value creation for both the organization and the society, as it tends to grow organizations by ensuring that the environment, in which they operate, continues to sustain not only the organization business effort but the society at large. Therefore, many academics and practitioners have investigated the relationship between sustainability and the organization's performance. Most of the studies report a positive impact of corporate sustainability on organizational performance (Humphrey *et al.*, 2012; Eccles *et al.*, 2014; Khan *et al.*, 2016).

In this regard, Humphrey *et al.* (2012) examine the role of corporate social performance (CSP) rating in the cost of capital and risk by taking a sample of 256 UK companies for the period 2002 to 2010. Study findings suggest that companies should critically decide the CSP investments which may utilize the company's resources at its best and maximize the shareholders' wealth in the long run. Eccles *et al.* (2014) also investigate the effect of corporate sustainability on organizational processes and performance in the U.S and find that high sustainability companies, which have voluntarily adopted sustainability policies by 1993, have more distinct processes for stakeholders' engagement and outperform in accounting performance as compared to their low sustainability counterparts. Eccles *et al.* (2014) identify four pillars: governance, stakeholder engagement, the time horizon of decision making, and measurement/reporting, which are directly affected by a commitment to sustainability and turn out to be beneficial in the long run. Research also highlights that there can be differences in

¹² Neoclassical theory includes behavioral science into management discipline by providing feasible production plans. It argues that organizations are social systems, and their performance is affected by human actions (Hart, 1989).

¹³ This theory sheds light on the relationship between principal and agent in organizational settings, where organizations are considered as agents working on behalf of shareholders.

organizations' performances due to their investments in material or less material, termed as immaterial, sustainability issues (Khan *et al.*, 2016). To investigate this issue, Khan *et al.* (2016) develop a dataset by hand-mapping sustainability investment data classified as material for each industry into company-specific performance indicators on a variety of sustainability investments. They reveal that companies with good performance on material sustainability issues and concurrently poor performance on immaterial sustainability issues outperform companies with poor performance on these issues, suggesting that investments in sustainability issues are shareholder-value enhancing.

The abovementioned studies clearly demonstrate that organizations should efficiently take investment decisions by integrating sustainability issues, which will ultimately have an impact on their performance. However, some studies find contrasting opinions in terms of the relationship between corporate sustainability practices and the company's financial performance. For example, based on panel data from 463 US companies over the period 2000 to 2012, Al Abri *et al.* (2017) employ the propensity score matching, difference-in-differences (DID), and quantile DID approaches to investigate the impact of company size and corporate sustainability adoption intensity on their financial performance. They find that corporate sustainability adoption improves public relations, but it does not significantly enhance the financial performance of the companies, especially for small and medium-sized companies. However, most studies demonstrate a positive link between corporate sustainability and overall organizational performance (Humphrey *et al.*, 2012; Eccles *et al.*, 2014; Khan *et al.*, 2016; Kocmanova *et al.*, 2017). Currently, companies release a wealth of information in the form of ESG data (Khan *et al.*, 2016). Due to the significance of sustainability disclosure, many countries have made a mandatory regulatory requirement on companies to publish their ESG reports.

2.1.6 Sustainability information disclosure

Research highlights that the interest of diverse stakeholders in the social and environmental impacts of businesses has amplified the drive for corporate sustainability reporting (Ballou *et al.*, 2006; Adams and Narayanan, 2007). Brosch and Sander (2015) argue that prior research on corporate sustainability reporting has taken roots from two theoretical framings, which are signaling theory and legitimacy theory. Connelly *et al.* (2010) state that the signaling theory provides a useful ground when describing the behavior of two parties, such as individuals or organizations, who have access to different information. It theorizes the signaling of competitive strengths by businesses through better and more communication to the market. Those who draw from legitimacy theory suggest that organizations continually pursue to follow

norms of the society in which they operate (Cuganesan *et al.*, 2007). It depicts that supporting the legitimacy theory determines the disclosure of information by the company, which the management of the company perceives to be expected by the societal members. That is why sustainability data disclosure has become a significant practice among most of the businesses (Hall *et al.*, 2015; Khan *et al.*, 2016; Killian and O'Regan, 2016). Ioannou and Serafeim (2017) argue that disclosure of significant sustainability information is a very important governance process of any company, as it enhances the transparency of the company's impact on society and is associated with an increase in corporate value.

Regardless of the significance of realizing sustainability disclosure as an important business practice and governance mechanism, still, there is a conceptual gap in understanding the voluntary sustainability disclosure practices of organizations. At this point, it is crucial to identify how companies conceptualize corporate sustainability and how they measure and report it. Extant research in sustainability accounting informs accounting researchers to acquire knowledge and expertise in developing measurements and reporting guidelines for sustainability (Bebbington and Unerman, 2018). It is popular to consider corporate sustainability to be a triple-tier concept, which includes economic, environmental, and social dimensions (Elkington, 1998; Bansal, 2005; Antolín-López *et al.*, 2016). However, numerous academics and sustainability rating agencies incorporate an additional dimension of governance to elaborate the concept of corporate sustainability (Klettner *et al.*, 2014; Dočekalová and Kocmanova, 2016; Kocmanova *et al.*, 2017). Some databases, such as Asset 4,¹⁴ and sustainability evaluation companies, for example, Corporate Knights,¹⁵ also include governance-related information to measure sustainability performance. Another dimension of time is introduced by Lozano *et al.* (2015) in the sustainability-oriented theory of the firm, which emphasizes the current and future inter-relation between economic, social, and environmental dimensions. Until now, there is widespread confusion in practice, as to which variables can be used to identify and analyze the corporate sustainability performance (Roca and Searcy, 2012; Rahdari and Rostamy, 2015; Antolín-López *et al.*, 2016; Dočekalová and Kocmanova, 2016; Kocmanova *et al.*, 2017). Currently, most of business organizations are using GRI guidelines to report their sustainability information. Burritt and Schaltegger (2010) also discuss the GRI guidelines as the best known globally available standards for reporting

¹⁴ The database ASSET4 ESG provides environmental, social and governance (ESG) information. See more information at: <https://researchfinancial.wordpress.com/2014/01/06/asset-4-esg-database/> (assessed on 07/11/2019).

¹⁵ Corporate Knights is a media, research and financial information products company focusing on environmental and social performance of companies and publishes global 100 sustainable company report every year. See more information at: <https://www.corporateknights.com/> (assessed on 07/11/2019).

sustainability information, as it provides a foundation for key performance indicators that can be used by managers to take decisions. However, all the rating systems, composite indicators, reporting frameworks, and management guidelines in practice depict the diversity in sustainability measurement tools and the application of sustainability indicators (see Appendix E).

2.1.7 Section summary

This section has highlighted various aspects of corporate sustainability literature, ranging from its theoretical foundations to its significance and reporting. Reviewing diverse aspects of corporate sustainability literature clarifies the conceptualization of the term of corporate sustainability and broadens horizons for exploring more in this area. Diversity in the use of theories to explain this phenomenon highlights the complex nature of sustainability. Moreover, there is widespread confusion on the focal areas of sustainability, as many practitioners and even researchers focus on mere environmental issues to describe sustainability. While few others shed light to incorporate economic, social, governance, and time dimensions into the corporate sustainability domain. The preponderance of literature purely focuses on developing strategies for environmental protection, highlighting a gap towards developing more holistic sustainable strategies to sustain organizations, not only environmentally and economically, but socially as well. Moreover, once the strategy has been established, there is also difficulty in monitoring and measuring sustainability over a longer period. Identification of the processes of sustainability accounting and reporting highlights different phases of companies' sustainability targets, activities, and communication. However, it is important to understand accountability relationships with different stakeholders and communication channels between them for the identification of various accounts. Moreover, once companies develop targets and put efforts to achieve those targets, another issue of communication and reporting of these efforts arises. Literature highlights various rating systems, composite indicators, reporting frameworks, and management guidelines of corporate sustainability, which depict the diversity in sustainability measurement tools and the application of sustainability indicators. There is an opportunity to develop industry-specific mandatory disclosure requirements to analyze and compare various companies on their sustainability initiatives. Thus, many questions remain unanswered and future research is required to explore the solutions.

The literature signifies the urgency of moving the company's direction towards a sustainable paradigm. That is why sustainability issues are becoming part of the business environment and corporate jargon (Tencati and Pogutz, 2015). Earlier, CSR programs are considered to help promote sustainability, but, over time, it is realized that CSR programs themselves are not

enough to achieve the companies' sustainability objectives. The reason is the inclusion of value chain partners and difficulties in identifying how sustainability value is distributed among them. Research shows that stakeholders' collaborations are increasingly seen as a pre-requisite for achieving many sustainability objectives. This logic gives rise to the interactive value or value co-creation (Vargo and Lusch, 2004; Whitmer *et al.*, 2010; Talwar *et al.*, 2011). According to Trencher *et al.* (2013), the concept of co-creation of value combines various stakeholders to combat sustainability challenges, mainly through value integrations for sustainable development.

2.2 Value co-creation

The term 'value' raises a diversity of meanings in the literature. In general, 'value' stands for the perception of a person regarding the assessment of expected benefits (Haller, 2016), which depicts that value is purely a subjective assessment. More recently, it has been realized that value cannot be created in isolation and sheds light on the collaborative networks for values to be co-created (Prahalad and Ramaswamy, 2004; Vargo and Lusch, 2004). This section develops a deep understanding of the co-creation of value. Subsection 2.2.1 elaborates on the concept of value followed by Subsection 2.2.2 which conceptualizes the co-creation of value with its theoretical foundations. Subsection 2.2.3 highlights the processes of co-creation of value with its measurement tools and the final Subsection 2.2.4 summarizes the entire section.

2.2.1 The term 'value'

It is identified from the literature that 'value' means differently for various individuals but at the same time, all values are somehow linked and related to the context in which value is realized and evaluated. Generally speaking, marketing researchers refer to value as benefits delivered by providers to customers. It is defined as "the extent to which a good or service is perceived by its customer to meet his or her needs or wants, measured by the customer's willingness to pay for it".¹⁶ The notion of the value indicates the benefits gained against some sacrifice (Zeithaml, 1988; Day, 1990; Woodruff and Gardial, 1996). Value is considered as subjective perceptions of customers to consider anything valuable or significant from their experiences (Zeithaml, 1988; Mathwick *et al.*, 2002). In the past few decades, the term 'value' has gained traction in the literature and attracted several scholarly contributions due to its ability to create mutual benefits between providers and consumers (Grönroos and Helle, 2010; O'cass and Ngo, 2012; Keränen and Jalkala, 2013). Grönroos (2011) argues that the value creation

¹⁶ Business Dictionary (2017) *Definitions, Value*. Business Dictionary. Available at: <http://www.businessdictionary.com/definition/value.html> (assessed on: 26/11/2017).

processes should not only better off consumers but also increase their well-being. As Grönroos (2011) states that “Value for customers means that after they have been assisted by a self-service process (cooking a meal or withdrawing cash from an ATM) or a full-service process (eating out at a restaurant or withdrawing cash over the counter in a bank) they are or feel better off than before” (p. 282). This definition depicts that customers’ value creation is influenced by their needs and activities and the efforts of the good or service providers to fulfill customer needs to make them feel better off.

Values can be of various types and sometimes it is difficult to categorize them. Here we are reviewing various types of values, identified in different researches, which are mainly, economic value, social value, symbolic value, conditional value, functional value, emotional value, and utilitarian value. Haller (2016) classifies value into economic and societal values. Where, economic value is linked with monetary measures to assess the perceived benefits of a good or service, and this value can be tangible and exchanged in the market. Value can also be intangible, in which benefits are not identifiable, for example, values related to the knowledge, experience, and know-how of any person. Another type of value is expressed in terms of ethics, which is related to the beliefs or ideals of individuals or societies. This type of value comes under the societal approach of value, where it is expressed in terms of code of conduct for society and assessed qualitatively through judgment. Brosch and Sander (2015) give examples of European values’ studies and the World values’ survey, which also focuses on the beliefs of people to consider anything valuable or significant. However, value and value-for are two issues of concern that narrate the notion of what is good and what is good-for-someone, respectively. Quoting the work of Sidgwick (1981) by Brosch and Sander (2015) “as rational agents we face a choice: we can do what (we believe) is good for us or we can do what (we believe) is good per se, i.e., what is impersonally good or as we shall also say, good, period” (p. 27). Decision-making becomes very important when selecting the trade-off between goodness for oneself or another. This belief directs towards using ethical philosophy of value.

From a business perspective, the concept of value is more related to economic performance, measurable through quantitative tools. Koller *et al.* (2010) argue that value is a defining metric that denotes the increase in the value of an investment in terms of the amount, which compensates the investor’s risk and time resources. Traditionally, this value approach is most widely recognized by businesses that create value by investing to generate attractive future cash flows. Haller (2016) denotes this approach as ‘shareholder value’, which focuses on the appraisal of shareholders’ worth. Nowadays businesses are trying to go beyond profitability and create value for society as well. By taking into account this valuation, KPMG introduces a

new methodology called, ‘True Value methodology’ (TVM) to quantify the values businesses create or reduce for the society (KPMG, 2014). Coulson (2016) explains TVM as a method that aims to ‘internalize the net present value of a company’s material economic, social, and environmental externalities to produce the true value of the current earnings for the company’ (p. 2). TVM is recognized as a tool to align organizational strategies and decisions with social and environmental aspects. Coulson (2016) also provides a critique of the TVM approach by taking its philosophical stance. The study argues that the framing of KPMG on the valuation of environmental, social, and economic impacts is restricted to a standardized commercial viewpoint. The study offers potential avenues for further development of this tool by involving stakeholders in its application to construct a better and more elaborated framework to integrate risk and values for social and environmental impacts.

In accounting literature, Ramachandra (2017) explains the notion of value by determining the company’s tangible and identifiable assets accounted. Accounting statements are used to identify the accounting values of tangible assets and identifiable intangible assets. The concept of value addition is also taken into account to calculate accounting value, which is described as organizational capital and computed as the incremental value of sales that a company can obtain from the industry. Ramachandra (2017) focuses on identifying the relationship between directors’ reputation and accounting values. Using the data set of 75 manufacturing companies in Malaysia, the study concludes that the board’s reputation has an impact on the accounting values of the company through board capital and company strategy. Literature also signifies the appraisal of stakeholders’ value as a broader scope of businesses (Freeman, 1984; Donaldson and Preston, 1995; Haller, 2016). The stakeholder value concept focuses on individuals or groups who are affected by the objectives of the business and it does not include the natural environment. A concept that goes beyond stakeholder value is ‘public value’, which is related to the impacts of business activities on people and their environment (Moore, 1995; Haller, 2016). Previous studies highlight that value always needs someone to realize and appreciate it. Nowadays, various businesses are going beyond profitability and developing strategies to create value for themselves as well as for others. A report by the International Integrated Reporting Council (IIRC)¹⁷ narrates that “value is created through an organization’s business model, which takes inputs from the capitals and transforms them through business activities and interactions to produce outputs and outcomes that, over the short, medium and long term, create or destroy value for the organization, its stakeholders, society, and the environment” (IIRC,

¹⁷ The IIRC is a global coalition of parties in the adoption of Integrated Reporting on an international basis as a means to improve communication about value creation and to advance the corporate reporting disclosure on financial stability and sustainable development. See details at: <https://integratedreporting.org/>

2013b, p. 4). This concept of value creation is linked with stakeholder and public value, which depicts that business entities are moving their attention towards creating values for themselves and for society, which is a corporate sustainability approach. Various types of values are identified from the literature and demonstrated in Table 2.2 below.

Table 2.2: Types of values identified from the literature

| Authors | Types of value |
|---|---|
| Rokeach (1973) <i>Book: The Nature of Human Values</i> | Terminal value (desirable end-states of existence) and instrumental value (preferable modes of behavior) |
| Sheth <i>et al.</i> (1991) <i>Journal of Business Research</i> | Functional value (the ability of a product to perform expectedly); social value (attached associations with specific groups); emotional and epistemic value (ability to arouse emotions or curiosity); conditional value (influence of specific situations on the utility of a product and/or service) |
| Holbrook (1999) <i>Book: Consumer value: a framework for analysis and research.</i> | Efficiency, excellence, status, esteem, play, aesthetics, ethics, and spirituality (values classified as “extrinsic vs intrinsic,” “self-oriented vs other-oriented” and “active vs reactive”) |
| Woodall (2003) <i>Academy of Marketing Science Review</i> | Balance of benefits and sacrifices (net value), outcomes that derive from the use or experience (derived value), product attributes (marketing value), reduction of sacrifice (sale value), the difference between a price that is considered to be fair and a benchmark price (rational value) |
| Rintamäki <i>et al.</i> (2007) <i>Managing Service Quality: An International Journal</i> | Economic and functional value (concrete, transaction-based, and more utilitarian value types) and emotional and symbolic customer value (more abstract, interaction-based and hedonic types of value) Companies are classified as price-oriented companies (focus on economic value); solution-oriented companies (focus on functional value), experience-oriented companies (focus on emotional value) and meaning-oriented companies (focus on symbolic value) |
| Smith and Colgate (2007) <i>Journal of Marketing Theory and Practice</i> | Customer perceived value types: cost/sacrifice value (if costs and sacrifices – during purchase, ownership, and use- are to some extent minimized) functional/instrumental (if the product that has desired characteristics, is useful and/or performs desired functions), experiential/hedonic value (if the product creates appropriate experiences, feelings, and emotions for customers) and symbolic/ expressive value (if the product is attached or associated to a psychological meaning by customers) Sources of value (i.e. products, information, interactions, environment, and ownership/ possession transfer) |
| Tynan <i>et al.</i> (2010) <i>Journal of Business Research</i> | Utilitarian value, rational value, cost/sacrifice, symbolic/ expressive value, experiential/ hedonic value. |
| IIRC (2013b) <i>Report: Value Creation Background Paper</i> | Financial value, utility value (functional, economic, and emotional) |
| Sarmah <i>et al.</i> (2015) <i>Procedia-Social and Behavioral Sciences</i> | Functional, hedonic, and symbolic, or cost value |
| Lindman <i>et al.</i> (2016) <i>Business Process Management Journal</i> | Cost/sacrifice; functional/instrumental; experimental/hedonic; symbolic/expressive |
| Haller (2016) <i>Integrated reporting</i> | Economic (Economic value is linked with monetary measures to assess the perceived benefits of a good or service) and societal values (expressed in terms of code of conducts for a society) |

Types of values identified in Table 2.2 depict that it is very complicated to categorize values into exhaustive groups. Rokeach (1973) highlights two value types, which are terminal and

instrumental values with 18 values in each category. The broader classification, as well as, commonalities are observed and grouped in Rokeach's categorization. Emotional, symbolic, and hedonic values are identified in various studies (Sheth *et al.*, 1991; Rintamäki *et al.*, 2007; Smith and Colgate, 2007; Tynan *et al.*, 2010; Sarmah *et al.*, 2015; Lindman *et al.*, 2016). Where, emotional value is linked with emotions or curiosity (Sheth *et al.*, 1991), symbolic value is associated with psychological meanings, and hedonic value is related to the creation of appropriate experiences, feelings, and emotions for the customers (Smith and Colgate, 2007). Functional values are also identified which are associated with the ability of a good or service to perform the desired function (Sheth *et al.*, 1991; Rintamäki *et al.*, 2007; Smith and Colgate, 2007; IIRC, 2013b; Sarmah *et al.*, 2015; Lindman *et al.*, 2016). Many studies have associated value with monetary terms to assess the perceived benefits of a good or service, called economic value or sometimes termed as cost/sacrifice/net value (Woodall, 2003; Rintamäki *et al.*, 2007; Smith and Colgate, 2007; Tynan *et al.*, 2010; IIRC, 2013b; Sarmah *et al.*, 2015; Haller, 2016; Lindman *et al.*, 2016). Other than these categories of values, some of the studies have identified social values (Sheth *et al.*, 1991; Haller, 2016), conditional values (Sheth *et al.*, 1991), rational value (Woodall, 2003; Tynan *et al.*, 2010), and utilitarian value (Tynan *et al.*, 2010). Where social values are related to the experiences of better living through business operations, conditional values are based on the influence of a particular situation on the utility of a product or service, rational values are values associated with the variation between a fair price and benchmarked price, and utilitarian values are conceived by customers based on rational consumption behaviour. Few studies extended the value classification of Smith and Colgate (2007) and added other types of values in their categorization (Tynan *et al.*, 2010; Lindman *et al.*, 2016). However, it is identified that most of the value categories are linked with customers and companies, ignoring the values associated with other stakeholders. Moreover, it is suggested that these values cannot be realized in isolation, as they require to be created in a collaborative interaction between provider and beneficiary. This value is called interactive or co-created value, as discussed in the following subsection.

2.2.2 The conception of value co-creation

Earlier studies state that value is produced by the providers and consumed by the customers—value is conceptualized as exchanged, which is termed as non-interactive value formation (Anderson, 1957; Bagozzi, 1975; Hunt, 1976). In the late 1970s, Lovelock and Young (1979) argue that companies can become competitive by allowing their customers to participate in consumption and the interaction between companies and consumers can be beneficial for both. Toffler (1980) contributes to the discussion by introducing the concept of 'prosumers', which

refers to customers who participate in developing some goods and services they are consuming. It is noted that there is an increasing trend among customers to act as a prosumer of some goods and services they buy (Philip, 1986). Porter (1980) uses the notion of “value chain” to epitomize the role of the company in creating value distinct from the roles of customers. After that, the concept of customer participation is investigated by various academics and added into the literature (Prahalad and Ramaswamy, 2000; Bendapudi and Leone, 2003; Vargo and Lusch, 2004). Prahalad and Ramaswamy (2004) introduce the interaction between customer and company as a value-creating activity. The fundamental shift from the creation of offerings in isolation to the co-creation of value in collaborative networks is called interactive value, which specifies that value is co-created during the interaction between the provider and the customer (Prahalad and Ramaswamy, 2004; Vargo and Lusch, 2004; Terblanche, 2005; Filieri *et al.*, 2014).

Prahalad and Ramaswamy (2000) recognize the role of customers, as active players in the co-creation of value rather than a passive audience. This logic is further developed by Vargo and Lusch (2004), in the S-D logic, by focusing on joint value creation by providers and customers. A service perspective argues that all businesses are service providers either manufacturers or service-oriented, which facilitate mutual value creation. Grönroos (2011) states that in the S-D logic, value is offered to customers in the form of a value proposition, and customers have to participate in exchange for value to be created. In contradistinction, the traditional goods-dominant (G-D) logic treats value as an exchange between providers and customers where businesses play a discrete role in creating value, and this value is exchanged in market transactions with customers. Vargo *et al.* (2008) argue that the major difference between the G-D logic and the S-D logic is the exchange of types of resources. Resources are stocks of tangibles or intangibles possessed by anyone. In the G-D logic, there is an exchange of operand resources, which are physical, while in the S-D logic, there is an exchange of operant resources, which are processional or non-physical.¹⁸ Vargo *et al.* (2008) highlight various other differences in the G-D and the S-D logic in terms of the value they create, the role of companies and customers, and the measurement of value. Vargo and Lusch (2004) present foundational premises of the S-D logic, which have developed over time. Now, there are 11 foundational premises of the S-D logic with five Axioms (Vargo and Lusch, 2016).¹⁹ The review of the development of these FPs depicts that in the S-D logic, the distinction between providers and

¹⁸ Operand resources are physical, for example natural resources, and can be applied to other operand resources, but typically not to other operant resources. While operant resources are processional or non-physical, for example, knowledge and skills. Operant resources can be applied to operand resources and other operant resources to transform them (Constantin and Lusch, 1994).

¹⁹ Axiom are starting points from which other foundational premises can be derived (Vargo and Lusch, 2016).

customers has been retitled and termed as ‘actors’ and “beneficiaries’, which demonstrates that all actors are service system entities generating potential value through utilizing their operant and operand resources. Where, this value is always uniquely and phenomenologically determined by the beneficiary (Vargo and Lusch, 2016). The beneficiary generates real value, which may or may not be quantitatively measured (Gummesson, 2007; Vargo *et al.*, 2008; Vargo and Lusch, 2011).

The literature on the co-creation of value is diverse and proposes various ways to interpret this term. With time, the term value co-creation shaped into a more complex set of concepts, and various studies in the past and the current era are conducted to resolve the complexity of value co-creation as a concept and the process through which value is co-created. McColl-Kennedy *et al.* (2012) define value co-creation as “benefits realized from the integration of resources through activities and interactions with collaborators” (p. 375). Galvagno and Dalli (2014) define it as a “joint, collaborative, concurrent, peer-like process of producing new value, both materially and symbolically” (p. 644). Most of the definitions of value co-creation highlight the interaction between customer and business as an important condition for the co-creation of value. However, Biggemann *et al.* (2014) shed light on the creation of value during an interaction between the organization and the stakeholder. Value can be created by sharing resources, knowledge, and technology, but it can be fully realized when a good or service is used. It can be inferred that mutual communication at the end of the value chain (both companies and consumers), meanings are communicated to each other and as a result co-creation of value takes place (Weaver, 2008; Ribeiro-Soriano and Urbano, 2009). In this respect, Grönroos (2011) states that as providers of goods and services, companies get the opportunity of becoming value co-creators with their customers, only when there exists direct interaction between providers and customers. Otherwise, the company, as a provider, is acting as a facilitator for customers’ future value creation. A similar notion is empirically verified by Hsieh and Hsieh (2015), who conceptualize and validate a dialogic co-creation between providers and consumers. They highlight that value co-creation is a dialogic process, influenced by mutual communication and engagement between two parties (Grönroos and Voima, 2013; Hsieh and Hsieh, 2015). Greer *et al.* (2016) continue with the same logic of joint communication and consider customers as resource integrators for the co-creation of value. They argue that organizations can develop knowledge from on-going relationships with customers and suppliers, which depicts joint value co-creation and interdependency.

Many organizations have directed their attention toward collaborative activities to involve customers in various phases of productions, such as ideation and product development.²⁰ Nosi *et al.* (2017) also highlight various vehicle manufacturers working on the concept of mutual communication for more value to be created. For example, the Audi virtual lab and Fiat Mio concept car are such examples that provide an online platform to share thoughts and opinions of individuals about cars.²¹ Moreover, Volkswagen is another example, which has engaged people through social media to create ads for Golf compact car. Therefore, collaboration among diverse stakeholders is required to develop innovative solutions for today's complex scientific and societal challenges (Lusch *et al.*, 2010) and to create multiple types of values that surpass the boundaries of individual organizations (Nissen *et al.*, 2014).

Co-creation of value has gained importance from the past few decades and, now, leading theorists predict that value co-creation is at the core of innovation and ultimately the source of the company's competitive advantage (Lee *et al.*, 2012; Gouillart, 2014). Customers of today are not only consumers, but also co-producers or co-designers, because they have become knowledgeable due to the advancements in the technologies and can interact as participants to influence business organizations in developing new products, improving existing ones, and making the experience of consuming better. Grönroos (2011) states that such interaction, where customers and companies can create values together, is joint value creation. Nowadays, companies are jointly creating knowledge with external stakeholders to expand their knowledge base and to innovate processes (Mahr *et al.*, 2014). For example, the leading car brands, such as BMW, engage thousands of consumers across the world to co-create innovative features in their new models (Poetz and Schreier, 2012). It can also be seen that the logistics provider DHL invites academics, politicians, public authorities, and citizens to help develop the city logistics concepts that are expected to reduce the challenge of decreasing urban traffic and embrace a greener economy (Cuccureddu, 2011). These examples depict that the interaction between providers and beneficiaries and cooperation and involvement for mutual integration of resources can enhance value co-creation. At this stage, it is very important to identify the processes through which values are co-created.

²⁰ Organizations collaborate with their customers in co-production for assembling a product (such as Ikea furniture, Lego toys). They can also integrate their customers for being part of a brand community and use social media for promoting their brand (for example, Apple, eBay, Harley Davidson, Nike). Moreover, few organizations, such as, BBC, Disney, and Snapon, involve their customers and suppliers in various phases of production (Greer *et al.* 2016).

²¹ Fiat Mio concept car was launched in Brazil in 2010, which was developed as result of a widespread co-creation initiative, involving 17,000 subscribers, who participated in submitting 11,000 ideas about car from more than 120 countries (Nosi *et al.* 2017).

2.2.3 Process of co-creation of value

Many organizations have realized that values cannot be created in isolation or within organizations. The reason is that possessing all the required knowledge, expertise, and credibility is beyond the control of a single organization (Kazadi *et al.*, 2016). According to Sarmah *et al.* (2015), value, whether it is functional, hedonic, and symbolic, or cost value, has to be co-created by working together with the stakeholders, while meeting expectations that companies promise. O'Hern and Rindfleisch (2010) argue that successful co-creation is a process involving two steps: the first one is the contribution of ideas by customers and the second one is to carefully incorporate the diverse customers' ideas by companies. However, the process is not limited to mere customers. Vargo (2009) sheds light on the multifaceted process of value co-creation and asserts that "[...] value co-creation is a complex process involving the integration of resources from numerous sources in unique ways, which in turn provide the possibility of new types of service provision. [...] The elements are value, relationships, and networks; the driving force, and thus the nature of value, relationships, and networks, is mutual service provision for mutual wellbeing." (p. 378). Many studies have shed light on the processes of value co-creation by focusing on values, actors, and engagement platforms (Saarijärvi *et al.*, 2013; Kazadi *et al.*, 2016; Leclercq *et al.*, 2016). Lindman *et al.* (2016) also conduct a study on the role of a company in the value creation process. This study uses the process theory to establish a framework of value space, in which potential value-creating activities are integrated. The framework sheds light on activities by a company to create different types of values for the customer either through direct or indirect interaction. By taking multiple case study approach from the furniture industry, the study identifies nine potential value-creating activities, which create potential value types (i.e. cost/sacrifice; functional/instrumental; experimental/hedonic; symbolic/expressive) and sources of value (i.e. product; information, interaction; environment; ownership/possession). However, the study is deficient in defining the value creation dimension of customers or any other stakeholders.

Many studies highlight the presence of platforms to co-create values, mainly for the interactions among value-creating actors. Ramaswamy and Ozcan (2018) argue that co-creation requires interaction across the interactive platform. Their study advances the theme of value as a co-created activity through the interaction of company and customer (Prahalad and Ramaswamy, 2004), towards a more complex system of value co-creation entailing agency engagements and structuring organizations. Various actors play varying roles in constituting interactive platforms to co-creative values in a joint sphere of activities. The interactional value creation is a new theme that emerged from this study, where all experiencing actors create value through

interactions in platforms in which they are entwined. Thus, value co-creation is considered as an assessment of the accumulation of perception in comparison with the expectations of stakeholders in each relational encounter. Leclercq *et al.* (2016) highlight that direct interaction among actors can generate value-in-exchange and value-in-use. Where value-in-exchange is linked with the amount of a product or service in the market in exchange for something, for example, monetary value highlighted in Subsection 2.2.1, where the medium of exchange is money; and value-in-use is the satisfaction from the use of a product or service, for example, functional value as highlighted in Subsection 2.2.1. Literature suggests that in the case of exchange value, participants interact and are motivated to exchange their resources in the value co-creation process (Nambisan and Baron, 2009; Roberts *et al.*, 2014). However, the aspects and elements of value co-creation processes are underrepresented in the prior literature. Most of the attention has been given to the conceptualization and measurement of co-created values from company and customer perspectives. Grönroos (2011) highlights that co-created values may not always be measured objectively, but sometimes certain aspects are subjectively perceived.

2.2.4 Measuring co-creation of value

To riposte the difficulty of measuring objective and subjective elements of value co-creation together, many academics establish constructs and tools for measuring co-creative value. Table 2.3 demonstrates the chronological development of co-creation frameworks and scales by various academics. It is observed that the emergence of the S-D logic (Vargo and Lusch, 2004) intensifies the issue of value co-creation measurement. All studies cited in Table 2.3 pose various strong and weak points and provide research directions for future researchers.

Table 2.3: Co-creation frameworks and scales

| Authors | Framework/Conceptual Model/Scale | Major Contributions |
|--|--|--|
| Prahalad and Ramaswamy (2004) <i>The Future of Competition: Co-Creating Unique Value with Customers</i> | The Dialogue, Access, Risk Assessment, Transparency (DART) model of co-creation of value | The study offers a DART model for managing the co-creation of value processes. |
| Tapscott and Williams (2008) <i>Wikinomics: How Mass Collaboration Changes Everything</i> | The internal organizational factors fostering the co-creation model | The study defines Wikinomics as the art and science of mass collaboration or the art and science of peer production. |
| Payne <i>et al.</i> (2008) <i>Journal of the Academy of Marketing Science</i> | A conceptual framework for co-creation of value | The study confirms the need for a practical and robust process-based value co-creation framework consisting of three main components: customer value-creating process, supplier value-creating process, and encounter process. |

| Authors | Framework/Conceptual Model/Scale | Major Contributions |
|---|---|---|
| Zhang and Chen (2008) <i>International Journal of Production Economics</i> | Three constructs in a value co-creation system based on the empirical data—key co-creation activities, customerization competence, and service capability | The study helps deepen the understanding of the value co-creation system with customers and facilitates managers to look at the new strategy through a new lens. |
| Ng <i>et al.</i> (2010) <i>AIM Research</i> | The contracting mechanism of outcome-based contracting | The study presents seven generic attributes of value co-creation, e.g., behavioral alignment, process alignment, congruence in customer expectations, congruence in firm expectations, empowerment and perceived control, behavioral transformation, and complementary competencies. |
| Randall <i>et al.</i> (2011) <i>Journal of Strategic Marketing</i> | The framework of S-D logic | The study proposes a connection as a new construct that bolsters the effect of trust and commitment on future intentions among customers of a service-intense organization. |
| McColl-Kennedy <i>et al.</i> (2012) <i>Journal of Service Research</i> | The S-D logic, consumer culture theory, and social practice theory | The study identifies roles, activities, and interactions that underlie customer co-creation of value in health care, as well as uncovers five groupings of customer value co-creation practices, such as team management, insular controlling, partnering, pragmatic adapting, and passive compliance. |
| Grisseemann and Stokburger-Sauer (2012) <i>Tourism Management</i> | A conceptual model of customer co-creation of tourism services | The study contributes to the field of co-creation in marketing and tourism research as it effectively measured customers' actual degree of co-creation. |
| Yi and Gong (2013) <i>Journal of Business Research</i> | Customer participation behavior and customer citizenship behavior | The study makes several theoretical contributions: (a) the scale will be useful not only in academic research but also in practice; (b) the firm can use the scale to detect weaknesses and strengths of customer value co-creation behavior, and (c) the scale could be used for all types of service industries. |
| Neghina <i>et al.</i> (2015) <i>Marketing Theory</i> | A conceptual understanding of value co-creation illustrated via an analytical framework | The study proposes that in-service interactions, value co-creation should be understood as a joint collaborative activity between service employees and customers, consisting of six dimensions, e.g., individuating, relating, empowering, ethical, developmental, and concerted joint actions. |
| Hsieh and Hsieh (2015) <i>Journal of Business Research</i> | Structural equation modeling, guided by the resource-advantage theory and the S-D logic | The study offers novel insights into how service innovation co-creation takes place within a dialogic context leading to organizational changes. The results clarify the influences of operant resources on service innovation and indicate that companies should emphasize dialogic communication with customers in developing service innovation. |
| Ranjan and Read (2016) <i>Journal of the Academy of Marketing Science</i> | An empirical measurement index for value co-creation | The study is the first scholarly effort in the direction of illustrating the complete multidimensional theoretical nature of value co-creation and developing a measurement instrument aligned with theory. |
| Busser and Shulga (2018) <i>Tourism Management</i> | Co-created value scale | The study follows a multi-step multi-stage methodology to verify and measure value co-creation in tourism and hospitality. The analyses present a five-dimensional scale representing: meaningfulness, contribution, collaboration, recognition, and emotional response. |

Previous literature highlights that most of the frameworks are conceptual and lack empirical analysis. For example, the DART model (Prahalad and Ramaswamy, 2004) and the internal organizational factors fostering the co-creation model (Tapscott and Williams, 2008) are based on qualitative aspects and lack descriptive analysis. To overcome this weakness, various academics have established constructs to validate the DART model or have extended this model according to the context of research (Mazur and Zaborek, 2014; Schiavone *et al.*, 2014; Taghizadeh *et al.*, 2016). Both models focus mainly on the integration between providers and customers for value co-creation. Grönroos (2008) and Payne *et al.* (2008) follow the same line and suggest that interaction between customers and companies is non-trivial for value co-creation. The framework of Payne *et al.* (2008) state that value co-creation includes four factors: (i) active involvement between actors; (ii) resource integration for mutual benefit; (iii) willingness to interact; and, (iv) a platform for collaboration, while this is limited to business-to-consumer market. Similarly, Hsieh and Hsieh (2015) take the concept of the dialogic co-creation between businesses and customers and adapt items to measure the components of dialogic co-creation from previous studies.

Some of the frameworks are limited in context and specific to certain sectors and industries. For example, Grisseemann and Stokburger-Sauer (2012) focus on the outcome of mutual interaction and present a customer co-creation framework in travel services. They examine the company's support as a driver of co-creation, and customer loyalty and customer expenditures as outcomes of co-creation. The scale developed by Busser and Shulga (2018) is also context-specific and confined to the tourism and hospitality sector. Moreover, McColl-Kennedy *et al.* (2012) also highlight the styles of co-creation of value in the healthcare sector, but they do not offer internal composition in terms of sub-dimensions. Tommasetti *et al.* (2017) identify this gap and take the components of value co-creation behavior from McColl-Kennedy *et al.* (2012) to establish the sub-dimensions of all dimensions of co-creation. But they neglect to establish a scale for value co-creation behavior or empirically analyze this scale. In this regard, Yi and Gong (2013) conduct a series of studies to develop a multidimensional customer value co-creation behavior scale. Their scale is categorized into two dimensions—customer participation behavior (in-role) and customer citizenship behavior (extra-role). Yi and Gong (2013) reveal that the components of their model exhibit different patterns of antecedents and consequences, but their study is limited to value co-creation behavior from the customer's perspective, ignoring the mutual collaboration element between providers and customers.

Neghina *et al.* (2015) emphasize value co-creation as a joint collaborative activity and proceed with the conceptualization of co-creation of value with its dimensions and antecedents. They

present a conceptual model and establish propositions that could be further developed into constructs to measure value co-creation dimensions. Ranjan and Read (2016) take a lead in this regard and propose a multidimensional scale for measuring value co-creation. Reviewing 149 papers on value co-creation, they identify two primary conceptual dimensions of value co-creation, namely: co-production and value-in-use. They apply the conceptual findings to derive empirical measurement constructs of each dimension and use a sample of students for empirical analysis. Busser and Shulga (2018) also developed a multidimensional scale of co-created value. Their analysis consists of developing a 25-item scale consisted of five dimensions, which are: meaningfulness, contribution, collaboration, recognition, and emotional response. The scale is further tested to determine its impact on customer loyalty. However, this scale is context-specific and focuses on co-creation between the provider and the customer only.

2.2.5 Section summary

Overall, this section sheds light on the concepts of value and co-creation of value. The complexity of the term ‘value’ led us to understand various sources and define it as ‘the subjective perception(s) of stakeholder(s) to consider anything valuable from their lived experiences in a particular context’. The abovementioned definition shows the contextual nature of value. Various types of values are identified and mentioned in Subsection 2.2.1 including economic/monetary value, social value, symbolic value, conditional value, functional value, emotional value, shareholder value, public value, and utilitarian value. These values cannot be created in isolation, they are required to be co-created by the interaction between the provider and the beneficiary. The concept of value co-creation has taken its roots from the early 1980’s studies mostly in the marketing field. The complexity of the issue motivates researchers, practitioners, and policymakers to identify processes of value co-creation and develop tools to measure the co-created value. Various studies identify values, actors, and engagement platforms as important elements of value co-creation processes. Moreover, most of the measurement tools and scales mentioned in this section are conceptual and focus on value co-creation from the customer and provider perspective, ignoring the importance of various other internal and external stakeholders in value co-creation activities.

2.3 Multiple stakeholders’ perspective in co-creation of value

This section aims to identify the significance of multiple stakeholders in the value co-creation process. Before moving towards stakeholders’ roles in the co-creation of value, it is important to understand stakeholders and how companies identify diverse stakeholders.

2.3.1 Managing stakeholders

The concept of stakeholders emerges from Freeman's book, *Strategic Management: A Stakeholder Approach* (Freeman, 1984). Many management academicians argue that the organization's responsibility is far beyond the profit maximization of mere stockholders. Nowadays, organizations have wider responsibilities, which can be described by the concept of stakeholders. Friedman and Miles (2006) identify 55 definitions of stakeholders and state that in the academic circle, the most widely used definition of a stakeholder is given by Freeman (1984) which states that stakeholder is "any group or individual, who can affect or is affected by the achievement of an organization's objectives or decisions" (p. 46). As per Freeman (1984), modern organizations are going beyond the traditional 'production view' towards a more complex 'managerial view'.²² The conceptual shift from the production view to the managerial view implies that top managers within organizations are responsible for satisfying not only suppliers and customers, but also owners, employees, and their unions. It depicts that managers have to take into account the stake of various actors, including owners, employees, and unions, for adopting any new concepts and ideas. Freeman (1984) argues that managers are required to handle both internal and external turbulences if they want to succeed. Internal turbulences can be handled by integrating the demands of customers, employees, stockholders, and suppliers, while external turbulences require a renewed approach of dealing with multiple external parties, including government, foreign competition, environmentalists, consumer advocates, special interest groups, and media. The conceptual shift from focusing on mere single stakeholders towards a multiple stakeholders' view can be elaborated with the stakeholder theory, which is embedded with the assumption of values for doing business. The stakeholder theory refers 'to the management of a company's relationships with a wide range of stakeholders' (Freeman, 1984). This theory attempts to answer the purpose of the company, which encourages managers to have a shared value by bringing its core stakeholders together. Moreover, it influences managers to understand the needs, expectations, and values of external groups and identify the importance of relationships with stakeholders to fulfill the organization's objectives (Freeman, 1984; Freeman *et al.*, 2004; Ayuso *et al.*, 2014).

Donaldson and Preston (1995) identify three alternative aspects of stakeholder theory in the management literature, including descriptive, instrumental, and normative. From the descriptive/empirical perspective, the stakeholder theory is used to describe or explain various characteristics and behaviors of the organization, specifically the nature of the corporation and

²² Production view states that organizations are responsible to buy raw material from suppliers and convert them into products, which are ultimately sold to the customers.

top managers' preferences regarding managing the corporation. From the instrumental point of view, this theory tends to identify the connections between stakeholders' management and achieving the organization's objectives. Kotter (1992) quotes the examples of some successful companies, including Hewlett Packard, Wal-Mart, and Dayton Hudson, and states that they strongly believe in managing stakeholders' relationships to pursue their objectives. However, another stream of research argues that the stakeholder theory is embedded in normative aspects and implies moral philosophies in the operations and management of the organizations (Donaldson and Preston, 1995). Although these aspects of the stakeholder theory are blurred in the literature, Donaldson and Preston (1995) argue that most of the work is based on normative aspects. However, it is realized that whichever perspective of stakeholder theory is taken by the organizations, managing stakeholders is always an important area for business organizations.

The saliency of stakeholders motivates managers to develop strategies to identify and manage organizations' diverse stakeholders for getting competitive advantage (Werhane and Freeman, 1999; Post *et al.*, 2002; Perrini and Tencati, 2006; Ackermann and Eden, 2011). Werhane and Freeman (1999) suggest that stakeholder management is an ongoing process and emphasizes engaging stakeholders in organizational activities. However, identifying and engaging stakeholders have always been a concern for managers. Research suggests various techniques for stakeholder identification. For example, Freeman (1984) argues that stakeholders can be categorized into external and internal from an organizational perspective. Another segregation highlighted by Clarkson (1995) depicts that organizations can divide their stakeholders into two categories, primary and secondary. Primary stakeholders, such as customers, shareholders, employees, suppliers, and regulators are those who have direct interests in the company, while secondary ones, such as academic institutions, NGOs, and social activists are those who can affect, or are affected by the company, although they are not engaged in transactions. Primary stakeholders are claimed to more likely have similar interests, claims, or rights, while secondary stakeholders may have different agendas (Clarkson, 1995). However, many studies argue that whichever categorization is used to identify various stakeholders, it is always difficult to deal with all of them, so it is important to prioritize them.

Mitchell *et al.* (1997) and Eden and Ackermann (1998) emphasize managing stakeholders based on various parameters. For example, Mitchell *et al.* (1997) propose a triple circle stakeholder typology for managing stakeholders, based on three attributes: power, legitimacy, and urgency. Eden and Ackermann (1998) present a matrix grid structure, based on the salience of identification of the degree of interest and power of each stakeholder group. Ackermann and Eden (2011) further implement this power-grid to identify, disaggregate, and sort stakeholders

based on their characteristics. They argue that stakeholders' influence in organizations is purely driven by the focal companies. Therefore, it is of immense importance to identify the stakeholders and explore the impact of stakeholders' dynamics on organizational performance. Moreover, possessing all the resources to remain competitive is beyond the control of a single organization (Pera *et al.*, 2016). Vargo and Lusch (2011) and Frow *et al.* (2014) argue that various stakeholders interact and co-create value to get hold of significant resources. It highlights the importance of collaboration with multiple stakeholders to jointly create values to get a competitive advantage. Stakeholder theory also suggests that stakeholders create values, which are significant and explicit parts of the business mission (Freeman, 1984). Adopting the stakeholder view reveals that only shareholders' perspective cannot ensure the success of managerial efforts; it needs a more holistic and comprehensive stakeholder framework to attain organizational goals (Post *et al.*, 2002; Perrini and Tencati, 2006). It depicts that to jointly create values and to access resources, various stakeholders are required to involve in the resource integration practices. Moreover, the stakeholders' perspective also supports the organization to gain knowledge about the beneficiary's interests and preferences, which ultimately can provide useful insights to innovate and to get a competitive advantage for the organizations (Bhalla, 2016).

2.3.2 Co-creation of value by multiple stakeholders

Most of the value co-creation studies focus on co-creating value from customers' and companies' perspectives, ignoring the role of multiple stakeholders who are important players in co-creating value (Hult *et al.*, 2011; Vargo, 2011; Kornum and Mühlbacher, 2013; Vallaster and Von Wallpach, 2013). Aarikka-Stenroos and Jaakkola (2012) argue that co-creation of value requires a considerable effort from customers to adopt the roles of co-diagnosers, co-designers, co-producers, and co-implementers. Some studies shed light on the involvement of other stakeholders, such as employees, who can contribute to determining the success of a brand (Aaker, 2004; Wallström *et al.*, 2008; Merz *et al.*, 2009; Iglesias *et al.*, 2017). The involvement of employees and customers highlights the co-creation of value within networks of multiple actors (Jaakkola and Hakanen, 2013; Iglesias *et al.*, 2017). Research also demonstrates that co-creation is a highly dynamic process, which can be shaped into a complex network of dyadic collaboration, in which various economic and social stakeholders interact, co-create, and integrate resources (Vargo and Lusch, 2008; Jaakkola and Hakanen, 2013). Continuing with the development of multiple stakeholders' value co-creation concept, Gyrd-Jones and Kornum (2013) introduce the term 'stakeholder ecosystem', which "encapsulates both the network nature of these relationships and the complex set of subcultures that make up this ecosystem.

An ecosystem is normally used to refer to systemic interactions within biological environments consisting of both physical and biological components” (p. 1484). The term of ecosystem influences academicians to explore its link with business. Tsvetkova and Gustafsson (2012) argue that an ecosystem involves various actors, who contribute to the achievements of an overarching solution. However, value co-creation from the multiple stakeholder viewpoint is still a largely under-investigated area, and little empirical research has been conducted in this regard (Driessen *et al.*, 2013; Jaakkola and Hakanen, 2013; Kornum and Mühlbacher, 2013; Hillebrand *et al.*, 2015; Iglesias *et al.*, 2017).

Adopting multiple stakeholders’ approach by the companies highlights the significance of engaging diverse stakeholders to co-create values. In this regard, stakeholder theory provides strong theoretical grounds for suggesting the management of various stakeholders, still, it is unclear in literature as to how the voices of multiple stakeholders are to be incorporated in organizational practices to create value (Hall *et al.*, 2015). Moreover, it is rarely discussed how the opinions of various stakeholders are incorporated into the company’s reporting system. It requires an accounting system that could collect and disseminate information from stakeholders. The study by Hall *et al.* (2015) examines the development of ‘social return on investment’ as an accounting measure aiming to report on value created for stakeholders in both the US and UK settings. Freeman *et al.* (2010) suggest the development of a system to incorporate the stakeholders’ ideas and translating them into accountable measures. It depicts the importance of accounting and reporting framework for communication and effective stakeholder engagement. Hall *et al.* (2015) elaborate on the role of accounting in stakeholder management, through dimensions of listening and talking to stakeholders. Financial, social, and environmental reporting communicates an organization's performance on these attributes to various stakeholders and provides a means to perceive and make judgments about the organization. However, the manager’s expertise and organization’s material conditions significantly contribute towards identifying and prioritizing stakeholders, and also in assimilating the resources of stakeholders in the company’s reporting framework. An unsuitable accounting and reporting system hinders communication with stakeholders and as a result, impedes the creation of value.

The attention to the involvement of multiple stakeholders in the co-creation of value inspires numerous researchers to explore this area (Hsieh and Hsieh, 2015; Greer *et al.*, 2016; Tossavainen, 2017). For example, research on the malpractice scandals in the food and drink supply chain depicts that stakeholder’s involvement can contribute towards finding solutions to improve ethical standards along the whole value chain (Wiese and Toporowski, 2013; Czinkota

et al., 2014). Wiese and Toporowski (2013) highlight the example of special sustainability-related challenges in the food industry, especially due to a vast number of companies involved in the value chain. They present the case of dioxin-contaminated organic eggs in March 2010 in Germany, where feedstuff is found to be the reason for contamination. The case reveals that the feedstuff is produced by a Dutch company using a dioxin-contaminated maize meal from Ukraine. Due to this contamination, many retailers were required to remove organic eggs from their assortments for few months (Wiese and Toporowski, 2013). Similarly, the European horse meat scandal in 2013 also illustrates the dysfunction in the food supply chain, where beef burgers supplied to TESCO found to be contaminated by the Irish meat processing company ABP (Czinkota *et al.*, 2014). ABP meat suppliers were found guilty of supplying horse meat, but this scandal reduced the sale of frozen ready meals in the UK from 43% to 13% in just four weeks. Both the abovementioned cases demonstrate that issues in the supply chain can result in unsustainable practices, and this can have drastic consequences on the company's ethical standards.

Research highlights that collaboration and involvement of diverse stakeholders can prevent the companies from unethical blames and can improve their practices. Tossavainen (2017) studies the significance of multiple stakeholder integration in value co-creating activities. Using an action research project, the research is aimed to develop and innovate the existing waste management service of the company. The study suggests that collaboration between stakeholders, in face-to-face, and joint activities can bring new insights into various aspects of services. Many studies identify the positive outcome of collaborative networks of value chain partners. For example, Lievens *et al.* (2013) highlight the involvement of various stakeholders in providing innovative solutions for organizations. They argue that along with customers, multiple external collaborators, such as competitors, activists, and special interest groups, have become active and well-informed for innovation. Similarly, Reypens *et al.* (2016) emphasize the need for collaborative networks of diverse multiple stakeholders to develop co-creative innovative solutions for complex societal and scientific challenges.

Prior studies also point out that co-creation of value with stakeholders can create benefits for the focal firms in acquiring unique resources and to access knowledge bases. Kazadi *et al.* (2016) highlight the issue of new challenges that resulted from the inclusivity of various stakeholders having diverse characteristics, interests, and goals in co-creation of value. Killian and O'Regan (2016) shed light on how community co-creation dynamics can generate corporate legitimacy by investigating the role of the local community in the social accounting process. Their study mainly focuses on creating social reports as an output of the social accounting

process and explores the involvement of community and company in creating corporate legitimacy. The increasing participation of the local community in the co-creation of local accounts and the accounting process put a company into a position of authority and acceptance. In this way, social accounting narrates the symbolic power, legitimacy, and authority of the company, and also restructures the community's social relationships, self-identity, and patterns of accountability. The community input into the social accounting process is essential to imbuing the iterative process of social reports to lend symbolic power and generate legitimacy for the company. The contribution of the local community uncovers the reflexive process of multiple accountabilities. This study and the other studies mentioned in this Subsection highlight that the inclusivity of diverse stakeholders construct multiple accounts. It depends on companies how they realize those accounts in their processes and practices.

2.3.3 Section summary

This section highlights the significance of diverse stakeholders in the co-creation of value. Where stakeholders are any individuals or groups or entities who can affect and are affected by the company's operations. Organizations always find it difficult to identify stakeholders, that is why it is suggested to prioritize them and identify resources that can be brought by any stakeholder. The literature on co-creation of value depicts that the involvement of multiple stakeholders in the value co-creation process has emerged as a new field. Effective management of stakeholders' relationships can enhance companies' financial performance over the long run, or it can boost the recovery of poorly performing companies (Choi and Wang, 2009; Keeys and Huemann, 2017). Arnold (2015) also argues that the interaction between internal and external stakeholders of the company can provide interlocking bonding, which can be a step towards new insights, learning, and innovation. Therefore, organizations are putting efforts to involve multiple stakeholders in developing innovative strategies and to eliminate wasteful efforts from their business activities. However, businesses should first identify the stakeholders and analyze the type and nature of resources that each stakeholder can bring to the co-creation process (de Oliveira and Cortimiglia, 2017).

2.4 Value co-creation and corporate sustainability

This section recognizes the development of collaborative linkages between organizations and various value chain partners, as an approach towards corporate sustainability and summarized at the end.

2.4.1 Linking co-creation of value with corporate sustainability

Sterling (2016) states that "we live in historically extraordinary times, characterized by hyper-connectivity, complexity, contingency, critical wicked problems and systemic issues – and

rapid changes at local and planetary levels, which are mostly on unsustainable trajectories” (p. 209). Dealing with complex unsustainable issues requires participation and resource exchange of diverse stakeholders to jointly create values for the betterment of the society at large. The notion of value co-creation through stakeholders accelerates the efforts of academicians to incorporate this concept in corporate sustainability literature (Trencher *et al.*, 2013; Eccles *et al.*, 2014; Arnold, 2015; Aquilani *et al.*, 2016; Arnold, 2017; Keeys and Huemann, 2017; Aquilani *et al.*, 2018). Table 2.4 demonstrates some important studies in this domain, which identify key stakeholders for the co-creation of value for sustainability.

Table 2.4: Stakeholders’ value co-creation and sustainability studies

| Author(s) | Focus of research | Stakeholders identified for value co-creation |
|--|--|---|
| Qi <i>et al.</i> (2013) <i>Corporate Social Responsibility and Environmental Management</i> | A case study of manufacturing firms in China. | Foreign customers, stockholders, foreign investors, regulatory stakeholders, and community stakeholders |
| Wolf (2014) <i>Journal of Business Ethics</i> | A reaction to pressure from outside stakeholder groups as promoted in the media by prominent cases, such as Nestlé. | External pressure groups |
| Biggemann <i>et al.</i> (2014) <i>Journal of Business & Industrial Marketing</i> | The relationship between sustainability, corporate social responsibility, and value co-creation. | Interconnected entities (suppliers, manufacturers, retailers, or more generally stakeholders whose actions are fostered by social responsibility) |
| Schaltegger <i>et al.</i> (2015) <i>Australian Accounting Review</i> | The perceptions of the types of sustainability information dealt with by different managers in internal company processes. | Specific management roles due to customer demands and internal organizational pressures |
| Abdalla and Siti-Nabiha (2015) <i>Qualitative Research in Accounting and Management</i> | The pressures to adhere to sustainability practices in an oil company in Sudan and its response to these pressures. | Foreign partners and NGOs |
| Scandeliuss and Cohen (2016) <i>Industrial Marketing Management</i> | An insight into how firms attempt symmetric sustainability communication to stimulate collaboration and co-creation with their stakeholders. | Employees, suppliers, and industry colleagues |
| Arnold (2017) <i>Journal of Cleaner Production</i> | An analysis of nine mainly German-based companies for their co-creation and relationship management processes. | Consumers and suppliers |
| Keeys and Huemann (2017) <i>International Journal of Project Management</i> | An exploratory case study on an internal project of the Balanced Plant Nutrition Company (BPNC) through a conceptual framework. | BNPC project owner, other stakeholders, such as the ABCPRO Company, Norwegian and Tanzanian universities, and other scientific and government actors |
| Shapira <i>et al.</i> (2017) <i>Journal of Cleaner Production</i> | An analysis of design thinking using the framework for strategic sustainable development. | Experts (e.g., professionals and students) |
| Aquilani <i>et al.</i> (2018) <i>Journal of Cleaner Production</i> | A new framework integrating the key features of the ‘sustainability-oriented theory of the firm’ into the value co-creation approach. | Employees, individuals willing to participate (customers and suppliers), and other stakeholders (e.g., individuals co-creating value with firm employees) |
| Díaz-Correa and López-Navarro (2018) <i>Sustainability</i> | How a Spanish winery, Celler la Muntanya, implements a sustainable | Mutually beneficial relationships with stakeholders, competitors, and industry institutions |

| Author(s) | Focus of research | Stakeholders identified for value co-creation |
|--|---|---|
| | business model to create positive social and environmental change? | |
| Ike <i>et al.</i> (2019) <i>Journal of Cleaner Production</i> | How private businesses prioritize and implement the SDGs in their operations. | Policymakers, NGOs, and the community |
| Wang <i>et al.</i> (2020) <i>Sustainability</i> | The groups of stakeholders, who can exert pressure on businesses to pursue environmental strategies. | Shareholders, employees, management, board, suppliers, customers, industry associations, competitors, government, NGOs, media, and the public |
| Velter <i>et al.</i> (2020) <i>Journal of Cleaner Production</i> | This boundary-spanning nature of sustainable business model innovations through multi-stakeholder engagement and alignment. | Customers, competitors, suppliers, financiers, and governmental and indirect stakeholders |

Specifically, most studies identify the role of stakeholders as a driving force for businesses to adopt sustainable business practices (Qi *et al.*, 2013; Wolf, 2014; Abdalla and Siti-Nabiha, 2015; Altmann, 2015; Joensuu *et al.*, 2015; Boiral, 2016; Scandellius and Cohen, 2016; Ike *et al.*, 2019; Wang *et al.*, 2020), while another stream of this research aims to investigate how businesses can create value for sustainability (Biggemann *et al.*, 2014; Arnold, 2017; Keeyes and Huemann, 2017). In this regard, Biggemann *et al.* (2014) highlight that the co-creation of value among companies and interconnected entities can expand the knowledge base and open the perspectives of continuous communication with co-creators. Biggemann *et al.* (2014) discuss sustainability-related co-creation and elaborate this concept through combining resources, knowledge, and capabilities among different market participants to improve products and services and even the value chain through sustainability criteria.

Few studies highlight the significance of the collaboration of diverse stakeholders to foster sustainability (Senge, 2006; Darnall *et al.*, 2010; Roseira *et al.*, 2010). In this regard, Roseira *et al.* (2010) argue that the ongoing interactions and networking with political and sub-political actors enable companies to monitor trends and to understand the users' attitudes and values better, which in turn play an important role in the sustainability of the company. Many organizations focus on managing their relationship with supply chain partners and argue that the interaction and partnership with supply chain partners, especially suppliers, can aid the organization towards achieving its sustainability objectives (Ashby *et al.*, 2012; Seuring and Gold, 2013). Scandellius and Cohen (2016) also explain that collaboration between value chain partners can avert malpractices and improve the standards along the entire value chain. Using a multiple case study approach in the food and drink value chain, they develop a framework depicting the value of a branded sustainability program as a useful platform for stimulating collaboration and co-creation of value with diverse and/or competing stakeholders. The

findings depict that three stakeholder groups—employees, suppliers, and industry colleagues—are targeted with reasonably symmetrical two-way communication, as these groups play a significant role in facilitating the firm to execute its sustainability agenda. The abovementioned studies show that collaboration should ideally take the form of co-creation to strengthen the relationships and ensure that a societal impact is made with shared value for all stakeholders involved. Moreover, strong collaboration with value chain partners, based on trust and mutual understanding of ethical and quality standards, can overcome unsustainable practices.

Managing stakeholders' relationships are always a concern for organizations and especially managing such relationships to improve the sustainability of companies. Continuing with this logic, the concepts of relationship management and corporate sustainability are concurrently observed by Arnold (2017). Though the study finds a lack of integration in sustainability co-creation and relationship management, it contributes in identifying the relationship between sustainability and stakeholders. Keeyes and Huemann (2017) also demonstrate the stakeholder relationships and the aspects of sustainable development issues stirred throughout the project life cycle regarding project benefits. Their case study reveals that, due to the dynamic nature of the sustainable development system, the expected benefits are needed to be interpreted with stakeholders, as the benefits realization can be differentiated from the benefits created and the benefits captured. Keeyes and Huemann (2017) suggest that the project owner recognizes the needs for an adaptive learning and transformational approach in conjunction with stakeholders to address sustainability concerns.

Some studies are focusing on the goals towards developing green economies and providing solutions for complex sustainability issues, by encouraging the involvement of stakeholders and incorporating the co-creation of value for innovative solutions. For example, Aquilani *et al.* (2018) propose a framework showing how the four dimensions of corporate sustainability—economic, environmental, social, and time—can be related in the value co-creation model and in this way contribute towards bio-economies²³. With respect to the green economy, the bio-economy is more centered on the use of renewable raw materials and the application of research, development, innovation, and industrial biotechnology (Scarlat *et al.*, 2015; Aquilani *et al.*, 2018). Shapira *et al.* (2017) identify the role of design thinking, which focuses on providing quick sustainability solutions by incorporating multiple aspects, such as, root causes and needs, collaboration across disciplines, cultivating optimism, and experimenting with solutions. They

²³ Bio-economies are based on renewable resources to build an economic system to be sustainably implemented to ensure cleaner, safer production, consumption, and building on innovation. Bioeconomy can be considered part of the green economy whose main concept has been included at the very core of the European Commission long-term strategy towards 2050 (Aquilani *et al.* 2018).

find these aspects to be beneficial in solving pressing sustainability challenges and in this way encouraging the involvement of multiple stakeholders to create a positive change. Hence, it is identified that organizations can promote a shared vision and maintain mutual respect, trust, and cooperation with diverse stakeholders over time to achieve sustainability objectives.

2.4.2 Section summary

Several organizations have realized the complexity of sustainability issues and are putting efforts to acquire maximum resources to achieve sustainability objectives. Extant literature sheds light on the significance of partnerships and collaborations between academia, industry, government, and civil society, to achieve sustainability. It inspires organizations to involve multiple stakeholders in developing innovative strategies and to eliminate wasteful efforts from their business activities. Although many studies intend to establish the linkage between collaborative creation of value and corporate sustainability, the results in terms of explaining the relationship between value co-creation and corporate sustainability are obscure. Thus, shedding light on various untapped opportunities which could guide academics, practitioners, and policymakers in developing a co-creative framework for sustainability.

2.5 Research objectives and research questions

Kebbe (1992) argues that “uncontrolled industrialization, poverty, and pollution, all leading remorselessly towards environmental catastrophe” (p. 193). These rising social and environmental issues stress a wake-up call for all organizations, to address the crises and put greater effort into developing a sustainable future. Kebbe (1992) further highlights that regardless of the technical knowledge of the production of various types of goods and services, organizations follow a blind strategy for economic growth, which “leaves a minority gorged and bloated, the great seething majority wretched and desperate, and which is steadily poisoning the planet we depend on. This is an anarchy of the worst kind, masquerading as normality, lulling us into a foolish sense of security, even as we unwittingly commit collective suicide” (p. 193).

The current information demonstrates that carbon emissions, waste, and water are important global issues and require serious consideration to keep them under control to maintain harmony in the potential to meet current and future human needs and aspirations. The literature review demonstrates the need for business organizations to put greater effort to achieve sustainability objectives. The review of extant literature identifies that all the efforts and money that organizations have devoted towards leadership development, competency modeling, and surveys in the last 20 years state that results in terms of corporate sustainability are obscure (Searcy, 2012; Shapira *et al.*, 2017). Several arguments have been used to explain this failure

but there is still a theoretical weakness of the sustainable development concept and pragmatic fragility (Sneddon *et al.*, 2006; Tencati and Zsolnai, 2012). It is also argued that economic and social sustainability seem under-investigated in the literature and more attention has been given to environmental sustainability. There is a lack of studies evaluating interactive impacts between the three dimensions of sustainability, which are, environmental, social, and economic (Hahn and Figge, 2011; Zhou *et al.*, 2018). Besides, certain elements remain unanswered and demand future exploration, such as to identify time lags between the input of efforts and to realize its impact on sustainability, differences in industrial practices to measure sustainability, and future uncertainties. Searcy (2012) states that there is no universally accepted approach for measuring corporate sustainability because of the complex issues with differing stakeholder demands, continually shifting priorities, and a multitude of alternatives to address their sustainability challenges. Therefore, an approach must be developed for common localities or organizations by incorporating tailored policies, plans, and programs.

Moreover, all the rating systems, composite indicators, reporting frameworks, and management guidelines mentioned so far depict the diversity in sustainability measurement tools and the application of sustainability indicators. Research also points out that every country has separate reporting guidelines and requirements. UN (2016) common agendas and guidelines provide a basis for opting sustainable practices, but these practices should be adopted according to the current condition of any country. Moreover, to promote sustainable development, businesses play an important role (Corrigan, 2014), which highlights that government and policymakers within any country can establish guidelines, in collaboration with international agencies, to pursue all business organizations towards incorporating sustainability into their strategies. Furthermore, there must be industry-specific mandatory disclosure requirements to analyze and compare various companies on their sustainability initiatives. As Arnold (2017) and Biggemann *et al.* (2014) emphasize the significance of establishing a separate department, within a company, which will be responsible for the company's ongoing sustainability initiatives and determine how various stakeholders can create value for sustainability. In this way, a direction can be provided to companies, to monitor their sustainability performance. Currently, most of the business organizations are using GRI guidelines for sustainability data reporting.

Hence, prior studies signify the urgency of moving the company's direction towards a sustainable paradigm and demand to clarify issues mentioned above pertaining to corporate sustainability. To reiterate, organizations have understood that they are unable to possess all the knowledge, expertise, and credibility alone, so they require interaction and collaboration with various internal and external stakeholders to mutually create values. Literature highlights that

the inclusivity of diverse stakeholders has added difficulty for organizations to identify resources for their best interest, which has shifted organizations' focus towards interactive value co-creation. The concept of value co-creation stimulates many researchers towards incorporating this stream in corporate sustainability (Trencher *et al.*, 2013; Eccles *et al.*, 2014; Arnold, 2015; Aquilani *et al.*, 2016; Arnold, 2017; Keeys and Huemann, 2017; Aquilani *et al.*, 2018), however, there is a distinct lack of empirical research that focuses on studying the practices of joint value creation for sustainable outcomes (Skaržauskaitė, 2013; Arnold, 2015; Arnold, 2017). Most of the studies have taken the concept of co-creation of value from the customer and provider perspective, ignoring various other stakeholders (Roberts *et al.*, 2014; de Oliveira and Cortimiglia, 2017). Few studies identify multiple stakeholders, such as competitors and influencers in the co-creation of value (Pinho *et al.*, 2014; Frow *et al.*, 2015; Pera *et al.*, 2016). Bebbington *et al.* (2017) emphasize identifying and interrogating the relationship between myriad organizational actors and physical entities to seek accountability relationships and practices. Kazadi *et al.* (2016) also highlight that prior literature provides insufficient insight into the process of actors' resource integration in interaction for integrated solutions.

Literature also sheds light on the work of various researchers in conceptualizing and operationalizing the terms of co-creation of value. But there are still ambiguities in the use of frameworks and scales of value co-creation. Researchers often adapt them according to their area of research, for example, Reypens *et al.* (2016) incorporate the interaction and knowledge-sharing elements that underlie the co-production dimension of value co-creation established by Ranjan and Read (2016). Most of the work in value co-creation is conceptual and abstract. Empirical research has not been geared towards studying the practices of joint value creation. Moreover, the measurements and scales established to operationalize value co-creation (see Subsection 2.2.4) also focus more on value co-creation from the customer and producer perspective. The holistic impact of multiple stakeholders' value co-creation on corporate sustainability is an important area in the academic literature that is still underrepresented. In this regard Hsieh and Hsieh (2015) and Greer *et al.* (2016) argue that value co-creation focuses on mutual collaboration between multiple stakeholders, including employees, managers, suppliers, customers, and other stakeholders, to jointly utilize and align their resources for mutual value creation. Taking a service perspective for value co-creation, interactions between stakeholders are directed by shared superordinate institutions, such as religion, culture, and politics. Greer *et al.* (2016) argue that such norms of exchange open avenues for companies having businesses in multiple countries with diverse cultural contexts, such as American

Express, American Airlines, and Nestlé', mainly to learn about the motivations of stakeholders. Pera *et al.* (2016) also emphasize the importance of the stakeholder integration process, which is still under-represented in academic literature (Driessen *et al.*, 2013; Hillebrand *et al.*, 2015).

Some studies have highlighted the concept of stakeholders' participation in the sustainability domain. One such study is by Keeys and Huemann (2017), which is limited to only a project, descoping the value co-creation in multiple projects. Another study by Scandeliuss and Cohen (2016) finds three stakeholder groups, which are employees, suppliers, and industry colleagues, who facilitate organizations to execute sustainable agendas through two-way communication. Thus, ignoring the impact of the saliency of multiple stakeholders, who might be able to create more value through joint efforts. Similarly, within organizations, only senior managers are invited to co-create, ignoring the creativity potential of junior employees. Most of these researches shed light on the influence of stakeholders to motivate companies to adopt sustainable practices (Qi *et al.*, 2013; Wolf, 2014; Abdalla and Siti-Nabiha, 2015; Altmann, 2015; Joensuu *et al.*, 2015; Boiral, 2016; Scandeliuss and Cohen, 2016; Ike *et al.*, 2019; Wang *et al.*, 2020). Arnold (2017) points out that there is very minor empirical knowledge about the process of value co-creation in multi-stakeholder systems (de Oliveira and Cortimiglia, 2017) especially in relation to the sustainability domain. Moreover, it is rarely discussed in value co-creation literature that where companies institutionalize their processes for value co-creation, or which department is responsible for an ongoing value co-creation focusing on sustainability (Biggemann *et al.*, 2014; Arnold, 2017).

The review of literature in this research recognizes that many organizations have understood the significance of collaboration and involvement of multiple stakeholders to sustain themselves in a dynamic world market. Researchers have highlighted the impact of various stakeholders in sustainability issues (Roseira *et al.*, 2010; Qi *et al.*, 2013; Biggemann *et al.*, 2014; Wolf, 2014; Scandeliuss and Cohen, 2016; Arnold, 2017; Keeys and Huemann, 2017; Aquilani *et al.*, 2018), still many areas are understated in literature highlighted above, which is directing the attention towards exploring various untapped opportunities. In particular, a gap exists in the study of elements and dimensions to co-create value from the process perspective. To understand the complexity of this issue, the current research has the following research objectives:

Objective 1: To conduct a comprehensive and critical review of the relevant literature (Chapter 2)

Objective 2: To examine the processes through which business organizations collaborate with multiple stakeholders to co-create values (Chapter 5, 6, and 7)

Objective 3: To understand how these co-created values are manifested in organizations' sustainability outcomes (Chapter 8)

Based on the main research objectives, the study intends to answer the following research questions (discussed in Section 1.1):

RQ1: Who are the important stakeholders for business organizations to co-create values for corporate sustainability?

RQ2: What processes are required to co-create values by multiple stakeholders?

- Which types of values are co-created?
- How are business organizations and their stakeholders motivated to co-create values?
- How are accountability relationships established between business organizations and their stakeholders?
- Which type of resources are exchanged and integrated between business organizations and their stakeholders to co-create values?

RQ3: How are co-created values reflected in the organization's sustainable outcomes?

The objectives and research questions of this research study provide the basic elements of investigation to understand the processes and practices of organizations to co-create values for sustainability. The research questions drive to develop a conceptual framework to lay the foundation of the current study and to develop a structure to be pursued, which is explained in the next chapter.

Chapter 3

Conceptual framework

3.0 Introduction

This chapter proposes a conceptual framework to understand the processes of co-creation of values by multiple stakeholders for corporate sustainability. The framework is drawn on concepts from various theories and research findings to frame the current research. This phase of research identifies the aspects of value co-creation processes informed by literature in a conceptual framework. The following stages by Eizenberg and Jabareen (2017) delineate the development of a conceptual framework: (a) mapping data sources; (b) critically reviewing the literature; (c) developing literature and categorizing concepts to establish linkages; (d) integrating concepts; and, (f) developing a conceptual framework. These stages are considered while developing a conceptual framework for the current study. Concepts relevant to the current study are identified from the literature and linkages are realized to understand the processes of co-creation of value for corporate sustainability.

3.1 Conceptual framework of value co-creation processes

The current study uses a conceptual framework as a guide for conducting research from the concepts identified in the literature (Chapter 2). We recognize the major aspects of value co-creation processes and explain to integrate them into a conceptual framework. Many studies use the terms conceptual framework and theoretical framework interchangeably. Here we are following the definition of Miles and Huberman (1994) for developing the conceptual framework that “lays out the key factors, constructs, or variables, and presumes relationships among them” (p. 440). The objective of developing this framework is to identify and explain the concepts into conceptual categories from the literature and map linkages between them. Rocco and Plakhotnik (2009) state that concepts guide the study and in developing both conceptual and theoretical frameworks, researchers synthesize related concepts, to lay the foundations for developing frameworks. The only difference between them is, in the case of theoretical framework existing theories and concepts develop the foundations for a new theory, but in the case of a conceptual framework, relevant theories and concepts are used to advance the knowledge about related issues. Narrating the difference between these two frameworks, Parahoo (2014) argues that the conceptual framework draws on the concepts from various theories and findings to frame research, as opposed to the theoretical framework, which is based on one theory. Fain (2017) also suggests that the conceptual framework is underpinned by the concepts and theoretical framework is based on the theories. Some studies argue that theoretical frameworks are used for defining the structure of the study, where the study involves a specific

theory, for example, systems theory, contingency theory, etc. (Rocco and Plakhotnik, 2009). However, testing a specific theory is not a necessary component of qualitative research. Rocco and Plakhotnik (2009) argue that in such kinds of studies where researchers require an emergent theory for understanding a phenomenon, a conceptual framework is developed. It should be noted that the researcher must describe the significance of defining the main concepts for developing this conceptual framework and relationships between those concepts (Becker, 2008; Rocco and Plakhotnik, 2009).

The development of a conceptual framework for the current study provides an interpretive approach to understand and discuss the value co-creation processes for corporate sustainability, as also highlighted by Jabareen (2009). The conceptual framework for understanding the processes of co-creation of value begins with the identification of the aspects which are required to co-create values. Here, processes include “the procedures, tasks, mechanisms, activities, and interactions which support the co-creation of value” (Payne *et al.*, 2008, p. 85). This chapter explains the following conceptual categories, including various aspects of value co-creation processes and their relationships with each other: values, stakeholders, motivations, resources, service ecosystem, and outcomes. These conceptual categories are identified from the literature review (Chapter 2) but explained in more detail in the following section.

3.2 Value co-creation process

Value cannot be created solely by an organization, it is required to be co-created by working together with other stakeholders (Kazadi *et al.*, 2016). A single organization cannot possess all the required resources, which highlights the need to establish relationships with other stakeholders to exchange resources (Ren *et al.*, 2015; Kazadi *et al.*, 2016). Resource exchange recognizes the need to understand the processes required to communicate with stakeholders and identify company practices to integrate those resources to co-create values. The major issues that arise at this point are, firstly to identify the diverse stakeholders, who possess the desired resources, and then to recognize the aspects of value co-creation processes to exchange and integrate resources to create values, which are reflected in the company’s sustainability practices. As explained, these processes include all the procedures, activities, and interactions that companies employ to co-create values (Payne *et al.*, 2008). Accounting plays an important role in this regard because of its nascent nature in every discipline, either daily life or complex organizational system. Here accounting is manifested in two ways, although not mutually exclusive: (i) through accountability, which arises as a relationship between companies and their stakeholders, as well as physical environment; and, (ii) through the reflection of accounts produced as a result of accountability relationship in sustainable outcomes. These accounts are

explained through sustainability accounting, which begins with the identification of focal sustainability areas, motivates stakeholders to convey their value proposition, and guides companies to mutually create values for sustainable outcomes, as reported in sustainability disclosure. Content analysis by Leclercq *et al.* (2016), demonstrates that the value co-creation process involves three major elements, which are: value itself, actors co-creating value(s), and engagement platform. These elements are in line with the work of Saarijärvi *et al.* (2013) and Mahr *et al.* (2014). Truong *et al.* (2012) and Leclercq *et al.* (2016) argue that value co-creation is a process in which actors interact and exchange resources and value is reciprocally created during this exchange. An interesting aspect identified here is the involvement of various actors in the co-creation of value (Leclercq *et al.*, 2016), which highlights the creation of multiple accounts, as explained by Killian and O'Regan (2016). By taking this concept, the current study takes multiple stakeholders' perspectives to identify interesting and reflexive processes of multiple accountabilities, which co-exist with proper accounting practices. Here accountability is explained as the requirements of a company to account for its activities in its relationships with stakeholders, take responsibility to perform desired activities, and disclose accounts transparently. Accountability is central to the development of new accounts (Gray *et al.*, 2014) and this study will take various aspects of companies' and stakeholders' interactions through giving, receiving, constructing, and understanding of accounts, aiming for mutually valued sustainable outcomes. It is important to understand the relationship between myriad organizational actors and physical entities to seek accountability relationships and practices (Bebbington *et al.*, 2017). In many studies discussing the co-creation of value, the terms 'stakeholders' and 'actors' are used interchangeably. Here we are replacing actors with stakeholders, where, by stakeholders, we mean any group or individual, who can affect or is affected by the sustainable practices of companies (Friedman and Miles, 2006), whereas actor is a broader term and actors can be any external entities that interact with an organization in some way, also includes networks. The goal of co-creating value is to understand the values of companies and their various stakeholders involved in this process. To understand whether co-created values are exhibited in companies' sustainable outcomes, the current study is taking accounting and reporting system to identify the importance of sustainability accounting in depicting stakeholders' interests in sustainability.

de Oliveira and Cortimiglia (2017) argue that the elements to co-create values from a process perspective are underrepresented in the literature. It is of immense importance to identify processes of value co-creation through its phases and aspects to understand the logical sequence of events to co-create values for corporate sustainability. Along with the elements of value co-

creation process from the studies of Saarijärvi *et al.* (2013), Mahr *et al.* (2014), and Leclercq *et al.* (2016), the framework by de Oliveira and Cortimiglia (2017) is also taken as a basis to establish a conceptual framework for the current thesis (see Appendix F). The framework by de Oliveira and Cortimiglia (2017) comprises antecedents, the co-creation process itself, and the outcome. Antecedents include such elements that further proceed value co-creation process, mainly motivations from actors and resources and competencies of each actor. Neghina *et al.* (2015) also elaborate antecedents that contribute towards successful value co-creation activity, which are: relating, communicating, and knowing (Ballantyne and Varey, 2006). The second phase of the value co-creation framework by de Oliveira and Cortimiglia (2017) is the co-creation process itself, which elaborates on the practices, actions, and mechanisms to co-create value, the role of each actor in this process, and management's role in incorporating and directing value co-creation. This phase involves interactions and resource integrations, which sheds light on the aggregative process in which various stakeholders cooperate and integrate resources for values to be co-created (Pinho *et al.*, 2014; Leclercq *et al.*, 2016; Pera *et al.*, 2016). The third phase of this framework is the outcome in the form of knowledge, reputation, and innovation. The resultant outcome of this process may provide impetus to various actors to turn them into new input, thus making this process to be cyclical (Reypens *et al.*, 2016). Fyrberg Yngfalk (2013) also asserts that value co-creation processes continuously reform and reconfigure with time. Based on reviewing and understanding the concepts of value co-creation processes for sustainable outcomes following conceptual categories of these processes are identified to frame the current thesis: values, stakeholders, drivers mainly motivations, resources, service ecosystem, and outcomes in the form of corporate sustainability.²⁴

3.2.1 Value

The concept of value has been discussed in detail in Subsection 2.2.1. This study takes 'value' as subjective perceptions of stakeholders to consider anything valuable or significant from their lived experiences in a particular context (Zeithaml, 1988; Mathwick *et al.*, 2002), which can be tangible or intangible. It is also understood that all values are related to the contexts in which they are identified and realized. It depicts that value is an assessment of the accumulation of perception in comparison with the expectations of stakeholders in each relational encounter (Johnson *et al.*, 1995). Various studies have identified different types of values, such as functional, emotional, symbolic, economic, social, rational, and hedonic values as elaborated

²⁴ The current study considers various elements and aspects of the processes of co-creation of value to understand the underlying process in detail. Where elements are components or constituents of this process and aspects are either facilitators or inhibitors which are viewed from the perspectives of value co-creation processes for sustainability. However, collectively they are termed as aspects of value co-creation processes for consistency of the use of the term in this research.

in Subsection 2.2.1. There is an immense need to understand the diverse values of companies and their stakeholders in various relational contexts. The thesis intends to explore the types of values of companies and their stakeholders and how these values are co-created and manifested in corporate sustainability efforts. Where, value co-creation is taken as “benefits realized from the integration of resources through activities and interactions with collaborators” (McCull-Kennedy *et al.*, 2012, p. 375). The framework of Payne *et al.* (2008) states that value co-creation includes four factors: (i) active involvement between actors; (ii) resource integration for mutual benefit; (iii) willingness to interact; and, (iv) a platform for collaboration. For this thesis, value co-creation is taken as a process which, according to Galvagno and Dalli (2014) it is a “joint, collaborative, concurrent, peer-like process of producing new value, both materially and symbolically”. Value co-creation is a dynamic and complex process and requires an in-depth study of various elements and aspects that can be a part of this process. Various studies have conceptualized co-creation of value from a provider and customer perspective (Ramaswamy, 2008; O'Hern and Rindfleisch, 2010; Sjödin *et al.*, 2016; Dal Zotto *et al.*, 2018; Peters *et al.*, 2018), or from company and supplier's co-creation standpoint (Ren *et al.*, 2015). However, little attention has been provided to how companies involve multiple stakeholders to interact and co-create values (Fyrberg Yngfalk, 2013; Jaakkola and Hakanen, 2013; Ramaswamy and Chopra, 2014; de Oliveira and Cortimiglia, 2017). This thesis aims to fill this gap and attempts to explore and understand the processes through which stakeholders communicate and exchange resources with companies to contribute to the co-creation of value(s) (Vargo, 2009; Hsieh and Hsieh, 2015; Greer *et al.*, 2016; Tossavainen, 2017).

3.2.2 Multiple stakeholders

To remain competitive, organizations are required to get hold of all necessary resources, mainly knowledge, expertise, and credibility, which are beyond the control of a single organization (Pera *et al.*, 2016) and demands resources to be integrated with diverse stakeholders (Vargo and Lusch, 2011; Frow *et al.*, 2014; Kazadi *et al.*, 2016). The need to get hold of necessary resources signify joint value creation from diverse stakeholders to expand the knowledge base and to innovate processes (Mahr *et al.*, 2014). The extant literature on stakeholders, influences managers to develop strategies to identify and manage organizations' diverse stakeholders, and to involve stakeholders for organizational success (Werhane and Freeman, 1999; Post *et al.*, 2002; Perrini and Tencati, 2006; Ackermann and Eden, 2011). It is clear that whichever categorization is used to identify various stakeholders, it is always difficult to deal with all of them. That is why, businesses normally identify stakeholders based on analyzing the type and nature of resources that each stakeholder can bring to the value co-creation process (de Oliveira

and Cortimiglia, 2017). The research elaborates on the role of multiple stakeholders in the co-creation of value. Leclercq *et al.* (2016) argue that during the value co-creation process various stakeholders can interact with each other, which enhances an action-oriented resource exchange to boost the co-creation of value. Tossavainen (2017) also uses the lens of multiple stakeholders' involvement in face-to-face and simultaneous joint activities, which augments the diversification of knowledge and experiences to improve the quality of development suggestions.

By taking multiple stakeholders' approach of value creation, it is observed from the literature that businesses are pursuing towards a future where meeting customer expectations and engaging various people in the business model will take a more significant place than just financial returns to investors. The conceptual shift from the shareholders' point of view towards multiple stakeholders' view can be elaborated with the stakeholder theory, which is embedded with assumptions of values for doing business, as discussed in Subsection 2.3.1. The stakeholder theory refers to the management of an organization's relationships with a wide array of stakeholders (Freeman, 1984). Moreover, this theory influences the salience of external stakeholders to understand the needs, expectations, and values of external groups, which affect the organizations or are affected by organizations (Ayuso *et al.*, 2014). The stakeholder theory focuses on developing a stronger relationship between companies and their stakeholders based on trust and cooperation, as it will make it easier for companies to meet their business objectives, get competitive advantages, and overcome unsustainable practices. Pera *et al.* (2016) also shed light on the stakeholder theory for co-creation of value and quote Hillebrand *et al.* (2015) that "paying attention to multiple stakeholders secures tangible and intangible resources (including knowledge and reputation) that may ultimately create organizational wealth or value for shareholders" (p. 413). The current thesis draws from stakeholder theory to highlight the saliency of multiple stakeholders in gaining knowledge and expertise to co-create values. Most of the studies depict that customers are frequently mentioned as stakeholders in the value co-creation literature and other stakeholders are rarely discussed. This study will explore how customers as well as other stakeholders such as suppliers, government bodies, NGOs, and business partners co-create values for corporate sustainability.

3.2.3 Motivations to co-create values

Literature highlights drivers of the value co-creation process, such as information sharing (Gwinner *et al.*, 2005), feedback (Sebanz *et al.*, 2006), staff education to understand customers' struggles with a product and service (Bettencourt *et al.*, 2014), the frequency of bidirectional communication, commitment and interpersonal trust between employees and customers

(Neghina *et al.*, 2015), and customer or stakeholders motivations (Füller *et al.*, 2010; Ind and Coates, 2013; Leclercq *et al.*, 2016; Krzyżanowska *et al.*, 2017). Krzyżanowska *et al.* (2017) argue that companies motivate customers to bring resources in the process of value co-creation, which in turn benefits the company. The content analysis by Leclercq *et al.* (2016) also highlights stakeholder's motivation as a driving force in the co-creation of value. Most of the studies in the past have focused on the nature of value co-creation and ignore the motives behind engaging in co-creation activities. Here our focus is to identify the diverse motives of companies and their stakeholders to co-create values. Where 'motivation' is a driving force that guides human behaviour to occur. It compels people to behave in a certain manner and directs their actions (Deci and Ryan, 1985; Nambisan, 2002). Any activity requires the motivation to be pursued and it is dependent upon benefits accruable from that activity (Nambisan, 2002). For the current thesis motivation of stakeholders is taken as a driving force for the process of co-creation of value for sustainable outcomes.

Literature suggests that generally there are two types of motives, altruistic motives and non-altruistic motives. Altruistic motives are concerned about the happiness and welfare of other people without expecting any reward for oneself (Constant *et al.*, 1996) and non-altruistic motives refer to expectations of benefit for oneself (Roberts *et al.*, 2014). Non-altruistic motives can either be intrinsic/internal or extrinsic/external (Deci and Ryan, 2004; Rheinberg and Engeser, 2018). From a human perspective, internal and external aspects are important factors that determine motivations (Locke and Schattke, 2019). Schultheiss *et al.* (2009) state that motivation is "a natural linchpin between the person and the situation" (p. 268) between internal and external. Intrinsic motivation is desiring an activity for its own sake separated from any specific outcome level (Deci and Ryan, 2004). It aims to get pleasure or enjoyment from an activity rather than getting an external reward for that activity (Locke and Schattke, 2019). It shows that intrinsic motivation has personal or social motives (Roberts *et al.*, 2014). Whereas, extrinsic motivation involves means-ends relationships, which is aimed to perform an activity for future value (Locke and Schattke, 2019). Rheinberg and Engeser (2018) clarify that extrinsic motivation is driven by the value or external rewards which a chosen activity can lead to, such as the need for personal development or hedonic motives (Dahl and Moreau, 2007; Nambisan and Baron, 2009). Thus, it is important to realize the factors that motivate diverse stakeholders to exchange and integrate resources with companies to co-create value(s).

It is observed that most of the value co-creation studies identify the motives of customers to co-create values. For example, Frow *et al.* (2014) highlight the motives of customers to involve in resource integration, which are mainly to create personalized experiences and generating unique

value for themselves. Similarly, Roberts *et al.* (2014) identify varied motives of customers to co-create value for innovation, which are mainly fun/interesting, desire for a better product, passion, and recognition. These motives inspire customers to co-create values for innovation either through involving personally, through social or relational platforms, or jointly with the company. Another study by Neghina *et al.* (2017) states that consumers are motivated to engage in co-creation activities to fulfill their wants and needs, as well as based on the expected value they seek to achieve. Neghina *et al.* (2017) uses the typology of Karpen *et al.* (2012) to elaborate on the motives of engaging in co-creation. Their study identifies six customer motives for co-creation, which are: individualizing motives, relating motives, empowering motives, ethical motives, developmental motives, and concerted motives. Moreover, it is also identified that customer motives vary according to the context and expectations of customers. Krzyżanowska *et al.* (2017) also identify that intrinsic motivation of customers dominates to participate in the value co-creation process in the crowdfunding context. Another study by Mahr *et al.* (2014) also points out the antecedent role of customer determinants, which are, lead user characteristics and firm-customer closeness, to identify their impact on customer value co-created knowledge dimensions, such as relevance, novelty, and cost. The study sheds light on the knowledge, skills, and interest of customers in co-creating value for innovation through face-to-face, bit-to-bit, and voice-to-voice channels of communication between customer and company. The abovementioned studies depict that a lot of effort has been undertaken to identify the motives of customers to collaborate resources to co-create values.

Literature suggests that the value co-creation process may require motivations from diverse stakeholders, along with customers, to contribute through various platforms. However, till now very little research has been geared towards identifying the motives of multiple stakeholders to co-create values (Pera *et al.*, 2016; de Oliveira and Cortimiglia, 2017). Identification of diverse stakeholders' motives can lead organizations to incorporate those values into their processes and practices, which are reflected in their activities (Hall *et al.*, 2015; Killian and O'Regan, 2016). Motivations of stakeholders guide a focal company to design resource integration practices co-creation of values (Pera *et al.*, 2016). Antecedents from the study of de Oliveira and Cortimiglia (2017) identify that motivations from various stakeholders are very important for the entire value co-creation process. Pera *et al.* (2016) find reputation enhancement, experimentation, and relationship building as important motives of multiple stakeholders' participation in co-creating values at Universal exposition 2015 in Milan, Italy. The current thesis is exploring the motivations of companies and stakeholders in co-creating values for sustainability, as a significant aspect of the value co-creation process.

3.2.4 Resources

Resource exchange and integration are fundamental to the co-creation of value (Vargo and Lusch, 2008; Jaakkola and Hakanen, 2013; Frow *et al.*, 2014; Pera *et al.*, 2016). Exchange of resources occurs because a single actor cannot possess all the necessary resources to operate successfully, which requires resources to be integrated with other stakeholders to compete in the market (Vargo and Lusch, 2011; Frow *et al.*, 2014; Pera *et al.*, 2016). Ren *et al.* (2015) also argue that co-creation of value can only occur when actors involved in this process accept and tolerate the interdependence of resources and rely on joint activities to resolve their issues. However, whichever resource is possessed by any stakeholder, is required to be integrated to create value (Håkansson *et al.*, 2009). Another important point to be considered here is the manifestation of accountability relationships between various stakeholders, which arises due to social interactions. Grey *et al.* (2014) discuss the accountability within social relationships, which is key to the development of accounts. For this study, accounts are considered as the narrations of events in social interactions between companies and stakeholders beyond economic orientations. These accounts are created during interaction and resource exchange between companies and stakeholders. Where resources do not only include what appears on the organization's balance sheet, but also take into account resources of diverse stakeholders, such as, resources of suppliers, customers, competitors, and the public (Greer *et al.*, 2016). These resources can be either tangible resources or intangible resources and can be categorized into three groups: (1) private resources such as self, friends, and family; (2) market resources obtained through an exchange in the market; and, (3) public resources obtained from communal and governmental sources (Greer *et al.*, 2016). Hall *et al.* (2015) argue that organizations vary in possessing the types of resources and expertise, which largely determines their ability to integrate them into their policies and provides insight to integrate resources from various stakeholders. Types of resources, either operand or operant (explained in Subsection 2.2.2), are required to be well integrated and should create synergy for creating more value (Gyrd-Jones and Kornum, 2013; Pera *et al.*, 2016).

Vargo and Lusch (2008) argue that in S-D logic there is an exchange of operant resources in value co-creation, which are processional or non-physical resources in nature. Various studies have witnessed the exchange of operant resources in the co-creation of value (Fyrberg Yngfalk, 2013; Hsieh and Hsieh, 2015; Kazadi *et al.*, 2016). Skills, knowledge, and creativity are important operant resources that are deployed in consumer value co-creation activity (Xie *et al.*, 2008; Roberts *et al.*, 2014). Kazadi *et al.* (2016) also argue that stakeholders create benefits for the focal firm by providing unique resources, such as knowledgebases or information.

Fyrberg Yngfalk (2013) identifies the role of football supporters to integrate resources in the value co-creation process and sheds light on supporters' operant resources which are integrated into a social system. Another study by Jaakkola and Hakanen (2013) identifies two types of resources: (i) operant resources, which includes knowledge, experience, skills of actors, organizational relationships and characterized as intangible; and, (ii) operand resources, which are mostly tangible, such as products and production facilities (Håkansson and Waluszewski, 2002; Vargo and Lusch, 2011). Jaakkola and Hakanen (2013) shed light on various types of resources, which are integrated into value co-creation, in two different cases. Types of resources integrated in case 1, industrial solution, are machine tools, robots, maintenance software, and industrial services, which depict a combination of both operand and operant resources. Case 2, solution development, identifies knowledge-intensive and intangible operant resources, such as specialist skills, artistic talent, expertise, and knowledge for integration.

The current thesis intends to identify the types of resources, either operant or operand, that each stakeholder can contribute to create resource ties with companies. Greer *et al.* (2016) argue that organizations and their stakeholders are resource integrators and in each relational counter they exchange resources with each other, which develops an interacting ecosystem of resource integrators. Where resource integration means bringing diverse resources from multiple stakeholders together for mutually valued outcomes. Kleinaltenkamp *et al.* (2012) suggest that this integration demands various forms of cooperation and relationships among stakeholders. Companies employ different practices to interact with stakeholders and to bring resources together. However, the purposes of exchanging resources and their utilization can differ. Gummesson and Mele (2010) identify that resource integration is characterized as: (i) complementarity, by incorporating the missing part in a whole; (ii) redundancy, by exploiting redundant information to facilitate the transfer of tacit knowledge; and, (iii) mixing both complementarity and redundancy. The needs to integrate resources vary with the requirements of both companies and resource exchanging stakeholders. Thus, it is important to ascertain how various stakeholders are involved in diverse activities to combine, develop, or create resources using other resources. It will help understand the creation of multiple accounts developed as a result of relationships between companies and their stakeholders.

3.2.5 Service ecosystem for co-creation of value

Literature suggests that co-creation of value requires an interactive engagement platform, where various actors can integrate resources in a joint sphere of activities (Greer *et al.*, 2016;

Ramaswamy and Ozcan, 2018). A service perspective²⁵ for all types of organizations can provide reasonable grounds for resource integration practices. Greer *et al.* (2016) argue that in S-D logic there is an interaction between a service provider and beneficiary to integrate resources either through the combination or aligning assets for mutual benefit. However, an engagement platform is required to interact and exchange resources for the co-creation of value (Ramaswamy and Ozcan, 2014). Breidbach *et al.* (2014) argue that engagement platforms provide structural support for the integration of resources and to co-create value in a service ecosystem. It depicts that the interactions between stakeholders require channels or platforms to exchange resources and they constitute a service ecosystem (Frow *et al.*, 2014; Greer *et al.*, 2016; Pera *et al.*, 2016). Earlier studies have considered the engagement platform as a separate element of the value co-creation process along with actors and values. In this thesis, the engagement platform is considered as a part of the service ecosystem, that is why, the emphasis remains on the service ecosystem, which is a self-reliant system that connects resource integrating entities and facilitates mutual creation of value (Vargo and Akaka, 2012). Various studies have recognized that a service ecosystem facilitates resource integration between diverse stakeholders to co-create values (Frow *et al.*, 2014; Greer *et al.*, 2016; Pera *et al.*, 2016). Vargo and Lusch (2011) state that service ecosystems are relatively self-contained, self-adjusting systems of resource-integrating stakeholders, which are connected by some shared institutional logic and create mutual value through the exchange of service among them. This definition shows that service systems require stakeholders to participate in the integration of resources, either operand or operant, which are available through the exchange.

The service ecosystem view highlights the saliency of multiple resource integrators and institutions in co-creating value (Vargo *et al.*, 2017). It is also named as a value-creating system by Normann and Mintzberg (2001), which is operated by multiple actors and allows the exchange of resources. Studies argue that stakeholders require an ecosystem in which all resources (mostly operant) are transformed, augmented, and utilized for various purposes (Pera *et al.*, 2016). The value, brought by each resource within an ecosystem is dependent on the resource integration practices that can be an encounter or individual leadership characteristics, such as creativity, flexibility, and negotiation (Frow *et al.*, 2014; Pera *et al.*, 2016). Pera *et al.* (2016) identify three types of encounters to facilitate the co-creation of value in a multi-stakeholder ecosystem, which are: communication encounters, open platform encounters, and

²⁵ Service perspective suggests that service is exchanged for service. All organizations, markets, economies, and societies exchange services with each other. This is the basic premise of S-D logic, which states that individuals exchange resources (knowledge, competencies, tangibles) to benefit each other, and this is service-to-service exchange (Greer *et al.* 2016).

implementation and support encounters. Moreover, individual traits and attributes also support or hinder the value co-creation process in an ecosystem. Trust, inclusiveness, and openness facilitate the value co-creation process and enable resource integration and mutual learning. Frow *et al.* (2014) state that negotiation between and among actors can provide a platform for stakeholders to offer and seek resources with collaborators. They argue that multiple actors interact through value proposition by using a common language of symbols, institutions, and technology, purposefully integrating their resources for co-creation. Tynan *et al.* (2010) argue that dialogues and complex interactions between owners, employees, and customers are very important in co-creating values for luxury brand experience. It sheds light on the interactive and networked nature of value co-creation as described in various other studies (Prahalad and Ramaswamy, 2004; Hsieh and Hsieh, 2015). Jaakkola and Hakanen (2013) explore resource integration through various stakeholders' interactions. They argue that types of resources integrated may be antecedents to various benefits and sacrifices in the process of co-creation of value.

Businesses are one of the important components of a larger network of stakeholders that make up an ecosystem. Greer *et al.* (2016) argue that the internet supports such ecosystems, which require connectivity for resources to flow and integrate. Nowadays businesses are incorporating internet or cloud-based systems to enhance collaboration among stakeholders, as well as to improve the services and to strengthen relationships.²⁶ The relationships among various stakeholders are deeply embedded in the interactions within an ecosystem, which is tacitly or explicitly guided by superordinate institutions, for example, religious, cultural, or political (Greer *et al.*, 2016). de Oliveira and Cortimiglia (2017) assert that the process of value co-creation is permeated by enablers and barriers, which can be ambiguities, incentives, governance, and technological infrastructure (Pera *et al.*, 2016). The abovementioned studies pinpoint the co-creation of value through complex stakeholders' interactions within an institutional arrangement. Aspects of value co-creation processes, such as values, stakeholders, motivation, resources, and engagement platform for resource integration, shape the current research to understand how companies and their stakeholders are motivated to bring unique resources to be integrated for values to be co-created for sustainable outcomes. Types of values co-created through these processes are the most important aspects which are required to be

²⁶ Examples of internet and cloud-based systems: Data sharing at Phillips, order tracking at Stanley Black & Decker, knowledge sharing and activity updating at Coca-Cola Enterprises, and account tracking at Herman Miller (Greer *et al.* 2016).

identified to understand how these co-created values are reflected in corporate sustainability efforts.

3.2.6 Outcome of the process

Leclercq *et al.* (2016) discuss the outcomes of the value co-creation process and argue that this process can generate outcomes for multiple actors which can be in terms of “innovation, quality perception, behaviours, relationship, and experience” (p. 42). For the current study, we are taking the outcome of co-creation from the company’s sustainability perspective. It is rarely investigated in the literature that how the different types of values co-created during value co-creation processes are incorporated in the company’s social and environmental reporting. That is why the current thesis aims to understand the processes through which values co-created among companies and stakeholders are reflected in companies’ sustainability activities and outcomes. As highlighted by Hall *et al.* (2015) and Killian and O'Regan (2016) social accounting and reporting system play a significant role in communicating with stakeholders. The current study takes a critical accounting paradigm, which assumes that organizational engagement with the world is beyond merely economic focused (Killian and O'Regan, 2016). Owen (2008) states that “there appears to be no clear agreement as to what actually constitutes social and environmental accounting research” (p. 241). Gray (2002) uses the term social accounting “... to cover all forms of “accounts” which go beyond the economic” (p. 688). By taking Gray’s perspective of social accounting, it is recognized that environmental and social accounting processes formalize accountability in relationships and identify multiple perspectives leading towards several accounts. The thesis focuses on the value co-creation processes that involve the resources of companies and stakeholders to mutually create values, which can be reflected in the company’s sustainability disclosure reports. There is not any universally accepted sustainability reporting framework. However, nowadays most of the business organizations are using GRI guidelines to report their sustainability information. Burritt and Schaltegger (2010) also discuss GRI guidelines as the best known globally available standards for reporting sustainability information. The current thesis also selects those companies that are using similar sustainability reporting guidelines.²⁷

3.3 Overview of the chapter

The proposed conceptual framework is developed to understand the processes of co-creation of value with diverse stakeholders for corporate sustainability. This framework is established by taking the concepts from various researches as explained in this chapter. The framework

²⁷ Nestlé, PepsiCo, and The Coca-Cola Company are using GRI guidelines for their sustainability information disclosure.

explains the following conceptual categories which are identified and linked to frame the current research: values, stakeholders, motivations, resources, service ecosystem, and outcomes. We have adapted the components of the value co-creation process from the studies of Saarijärvi *et al.* (2013), Mahr *et al.* (2014), Leclercq *et al.* (2016), and de Oliveira and Cortimiglia (2017), which are actors, values, drivers, and engagement platforms. Where actors are replaced with stakeholders and engagement platforms with a broader concept of a service ecosystem. However, the process of value co-creation is incomplete without interaction and resource exchange among companies and stakeholders. That is why we have taken the concepts of cooperation and resource exchange from S-D logic (Vargo and Lusch, 2004) and construction of accounts during this resource exchange from the studies of Gray *et al.* (2014) and Killian and O'Regan (2016). We aim to understand how the entire processes of stakeholders' value co-creation are manifested in the sustainability initiatives and outcomes of companies. The development of a conceptual framework for the current study provides an interpretive approach to understand and discuss the value co-creation processes for corporate sustainability. The framework provides the basis to develop a methodology for conducting this research, mainly in the selection of research methods, data collection, and data analysis. These elements of methodology are discussed in the next chapter.

Chapter 4

Research methodology

4.0 Introduction

This chapter aims to highlight the research methodology and methods applied to understand the processes through which companies collaborate with diverse stakeholders to co-create values for sustainable outcomes. The first Section 4.1 elaborates on the selection of the research methodology and the underpinning philosophical assumptions behind this study. Section 4.2 highlights the components of the research design, strategies for data collection and analysis, address some methodological limitations, and ethical considerations for this study. The penultimate section explains the context of the study and briefly describes cases selected for the current research. The final section provides an overview.

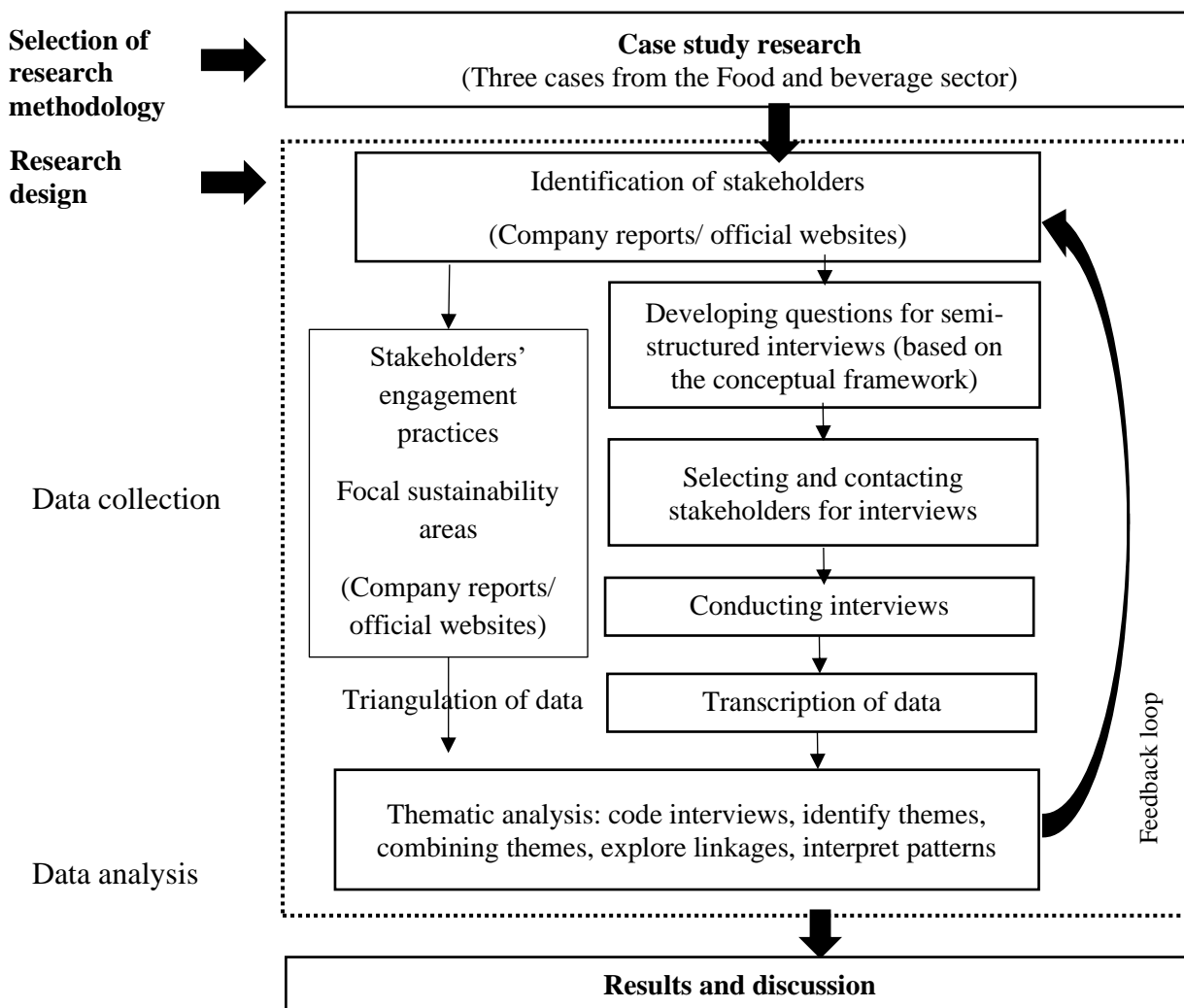
4.1 Selection of the research methodology

The current study requires an in-depth understanding of value co-creation processes for sustainable outcomes. For this purpose, the thesis employs a case study research design as an appropriate research methodology for conducting research (Perry, 1998; Stake, 2006; Simons, 2009; Yin, 2014; Merriam and Tisdell, 2015). Cases are selected on the basis of three criteria: firstly, cases maximize what we ought to learn (Marshall and Rossman, 1989; Stake, 1995) to fulfill the research objectives and to answer the research questions (Merriam and Tisdell, 2015; Mills *et al.*, 2017); Secondly, cases are accessible and fieldwork can be managed (Marshall and Rossman, 1989; Stake, 1995); and thirdly, cases are unique and significant in the context (Stake, 1995) and provide credible data (Marshall and Rossman, 1989). The literature review has identified few studies, which have employed a case study research design to understand the value co-creation processes in detail (Qi *et al.*, 2013; Pera *et al.*, 2016; Scandeliuss and Cohen, 2016; Arnold, 2017; Keeys and Huemann, 2017). All these case studies inquire unique circumstances to understand important underlying issues, for example, Pera *et al.* (2016) use a case study research design to examine the value co-creation motives and resources within a multi-stakeholder Universal exhibition 2015 in Italy.

For conducting the current study, the food and beverage sector within FMCGs is selected to identify and understand the processes required to capture and co-create values by stakeholders for sustainable outcomes. Cases are selected based on the criteria outlined above (Marshall and Rossman, 1989; Stake, 1995; Merriam and Tisdell, 2015; Mills *et al.*, 2017). The current thesis focuses on three cases in the food and beverage sector of Pakistan, which are: Nestlé, PepsiCo, and Coca-Cola (see Section 4.3 for detail). Within the case study, qualitative methods are used

to collect and analyze data to better understand the research problem (Creswell and Tashakkori, 2007; Merriam and Tisdell, 2015). In-depth semi-structured interviews, published company documents, and official websites are used to collect data and to triangulate the results (Yin, 2014; Merriam and Tisdell, 2015). At the first stage, five-year company global sustainability reports are analyzed, which guided us to identify sustainable activities of companies, and also to recognize and categorize multiple stakeholders (see Section 4.2 for detail). Similar stakeholder categories are identified in Pakistan and the lists of stakeholders are developed. The next stage involves qualitative data collection through semi-structured interviews as it provides a road map to multiple realities (Stake, 1995). The research methodology for this thesis is illustrated in Figure 4.1. Where various elements of research design are explicitly mentioned.

Figure 4.1: Research Methodology



Interviews and documents are further analyzed to understand value co-creation processes through thematic analysis, mainly to realize the aspects of value co-creation processes and how co-created values by multiple stakeholders are manifested in companies' sustainable outcomes.

4.1.1 Paradigms and philosophical assumptions

Well-grounded philosophical assumptions play a significant role in establishing an appropriately structured and properly knitted research work. These sets of assumptions or beliefs, called paradigms (Kuhn, 1962), reflect the philosophical approach of the researcher. Moreover, it also creates uniformity in the entire research work. Kuhn (1962) argues that paradigms are incommensurable, and according to the paradigmatic position, different types of researches, either qualitative or quantitative, are seen to be innately different beasts underpinned by diverse philosophical assumptions. Within any research, the choice of method is chiefly driven by philosophical assumptions - ontological and epistemological. Where, ontology is a lens to observe reality and to think about what exists, and epistemology is to acquire knowledge and the truth with varied approaches (Edwards *et al.*, 2014).

The extant literature on case study research depicts that it has undergone various changes in its methodological development. Mills *et al.* (2017) argue that the evolution in the methodology of case study research results in a pragmatic, flexible research design and approach, which is aimed at conducting an in-depth understanding and analysis of a phenomenon. Various researchers contribute to this development and apply their own lens of philosophical assumptions while using this approach (Stake, 2006; Yin, 2014; Merriam and Tisdell, 2015). Researchers use qualitative, quantitative, and mixed method approaches in case study research. However, these approaches underlie different philosophical assumptions. For example, the quantitative approach relies on a positivist philosophy and believes in a single independent reality. Whereas qualitative perspective count on multiple contextual realities (Harrison *et al.*, 2017). Since both qualitative and quantitative approaches are employed by the researchers in case study research designs to understand a phenomenon in-depth, that is why its philosophical position is quite complex (Stake, 1995; Yin, 2014). Some researches focus on purely positivists approaches and rely on objectivists ontology, which is based on a single objective reality. The objectivist ontology leads to a positivist epistemology and asserts that only observable evidence can be seen as valid scientific findings (Bryman and Bell, 2015). Whereas some researchers argue that reality is constituted by human actions and is contextually embedded. This belief is underpinned by social constructionist ontology and aims to understand human behaviour through an interpretive approach (Bryman and Bell, 2015).

The current study is based on identifying and understanding how companies and their stakeholders are motivated to co-create values for sustainability, which intensifies the need of investigating respondents' perceptions of actions and activities. This philosophical approach is constructivism, which provides a methodology for exploring the beliefs of companies and

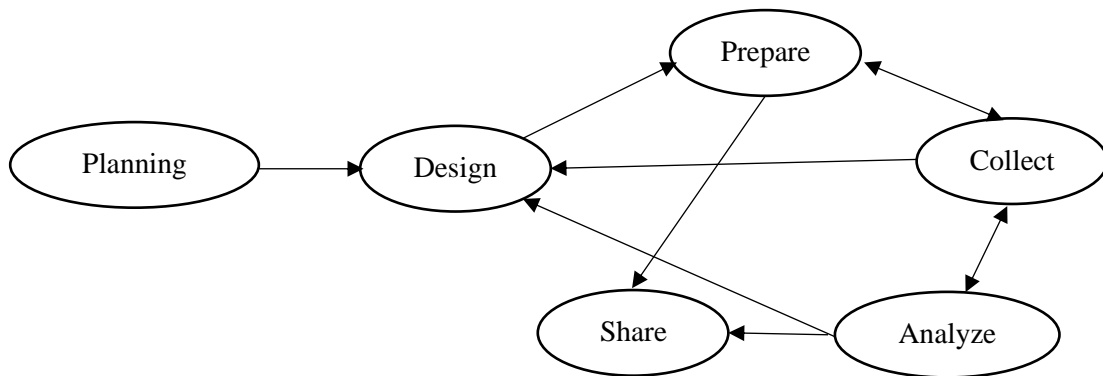
stakeholders, which will be taken as individual respondents (Bryman, 2016). However, value co-creation itself is a social construction ontology (Edvardsson *et al.*, 2011). Social construction, as an ontology means that value co-creation asserts shared understanding and meanings within a social context. Guterman (2006) explains social constructivism as a subjective view of knowledge that emphasizes social interchange. The subjective view asserts that social phenomenon, for example, the creation of value, and its meaning, keeps changing according to the context. Bryman (2016) also highlights that social constructionism is an ontological position, where meanings of any social phenomena are revised and evolved through social interactions. Our focus on this ontological stance remains on identifying and understanding the notion of value and the processes of co-creation of values in the context of the food and beverage sector of Pakistan. However, to recognize the aspects of value co-creation processes, subjective perception of the researcher is required, primarily to understand the meaning of the underlying values and the relationships between various aspects of the process. This epistemological approach is called interpretivism to understand the perceptions of stakeholders to identify the processes of value co-creation. Where interpretivism views the social world as an outcome of the interpretation of social actors through their interactions in a specific context. Bryman and Bell (2015) state that the interpretive approach is employed to understand human behaviour. It is also concerned with the processes of how and why any phenomenon is happening. That is why, the current research is using this philosophical approach, which is embedded in the entire research. The notions of values and co-created values are recognized in a specific social context and they are socially constructed. This approach further guides the interpretation of the processes of value co-creation for corporate sustainability.

4.2 Case study research design

Case study research design is used in a variety of disciplines and to answer a variety of research questions. Mills *et al.* (2017) argue that case study research design, either exploratory or explanatory, is mostly used to understand an issue or a phenomenon, in real-life settings. It is also observed that this type of research design mostly uses ‘how’, ‘why’, or, less frequently ‘what’ worded research questions (Stake, 2006; Simons, 2009; Denzin and Lincoln, 2011; Yin, 2014; Merriam and Tisdell, 2015). Hancock and Algozzine (2016) argue that a case study can be conducted in situations where research is aimed to analyze historical or current events, by taking into account new and existing programs. The current study is using a case study design, by taking three different cases in the food and beverage sector, to have an in-depth examination and understanding of all the cases within their real-life context and with respect to the study

propositions. Here our study proposition is to understand the processes of companies' interactions and collaborations with diverse stakeholders to co-create values for sustainable outcomes. Doing case study research is a rigorous process and involves various types of data for drawing results. Yin (2014) illustrates this type of research design as linear but iterative, which requires the following steps to be taken: planning, design, preparation, collection, analysis, and sharing.

Figure 4.2: Steps to be taken for case study



Doing case study research: A linear but iterative process (Yin, 2014)

The current case study research design is not linear, as illustrated in Figure 4.2. The focus remains on designing the research to understand the companies' processes and practices to interact with stakeholders, to exchange resources, and to co-create values for corporate sustainability. That is why the research design is kept flexible so that it can “unfold, cascade, roll, and emerge” (Marshall and Rossman, 1989, p. 45). The following elements are explained and observed to conduct this research: components of research design, data collection, data analysis, methodological limitations, and ethical considerations. These are discussed next.

4.2.1 Components of the research design

The components of the proposed research cover the research questions, selection of research cases, and linking the data with the study propositions to interpret findings. Research questions guide a way to develop theoretical propositions, to examine various aspects within the scope of the study (Yin, 2014). To address the research questions discussed in Sections 1.1 and 2.5, a case study research design is the best thought. Marshall and Rossman (1989) also assert that qualitative research, either exploratory or descriptive, should be aimed to clarify the informal and unstructured linkages and processes in organizations. That is why it is important to develop a logical connection between research questions and research design. The starting point of our research requires to identify important stakeholders, who are motivated to co-create values for

sustainability. After that, the questions, including, how such stakeholders are motivated, what type of resources they exchange, and how they co-create values, are required to be investigated. For this purpose, the case study design is to be flexible, so that it can create room for modifications, in case of discovering any new information during data collection.

Normally the case selection depends upon geographical location, such as a workplace or an organization. As per Bryman and Bell (2015), the case study focuses on a confined situation or system, or an entity with a specific purpose and functioning parts, which makes case study research distinct from other research designs. The purpose is to emphasize the rigorous examination of the settings. The current study employs three different cases in the food and beverage sector, to undergo the replication logic to support the study propositions, and to achieve certainty and richness in the findings. Stake (1995) suggests that in case study research design multiple or collective cases can be undertaken jointly to explore a general phenomenon (Bryman and Bell, 2015; Merriam and Tisdell, 2015). To conduct this study, three main players in the food and beverage sector are selected, which are: Nestlé, PepsiCo, and Coca-Cola.

4.2.2 Data collection

After the case selection, the data collection strategy is planned to link it with the study propositions. A case study research can use multiple sources of data (Stake, 2006; Yin, 2014) which can be: documents, archival records, interviews, direct observations, participant-observation, physical artifacts, focus groups, and surveys (Yin, 2014). More than one source of data collection can be used to understand the underlying phenomenon or to triangulate the results (Marshall and Rossman, 1989; Stake, 1995; Yin, 2014). This study is using in-depth semi-structured interviews, publicly available official reports, and website sources to make the findings of the research as robust as possible and to observe methodological triangulation (Stake, 1995). Data collected for the current thesis is qualitative, mainly in the form of semi-structured interviews, sustainability reports of companies selected, and data from official websites. In-depth interviews are most widely used to collect rich data and are sometimes called “conversation with a purpose” (Marshall and Rossman, 1989, p. 82). According to Stake (1995), the purpose of an interview is not to get a yes or no answer, but an explanation of an episode or description of an event. It helps the researcher to understand various accounts and to identify the linkages. For the triangulation, documents are also reviewed for frequencies or contingencies of the stakeholders, and to identify activities not observed during the fieldwork (Stake, 1995). By taking into consideration these aspects, the following phases are monitored in data collection: (i) assessing publicly available data; (ii) designing interview questions; and, (iii) conducting interviews. These are discussed next.

(i) Assessing publicly available data

For detailed analysis, sustainability reports of the selected companies of the past five years are reviewed thoroughly to identify the important stakeholders of each company, companies' sustainability activities, and companies' nature of the relationship with stakeholders. Data on stakeholder engagement is assessed to identify important stakeholders of the companies. Five year global sustainability reports (2014-2018) of all three companies, locally available sustainability reports (till 2018), and online information are downloaded and reviewed carefully to identify the stakeholders mentioned in those reports. Sustainability reports published after this time are made publicly available after the data collection period. These reports are also analyzed in detail to understand any significant changes in sustainability activities and reporting practices. Moreover, the latest global annual reports of all three companies are studied to identify any information related to their expenditure on sustainability-related activities. Stakeholders identified from reviewing sustainability reports are grouped into seven categories, explained in Subsection 4.2.3.

(ii) Designing interview questions

The interview guide is prepared from the conceptual categories identified in the conceptual framework of the value co-creation process after a thorough literature review (as explained in Chapter 3). This interview guide is prepared for each stakeholder category with similar conceptual categories but slightly different types of questions (see Appendix G). Purposive sampling is used to identify and contact interviewees for interviews, mainly to ensure the variations in the stakeholders' responses (Bryman and Bell, 2015). Thirty-five respondents are selected and contacted for interviews via email and telephone for an in-depth understanding of the phenomenon. Emails to interviewees contain a brief description of the study objectives along with its significance in an attached flyer. Out of thirty-five potential respondents, twenty-six replied for further investigation and agreed to give an interview.

(iii) Conducting interviews

Face-to-face semi-structured interviews are conducted with important stakeholders, regarding their motives for co-creation of values, types of resources they exchange, values associated with the exchange of resources, and their views on sustainability. Five interviews out of twenty-six are conducted online through audio calls. A follow-up interview is also conducted online. Appendix H provides a list of stakeholders contacted for the interviews. Each interview time ranges between 30 minutes to 90 minutes. The average interview time is 45 minutes.

Semi-structured interviews with multiple stakeholders, company documents, and official websites direct the way to draw themes to identify the aspects of value co-creation processes.

The aspects of value co-creation processes are identified and utilized to analyze the impact of co-creation of values by multiple stakeholders on the corporate sustainability practices of these companies. Corporate sustainability data is assessed through publicly available sustainability reports and website information of the selected companies. Sustainability reports and online sources not only contain information about environmental and social programmes of the companies studied but also the outcomes of such programmes.

4.2.3 Data analysis

The purpose of data analysis is to bring order, meaning, and structure to the data collected (Marshall and Rossman, 1989). A detailed review of company documents of the last five years led us to identify diverse stakeholders of these companies, who are jointly working for mutually beneficial sustainable outcomes. These stakeholders are further categorized into seven groups (see Appendix I). Table 4.1 summarizes stakeholder categories identified through documentary analysis of global sustainability reports of the selected companies. Similar stakeholder categories are identified in the context of Pakistan and fieldwork analysis is mainly focused on these stakeholder categories. Category no. 1 is company representatives, who were interviewed to identify the processes and procedures used by the selected companies to co-create values for sustainability. Categories no. 2 to 7 are external stakeholders, whose motives to co-create values, resources exchanged, and values associated with sustainability were identified through interviews. For this research study, those stakeholders are identified as those who are associated with sustainability initiatives of the company and reported in company sustainability reports. Stakeholders are categorized into seven groups, as mentioned in Table 4.1 and Appendix I.

Table 4.1: Stakeholder categories

| Category no. | Stakeholders | Definition |
|--------------|----------------------------------|---|
| 1 | Company representatives | Appropriate personnel for this study working inside the company |
| 2 | Academic and Research institutes | Academia, scientists, researchers, and research consortium with various institutes |
| 3 | Customers | Includes all such individuals and organizations who buy or use the business products. |
| 4 | Suppliers | Any organization, farmers supplying any raw material, equipment to business |
| 5 | Regulatory bodies | It includes any public authority or a government agency responsible for exercising autonomous authority |
| 6 | Alliance and Business partners | Collaboration with other businesses and partnerships for business interest with both national and international organizations |
| 7 | International associations | An international membership, scope, or presence either for-profit or not-for-profit |

These stakeholder categories are developed after a repeated review of the global sustainability reports of the past five years (2014-2018) of Nestlé, PepsiCo, and The Coca-Cola Company.

All the stakeholders mentioned in sustainability reports fall into one of these categories and have varying levels of communication with the company. For this study, shareholders and financial institutions are not considered, as they both are most of the time associated with the economic returns of the company. The stakeholder categories identified through documentary analysis are either directly or indirectly linked with the company's sustainability initiatives, particularly related to the environmental and social sustainability initiatives. The challenging task of documentary analysis is to understand the critical aspects of sustainability reports of the companies selected for this study. This challenge influenced the researcher to not only read the reports to recognize significant sustainability initiatives that companies are taking but also to identify important stakeholders who are involved in those sustainability initiatives. The following two streams of data have emerged from this documentary analysis: (1) sustainability initiatives of the companies studied and their focus areas (see details in Chapter 5); and, (2) list of multiple stakeholders which are further categorized into seven groups (see Appendix I and Table 4.1).

The art of data analysis is to make sense of whatever is the first impression as well as the final compilation (Stake, 1995). Yin (2014) suggests that in case study research design, data collection and data analysis phase should go side by side, rather than in a sequential manner. That is why it is important to recognize various aspects of data and understand how they fit into theoretical patterns. There can be various ways to analyze the data collected from the case study, which can be a mixture of both qualitative explanation and statistical analysis (Miles and Huberman, 1994; Yin, 1994). All the interviews conducted are transcribed word by word and read again and again to understand the respondents' views on values, motivations to co-create values, resource exchange, and sustainability. The current thesis uses qualitative exploratory case study analysis to concentrate on the instances and to synthesize through interpretation. Data analysis in case study research requires the use of a series of iterations to bring emerging themes from data through thematic technique. The thematic technique is adapted from Attride-Stirling (2001) to give meaning to the collected data. Here, thematic analysis techniques involve, organizing data, code material, identify themes, describe and explore thematic linkages, and interpret patterns. Firstly, interviews and documents are coded, which are further grouped into major aspects. Patterns have emerged from these major aspects, which are identified through analysis. According to Marshall and Rossman (1989) generating categories, themes, and patterns are the most challenging and fun part of this kind of research. All the codes are established as being relevant to the research and patterns are identified to make sense (Kraus, 2012) to understand the processes through which multiple stakeholders co-create values and how co-created values are reflected in the company's sustainability initiatives. Interviews

are conducted, transcribed, and coded for further analysis. MS word is used to write interview transcripts, and all the interviews either in the English language or the Native language (Urdu)²⁸ are transcribed word by word by the researcher. For interview coding, NVivo 12 is used to identify and manage diverse codes and putting those codes into major codes. After repeated review of the interview transcripts, multiple codes are identified, which are grouped into fifty-one major codes. Some codes are pre-defined from the conceptual framework, such as values and motivations. While others have emerged from field data, such as company practices, relationships with stakeholders, and unique factors in the ecosystem. Fifty-one major codes are further grouped to develop eleven main themes, which are considered as the aspects of value co-creation processes for sustainability. The patterns that emerged from these themes direct the understanding of the processes of value co-creation for sustainability. Table 4.2 demonstrates important codes and aspects that emerged from this coding.

Table 4.2: Coding of interview transcripts

| Aspects | Major codes | Description | | |
|----------------------------------|--|--|--|---|
| Motivations | Intrinsic motivation of stakeholders | Inner interest to take any initiative, to participate in any project, or to buy a product | | |
| | Extrinsic motivation of stakeholders | Expected separable outcomes to take any initiative, to participate in any project, or to buy a product | | |
| Values | Ethical values | Accountability | Companies are responsible for the ethical conduct of business | |
| | | Challenges to companies | To look for the community rather than just profit | |
| | | CSR activities | Companies' (N+P+C)* involvement in CSR as a moral responsibility | |
| | | Code of conduct | Codes of conduct of N+P+C | |
| | | Mutually beneficial values | Reputational advantage | Creating benefit for the company as well as for the stakeholder involved |
| | Values associated with products | Technological gain | Economic benefits | Economic benefit for one party and technological benefit for the other |
| | | | Economic benefits | Monetary benefits for parties involved |
| | | Utility, accessibility, association, packaging | Quality, nutrition, taste | The usefulness of the product, availability, ease of use by the customers |
| | | | Price of the product | Product attributes mentioned by the customers |
| | | | Price of the product | The monetary value of the product for the company's profitability and affordability for the customers |
| Sustainability | Corporate efforts | Company efforts to protect the environment, to promote the social wellbeing | | |
| | Stakeholders' efforts | Stakeholders' efforts for sustainability | | |
| Background of the company | Background information about the company and brand image | The reputation of the company, the brand image it has created over time | | |
| | Practices | Processes and practices of companies (N+P+C) | | |
| | Influence on government | Motivating government towards some initiatives | | |

²⁸ Interviews in the native language are translated into English language first and then transcribed by the researcher.

| Aspects | Major codes | Description |
|---|---|---|
| Companies' processes and practices | Stakeholders' awareness of company practices | Awareness of the company's practices and procedures by stakeholders |
| | Incorporating views of stakeholders | Incorporating the feedback and concerns of stakeholders in company practices |
| | Staff exercises | Training for employees and business partners |
| Business ecosystem | Regulations | National and international laws and standards to be followed by the companies |
| | Conflicts in Government regulations | Clashes in regulatory bodies |
| | Differences from other countries | Similarities and differences of standards from other countries |
| | Non-compliance | Process of any legal action by regulatory bodies |
| | Religious impact | Influencing production and buying decisions |
| | Miscellaneous factors in the ecosystem | Which can hinder or support businesses |
| | Changing business ecosystem | Changing trends in the overall business environment |
| | Resource scarcity | Limits of the natural system |
| | Perception of stakeholders | What people think about the company |
| | Cultural influence | Culture shapes the perception of people |
| | Limitations from the ecosystem | Restrictions on various activities |
| | Lack of awareness | Stakeholders are not aware of various initiatives |
| Statement of work | Scope of work | Profile of stakeholders and their nature of work |
| | Goals and objectives | What companies and stakeholders are aiming to do, what they are currently doing |
| | Different programmes | Various programmes for CSR or sustainability |
| | Facilitating other stakeholders | How various programmes are facilitating other stakeholders |
| | Impact | What is the impact of an initiative |
| Stakeholders' relationship | Accountability relationship with the company | Stakeholders' relationship with company due to social interactions (N+P+C) |
| | Level of understanding | Understanding each other's aspirations and limitations |
| | Expectations from the company | What stakeholders anticipate from the relationship with the company |
| | Stakeholder engagement | Multi-stakeholder programmes and community engagement initiatives |
| | Stakeholder issues with the company | Complaints against the company (N+P+C) |
| | Different stakeholders | Various stakeholders identified during interviews |
| | The outcome of the relationship | Benefits from the relationship of various stakeholders with companies (N+P+C) |
| Resources | Operant resources | ProceSSIONAL or non-physical, exchange of intangible resources between stakeholders |
| | Operand resources | Exchange of physical resources |
| Communication | Platforms to interact | Channels of communication with the company (N+P+C) |
| | Channels to communicate | Conveying information directly or indirectly |
| | Creating awareness | Awareness for companies and the general public |
| | Customer awareness | Customer awareness about company (N+P+C) efforts |
| Suggestions | Recommendations from various stakeholders for the betterment of the community | |

* Nestlé, PepsiCo, and Coca-Cola (N+P+ C)

Interview transcripts inform four important elements of value co-creation processes for sustainability, which are: stakeholders (company and its internal and external stakeholders), motivations (intrinsic or extrinsic), values (categorized into ethical values, mutually beneficial values, and values associated with the sale and purchase), and sustainable practices. However, the processes of company's value co-creation for sustainability are either facilitated or hindered by the following important aspects: (i) statement of work defined by the identification of sustainability issues, company's strategies to plan for sustainability targets, and company practices to achieve those targets; (ii) communication channels, that develop engagement platforms to interact and exchange different types of resources among companies and their stakeholders in an accountability relationship; and (iii), business ecosystem shaped by regulatory, cultural or religious factors and stakeholders relationships embedded in that ecosystem. These aspects of value co-creation processes and their related aspects are discussed in detail in the subsequent chapters.

4.2.4 Methodological limitations

Current research relies on the qualitative case study research design, where interviews and documents are analyzed to understand the value co-creation processes for sustainability. Data collection and analysis are very challenging phases of any type of research either qualitative or quantitative. Data collection for the current study begins with the identification of sources of data. For this purpose, firstly company documents are assessed to identify stakeholders. As public reports of PepsiCo and Coca-Cola Pakistan are not available, website sources and other official documents such as sustainability reports of Coca-Cola İçecek (CCI)²⁹ and global reports have been relied upon. The next task is to identify and contact potential interviewees. Only those stakeholders are contacted who are linked with companies studied for sustainability and social responsibility initiatives. As a result, purposive sampling is used to ensure variations in responses and to conduct interviews from all stakeholder categories. The study is conducted in the food and beverage sector of Pakistan and the researcher gained seventy-five days for actual field visits and face-to-face interviews. This limited time is utilized to conduct interviews with a maximum number of respondents and the remaining interviews are conducted online. Five detailed interviews and one follow-up interview are conducted online through audio calls. During the data collection phase, most of the stakeholders were contacted several times for their

²⁹ CCI is a multinational beverage company which operates in Turkey, Pakistan, Kazakhstan, Azerbaijan, Kyrgyzstan, Turkmenistan, Jordan, Iraq, Syria and Tajikistan. As one of the key bottlers of The Coca-Cola System (TCCS), CCI produces, distributes, and sells sparkling and still beverages of The Coca-Cola Company (CCI, 2018Bb).

availability and agreement for the interview. Some stakeholders showed interest in participation but during the initial discussion with them, it was identified that they are inappropriate for the targeted study.³⁰ Relying on interviews can be a limitation of the study, as the use of interviews is sometimes considered as a disruption of the natural flow of events (Bryman and Bell, 2015), which may differ from the normal circumstances. For this purpose, semi-structured interviews support the in-depth understanding of the affairs from past, current, and future perspectives. The data is triangulated through available official documents and website sources. Reflexivity is also very crucial in the interviewing and analysis phases. For that purpose, probing questions are asked for clarification throughout interviews. During data analysis some of the respondents, mainly company representatives are contacted again for some follow-up interview questions. However, the response rate of follow-up interviews remains extremely poor and lacks in obtaining rich data.

Using interpretive research philosophy can also pose a threat to the rigor (Smith, 2019) and generalizability (Atieno, 2009) of the research. Rigor means the quality of the research in terms of its precision and thoroughness. Davies and Dodd (2002) refer to rigor as the validity and reliability of research. Here reliability means consistency or replicability of the results, which is most of the time associated with quantitative researches. However, using the same criterion in the case of qualitative research would not be a good measure of its consistency. The reason being the differences in the perceptions and responses of the subjects in qualitative research. The current research conceptualizes rigor as diligence in designing and conducting the entire research. The context of the study and the cases are selected based on their significance. We attempt to ensure that rigor should be built thoroughly in the entire qualitative research process. For this purpose, data collection tools are carefully designed, and field notes, transcripts, and analysis are cautiously executed. A flexible research design is adopted, which allows us to understand the deep meanings, constructed in a specific context. Moreover, the interpretive research also limits the generalization of the findings, as it is focused on the food and beverage sector of Pakistan. However, the cases selected for this study are multinational organizations and our analysis also takes insights from their global practices. The emphasis on the context itself is shedding light on the sustainability landscape of a developing country and understand the practices of multinationals in developing countries as compared to their global practices.

³⁰ 1) Initial telephonic discussion with Director general agriculture, federal water management cell of Pakistan revealed their unsuitability for the current research study.

2) Contacted head office of UNDP Pakistan for arranging interview with relevant personnel via telephone. The contacted person showed least interest in participating in any research activity and responded that they are not doing any projects with the selected companies. Note: It was identified from online sources that UNDP is doing projects with Coca-Cola and also conducting awareness sessions with PepsiCo.

4.2.5 Ethical considerations

The current study considers the ethical issues that must be taken into account during the entire research. Ethical approval was taken from the University before collecting data for the study through the submission of an ethical approval form to the ethics committee. Ethical aspects were closely observed during the preparation of interview questions, contacting respondents, recording, and analyzing interviews. Using any offensive or unacceptable language was avoided at its best for the formulation of interview questions as well as, during actual conducting interviews. All the potential respondents were contacted via formal email along with the purpose of the study and a brief research flyer attached. The respondents were provided with sufficient information about the purpose of the study to reach a free decision to participate. Emails and flyers were designed to let potential interviewees know about the brief overview of the research topic, the objective of the study, its significance, and the nature of data collected. Before the interview, respondents were asked to sign a consent form to confirm their understanding of the purpose of the interview and to get their permission to audio record their interview. In the case of online interviews, consent forms were sent via email to the interviewees before the interviews. Informed consent is very important to let the interviewee know about confidentiality and privacy rule (Allmark *et al.*, 2009). Cohen and Manion (1994) state that interviews must be confidential, and the interviewee should be well informed about their anonymity and confidentiality. That is why privacy, confidentiality, and anonymity of respondents are highly prioritized in data collection, data storage, and data analysis phases. All audio recorded interviews are transcribed word-by-word by the researcher and stored in the personal drive of the researcher at the university. Audio interviews and their transcripts are not shared with anyone, by keeping the confidentiality of the interview data at priority. Interview data is used for conducting research by fully complying with the University's code of ethics.

4.3 The context and background of the cases

4.3.1 The context of the study

The increasing trend towards sustainability is making consumers knowledgeable about unsustainable conditions, such as excessive waste generation, resource scarcity, and water depletion. The emphasis of the matter is drawing the attention of customers towards using sustainable products, rather than just focusing on the price and performance of a product. This fundamental shift can be witnessed from a survey report by 54 leading consumer brands, which shows customers' interest in sustainability (Esposito *et al.*, 2016). Consumers have become more powerful, in terms of controlling products, and they can persuade companies in developing effective strategies for sustainable practices. Boyd (2017) reports Guardian

roundtable event, to understand and discuss the issues of sustainable practices. The key focus of this discussion is to direct the attention of the industry towards sustainable strategies. Avlonas (2017) and Kauflin (2017) also highlight that in the near future, companies will be using sustainability, to differentiate themselves from others, and to increase competitiveness. Avlonas (2017) argues that legislation and pressure from consumers, investors, and other stakeholders can increase the awareness and trend towards developing comprehensive corporate sustainability strategies by the business organization.

With the increasing population, consumer demand and spending are continuously increasing (highlighted in Section 1.2). Consumer expenditure on goods and services depict that the food and beverage sector is one of the largest and growing segments in consumer spending (see Appendix A). The global food and beverage market is continuously growing due to the escalating population, lifestyle, and consumer tastes and preferences (Lucintel, 2012). According to research, global food production requires to be almost double in the next 30 years to fulfill the increasing demand from consumers (Fatemi and Fooladi, 2013). Rising food and beverage consumption is proportional to the mounting waste contribution either through production or through usage. It calls for an awareness and a wakeup call for the industry to introduce sustainable business practices. Forbes Global 2000 reveals that Nestlé, PepsiCo, and The Coca-Cola Company are the largest food and drink companies in the world (Mcgrath, 2017). These three companies are selected for the current thesis as distinct cases. These cases are studied in detail regarding their stakeholder interactions and resource exchange processes and practices in co-creating values and how the co-created values are reflected in the company's sustainability efforts. These companies have processes and practices for stakeholders' engagement, which are evident from their publicly available information. Another reason for choosing these companies is their published sustainability reports, which are an important source to identify their focal sustainability areas and stakeholders who are interacting and exchanging resources for sustainable outcomes.

However, there can be differences in practicing stakeholders' engagement efforts and policies in various economies. For this research, the food and beverage sector of Pakistan is selected to understand the processes of co-creating values for sustainability. Pakistan is a developing economy, with an increasing population and increasing demand from consumers. Section 1.2 highlights the rationale for conducting research in the food and beverage sector of Pakistan, which are mainly, increasing trends in the food and beverage products, rising resource consumption, cultural and religious diversity, and evolving sustainability landscape. ACCA's (2017) report demonstrates that currently there is not any compulsory sustainability reporting

framework in Pakistan. In 2002, ACCA Pakistan and World Wildlife Fund Pakistan (WWF)³¹ jointly launched their ‘Environmental Reporting Awards’ in Pakistan. After that, in 2011, two national accountancy bodies of Pakistan also emphasized the significance of sustainability reporting through sustainability awards along with corporate reporting awards. These efforts are gradually influencing many companies to put greater effort to incorporate sustainable practices into their businesses. Moreover, companies are realizing that sustainability reporting is not only benefitting their competitiveness but also increasing their prospects to get foreign investments. Along with sustainability practices, stakeholder engagement is also becoming an important practice in Pakistani organizations, and many organizations, such as Tetra Pak, KPMG, and IT firms are engaging stakeholders for creating more value. However, to conduct this study, those companies are selected, which are not only operating in Pakistan but also globally. A brief description of these three cases is provided next.

4.3.2 Description of the cases

This subsection briefly provides an overview of the three cases selected for this study. The objective is to highlight the following elements of the selected companies: a brief history of the global company, sustainability reporting, stakeholders’ engagement, and their presence in Pakistan.

Case 1: Nestlé

Nestlé is the largest food and beverage company in the world and has its presence in 189 countries around the globe. Henry Nestlé laid its foundation with the Anglo-Swiss Condensed Milk Company in Switzerland in 1866. The death of one of the co-founders of Anglo-Swiss led to their merger with Nestlé to form the Nestlé Group in 1905 (Nestlé, 2018b). Since 1905, the company has expanded its product line and presence in the global market. Currently, the company deals with a variety of products, which mainly include, baby foods, bottled water, cereals, chocolate and confectionery, coffee, culinary chilled and frozen food, dairy, drinks, food service, healthcare nutrition, ice-cream, and pet care (Nestlé, 2019b). The rising trend towards corporate sustainability inspires Nestlé to put effort into obtaining a sustainable future. In 2006, Nestlé takes its sustainability approach as Creating Shared Value (CSV), which focuses on creating value for the communities where it operates. Globally the CSV agenda aims to combat the challenges in three priority areas, which are: nutrition, water, and rural

³¹ World Wildlife Fund (WWF), WWF-P in Pakistan, is a global environmental conservation organization that aims to conserve nature and ecological processes. See details at: <http://wwfpak.org/>

development (Nestlé, 2019c). Nestlé started publishing its CSV report in 2007 globally and since then it publishes CSV report every year.

For Nestlé, CSV has replaced CSR, as it focuses on the long-term commitment towards the environment and society. Nestlé measures the impact of its commitments through materiality assessment³² and feedback from external stakeholders. The material issues are then linked to the Sustainable Development Goals of the UN focusing on individuals and families, communities, and the planet. Nestlé's CSV logic aims to work for the betterment of individuals and families to enable them to live a healthier and happy life, to help develop thriving resilient communities, and for the planet to steward resources for future generations. Individuals and families are concerned about quick and healthier food options for kids and every age group. Communities need support in rural development, promotion of human rights, and having employment opportunities. Whereas, for the planet, the company needs to realize its responsibility towards the ethical consumption of the planet's resources. Nestlé's approach towards all these broad commitments, which are for individuals and families, for communities, and the planet is interconnected and is reflected in its annual CSV. The commitments elaborate the efforts by Nestlé on creating shared value or for the overall sustainability and compliance. The progress and impact of these commitments are reported through Nestlé's key performance indicators (KPIs) in line with the reporting measures provided by GRI. Nestlé possesses a vast network of stakeholders globally, ranging from regular stakeholders to special interest groups, who can influence their activities. For the current thesis, those stakeholders are identified as those who are associated with sustainability initiatives of the company and reported in their CSV reports (see Appendix I-1). Nestlé claims that it regularly engages its stakeholders to create shared value and to highlight critical societal issues. Nestlé's CSV report (2018d) also highlights various efforts by Nestlé to engage various stakeholders in creating shared value.

Nestlé Pakistan Ltd. is a subsidiary of Nestlé headquartered in Lahore, which is the second-largest city in Pakistan. Nestlé Pakistan has two multi-product production facilities in Sheikhpura and Kabirwala, and two water-based factories in Islamabad and Karachi (Nestlé, 2019). As a part of its global code of practice, Nestlé Pakistan is also working on the philosophy of CSV, particularly for the communities where they are working. Nestlé Pakistan publishes a CSV report every year since 2012 which focuses on nutrition, water, and rural development. The report demonstrates the CSV activities conducted by Nestlé Pakistan during the year in collaboration with various stakeholders for the betterment of individuals and families,

³² The materiality assessment is about identifying the issues that matter most to business and stakeholders by plotting the economic, social and environmental issues that are of most concern to their external stakeholders against those that pose risks or present opportunities to Nestlé (Nestlé, 2018d).

communities, and the planet. However, this report does not present the quantitative measure of key performance indicators in line with the reporting indicators provided by GRI, except the statistics for energy consumption, GHG emissions, and water consumption. CSV reports of Nestlé Pakistan also highlight similar stakeholders' categories as mentioned in global reports for sustainability initiatives (see Appendix I-2). A review of these reports identifies that all these stakeholders, including regulatory bodies, academic and research institutes, alliances and business partners are mainly working on sustainable farming practices, efficient water usage, nutrition, educating children, and supporting women.

Case 2: PepsiCo

PepsiCo started its journey in 1898 when Caleb Bradham from North Carolina started selling Pepsi-Cola drinks to its pharmacy customers. Since then, the company is renowned for its cola beverages and it evolved and expanded with time. In 1965, the company Pepsi-Cola merged with Frito-Lay to form PepsiCo, to deliver a diverse range of salty snacks and beverages under the same brand name. The company expanded its operations after 1965 and diversified its portfolio by adding and acquiring different brands and restaurant chains, for example, Pizza Hut, Inc. in 1977, Taco Bell Inc. in 1978, Kentucky Fried Chicken Corp. in 1986, Seven-Up International in 1986, Tropicana and Dole juice brands in 1998, Quaker Oats company in 2001. Currently, PepsiCo has 22 brands operating in more than 200 countries around the globe (PepsiCo, 2019a).

The increasing trend towards sustainability intrigued PepsiCo to establish a vision of Performance with Purpose (PwP) in 2007 to recognize the importance of interdependence between corporations and society. PwP aims to flourish the product portfolio coupled with a reduction in environmental footprints and uplifting of people and families. PwP agenda focuses on material aspects in accordance with GRI sustainability reporting guidelines. These material aspects are divided into three categories, which are: product, people, and the planet. On the product side, they aim to provide a diverse range of nutritious food to their customers. On the people side, PepsiCo aims to respect human rights across its entire value chain, promote diversity at the workplace, encourage engagement at work, ensure workers' safety, and stimulate social and economic development in the communities where it operates. On the Planet side, PepsiCo intends to reduce the environmental footprints while expanding on their business. Overall, the company is focusing on reducing and reusing plastic packaging, protecting water resources, reducing GHG emissions in its operations, and manage solid waste at production facilities. As a global company, PepsiCo is engaged with diverse stakeholders for various activities. For this thesis, only those stakeholders are focused on who are concomitant with the

company's sustainability activities and initiatives and also reported in annual PwP reports of the last five years (2014-2018).³³ Consistent with the categorization of stakeholders in this thesis, stakeholders of PepsiCo also fall into similar groups (see Appendix I-3). PepsiCo (2018b) also emphasizes the importance of diversified views from shareholders and other stakeholders, which are aimed to help PepsiCo learn about emergent sustainability trends and to create value for society. All these memberships, alliances, and partnerships, and collaborations are focusing on global sustainability crises, particularly in water, nutrition, education, and packaging.

PepsiCo has been a part of Pakistan's food and beverage industry for more than 50 years. Though till 2018, PepsiCo did not have any official website for Pakistan, as it comes under Asia, Middle East & North Africa (AMENA) region. In these regions, PepsiCo, either independently or in collaboration and partnership with other stakeholders produce, market, sale or distribute a wide range of products. PepsiCo produces and distributes the following brands in Pakistan: beverages, including Pepsi, Mirinda, 7UP, Mountain Dew, Aquafina, sting, slice, and food items, including Lay's, Kurkure, Cheetos, and Quaker (PepsiCo, 2018a). PepsiCo Pakistan has a network of seven bottlers having fifteen plants, and two snack manufacturing facilities which are owned and operated by PepsiCo. The bottlers and franchisees purchase cola concentrate from PepsiCo and further produce, pack, and sell the beverages. Within Pakistan, PepsiCo follows the same global philosophy of PwP, which is aimed to enhance economic performance by integrating social and environmental sustainability into its business strategy by focusing on people, products, and the planet. However, PepsiCo Pakistan does not publish any sustainability report separately. To achieve sustainability goals, PepsiCo is jointly working with multiple stakeholders, including academic and research institutes, suppliers, bottling partners, NGOs, businesses, and regulatory bodies. Due to the unavailability of official website data, this research has relied on information from interviews, webpages, news, and social media pages about PepsiCo's stakeholders and their sustainable business practices (see Appendix I-4).

Case 3: Coca-Cola

Created in 1866 by John S. Pemberton in Jacobs' Pharmacy, The Coca-Cola Company has now become one of the largest beverage suppliers in the world and operating in more than 200 countries globally. Soon after its sale in 1886, John Pemberton registered the copyright of "Coca-Cola Syrup and Extract" with the U.S. Patent Office. In 1888, Asa Candler, an American

³³ From 2019, PepsiCo changed its report name from PwP to sustainability report by the new CEO. The focal sustainability areas remain the name.

businessman acquired the formula of Coca-Cola and its copyrights from John Pemberton and established The Coca-Cola Company. In the early 1900s, the drink began to be associated with music and national games. In 1919 the company opened its first bottling plants in Paris and Bordeaux. From thereafter the company expands its operations, especially during world war II. Its contour bottle design becomes one of the most recognized bottle designs in the world (Coca-Cola, 2018c). The company continues to add new beverages to its portfolio according to the changing trends and customer tastes and preferences. Currently, the company owns almost 500 sparkling and still beverage brands and 4300 products offering in more than 200 countries at a rate of 1.9 billion servings a day. The most recognized brands are Diet Coke, Fanta, Sprite, Coca-Cola Zero, vitamin water, Powerade, Minute Maid, Simply, Georgia, Dasani, Fuze Tea, and Del Valle (Coca-Cola, 2018b).

Realizing the saliency of sustainable development, the company begins to focus on initiatives aimed to reduce environmental footprint, support healthy living, create a safe working environment, and promote community development. The company starts publishing its sustainability reporting in 2008 and from that time it publishes sustainability reports every year globally. The sustainability goals of the company are divided into seven sub-goals, which are: packaging, water, giving back, agriculture, women, human rights, and climate (Coca-Cola, 2019b). Where packaging goals are aimed to reduce the packaging resources by refiling and recycling the packaging material. Water goals are targeted to improve the efficiency of water usage and also replenish back the water to nature and communities. Giving back focuses on investing 1% company's annual operating income into community development for various purposes, for example, supporting rural women and educating kids. Women related goals are also aimed to increase the number of women representations in their global value chain. The company also focuses on human rights as an important sustainability agenda and not only for its employees but its suppliers as well. For example, the company encourages its bottling partners to achieve compliance with its supplier guiding principles. The Coca-Cola Company uses a wide array of agricultural produce, including fruits, coffee beans, sugar, herbs, and dairy-based ingredients. The company aims to ensure that these ingredients are produced sustainably in a way that does not harm the natural environment and the wellbeing of the farmers and community. For this purpose, the company's sustainability goals include the efforts to increase the sustainably sourced ingredients. Moreover, tackling climate change issues are also given importance by the company. The company is continuously working with partners and suppliers to slow the warming trends and reduce carbon footprints. The progress on all these abovementioned goals is reported as per the reporting standards of GRI to measure and

communicate the company's environmental, economic, social, and governance performance to its stakeholders. The global report represents the concerted effort by The Coca-Cola Company and its bottling partners around the globe. The company has currently set goals for 2020 and the performance of each sub-goal is reviewed every year. The company uses the approach of combining resources of the "Golden Triangle", including business, government, and non-governmental organizations to address various sustainability issues. Sustainability reports of the past five years (2014-2018) have identified multiple stakeholders which are categorized into seven groups (see Appendix I-5). These stakeholders are directly or indirectly involved in the sustainability initiatives of the company. The company is making stakeholder engagement worthwhile and trying to incorporate stakeholders' views in long-term decision-making and progression towards sustainable goals (Coca-Cola, 2018a).

The Coca-Cola Company started its operations in Pakistan in 1953 with its first bottling plant in Karachi, which is the largest city in Pakistan. The company expanded its operations all over the country and now Coca-Cola in Pakistan is comprised of The Coca-Cola Export Corporation, Pakistan & Afghanistan Region, Coca-Cola beverages Pakistan Limited (CCBPL) with its bottling plants, and a network of distributors and retailers. The Coca-Cola Export Corporation manufactures concentrates, beverage bases, and syrups and sells them to CCBPL. CCBPL is responsible for manufacturing products, packaging, merchandising, and distribution through a network of distributors and retailers. The Coca-Cola Pakistan brands include Coca-Cola, Diet Coke, Sprite, Fanta, Dasani, and Cappy Joosi. In line with the global sustainability philosophy of the company, Coca-Cola Pakistan is also working on the following sustainability agendas: water conservation, waste management, packaging, health and nutrition, women empowerment, and climate change. Coca-Cola published its sustainability report in 2012 aimed to focus on LIVE POSITIVELY™ approach through their sustainability activities. Since then, Coca-Cola has not published any report on its financial and sustainability data in Pakistan. However, the sustainability information of Coca-Cola Pakistan is published by the CCI region. In 2008, the bottling operations of Coca-Cola Pakistan came under the roof of CCI. The sustainability data of Pakistan started to get published in sustainability reports of CCI from 2009. To achieve sustainability objectives, Coca-Cola Pakistan is jointly working with multiple stakeholders, including academic and research institutes, suppliers, bottling partners, NGOs, businesses, and regulatory bodies. Due to the unavailability of up-to-date official website data, this research has relied on information from interviews, webpages, news, and social media pages about the company's stakeholders.

4.4 Overview of the chapter

This chapter sheds light on the methodology adopted to conduct this study. Case study research design is used to understand the processes of co-creation of value for sustainable outcomes in the food and beverage sector of Pakistan. Three cases are selected based on their degree of significance, current stakeholder engagement practices, and their sustainability initiatives. Official sustainability documents, website sources, and in-depth semi-structured interviews are mainly used to realize the underlying phenomenon in detail. Official documents are assessed via online sources and face-to-face interviews are conducted to understand various aspects of the current research. Data collection and analysis led us to identify various aspects of value co-creation processes for sustainability as explained in Subsections 4.2.2 and 4.2.3. The patterns that emerged from data analysis help to understand the processes through which companies interact and collaborate with diverse stakeholders to exchange resources to jointly create values, basically to achieve the sustainability objectives of the companies.

The entire process of co-creation of value for sustainability is discussed and presented in the following four chapters: Chapter 5 identifies and explains the global and local sustainability agendas of the selected companies; Chapter 6 highlights the motivations of multiple stakeholders to co-create values from a sustainability point of view; Chapter 7 elaborates how companies co-create values, mainly through social interactions and resource exchange practices; and, Chapter 8 is a detailed discussion on the sustainable practices of companies and how co-created values from multiple stakeholders are reflected in company's sustainability outcomes.

Chapter 5

Identification of sustainability agendas

5.0 Introduction

The nucleus of this study is to understand the processes of co-creation of value for corporate sustainability. Thus far, various aspects of this process, such as motivations of companies and their stakeholders, values, sustainability, resources, and ecosystem are identified in Subsection 4.2.3. However, it is important to recognize the sustainable business practices of companies to understand why companies are inspiring and being inspired to interact and exchange resources with various stakeholders to co-create values for sustainability. This chapter aims to highlight and explain the global and local sustainability agendas of the selected companies in the food and beverage sector. Fieldwork delineates that the companies studied identify these sustainability agendas through various sources, which are mainly legal, parent company's policies, stakeholder relationships, and sometimes voluntary. Depending upon the source of the identification of sustainability agendas, companies analyze their accountability relationships to prioritize, execute, and report their activities. For example, in case of any legal requirements, companies are accountable to perform certain tasks and provide accounts in the form of reports to the concerned government department. Therefore, it is important to recognize focal sustainability areas of the companies, before understanding companies' processes and practices to collaborate and exchange resources with various stakeholders to achieve those sustainability agendas.

The collaborations and resource exchange mechanisms emphasize the sustainability accounting process, which is reflected in the sustainability initiatives of the companies. As explained in Subsection 2.1.4, the sustainability accounting process commences with the identification of sustainability issues and advances with the company's strategies to achieve sustainable outcomes (Schaltegger and Wagner, 2006). Here, we have recognized that the sustainability accounting process goes side by side with the value co-creation process, as both aim to achieve sustainable outcomes. The entire process of linking sustainability goals and outcomes requires companies to develop strategies to interact with stakeholders and to integrate resources for the desired outcomes. The center point of this chapter remains on the identification of sustainability goals and the subsequent chapters discuss companies' approaches towards strategizing the accomplishment of these goals. Considering these aspects, this chapter is divided into the following sections: Section 5.1 identifies the global sustainability goals of the companies studied in the food and beverage sector, whereas Section 5.2 highlights and discusses the focal

sustainability areas in the Pakistani context. The last section summarizes the findings of this Chapter.

5.1 Global sustainability agendas of the companies

Ever since the word ‘sustainable development’ is recognized, various business organizations around the globe are emphasizing the need to focus on economic development, social equity, and environmental protection at the same time. Businesses are stimulated to make sustainability a business imperative. The increasing trend in sustainability and awareness of this term also motivates companies’ stakeholders to demand sustainability performance from companies (Rezaee, 2017). The companies studied in the food and beverage sector accentuate those sustainability objectives, which are in line with their core operations. Their focus remains on meeting human needs for nutrition and enjoyment, along with economic growth and social wellbeing. Globally companies identify their sustainability agendas in the light of sustainable development goals (SDGs) of the UN (see Appendix D). Within the broader SDG goals of the UN, companies identify their own sustainability targets and develop strategies to execute them. Table 5.1 demonstrates the major global sustainability agendas of Nestlé, PepsiCo, and The Coca-Cola Company and how these companies disseminate their progress on these agendas.

Table 5.1: Global sustainability agendas

| Companies | Sustainability agendas | Sustainability reporting |
|------------------------------|--|--|
| Nestlé | <p><i>For individuals and families:</i> healthy food choices, inspiring people to lead healthier lives, sharing and applying nutrition knowledge</p> <p><i>For the communities:</i> enhancing rural development livelihoods, respecting and promoting human rights, promoting decent employment and diversity</p> <p><i>For the planet:</i> caring for water, acting on climate change, safeguarding the environment</p> | <p>Nestlé started publishing its CSV report in 2007 globally and after that, it publishes a CSV report every year.</p> <p>The progress and impact of these commitments are reported through Nestlé’s KPI in line with the reporting indicators provided by GRI.</p> |
| PepsiCo | <p>Helping to build a more sustainable food system, next-generation agriculture, positive water impact, circular future for packaging, improved choices across our portfolio, climate change mitigation, people & prosperity</p> | <p>PepsiCo establishes a vision of Performance with Purpose (PwP) in 2007 and publishes reports every year since then.</p> <p>The sustainability agenda focuses on material aspects in accordance with the GRI. The company follows the sustainability reporting guidelines on product, people, planet, and governance</p> |
| The Coca-Cola Company | <p>Portfolio transformation, world without waste, water sustainable, agriculture, people & communities, partnerships, climate change</p> | <p>The Coca-Cola Company publishes sustainability reports globally since 2008</p> <p>The progress on sustainability agendas is reported as per the reporting standards of The GRI to measure and communicate the company’s environmental, economic, social, and governance performance.</p> |

Source: Nestlé Creating Shared Value report 2018 (Nestlé, 2019c); PepsiCo sustainability report 2018 (PepsiCo, 2019c); The Coca-Cola Company global sustainability report 2018 (Coca-Cola, 2019b).

Note: From 2019, PepsiCo changed its report name from PwP to sustainability report.

The growing emphasis on corporate sustainability inspires numerous global organizations to put the effort into obtaining a sustainable future. Nestlé takes its sustainability approach as CSV, which focuses on the actions to create values not only for the shareholders but for the communities as well. Nestlé (2019c) prioritizes three areas for the long-term creation of value, which are nutrition, water, and rural development. Nestlé's approach towards its broad commitments is divided into Individuals and families, communities, and the planet (details in Subsection 4.3.1). These broad commitments are interconnected and reflected in its annual CSV reports.³⁴ Similarly, till 2018, the global sustainability agendas of PepsiCo used to be based on three pillars, which are: product, people, and the planet. On the product side, the focus is to continuously refine and provide broader food and beverage choices, reducing added sugars, saturated fat, and salt. On the planet side, their target is to reduce their environmental impact while pursuing their business, and on the people side, their focus lies on respect for human rights, promote diversity, and spur social and economic development in communities (details in Subsection 4.3.1). From 2019 onwards, PepsiCo has changed its approach towards sustainability³⁵ and the current focus areas are mentioned in Table 5.1. Whereas, The Coca-Cola Company has subdivided its sustainability goals into seven sub-goals, which are: packaging, by refiling and recycling the packaging material; water, by conserving water resources; giving back, by investing 1% of the company's annual operating income for the betterment of the communities; agriculture, by improving sustainable sourcing; women, by increasing their representation in the global value chain; human rights, for its employees and suppliers; and climate, by protecting the environment (Coca-Cola, 2019b) (details in Subsection 4.3.1).

Companies studied claim that they identify and execute sustainability goals in collaboration with diverse stakeholders.³⁶ Table 5.2 sheds light on various activities where companies involve their stakeholders to recognize and achieve sustainability objectives. Fieldwork reveals that companies studied share diverse resources with their stakeholders (see Section 7.2 for details) to perform sustainable business practices. The emphasis remains on the following activities: human rights, nutrition, hygiene and food safety, labelling, waste management, water conservation, responsible sourcing, improved farming practices, climate change, packaging, gender diversity, women empowerment, education, and anti-corruption.

³⁴ See details in CSV report, available at: <https://bit.ly/38tGVgI>

³⁵ The new CEO slightly changed the sustainability focus areas and sustainability disclosure pattern of the company. More emphasis has been given to help build a more sustainable food system.

³⁶ Example of bilateral and roundtable meetings with NGOs about plastics waste and sustainable agriculture have helped PepsiCo to shape their approach to implement policies and develop industry initiatives (PepsiCo, 2019c).

Table 5.2: Stakeholders' involvement in sustainability activities

| Stakeholders' categories | Sustainable activities on a global level | | |
|---|--|--|---|
| | Nestlé | The Coca-Cola Company | PepsiCo |
| Company representatives | Human rights, Nutrition Quotient (NQ), water quality and effluent discharge, water conservation, gender diversity, stress and resilience, and anti-corruption or anti-bribery | Human rights, workplace rights, waste management, water conservation, and safe water access, anti-bribery acts, and health and safety | Human rights, gender diversity, waste management, water conservation, and anti-corruption or anti-bribery |
| Academic and research institutes | Food ingredients, health, and nutrition | Packaging, reuse and disposal, water and sanitation | Research on farming, water issues |
| Customers | Nutritional composition of the food and beverage products and demand proper labelling and environmental information | Nutrition, safe water to communities | Supporting access to clean water, supporting women |
| Suppliers | Responsible sourcing, water conservation, and improving water efficiency in agricultural supply chain, product and technology development, labour rights impact assessment, and environmental assessment | Human rights, sustainable farming practices, to help suppliers and producers test and refine new techniques and methods, sustainable agricultural supply chain | human rights, responsible sourcing, sustainable farming initiatives, training for best practices to use less water, reduce emissions and energy, and increase the yield |
| Regulatory bodies | Guidelines for climate change issues, natural resources management particularly water, nutrition, hygiene, and food safety problems, and deforestation issues | Recycling, reducing plastic waste, water security, women empowerment, climate change, and worker's rights, Guidelines for food safety and nutrition | Guidelines for climate change, food, nutrition, women empowerment, water safety |
| Alliance and business partners | Water and sanitation, water stewardship, Climate change, and education | Human rights, waste management, packaging, water conservation, health and nutrition, women empowerment, and climate change | Water management, packaging and recycling, community development, food security, nutrition, health and well-being, access to light, and children education |
| International association | Climate change, water safety, and management, nutrition | Packaging, nutrition, women empowerment | Water issues, energy crises, sustainable approaches in agriculture, and social sustainability |

Source: Sustainability reports of companies studied from 2014 to 2018

The progress and the impact of sustainability agendas are reported through companies' KPIs. All the companies studied in this research report their sustainability performance in line with the reporting guidelines provided by the GRI (also mentioned in Table 5.1). However, sustainability reporting is not a compulsion, but a means to disclose companies' efforts towards securing the environment and society. The sustainability outcomes of the companies studied are discussed in detail in Chapter 8. Most of the large companies publish their global

sustainability reports annually, but sometimes their regional subsidiaries do not publish sustainability reports. For example, PepsiCo and The Coca-Cola Company publish global sustainability reports annually, but they do not publish sustainability reports for Pakistan. However, it is always challenging for companies to identify potential areas, determine sustainability performance, provide accurate and reliable information through reporting, and independent assurance of sustainability information, as also highlighted by Rezaee (2017).

5.2 Focal sustainability areas in Pakistan

Large multinational companies have a portfolio of diverse products and their scope of work is not limited to a single country (as mentioned in Subsection 4.3.1). The nature and scale of operations determine what they are currently doing and what they are aiming to do in the future. Along with the core business operations, companies studied run various CSR and sustainability programmes either on their own or in collaboration with partners. The identification of these sustainability programmes is fundamental in their planning and execution. Here we are structuring the empirical work in line with Schaltegger and Wagner (2006) and Kaur and Lodhia (2018), where the entire process of sustainability accounting begins with the identification and planning of sustainability issues. Fieldwork reveals that the local sustainability agendas of the companies are aligned with their parent global companies. One of the sustainability managers interviewed narrates that:

“[...] our sustainability agenda comes from the leadership team. We are bound to do that. For example, you might have heard about the world without waste, which is Coca-Cola’s agenda. We all have to work for it. It is a sustainability project, and everybody needs to work on it. We report our numbers and our report to the group office, and they issue a compiled sustainability report for us.”

Another company representative interviewed explains the company’s emphasis on core operations and narrates that:

“[...] we are more into rural development and once we talk about rural development, we are more into the dairy sector, because yes we are a dairy-based company. So, our vision is that, whatever we do, more of it has to be beneficial for the dairy farmers.”

Empirical excerpt reveals that companies identify and adopt those sustainability practices which are in line with their parent company policies and their core business operations, as also explained in the literature (Klettner *et al.*, 2014; Schrettle *et al.*, 2014; Dočekalová and Kocmanova, 2016). However, the business ecosystem, including local regulations, culture, religion, scarce resources, stakeholders’ pressures, and relationships may modify the global

sustainability agendas. Fieldwork identifies that inputs from the company's stakeholders not only identify sustainability areas in Pakistan but also exchange resources to create mutually valued outcomes. For example, Halal food certifications in Pakistan, that motivate companies to utilize halal ingredients certified from respective bodies, in their products (see Subsection 6.3.2 for details). Moreover, water conservation programmes are also in line with companies' policies and the country's requirements. One of the company representatives' interviewed quotes:

“[...] Pakistan is going through a national crisis of water scarcity, so we are investing in that because our industry also uses water as a raw material.”

Here we can understand that subsidiary companies identify sustainability agendas either through parent companies' guidelines or through legal requirements. Apart from legal obligations or company policies, sometimes companies voluntarily perform CSR or sustainability initiatives for the benefit of the community. As one of the sustainability managers of the companies studied explains that:

“[...] We make donations as part of our CSR projects, we also come up with sustainability projects that will help our community.”

Company representative 4 interviewed on 04/02/2019 also talks about voluntary activities and narrates that:

“[...] one of our sustainability pillars is volunteerism, which is to inculcate the culture of volunteerism within our employees.”

Fieldwork highlights that the most widely focused sustainability areas for the food and beverage companies studied in Pakistan are water conservation, responsible sourcing, waste management, nutrition, and human rights. These areas are extracted from the responses of various stakeholders and company documents.

Empirical excerpts related to the focal sustainability areas of the food and beverage companies studied are as follows:

Company representative 4 interviewed on 04/02/2019 explains the sustainability agendas of their company and narrates that: “[...] there are four main pillars that we are working on sustainability, which includes investing in youth empowerment, women empowerment, water, and volunteerism.”

Company representative 5 interviewed on 22/12/2019 also narrates that: “[...] there are three key focus areas: to improve our products, to protect our planet, and to empower people around the world in order to contribute solutions to shared challenges.”

Company representative 7 interviewed on 07/02/2019 discusses their sustainability philosophy and narrates that: “[...] on the sustainability side, we have a business philosophy of performance with purpose. Within that, we are working on the product, people, and planet. There is more focus on people and the planet because within Pakistan we need some more work to be done on those ends.”

Companies in Pakistan are not legally accountable to report their progress on any sustainability initiatives in Pakistan. Nestlé publishes a CSV report every year in Pakistan focusing on three major elements, which are: efforts for individuals and families, for communities, and for the planet. The remaining two companies, PepsiCo and The Coca-Cola Company publish global sustainability reports every year, but they do not publish them in Pakistan. PepsiCo Pakistan comes under the AMENA region, with no separate sustainability reporting. Whereas The Coca-Cola Company publishes global as well as regional sustainability reports. Pakistan comes under the CCI region, which publishes separate reports emphasizing creating values for customers and consumers, people, and communities. These three areas are focused on consumer well-being, customer value, human rights, human capital, community development, and environmental footprint.

Companies studied claim that they continuously engage with diverse stakeholders to identify the major social and environmental issues in a country. However, company representatives themselves argue that the company’s efforts towards sustainability are still evolving and they are trying to promote more sustainability efforts in the near future, due to its influence from diverse stakeholders. One of the company representatives interviewed talks about the lesser emphasis of the company on sustainability and states that:

“[...] I think 2019 onwards it will be a game-changer. In our previous few years, our CSR activities were not that much. Our activities were quite a few for example, once we went to meet schoolgirls and gave them a lecture on nutrition and hygiene, or once we gave donations during Ramadan. There were not any strategic long-term activities. But from 2019 onwards you will see many changes, you will see more and more talking in the public sphere or on media, social media as well particularly on water, nutrition, and youth development.”

Empirical illustration not only highlights a lack of sustainability efforts by the company but also pinpoints that company representatives talk about CSR activities and sustainability initiatives both at the same time. It depicts that the concept of sustainability is still evolving in Pakistan and even the employees of large multinationals are trying to understand the purpose and notion of sustainability.³⁷ However, within this evolving sustainability landscape, companies are ethically and sometimes legally bound to develop and execute sustainability targets. The identification and execution of sustainability activities require companies to collaborate and exchange resources with diverse stakeholders. Fieldwork identifies that various stakeholders interact and collaborate with companies studied to identify and achieve sustainability targets. Table 5.3 sheds light on different sustainability activities in Pakistan, where stakeholders are either jointly working with companies or benefitting from their sustainable activities. Types of resources shared among stakeholders for the execution of these activities are discussed in Section 7.2.

Table 5.3: Sustainable activities of companies in Pakistan

| Stakeholders' categories | Sustainability initiatives in Pakistan | | |
|---|--|--|---|
| | Nestlé | Coca-Cola | PepsiCo |
| Company representatives | Human rights, water conservation, waste management, gender diversity, stress and resilience, and anti-corruption or anti-bribery | Human rights, water conservation, safe water access, waste management, and anti-corruption or anti-bribery | Human rights, water conservation, waste management, and anti-corruption or anti-bribery |
| Academic and research institutes | Education, hygiene, nutrition, and water | Education | Food testing and safety, awareness programs |
| Customers | Safe and clean water, hygiene, nutrition, and education | Clean water to communities, women empowerment, education | Lighting up lives and Liter of Light campaign for the remote impoverished communities, sustainable mentoring to schoolgirls, scholarships |
| Suppliers | Training to farmers to improve yield, packaging | Packaging | Resource management, Sustainable Farming Initiative |
| Regulatory bodies | Water conservation, introducing drip irrigation at farms, Guidelines for environmental management, food, nutrition | Guidelines for environmental management, food, nutrition | Guidelines for environmental management, food, nutrition, introducing drip irrigation at farms |

³⁷ Interviews with company representatives reveal that sustainability is not a part of business model, but it is treated separately as an effort towards protecting the environment and wellbeing of the society. Fieldwork also shows targeted efforts of companies towards sustainability, mainly on water conservation, waste management, responsible sourcing, and nutritional programmes. Moreover, the notions of CSR and sustainability are still used interchangeably. Further details of evolving sustainability landscape in Pakistan are also reported by ACCA (2017).

| Stakeholders' categories | Sustainability initiatives in Pakistan | | |
|---------------------------------------|--|--|---|
| | Nestlé | Coca-Cola | PepsiCo |
| Alliance and business partners | Water and sanitation, education, supporting women, farmer training, tree plantation projects, waste management, environmental protection | Responsible water management, clean water to communities, tree plantation, packaging, nutrition and health, women empowerment, education, environmental protection | Resource management, water replenishment, tree plantation projects, promoting education |
| International association | Nutrition, diversity, water conservation | Nutrition, diversity, water conservation | Gender equality, safe water, sanitation, nutrition, and hygiene |

Source: Fieldwork (Company documents, web sources, and interviews)

The inclusion of stakeholders' aspirations and apprehensions by companies create mutually valued outcomes for companies as well as for the stakeholders. For example, legal bindings for safe and efficient use of water resources inspire companies to develop their sustainability agendas on efficient use of water and replenish this resource (see Subsection 6.3.3 for details). In such scenarios, companies embed the aspirations of regulatory bodies and international associations into their value systems. Similarly, requirements from the customers and regulatory bodies emphasize the need to introduce healthier food options and motivate companies to focus on the nutritional profiles of their products (see Subsection 6.1 for motivations of companies and stakeholders). These cases highlight the stakeholders' values, which legally and ethically motivate companies to pursue these goals. Fieldwork reveals that stakeholder values motivate companies to embed those values into the company's value systems. For example, nutritional values by customers spur companies to improve their products and add to product value as well as brand value (see Subsection 6.2.3 for values of companies for the sale of products).

Empirical illustrations related to the stakeholders' input for sustainability agendas are as follows:

Regulatory body 1 interviewed on 21/01/2019 states their aim and narrates that: "[...] Our preamble is the sustainability of the environment and we do awareness, enforcement to ensure sustainability."

Customer 3 interviewed on 09/02/2019 suggests companies to improve nutritional profiles of their products and states that: "[...] They can also launch some products like fresh juice range or drinks specifically for this region which are less harmful to the

health. Some healthy alternatives of carbonated drinks or increasing their nutritional profile can also add more value.”

Most of the sustainable practices identified by the companies are instrumental in nature because on the one hand, they emphasize the long-run stability of the companies and on the other hand, they provide monetary benefits and enhance the brand reputation. Companies then develop strategies to execute those sustainability agendas through interaction and resource exchange with various stakeholders (see Subsection 7.1.2 and Section 7.2 for details). Fieldwork discloses that these sustainability agendas mainly include water-related initiatives, awareness and training for responsible sourcing, waste management, nutrition, tree plantation, human rights, and anti-bribery. The following are the most emphasized sustainability agendas: water conservation; responsible sourcing; waste management; and, nutrition. These are discussed next.

5.2.1 *Water conservation programmes*

Pakistan is facing water crises and companies have now directed their attention towards securing this scarce resource (see Subsection 6.3.3). As an agriculture-based economy, Pakistan needs appropriate water management for its safety and usage. Companies in the food and beverage sector have recently started to collaborate with other stakeholders, for example, NGOs and regulatory bodies to battle the water crises. In recent times, companies in Pakistan are legally bound to pursue water conservation. Especially after realizing the danger of acute water shortage and companies are found guilty of remorselessly over utilizing this natural resource, as also highlighted by Johnson (2012) and Tencati and Pogutz (2015). One of the regulatory bodies interviewed condemns companies for over utilizing natural resources and narrates that:

“[...] recently Nestlé has paid heavy compensation on using excessive groundwater resources [...] According to news, Nestlé contributes to the decrease of the groundwater level that dries local water provisions for the sake of profit [...] groundwater extraction in Pakistan is unregulated and different users, such as public water providers, agriculture and industrial exploitation compete about the use of this scare source.”

It is identified that Nestlé, PepsiCo, and Coca-Cola are among the biggest bottled water companies in Pakistan and extracting the water resources of the country without any approval from the regulatory body. This issue is brought to attention after the notification from the Chief Justice of Pakistan in October 2018. Especially, Nestlé is accused of extracting 4.43 billion liters of water between 2013 and 2017 without any cost (Dawn, 2018). Consequently, now companies are legally and sometimes ethically driven to conserve water. Instances from the fieldwork reveal various water-related projects of the companies studied in the food and

beverage sector. For example, Coca-Cola is working on Paani Project, aimed at installing water filtration plants across the country. Similarly, PepsiCo is also working on a water replenishment project as one of its sustainability agendas. Nestlé has recently got certification from the Alliance for Water Stewardship (AWS)³⁸ for the ethical use of water resources. An increased emphasis towards efforts to utilize water resources sustainably has been witnessed from the fieldwork. One of the sustainability managers interviewed discusses the sustainable consumption of water and narrates that:

“[...] you know that Pakistan is going through national crises of water scarcity so we are investing in that because our industry also uses water as raw material, so our sustainability goal in water is that we have to be 100% neutral which means whatever water that we are extracting from the ground we can replenish back the same amount of water into the ground.”

Companies also realize that they cannot perform all such activities in isolation, so there have to be collaborative efforts between the communities, regulatory bodies, private sector, and NGOs. Fieldwork highlights examples of concerted efforts by NGOs, government bodies, and business partners, for instance, WWF-P collaborates with PepsiCo, Nestlé, and Coca-Cola for tree plantation, awareness for water and environmental conservation, installation of community filtration plants for clean and safe drinking water for communities, and groundwater replenishment system.

Empirical extracts related to the collaborative efforts for water safety and management are as follows:

Business partner 1 interviewed on 17/01/2019 talks about the water-related joint projects with the food and beverage companies and quotes that: “[...] with Coke we constructed community filtration plants, who will provide clean and safe drinking water for communities. Recently we are venturing into constructing a groundwater replenishment system with PepsiCo. So, there is a mix of both hard and soft measures.”

The international association also discusses the significance of collaboration among stakeholders to resolve water crises and narrates that: “[...] you cannot work single handily, it has to be a collaborative effort between the communities, the civil society, the political agents, and the private companies as well. So, it will be like a close

³⁸ AWS is a global membership collaboration comprising businesses, NGOs and the public sector, contributing to the sustainability of local water-resources through adoption and promotion of a universal framework for the sustainable use of water. Available at: <https://a4ws.org/about/>, assessed on 15/08/2019.

collaboration and how we all work together towards saving water and reducing the amount of wastage, which is there in the lots of systems that we have.”

Empirical excerpts highlight the importance of collaboration for resolving water-related issues. The needs for collaborative efforts for finding solutions to sustainability issues are also emphasized in the literature (Trencher *et al.*, 2013; Eccles *et al.*, 2014; Arnold, 2015; Aquilani *et al.*, 2016; Arnold, 2017; Keeys and Huemann, 2017; Aquilani *et al.*, 2018). Company practices to collaborate and exchange resources with stakeholders are discussed in detail in Chapter 7.

5.2.2 Responsible sourcing programmes

Along with the water-related projects, companies are also providing training to their suppliers and business partners for mutual benefits. On the one hand, the training improves the efficiency of the suppliers and on the other hand, suppliers are enabled to provide better production materials to the companies. Nestlé and PepsiCo provide different training programs for farmers, to improve farming practices, especially to use less water, reduce emissions and energy, increase the yield as well as to improve the livelihood of the farmers. In collaboration with the Prime Minister Youth Business Loan Program (PMYBL)³⁹, few commercial banks, and International Finance Corporation (IFC), Nestlé facilitates farmers with competitive financing solutions for farm extension, cow purchase, and to increase good quality fresh milk volume (Nestlé, 2018c). Similarly, PepsiCo is also working on resource management in the entire value chain and community development projects with its suppliers and business partners. In line with the global PepsiCo agenda, PepsiCo Pakistan is also supporting its farmers through the Sustainable Farming Initiative (SFI).⁴⁰ Through SFI, the company provides training to farmers on best farming practices to improve the quality and quantity of their yield and to reduce wastage.

Empirical extracts related to the sustainable farming initiative are as follows:

Company representative 2 interviewed on 20/01/2019 discusses the mutual benefits of sustainable farming practices for company as well as for the farmers and narrates that: “[...] when we improve the systems of our farmers, what happens is that they would become able to produce more milk in less cost, so their yield improves, their animals

³⁹ PMYBL is a programme started by the State Bank of Pakistan (SBP) in December 2013, to provide loans up to PKR. 2,000,000 to unemployed youth. These loans aim to promote entrepreneurial opportunities for youth and reduce unemployment and poverty in Pakistan. These loans are provided via banking system in Pakistan at the rates specified by the Government of Pakistan (SBP, 2013).

⁴⁰ See PepsiCo’s event details to promote sustainable farming, available at: <https://pepsico.com.pk/Newsroom/Detail?newsId=1063>, (Assessed on 20/09/2019).

become healthier, their financial become better in less cost, so basically their per liter cost of producing milk goes down. So, when that goes down then we, as the buyers of that milk get benefit in the cost and also get improved quality milk.”

Company representative 5 interviewed on 22/12/2019 explains the practices of SFI of their company and states that: “[...] So for that sustainable farming initiative, which is one of our initiatives, in which we partner with our farmers throughout the year. It is like making sure that they go through classroom training, making sure they understand what is expected out of that, making sure that how well PepsiCo can support them, and then on the ground our field staff, agro field staff, interact with them in their respective fields’ day and day out. That is how we co-create along with our partners.”

Companies are also collaborating with regulatory bodies for responsible sourcing initiatives. For example, the Agriculture Department of Punjab is jointly working with Nestlé on Nestlé Chaunsa Project mainly to improve the livelihood of farmers at Chaunsa farms. Pakistan Agriculture and Research Council (PARC), Environmental Protection Agency (EPA),⁴¹ Water Management Wing of Agriculture Department of Punjab are jointly working with companies to promote drip irrigation in communities to help save water, to introduce Hose Reel irrigation system at training farms, and to install a High-Efficiency Irrigation System (HEIS) on training sites for farmers (Nestlé, 2018c).

5.2.3 Waste management programmes

Waste generation is one of the biggest issues of every country (Esposito *et al.*, 2016; Killian and O'Regan, 2016) and business organizations are accused of contributing the most to this problem. That is why, companies are required to manage their wastes to cause less harm to the natural environment and society (Blount and Nunley, 2015). Waste management is instrumental in nature, because on the one hand it reduces the waste generated by the companies which improve the company’s efficiency and positively influence its reputation, and on the other hand it keeps companies compliant with the environmental laws. Fieldwork reveals that companies in the food and beverage sector are ethically and legally bound to reduce and reuse plastic packaging, reduce GHG emissions in their operations, and manage solid and liquid waste at the production facilities. EPA monitors the environmental impact of businesses in Pakistan and one of its representatives interviewed states that:

⁴¹ EPA is a regulator for all those private and public companies, using environment in any form either in aquifers, generating solid wastes, causing air pollution, dust, liquid waste of every type either municipal or industrial whichever is untreated, and gaseous emissions. EPA monitors the activities of all companies and imposes a penalty in case of non-compliance with its regulations. Available at: <https://epd.punjab.gov.pk/>, assessed on 14/08/2019.

“[...] basically solid, liquid, and gaseous emissions which are necessary components of any manufacturing industry, the environment is involved in that.”

In the case of non-compliance with environmental laws, companies are charged with penalties. Fieldwork reveals that multinationals are most of the time compliant with the local and international environmental laws and treat their wastes as per the standards and guidelines. Following is the quote from assistant director EPA:

“[...] From the environmental point of view, their most problematic issue is wastewater, but mostly we have noticed that multinationals follow the rules and regulations as compared to locals. They have a very good wastewater treatment plant at their facility and they even do chlorination of their wastewater before disposal. Which shows that they are following strict standards, and most of the time they try to meet the standards.”

Companies studied also argue that they are ethically and legally motivated to treat hazardous wastes and dispose of their wastes after proper treatment. Fieldwork reveals that these companies have installed waste treatment plants at their facilities and provide training to workers to help eliminate any kind of waste at the workplace.

Empirical illustrations related to companies' efforts towards waste management are as follows:

Company representative 2 interviewed on 20/01/2019 states their focus on waste management and narrates that: “[...] we are very conscious about few things: a) globally we are working on reducing the water wastage, that’s one of Nestlé’s global agenda, then on the waste side, on the paper and all the other wastes that are resulting into global warming, reducing them also have a strong place in our agenda.”

Company representative 5 interviewed on 22/12/2019 discusses the issue of waste generation and the company’s efforts to manage that waste and quotes that: “[...] so when it comes to waste management, obviously it’s a manufacturing plant, there are multiple wastes which get generated as an outcome of our manufacturing process. Now as a responsible corporate citizen, working in Pakistan, being compliant with the laws of EPA, we have certain protocols that we need to follow in terms of making sure that the waste is going to go at its appropriate place.”

Company representative 6 interviewed on 22/12/2019 talks about waste recycling at plant facilities and narrates that: “[...] we are trying to recycle our plant waste and reduce landfill directly from our plants. What we try is to achieve 100% of this objective, or to get less than 1% landfilled. Why less than 1%? Because certain types of

wastes for example medical wastes that are hazardous and that can be composted or normally, we have to incinerate it.”

Globally, companies studied are not only liable to keep their production wastes under control but also accountable to reduce the impact of their packaging waste on the environment. For example, Coca-Cola’s approach is to reduce environmental footprints through “Sustainable Packaging & Waste” (CCI, 2018b). This approach identifies the disposal of hazardous and non-hazardous wastes at manufacturing facilities by reuse, recycling, landfill, incineration, and recovery. However, the problem of waste generation and treatment is a serious matter of concern for Pakistan.⁴² These issues can create opportunities for local and foreign companies for waste collection and waste treatment. Nestlé Pakistan has recently seized this opportunity by starting a joint venture with a small company for the collection and treatment of tea waste and converting it into compost. Talking about the benefits of this compost, one of the company representatives narrates that:

“[...] The end benefits here are that if you use an organic fertilizer; a) whatever you produce from that organic fertilizer, whether its fruits or vegetables or anything else, is going to be healthier and better. It is going to be organic, compared to the urea that we used which is full of chemicals; b) the soil itself gets the benefit, because when a chemical-based fertilizer is used then the life of soil goes down [...] This is an ideal example of sustainability that is helping the earth, it’s actually improving the quality of the output that is coming out of that plant, whatever it is, fruit or vegetables.”

5.2.4 Nutritional programmes

Increasing awareness of customers about nutrition and institutional pressures from regulatory bodies and international associations motivate the food and beverage companies to focus on the nutritional profiles of their products. Multinationals in the food and beverage sector follow the guidelines of the World Health Organization (WHO)⁴³ and local food authorities for nutritional and healthcare standards. In Pakistan, these companies follow the guidelines of the local Food Authority to approve labels, ingredients, and nutritional claims on the products. Associate director Punjab Food Authority (PFA) interviewed on 08/02/2019 explains that:

⁴² Pakistan generates about 48.5 million tons of solid waste per year, which is still growing by 2% annually. The country is facing huge trouble in handling existing wastes and it lacks in Solid Waste Management System as well, Available at: <https://www.trade.gov/knowledge-product/pakistan-waste-management>, assessed on 20/02/2020

⁴³ WHO is a directing and coordinating authority on international health within the United Nations system, that works worldwide to promote health, keep the world safe, and to serve the vulnerable. Available at: <https://www.who.int/about>, assessed on 15/08/2019.

“[...] we are providing all companies’ regulations for food safety, quality, and nutrition and companies incorporate those regulations into their own systems and if they don’t do that then we can impose fine on them [...] though multinationals are following good standards as far as the hygiene is concerned and PFA didn’t find any hygiene issues with them. But there are some standards related to nutrition and labels which create problems sometimes and they have to comply with them. For example, there is a sign of lemon on Sprite bottle, but it is not the ingredient of Sprite, so we have asked them to remove it from their bottles.”

The abovementioned empirical illustration depicts that multinationals observe the rules of the land. However, due to clashes in some authorities, sometimes companies find it difficult to comply with all the regulations (see Subsection 6.3.1 for details). Legal pressures and choices of customers motivate companies to add healthier food options and improve their existing products.

Empirical excerpts related to companies’ approaches toward nutrition are as follows:

Company representative 5 interviewed on 22/12/2019 discusses the nutritional aspects of the products and narrates that: “[...] If we talk about product side then our focus is to continuously refine our food and beverage choices to meet changing consumer needs by reducing added sugars, saturated fat and salt, and by developing a broader portfolio of product choices, reaching more underserved communities and consumers.”

Company representative 2 interviewed on 20/01/2019 also quotes that: “[...] primarily what we aim to achieve is, we want to provide health and nutrition across Pakistan. All our products, that we manufacture, are very high on nutrition and they have the best quality.”

As part of CSR and sustainability agendas, companies sometimes provide training to communities on the importance of health and nutrition. For example, two initiatives by Nestlé are the Nestlé healthy kids’ programme and Healthy women programme. These programmes run in collaboration with other stakeholders. The company representative interviewed talks about training on health and nutrition and narrates that:

“[...] Then we have got nutrition awareness programs for school-going children. So again, the stakeholders involved in this project---we have got three stakeholders involved in just one programme, who are students, schoolteachers, and parents also.”

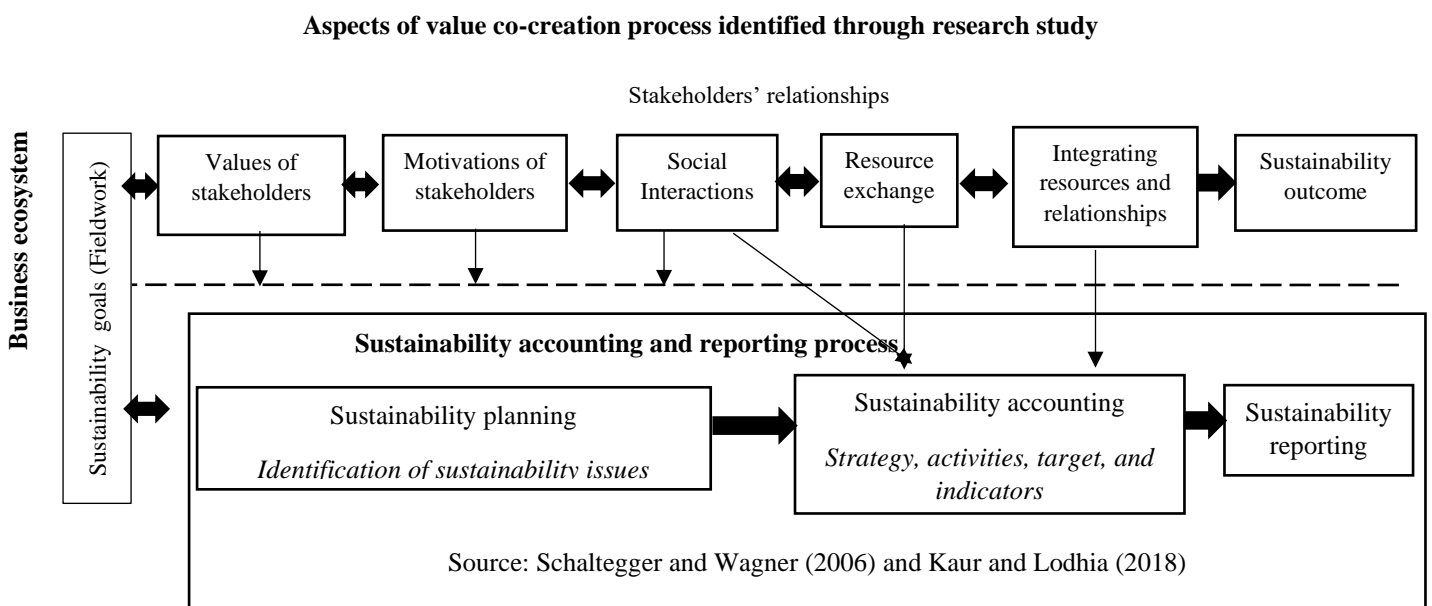
Along with water conservation programmes, responsible sourcing, waste management, and nutrition, companies are also running programmes for human rights of their stakeholders, tree

plantation, and reducing corruption at the workplace, which are identified from available reports and website sources. All these programmes are part of the core business operations and companies require interaction and collaboration with stakeholders to execute these programmes. The integration of stakeholders is fundamental in developing organizational practices to harmonize the interests of diverse stakeholders.

5.3 Overview of the chapter

This chapter aims to identify and describe the global and local sustainability agendas of the companies studied in the food and beverage sector. Fieldwork highlights that sustainability agendas of the subsidiary companies studied are identified through legal requirements of Pakistan, parent company’s policies, and sometimes voluntary. The empirical work explained in this chapter can also be aligned with the integrated framework for sustainability performance measurement by Schaltegger and Wagner (2006) and stakeholder engagement framework in the sustainability accounting and reporting process by Kaur and Lodhia (2018). The sustainability accounting and reporting process explained by Schaltegger and Wagner (2006) and Kaur and Lodhia (2018) begins with the identification and planning of sustainability issues, which is followed by the sustainability accounting phase and result in the development of sustainability reports. Figure 5.1 illustrates how the aspects of value co-creation processes identified in this research study are either providing input or overlapping with the sustainability accounting and reporting process. Both these processes begin with the identification of sustainability issues which are discussed in this Chapter.

Figure 5.1: Intersection of value co-creation process aspects and sustainability accounting and reporting process



Both these processes presented in Figure 5.1 are significant in guiding companies to understand target sustainability areas and the resources required to pursue those areas. Subsequent chapters discuss the linkages among various aspects of value co-creation processes and sustainability accounting and reporting processes. In both processes, accounting systems help companies in capturing the requisite resources to achieve sustainability goals and further paves the way to disseminate information about performance on those sustainability goals through reporting.

Globally, the food and beverage companies selected for this research study focus on the following sustainability activities: human rights, nutrition, hygiene and food safety, labelling, waste management, water conservation, responsible sourcing, improved farming practices, climate change, packaging, gender diversity, women empowerment, education, and anti-corruption. Subsidiary company agendas are in line with the global one, as the targets normally come from the global leadership teams. However, the business ecosystem, including local regulations, culture, religion, scarce resources, stakeholders' pressures, and relationships may modify the global sustainability agendas. The most widely focused sustainability areas in Pakistan are water conservation, responsible sourcing, waste management, nutrition, and human rights as identified from interviews and documented sources. Fieldwork identifies that stakeholders' values and motivations not only identify sustainability areas for companies but also motivate companies to interact and share resources for mutually valued outcomes. Companies interact and share diverse resources with stakeholders to perform sustainable business practices, which are discussed in the subsequent chapters.

Chapter 6

Motivations of companies and stakeholders to co-create values for sustainability

6.0 Introduction

This chapter aims to identify the motivations of companies and their stakeholders to co-create values for sustainable outcomes, as well as the role of the ecosystem in shaping these values and motivations. These aims refer to research question no. 2: “What processes are required to co-create values by multiple stakeholders?”. Motivation is a driving force for the value co-creation process. Motivation is influenced by the values of companies and stakeholders, which are further shaped by the business ecosystem. To elaborate this logic, four sections of this chapter encompass the following dimensions informed through fieldwork: Section 6.1 identifies and explains different motivations of companies and their diverse stakeholders to co-create values for sustainability, and Section 6.2 discusses values identified from the responses of companies and stakeholders. Section 6.3 elaborates on the role of the business ecosystem in supporting or hindering the motivations and values of companies and stakeholders to co-create values for sustainability. The last section summarizes the entire chapter.

6.1 Motivation-driving force to co-create value for sustainability

Schneider (2015) highlights the salience of democratic participation and collaboration of stakeholders in companies’ decision-making to handle complex sustainability issues. However, stakeholders’ collaborative behaviour is driven by multiple factors. Motivation is taken as a driving force in the co-creation of value for sustainability (Leclercq *et al.*, 2016). Motivation compels various stakeholders to behave in a certain manner and directs their actions in decision making, to take any initiative, or to participate in any project. Bansal and Roth (2000) identify various motives for corporate "greening," which are mainly: legislation, competitive advantage, pressure groups, ethics, and top management initiatives. Fieldwork reveals diverse motives of companies studied and their stakeholders as an important aspect of the value co-creation process for sustainability. Though most of the stakeholders do not understand that they are indirectly becoming a part of value co-creative processes for corporate sustainability, especially customers. Table 6.1 lists the diverse motives of companies studied and their stakeholders to involve in value co-creation processes for sustainability.

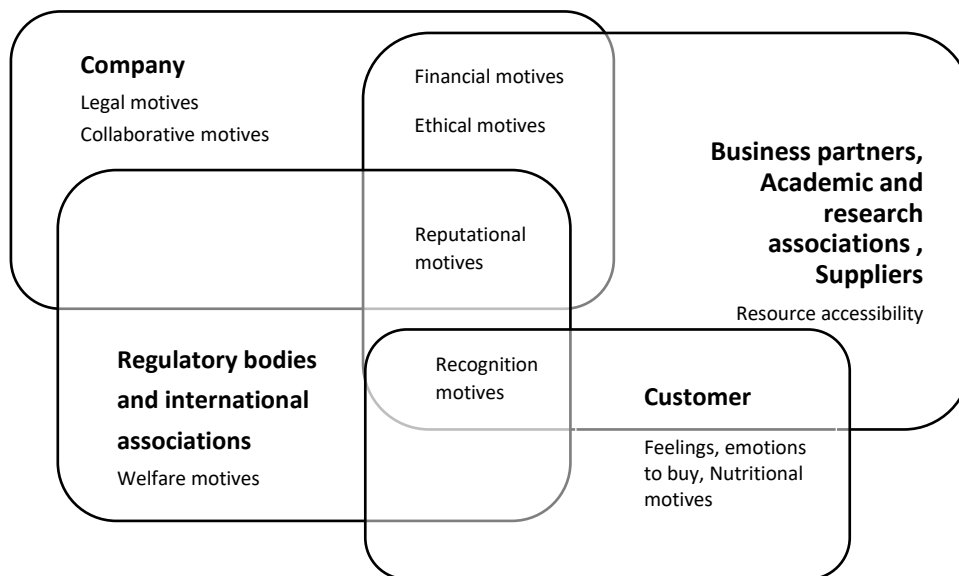
Table 6.1: Motivations to co-create values for sustainability

| <i>Stakeholders</i> | <i>Motivations</i> |
|---------------------|--|
| Company | Financial gain, Reputational concern, Ethical motives, Legal requirements, Collaborative motives |

| <i>Stakeholders</i> | <i>Motivations</i> |
|---|--|
| Business partners, Academic and research associations, Suppliers | Reputational gains, Recognition motives, Resource accessibility, Financial gains, Ethical motivation |
| Customers | Feelings and emotions to buy, Nutritional motives, Acknowledgement/recognition motives |
| Regulatory bodies, International associations | Welfare, Reputational, Recognition motives |

The diverse motives demonstrate the complexity of the value co-creation process, as only a few motives of stakeholders overlap with each other (see Figure 6.1). Companies, business partners, academic and research associations, and suppliers have financial and ethical motives in common to involve in the value co-creation process for sustainability. Most of the stakeholders including business partners, academic and research associations, suppliers, regulatory bodies, and international associations have reputational motives to exhibit their concern for sustainability. Customers and regulatory bodies also have recognition motives in common to get an acknowledgment of their actions.

Figure 6.1: Diverse motives of multiple stakeholders



All these motivations are further divided into altruistic motives and non-altruistic motives, as also explained in Subsection 3.2.3. Fieldwork reveals that most of the motivations are non-altruistic, as they are concerned about expecting any tangible or intangible reward for oneself. These motivations are divided into intrinsic and extrinsic motivations (Ryan and Deci, 2000). Where, intrinsic motivation is a drive to do something because of its inherent interest, and extrinsic motivation is a drive to do something with an aim to get a separable outcome (Ryan

and Deci, 2000). The reason to divide these motivations is to understand whether the motives to engage in the value co-creation process for sustainable outcomes are internally driven or externally driven. We can infer from the fieldwork that sustainable activities as a part of social responsibility and welfare are driven by ethical motives or intrinsic motives for mostly stakeholders, including companies, business partners, suppliers, international associations, and regulatory bodies. Similarly, customer motives to buy a certain food and beverage product is associated with the feelings and emotions to buy that product, which is an intrinsically motivated behaviour. Often this intrinsic motivation by the customers is not directly associated with the intention to co-create value for sustainability, but it leads to increased sales. Along with intrinsic motives, there are extrinsic motives as well to co-create values for sustainability. These motives are driven by various factors: sustainability initiatives as a source of getting acknowledgment are driven by reputational/recognition motives; sustainable activities as joint activities are either driven by the motive to access resources or collaborative motives; sustainability initiatives in response to the legal requirement are legally motivated; and, if such activities are used as a tool for financial gain then are financially motivated.

To explain the types of motivations, this section is divided into two subsections. Subsection 6.1.1 identifies and explains the motivations of companies studied to co-create values for sustainability, and Subsection 6.1.2 sheds light on the motivations of different stakeholders.

6.1.1 *Motivations of companies to co-create values for sustainability*

Motivations to co-create values for sustainability are divided into two streams of literature. The first stream emphasizes the key role of the company's motivations to co-create values (Leclercq *et al.*, 2016) and the second stream identifies the motives of companies to engage in CSR and sustainability initiatives (Bansal and Roth, 2000; Schaltegger and Burritt, 2018). This study combines both these aspects to identify the diverse motives of companies that inspire them to co-create values for enhancing corporate sustainability. Company documents, official websites, and responses from company representatives highlight the following objectives of corporate sustainability in Pakistan: water conservation, waste management, nutrition, responsible sourcing, human rights, and anti-corruption or anti-bribery. The efforts to achieve these sustainability objectives are driven by multiple motivations. Schaltegger and Burritt (2018) shed light on ethical motivations behind organizational sustainability activities, which coincide with the framework of ethical motivations from Roberts (2003). Schaltegger and Burritt (2018) identify four motives to engage in CSR and sustainability initiatives, which are a reactionary concern for short-term financial gain, reputational concern for the company's image, inside-out social and environmental responsible concern, and outside-in collaborative motivation.

However, all of these motivations are not only ethically driven but extrinsically determined. Fieldwork also identifies and discusses the abovementioned motivations along with the institutional pressures from the ecosystem to pursue towards sustainability initiatives. These motives are: (i) legal motives; (ii) financial and reputational motives; (iii) collaborative motives; and, (iv) ethical motives. These are further explained next.

(i) Legal motives

Legal responsibilities, institutional pressures, or legitimation (Bansal and Roth, 2000; Shah and Arjoon, 2015) are important driving forces towards sustainability initiatives. Fieldwork shows that regulators provide standards for industries and monitor their compliance and in the case of non-compliance impose penalties or take legal actions against them. There are various types of government authorities working with different industries in Pakistan. As evident in the case of the installation of the wastewater treatment plant at the factory area, which is imposed by the EPA. The implementation of the wastewater treatment plant not only secures business organizations from any legal charges but also improves the efficiency of the company's operations and its image.

Empirical excerpts related to the legal motivations of companies studied are as follows:

Company representative 3 interviewed on 26/01/2019 talks about their compliance with the environmental laws of Pakistan and narrates that: “[...] we have EPA on board, which is Environmental protection department, so how they contribute that is---it is there advice that matters. We keep their professionals on board with us. As control and checkpoints, we are open to their audits. We are open to their questions and make sure that while we are doing and whatever we are doing, we are meeting the government's criteria.”

Company representative 5 interviewed on 22/12/2019 also explains the compliance with regulatory bodies and narrates that: “[...] as a responsible corporate citizen, working in Pakistan, being compliant with the laws of government, we have certain protocols that we need to follow in terms of making sure that the waste is going to go at its appropriate place.”

Company representative 4 interviewed on 04/02/2019 also quotes that: “[...] every country has its own policies. For example, the food authority, their regulations are a bit different from what international standards are, but still, we comply with the local food authority.”

During fieldwork, all the multinational companies agree that they follow the rule of the land and if any regulations within Pakistan are different from the international ones, then they go for the local ones. Details of various regulatory bodies and their scope of work are provided in Appendix J. Company representatives also highlight the complexities of complying with regulations in Pakistan. These complexities arise sometimes due to the clashes in the regulatory bodies. It is observed and identified that there are separate standards for water and food in different provinces and if a company is operating in all provinces then it requires to comply with the local provincial laws. Company representative 1 interviewed on 19/12/2018 explains the clashes in the food regulations in Pakistan and narrates that:

“[...] If you talk about food regulations then they are different. You see that there is the global code, that is WHO code but again we have the local code also that is more stringent, harder to face. For food, if I’m not making the mistake, the regulatory policies or the food policies or the food laws are different for even every province. Punjab has got its own department, PFA. So, every province has different policies, and over and above there is a fifth party sitting in the federal government and they have got their own regulations. So, it’s not that easy over here.”

Another difficulty which companies face while operating in Pakistan is corruption.⁴⁴ Company representative 4 interviewed on 17/01/2019 pinpoint the corruption issue in Pakistan and narrates that:

“[...] although not to be quoted but you know the kind of requirements that you may get from the government authority when you are dealing with them. Although it is a big challenge for us, as we are not even allowed to give a bottle of coke to the government authority because it might be perceived as bribery [...] there is a general perception over here in Pakistan that you cannot get the work out of government stakeholders unless you give bribery to them.”

The abovementioned illustration depicts the intricacies for companies while operating in Pakistan. The issues of clashes in regulations and corruption, complicate the business ecosystem and poses challenges for companies to deal with them. Some of the regulations in Pakistan are also developed on the basis of religious accounts and cultural aspects and such regulations are driven by cognitive pressures in an ecosystem, for example, mandatory Halal certification for the food and beverage products (see Subsection 6.3.2).

⁴⁴ According to corruption perception index, Pakistan is ranked 117 out of 175 countries. The Corruption Perceptions Index ranks countries and territories based on how corrupt their public sector is perceived to be. Available on: <https://tradingeconomics.com/pakistan/corruption-rank>, assessed on 12/08/2019.

(ii) Financial and reputational motives

Financial and reputational motives are consistent with the reactionary concern for the short-term financial gain and reputational concern for the company's image (Schaltegger and Burritt, 2018). Companies are concerned with the cost-benefit analysis of any of their initiatives. Financial gain is the primary objective of any business organization and whenever a company is involved in a value co-creative activity for sustainability purposes, it directly or indirectly gets financial benefit from this initiative. On the one hand sustainability initiatives enhance the reputation and image of the company, and on the other hand, it gains the trust of customers to buy its products which ultimately raises the sale volume and profitability for the company. Schaltegger and Burritt (2018) name the reputational motive of sustainability as narcissistic motivation. Where companies are involved in voluntary or mandatory sustainability and CSR initiatives to seek applause from stakeholders. Company representative 7 interviewed on 07/02/2019 highlights the benefits that the company expects from CSR or sustainability initiatives and narrates that:

“[...] it depends on the type of projects. For example, if we see the case of CSR then we expect a charitable outcome from that. If we want to give education to a thousand kids, then, it is, for example, one KPI. Along with that we also have reputational advantages as well. For example, if we work with WWF, then we get the benefit of working with a neutral, credible third party.”

Reputational motives shape the mind-set of stakeholders and positively influence the brand image and ultimately financial gains for the company, as expressed by Miles and Covin (2000) and Schaltegger and Burritt (2018). Shah and Arjoon (2015) also highlight this issue and substantiate that the organizational perspectives towards corporate sustainability are dominated by economic rationality and the availability of resources. It depicts that economic rationality is a primary driving force to take any decision regarding corporate sustainability. Big multinationals in Pakistan, such as Nestlé and PepsiCo are involved in sustainability initiatives and collaborating with multiple stakeholders for achieving this purpose,⁴⁵ but they are concerned about the cost-benefit analysis of any initiative. Company representative 3 interviewed on 26/01/2019 discusses the financial viability of projects and narrates that:

⁴⁵ Nestlé collaborates and engages with a wide range of stakeholders to improve and set the priorities for their Creating Shared Value (CSV) strategy. See details of collaborative initiatives of Nestlé Pakistan for sustainability on <https://www.Nestlé.pk/csv>, accessed on 09/08/2019.

“[...] when we are investing through a project then we need to invest and work with the right people and ensure that the right number of people can benefit from it, including our company.”

Institutional pressures, reputational gain, and economic rationality are found to be significant extrinsic drivers behind co-creating values for sustainability by companies. These extrinsic motivations are of instrumental value (Shah and Arjoon, 2015), as they protect companies from any legal penalties and lead to their operational efficiency.

(iii) Collaborative motives

Outside-in collaborative motivations are also important in driving the company's approach towards sustainability (Schaltegger and Burritt, 2018). Businesses not only face the issues of resource accessibility but also face difficulties in structuring and utilizing the available resources for sustainability. The issue of resource availability has been managed with the inclusion of stakeholders, as companies are now more interested in integrating resources with multiple stakeholders, which are driven by collaborative motives to achieve the objectives of sustainability. Companies are not only exchanging resources for mutual benefit but also trying to adopt strategies to collaborate and sustain natural resources. For example, companies in the food and beverage sector use abundant water resources and as the problem of water scarcity is rising in Pakistan, these companies are developing strategies for water replenishment in areas near their factories. Moreover, to execute such initiatives, companies require expertise and support from various other organizations. PepsiCo Pakistan has recently started constructing a water replenishment project, in collaboration with WWF-P, to give back the groundwater PepsiCo is using in its operations. These collaborative motives are further driven by the company's core values and legal requirements of a country.

Empirical illustrations related to the collaborative motives of companies are as follows:

Company representative 6 interviewed on 22/12/2019 explains the collaborative project with an NGO and narrates that: “[...] you might also have heard about a liter of light initiative, for that we worked with a local NGO, Roshni foundation. So, these initiatives were not within our organization, they were for the benefit of society. This is how important our sustainability is and how important it is to work with different stakeholders”.

Company representative 3 interviewed on 26/01/2019 also highlights the joint efforts of companies and different stakeholders and explains that: “[...] One of our CSR's project that has been there in place is Pani, that is- we been there installing water filtration plants

across the country, in different cities. This is also aligned with the government, and some NGOs to ensure that the investment we are doing is the right thing and we are doing value addition. Such outcomes arise when you align with the stakeholders.”

(iv) Ethical motives

Along with the institutional pressures, reputational gains, collaborative motives, and economic rationality, companies have sometimes inside-out concerns for social and environmental responsibility (Schaltegger and Burritt, 2018). Inside-out concern for sustainability coincides with the ethical motivations of companies and sometimes driven by legal requirements. Bansal and Roth (2000) also highlight the ethical motivations of companies as a response to the "right thing to do". In this case, company core values and business ecosystem are influential in inspiring companies to be ethically motivated to identify their role in society.

Empirical illustrations related to the ethical motivations of companies are as follows:

Company representative 2 interviewed on 20/01/2019 highlights the core values of the company in shaping their activities and narrates that: “[...] there are two or three things that we are really very conscious about, a) globally we are working on reducing the water wastage, that’s one of Nestlé’s global agenda, then on the waste side, on the paper and all the other wastes that are resulting into global warming, reducing them also have a strong place in our agenda.”

Company representative 3 interviewed on 26/01/2019 also explains their accountability to meet international standards and describes that: “[...] we have very stringent benchmarks for ourselves when it comes to sustainability. We have a very strong conscious and we keep it above the local requirements because we are affiliated with an American company and those are the policies that we need to implement. So, we have KPI’s and we monitor them, we find ourselves answerable for them and we have to give justifications if we are unable to meet KPIs or we exceed our limits.”

Ethical motivations are driven by ethical values, which are shaped by the business ecosystem (See details in Subsection 6.2.1). Thus, we identify five diverse motives of companies to co-create values for sustainability, which are legal motives, financial gains, reputational concerns, collaborative motives, and ethical motives. Ethical motives are internally driven and remaining motives are mostly extrinsically determined. These motivations drive companies to co-create values for sustainability initiatives. For example, legal and ethical motives drive water conservation, waste management, nutrition, and responsible sourcing. All these motivations are

interwoven and cannot be isolated. Moreover, they impact other stakeholders' motivations and vice versa.

6.1.2 Motivations of stakeholders to co-create values for sustainability

Most of the studies have focused on the motivations of companies and customers to engage in the co-creation of value and have not shed much light on the motivations of other stakeholders in the value co-creation process. Schneider (2015) emphasizes that incorporating stakeholders beyond the economic gain is morally induced. Pera *et al.* (2016) identify reputation enhancement, experimentation, and relationship as significant motives of multiple stakeholders to involve in the value co-creation process in Universal Exposition 2015, Italy. However, the motivations of diverse stakeholders to co-create values for sustainability are underrepresented in the literature. This subsection sheds light on the motivations of diverse companies' stakeholders in co-creating values for sustainability, including: (i) motivations of business partners, research institutes, and suppliers; (ii) motivations of customers; and, (iii) motivations of regulatory bodies and international associations. These are discussed next.

(i) Motivations of business partners, research institutes, and suppliers

Fieldwork reveals that most of the stakeholders, who are involved in joint projects with the food and beverage companies are interested in a mutually beneficial relationship. Small companies, NGOs, research alliances, and suppliers engage with large private companies because they consider that these companies have a large footprint on the country and possess plenty of resources. Nestlé being one of the largest bottled water and food suppliers, Coca-Cola and Pepsi being among the largest beverage companies, have a huge market in Pakistan.

Empirical excerpts related to the mutually beneficial relationships among stakeholders are as follows:

Packaging supplier interviewed on 12/02/2019 explains the conjoint relationships with the companies studied and narrates that: “[...] our relationship values us most in supplying materials to these companies. It is a mutually beneficial relationship that we enjoy. It’s a growing concern, we do business, so do they.”

Founder of TrashIt⁴⁶ interviewed on 05/04/2019 highlights the beneficial aspects of developing a partnership with a large company and explains that: “[...] for us it’s, of course, beneficial that doing something like this requires an initial capital, it also requires an approach to the market, it also requires to do a lot of marketing, awareness,

⁴⁶ It is a social enterprise aimed to achieve a ‘Zero waste to landfill’ goal by processing organic waste into compost. See details on: www.trashit.pk

and I think Nestlé fits in with that. For Nestlé, their core idea is to use it as their CSV and to show that they are doing something good for the community by supporting the youth in the waste management stream. I think their objective is also met as they don't have to start a new business and they found the partner who is doing it and to whom they can support, so it's good enough for them too."

The illustrations quoted above also depict that on the one hand collaboration with large companies has economic and reputational benefits for smaller companies, and, on the other hand, large companies also get the advantage because of the expertise of smaller companies and NGOs and jointly integrate resources for mutual benefits. We can infer that companies and their business partners have extrinsic motives to participate in joint activities. One such example is the Henry Nestlé programme, which invites stakeholders to present any innovative idea or to come up and join hands in addressing pressing issues, such as reducing carbon footprints or plastic footprints. These initiatives not only have a positive impact on the society and environment but also have reputational and financial benefits for the parties involved in those initiatives.

Empirical extracts related to the economic and reputational motivations of business partners are as follows:

Head of food department at Pakistan Council of Scientific and Industrial Research (PCSIR) interviewed on 02/05/2019 talks about the economic benefits and narrates that "[...] there is mutual interest. We provide analytical services to companies and they pay fees in return. Nowadays every department is encouraged to have a self-sustainable structure. It means that they should reduce their expenditure, reduce overheads, and improve earnings. So, we earn through projects, consultancy services, and testing."

Business partner 1 interviewed on 17/01/2019 discusses the reputational advantages and narrates that "[...] when such large companies like Nestlé and PepsiCo come to us, it also improves our standing, it increases peoples trust on us. So, it is a two-way benefit." And discusses the recognitional motives "[...] for us the incentive is the work that we do, the knowledge that we build is shared and it gets recognized. So, recognition is one of the biggest incentives that we look for. Because what we work for and our model of working is very science-based. We rely a lot on information and data, to produce evidence. Evidence is something that we want to communicate forward and if there is an approval and recognition on that evidence, so I think that is the biggest incentive that we get out of our work."

There are some NGOs in Pakistan that are specifically working for the welfare, for example, WWF-P and CARE foundation. These NGOs are ethically driven towards their purpose and their moral values lead to their ethical conduct, as explained by Rest (1986) and Thorne (1998). For example, the CARE foundation is working to promote early education across Pakistan, and to achieve this purpose, it is collaborating with large companies. Fieldwork depicts that partnerships with large companies have benefits in terms of reputation enhancement, collaborations for relationship building, financial gains, and access to resources. Large companies have motives to gain knowledge and expertise, develop relationships, and enhance their image in the community. It shows that collaborative relationships between companies and business partners are mutually beneficial. Business partner 1 interviewed on 17/01/2019 sheds light on the collaborative motivates of business partners:

“[...] since we deal with a lot of water resources, so working alone with the government is not enough. You have to bring in all types of stakeholders and private stakeholders hold great equity and you know water, particularly in terms of the business that they do, so I think engaging with them...not just engaging but also formalizing them, coordinating with them and to create an impact is very important.”

We can say that resource accessibility, reputational gain, financial gains, and ethical motivations are important driving forces for various stakeholders, such as alliances, business partners, academic and research partnerships, and suppliers, in co-creating values to enhance sustainability.

(ii) Motivations of customers

Fieldwork reveals that from the customers' viewpoint, reasons to get involved in value co-creating activities vary according to the circumstances. Busser and Shulga (2018) quote Holbrook's (1999) explanation of factors contributing towards co-creation of value from a customer perspective, which are: reputational advantages, recognition, developing ties, belongingness, and reciprocal learning (Shah, 2006; Jaweck, 2008). Busser and Shulga (2018) emphasize recognition, fun, and better outcome as important drivers for co-creation for customers. Recognition is identified to be an important driver for the value co-creation process (O'cass and Ngo, 2011; Jaakkola and Alexander, 2014). Most of the customers in the food and beverage sector are involved in buying products that are related to the feelings, emotions, and instincts to buy something. We can categorize customer motivations into intrinsic and extrinsic motivations (Ryan and Deci, 2000; Vivek *et al.*, 2012), as most of the time customer motivations are a mixture of both intrinsic and extrinsic motives. Fieldwork identifies that buying behaviours of customers are very much influenced by physical or psychological values

(see Subsection 6.2.3). Customer 5 interviewed on 29/01/2019 discusses the feelings and emotions of a consumer, which influences buying decision, and narrates that:

“[...] every type of customer, belonging to any social class uses Nestlé juices, either middle class, high class, or upper-middle class, and they all consider Nestlé as a good brand. So rationally, irrationally or emotionally, it's in the back of my mind that if I have to take anything to anyone's place then it has to be Nestlé juices.”

We can simply say that customers buy products because of intrinsic motivation, as it gives pleasure, joy, and satisfaction to them. Buying decisions depend on diverse customer value perceptions, for example, emotional value, functional value, and nutritional values (See details in Subsection 6.2.3) which can be extrinsically or intrinsically driven. Apart from buying, customers are also sometimes motivated to share their views or give feedback about the products to the company. The motives behind such actions are mostly extrinsic, with the desire to get acknowledgment for their information sharing. The notion to get acknowledgment for sharing information depicts the motive of recognition (O'cass and Ngo, 2011; Jaakkola and Alexander, 2014; Busser and Shulga, 2018).

Empirical excerpts related to the recognition motives of customers are as follows:

Customer 3 interviewed on 09/02/2019 narrates that: “[...] if customers have this assurance that if there are some serious issues in the product and their complaints and information sharing will be acknowledged then it would be easier for a customer to communicate and freely share their views.”

Customer 5 interviewed on 27/02/2019 also explains that: “[...] this would be the major expectation that company gives value to its customers by listening to them and in return, it will add confidence of customers in the brand.”

These illustrations highlight that customers have both extrinsic and intrinsic motives to buy the products or to share information with the company. Most of the time customers are unaware that their mutual value creation is impacting corporate sustainability. For example, buying products is creating economic value for companies, which inadvertently leads to the economic sustainability of the company.

(iii) Motivations of regulatory bodies and international associations

Regulatory bodies have broader motives, as they provide guidelines and standards for various sectors to ensure overall wellbeing for the society and environment. Kemp *et al.* (2005) identify the role of government for sustainability, mainly through governance. Major sustainability issues confronting Pakistan these days are water scarcity, climate change, health and wellbeing,

waste management, and education. Though regulatory bodies use legal tools to bring these agendas into notice by organizations, regulatory bodies themselves have reputational and recognition motives for sustainability. They want to depict their commitment and responsibility to the society and environment through their regulations.

Empirical illustrations related to the welfare motives of regulatory bodies are as follows:

Regulatory body 1 interviewed on 21/01/2019 highlights their goal of sustainability and narrates that: “[...] our preamble is the sustainability of the environment and we do awareness, enforcement to ensure sustainability.”

Regulatory body 3 interviewed on 27/01/2019 also explains their aim to treat and dispose of company wastes and quotes that: “[...] our major concern is not on the products of companies; we are concerned with the outlets of waste at their facilities. So basically, we monitor the quality of waste generated and disposed of after the production of the products. Sometimes we do sampling to identify variations in wastes.”

Similarly, international associations, such as AWS and WHO provide guidelines for companies to represent their responsibility towards the planet and people, which is also ethically and reputational driven. However, companies have legal and ethical motives to comply with the regulations of the government as well as following the standards of international associations. The country coordinator of AWS interviewed on 13/02/2019 pinpoints its welfare motives and narrates that:

“[...] creating a local strategy particularly for Pakistan to increase its outreach, to involve more public-private partnerships in it and further to create a water stewardship network and to strengthen it in the future.”

Regulatory bodies enforce regulations to fulfill their objectives and to depict their presence. Fieldwork also identifies that sometimes regulatory bodies are influenced by political pressures and they take decisions to continue their smooth working and to protect their reputation. Regulatory body interviewed mentions the political influence on their working and quotes that:

“[...] many government projects such as ring road, motorways, are at priority by government and in such cases, we have to face some political interference. So rather than applying our minds in such scenarios, we have to see government priorities to approve the project. For example, thermal power stations were established in the last government and they wanted them to be made near population to show people that they

are doing something and if they make such plants in unpopulated areas then nobody would come to know this.”

In short, regulatory bodies and international associations have welfare motives, driven by intrinsic factors, and sometimes they have reputational, or recognition motives as well, also known as extrinsic motives to involve in the value co-creation process. Most of the motivations of various stakeholders discussed in Section 6.1.2 are extrinsically driven, which depicts the desire to get any kind of tangible or intangible reward for engaging in sustainable activities. However, these motivations are driving forces to put efforts for sustainable outcomes, particularly to deal with water crises, manage wastes, enhance the nutritional profile of the food and beverage products, responsible sourcing, protection of human rights, and minimize corruption at the workplace. Both intrinsic and extrinsic motivations of stakeholders are dependent on their value perceptions. That is why it is important to understand the notion of value and types of values identified and categorized from the responses of companies and stakeholders in the field.

6.2 Value

Value is determined by the subjective perceptions of stakeholders to consider anything valuable or significant from their lived experiences in a particular context (Zeithaml, 1988; Mathwick *et al.*, 2002). Co-creation experience depends very much on an individual’s recognition of value (Prahalad and Ramaswamy, 2004). Fieldwork reveals that value is very much related to the context in which it is realized and evaluated. Literature sheds light on different types of values as mentioned in Subsection 2.2.1, including emotional values, symbolic values, hedonic values, functional values, monetary values or economic values, social values, conditional values, rational values, and utilitarian values. However, these values are mainly focused on perceived customer values and company values, ignoring the values of other stakeholders. Though other stakeholders, such as business partners and suppliers can have similar values mentioned above. The complexity of identifying and dividing the values of diverse stakeholders led us to categorize these values into three groups: (i) ethical values; (ii) mutually beneficial values; and, (iii) values associated with the sale and utility of the products. The first two types of values are concerned with companies, academic and business alliances, research partnerships, suppliers, and international associations. Whereas values associated with the sale and utility of the products are discussed from the perspectives of companies and customers respectively, as customers are the buyers and users of the products.

Various types of values are identified through fieldwork and these values are sometimes explicit and most of the time embedded in stakeholders’ actions and responses. Ethical values,

especially integrity and accountability are important from the perspectives of companies, academic and business alliances, research partnerships, suppliers, and international associations. Mutually beneficial values, including economic gains, technological advantages, and reputational gains are also dominant from the perspectives of companies and various stakeholders. Along with these values, companies are mainly concerned about developing a product that could give them monetary benefits and enhances their brand image. However, customers are concerned with values associated with the purchase and utility of the products, such as emotional, symbolic, functional, monetary, nutritional, and social value. These values are discussed in Subsections 6.2.1, 6.2.2, and 6.2.3.

6.2.1 Ethical values

Ethical values are associated with the right conduct. Ethical values are sometimes taken as a value-based approach that relies on self-policing and motivation, rather than on legal bindings (Ferrell *et al.*, 2015; Chun, 2019). From the company's point of view, ethical values are associated with decision-making regarding selection for the trade-off between goodness for oneself or another. Stakeholders, such as alliances, suppliers, regulatory bodies, customers, and international associations are also concerned about their own ethical values and emphasize the moral responsibilities of companies with which they are associated. Regulatory bodies and international associations find themselves accountable for their work. They provide and enforce standards and guidelines for companies to ensure their compliance with the rules and regulations. Regulatory bodies are accountable for approving any business and giving them a No Objection Certificate (NOC) before the commencement of business. Director of Intellectual property organization (IPO) interviewed on 29/01/2019 states that:

“[...] whenever a company comes for registration for their trademark then we have to ensure that the company is not producing anything which is against public morality, public health, and environment.”

Business and academic partners, suppliers, regulatory bodies, and international associations have their own work ethics, and they are concerned with the work ethics of companies with whom they are in a relationship. Business partner 1 interviewed on 17/01/2019 pinpoints their ethical responsibilities and narrates that:

“[...] in terms of value, it is really important to understand what sort of impact we are going to generate [...] we try to create new values for communities, in terms of livelihood, in terms of value addition in ecology and the environment in which we are living.”

Ethical values shape the moral perceptions of stakeholders and motivate them to behave in a certain manner (as explained in Section 6.1). Fieldwork reveals that the ethical values of all stakeholders are shaped by various factors in an ecosystem including regulations, region, culture, and industry (see Section 6.3) also highlighted by Chun (2019). These ethics reflect beliefs about what is right or wrong for oneself and for others. Stakeholders' awareness and concerns about sustainability, companies' ethical resource utilization, and right business conduct, raise their expectations from companies.

Empirical excerpts related to stakeholders' expectations of ethical values from companies are as follows:

Regulatory body 2 interviewed on 27/01/2019 directs attention towards the company's ethical responsibilities and narrates that: "[...] bigger industries and ethical businessmen think that they have to fulfill their social responsibility and they do it regardless of its cost".

Business partner 1 interviewed on 17/01/2019 pinpoints their expectations from companies by emphasizing on company's ethical responsibilities and narrates that: "[...] they should be ethically responsible, we are very particular about the companies in terms of how ethically they are operating in a system, so that's really important; and the fairness of doing business is also very important. Unless we have that level of trust with our partners, we cannot work any further."

Company representatives interviewed discuss that their values are shaped by the legal requirements of a country and one of them narrates that:

"[...] like any other corporate, we have to cope with the rule of the land first. So, we have to follow. The first values that we have to follow are the rule of the land and then comes the aspirations of the community that we live and work with."

The findings from the fieldwork demonstrate that companies have ethical values embedded in their codes of conduct, as depicted in Table 6.2.

Table 6.2: Codes of conduct of Nestlé, PepsiCo, and The Coca-Cola Company

| Company | Nestlé | PepsiCo | The Coca-Cola Company |
|-------------------------|---|--|-----------------------|
| Codes of conduct | i. Nutrition, health, and wellness | i. Care for customers and the world we live in | i. Leadership |
| | ii. Quality assurance and product safety | ii. Speak with truth and candour at all times | ii. Collaboration |
| | iii. Consumer communication | iii. Respect others and succeed together | iii. Integrity |
| | iv. Human rights in our business activities | | iv. Accountability |
| | | | v. Passion |
| | | | vi. Diversity |
| | | | vii. Quality |

| Company | Nestlé | PepsiCo | The Coca-Cola Company |
|---------|---|---|-----------------------|
| | v. Leadership and personal responsibility | iv. Sell only products we can be proud of | |
| | vi. Safety and health at work | v. Win with diversity and engagement | |
| | vii. Supplier and customer relations | vi. Balance short-term and long-term | |
| | viii. Agriculture and rural development | | |
| | ix. Environmental sustainability | | |
| | x. Water | | |

Sources: (Nestlé, 2010); PepsiCo Pakistan, Our Values and Philosophy, <https://pepsico.com.pk/Page/Index/OurValuesandPhilosophy>, Assessed on 10/08/2019; The Coca-Cola Company, Missions, Visions & Values, <https://www.coca-colacompany.com/our-company/mission-vision-values>, Assessed on 10/08/2019.

These codes of conduct are companies' global philosophies and company representatives argue that these are their way of living and the same mindset goes not just for their internal employees but also goes to their external stakeholders. Company's codes of conduct, most of the time fall under legal responsibility, rather than their willful conduct (Ferrell *et al.*, 2015; Chun, 2019). Chun (2019) argues that legal responsibilities are the company's compliance-based approach and named it as a 'box-ticking exercise' rather than an actual willingness for any moral conduct. However, ethical values are not only related to compliance with codes of conduct but also adherence to the general moral values for the welfare of the society (Sullivan *et al.*, 2007; Valentine *et al.*, 2011). Company representative 3 interviewed on 26/01/2019 discusses the compliance-based approach of companies and narrates that:

“[...] so, we have KPI's, and we monitor them, we find ourselves answerable for them and we have to give justifications if we are unable to meet KPIs or we exceed our limits.”

This empirical extract depicts that companies studied have certain rules and employees are bound to follow those rules. Fieldwork demonstrates that not all of the codes of conduct mentioned in Table 6.2 are given equal importance. Companies are more concerned with integrity in dealing, care for customers, human rights, and accountability. Accountability and integrity are moral dimensions of the codes of conduct of companies. These moral dimensions or ethical values are also highlighted by various stakeholders, especially accountability, as it focuses on the ethical use of resources and realizing the company's responsibilities towards society and the environment. Accountability in this sense is taken as a quality of being accountable to mitigate the harmful consequences of business activities on society (Ramasastry, 2015). It is more concerned with the moral responsibility of the companies to take decisions

(Odongo and Wang, 2018) that are beneficial for not only their organization but for the society and environment at large. Fieldwork identifies that companies studied seek accountability not just with the physical environment but also in stakeholder relationships (see Section 7.1 for details). For example, companies find them accountable for the use of scarce resources, such as water.

Empirical illustrations related to the company's accountability are as follows:

Company representative 6 interviewed on 22/12/2019 focuses on their accountability for the physical environment and quotes that: “[...] we truly believe that we are using resources from our society and we have to give it back to them as well.”

Company representative 3 interviewed on 26/01/2019 also narrates that: “[...] from energy resources to water consumption to any other resource we are using, we find ourselves answerable to them of what we are doing.”

Integrity is also one of the most cited business ethics (Cox *et al.*, 2001) and it is concerned with the reputational aspect of the business, such as trustworthiness and honesty (Butler Jr and Cantrell, 1984). One of the company representatives' interviewed highlights integrity as their core value and narrates that:

“[...] in order to have transparency and to find ourselves accountable, we need to work with integrity.”

Ethical values motivate companies to emphasize inside-out concern for social and environmental responsibility, either driven intrinsically or extrinsically. Earlier companies used to invest only a specific percentage of their profits in CSR programmes. But now companies have shifted their direction to corporate sustainability (mentioned in Subsection 4.3.1), which is not limited to invest a specific amount for social and environmental wellbeing, but a proactive approach focusing on establishing strategies and business models to achieve sustainability objectives, as also explained by Van Marrewijk (2003) and Idowu *et al.* (2015). However, company representatives often talk about CSR and sustainability interchangeably in Pakistan. It depicts that the concept of sustainability is still evolving in Pakistan.

6.2.2 Mutually beneficial values

Another important value dimension inferred from the responses of company representatives, alliances, research institutes, suppliers, and international associations is mutually beneficial value. Every stakeholder is interested in developing a mutually beneficial relationship through the exchange of resources. These benefits mainly include economic benefits, technological advantages, and reputational gains. It is evident from the fieldwork that companies emphasize

their mission and are involved in those activities which not only align with their mission but also give benefit to them and their stakeholders.

Empirical excerpts related to the mutually beneficial relationships between companies and stakeholders are as follows:

Company representative 1 interviewed on 19/12/2018 highlights activities related to their core mission and narrates that: “[...] for us, we are more into rural development and once we talk about rural development, we are more into the dairy sector, because yes we are a dairy-based company. So, our vision is that whatever we do, more of it has to be beneficial for the dairy farmers.”

Company representative 4 interviewed on 04/02/2019 also talks about benefits associated with the relationships with external stakeholders and explains that: “[...] every company or every industry has external stakeholders, but it depends if we have a mutually beneficial relationship with them that is only when they can benefit us. Benefits would vary from one stakeholder to another stakeholder.”

Research institute 2 interviewed on 02/05/2019 discusses the mutually beneficial values and narrates that: “[...] These testing facilities help the industry to maintain or improve the quality of the products. In return, PCSIR charges some fee for providing testing services to industry, which directly goes into the government budget.”

International association interviewed on 13/02/2019 also talks about the mutual benefits of working with different companies and states that: “[...] AWS expects to have better communication with stakeholders and to have that knowledge become transparent enough that everybody can learn from it [...] I also want to see this organization being recognized by the civil society, being recognized by the private sector, as well as, I want it to be recognized and understood by the academia as well.”

Companies are also establishing frameworks for CSV. Though the concept of CSV is relatively new in terms of its conception, companies are inadvertently involved in few activities to create shared value. Porter and Kramer (2019) define this concept as “policies and operating practices that enhance the competitiveness of a company while simultaneously advancing the economic and social conditions in the communities in which it operates” (p. 6). Creating shared value concept focuses on creating economic value for the company as well as the benefit for the community. Partnerships and collaborations with NGOs and international associations are identified as being contributors to create new values for communities, in terms of livelihood, value addition in ecology, and the environment. Water stewardship certification by Nestlé

Pakistan is one such example, which is a collaborative effort between various stakeholders. According to the country coordinator AWS interviewed on 13/02/2019, this certification is:

“[...] a collaborative effort between the communities, the civil society, the political agents, and the private companies [...] it is designed to give companies and water service providers a systematic and verifiable way to assess their own water use and impact on the surrounding catchment.”

Fieldwork highlights that mutually beneficial values are of immense importance because they motivate companies and stakeholders to collaborate and exchange resources (explained in Section 7.1 and 7.2).

6.2.3 Values associated with the sale and utility of the product

Value can also be associated with the experiences and benefits expected and achieved during the sales and utility of a product. Customers are interested in such types of values that lead to their emotional, physical, or financial satisfaction or dissatisfaction. That is why in this section the focus remains on the values associated with the purchase and utility of the products from the customers' perspectives, and values associated with the sale of products from the company's perspective.

6.2.3.1 From the customers' perspective

Customers pinpoint towards attributes of the food and beverage products in terms of quality, the nutritional value of the product, price, accessibility, packaging, brand image, and taste. These values are categorized into the following types: (i) emotional value; (ii) symbolic value; (iii) functional value; (iv) Monetary or economic value; (v) nutritional value; and, (vi) social value. These values are explained here.

(i) Emotional value, as explained by Sheth *et al.* (1991), is linked to any positive or negative feeling associated with the product. Customers are interested in the good quality and taste of the food and beverage products, which are relative terms and are closely attached to customers' feelings and emotions. Customer 5 interviewed on 29/01/2019 talks about the emotional value associated with products and narrates that:

“[...] sometimes loyalty leads to the creation of emotional values, for example, if I am a regular customer of any Nestlé's product then wherever I see its name in any new product so I will keep it in mind that oh Nestlé has introduced this product as well. So, customers have emotional and psychological values associated with the brand.”

(ii) Symbolic value, as explained by Smith and Colgate (2007), is related to the product's attributes beyond material aspects and concerned with the extent to which customers attach or

associate psychological meaning to the product. Fieldwork demonstrates that packaging design is valued by many customers and celebrity endorsement has personal meaning for a food and beverage product for its associations with people or events. Customer 3 interviewed on 09/02/2019 highlights the symbolic values associated with the products and quotes that:

“[...] what values me most is probably my association with the product since my childhood and I used to watch its advertisements and celebrities who used to come in those advertisements at that time.”

(iii) Functional value, as highlighted by Sheth *et al.* (1991), Rintamäki *et al.* (2007), Smith and Colgate (2007), Sarmah *et al.* (2015), and Lindman *et al.* (2016), is closely associated with the ability of the food or beverage product to fulfill the desire of hunger or thirst respectively or in other words how the products meet customers' functional needs. Empirical work highlights that all of the customers value the functionality of the food and beverage product they are buying.

Empirical extracts related to the functional values associated with products for customers are as follows:

Customer 6 interviewed on 27/02/2019 expresses views on the utility of the product and narrates that: “[...] usefulness can be perceived in many different ways, for some it can be the easiness of using that product, or for some, it can be easy accessibility of that product. So again, it varies from product to product and customer to customer.”

Customer 3 interviewed on 09/02/2019 discusses the functional aspects of the product and describes that: “[...] quality of the product is good, its availability in the market, the ease of consumption as it has a longer shelf value as compared to some other products which can be used for the same purpose.”

(iv) Monetary or economic value, as explained by Woodall (2003), Rintamäki *et al.* (2007), Smith and Colgate (2007), Tynan *et al.* (2010), Haller (2016), and Lindman *et al.* (2016), is also given importance when buying any food and beverage product and customers always look for the price comparison between similar kind of products and choose the one which maximum justifies the price with the desired purpose of the product.

Empirical illustrations related to the monetary and functional values associated with products for customers are as follows:

Customer 1 interviewed on 14/01/2019 signifies the monetary value of the product and relates it with the functional value by saying that: “[...] as a customer I think that if I am spending money then I should be able to get the desired product that could fulfill my

need. I am buying the product of this company and it is giving me a good value in terms of quality, taste, and availability everywhere.”

Customer 6 interviewed on 27/02/2019, also narrates that: “[...] because of their quality, the way they promote their product, it shapes up my mind and I go for that product. After buying that product it is based on the quality of that product and is, they are justifying the product price with the quality they are providing, which is most important for me. So, basically whenever I buy a product, for me the quality of the product matters a lot.”

(v) Nutritional value is related to the nutritional profile and ingredients of the product. As nowadays customers have become more aware of the nutritional aspects of food and beverage products and they give importance to the nutritional profile of the products to calculate calories and sugar contents more specifically.

Empirical excerpts related to the nutritional values associated with products for customers are as follows:

Customer 2 interviewed on 15/01/2019 highlights the nutritional elements of the products and narrates that: “[...] transparency of the company on its products, specifically in case of beverages, the sugar contents the company is using and other things, for example, the TDS, Total dissolved solids of bottled water, is very important to me.”

Customer 5 interviewed on 29/01/2019 also narrates that: “[...] each customer has separate criteria, but largely they bother about the right price, quantity, taste and health effects of a product.”

Customer 6 interviewed on 27/02/2019 talks about the nutritional value of the product along with the impact of the brand name on buying decision and states that: “[...] if it is related to some nutritious values then, for example, if I am buying milk then there were so many rumors going around about these Tetra Pak milk products that you don’t need to buy them but again it comes to the preferences of the customer that if you like the taste of that product, you like the quality of that products, you go for that product.”

(vi) Social value, as highlighted by Sheth *et al.* (1991) and Haller (2016), depicts the customers’ experiences of better living through business operations. In this study, we are focusing on the social value in terms of the company’s efforts to ensure that its operations positively affect others. Nowadays customers are concerned about the social value that businesses are adding by

contributing towards the long-term wellbeing of society. Customer 2 interviewed on 15/01/2019 states the significance of social values of the product and narrates that:

“[...] there are many factors that affect customer’s decision making, which are mainly: quality of the product, the efforts this company is doing as their corporate social responsibilities, the sustainability initiatives that the company considers and actually does regarding the environment and waste management, and it’s taste of course”

It also depicts that some customers are aware of the company’s sustainability initiatives and expect that companies disclose them so that customers can better understand how responsible the company is and make better purchase decisions. However, many customers are unaware of any initiatives by the companies in Pakistan, because of a lack of disclosure by the companies or probably less efforts for sustainable development.

Empirical illustrations related to the lack of disclosure of sustainability initiatives are as follows:

Customer 4 interviewed on 22/02/2019 talks about a lack of sustainability disclosure by the company and narrates that: “[...] what sustainability efforts? I don’t know if it is doing anything about sustainability.”

Customer 6 interviewed on 27/02/2019 also highlights the deficiency of sustainability information provided by the companies and states that: “[...] but the customer is unaware of the part that how they can contribute to the society. Might be companies are doing efforts on their own, but it is not conveying to the customers, so we are not very much aware.”

All these values mentioned above depict a complex web of values and one value is backed by other values. For example, emotional values are backed by functional and monetary values. The complexity of the issue makes it difficult for companies to understand the values of a wide array of customers.

6.2.3.2 From the Company’s perspective

Companies are more concerned about profit generation, producing a quality product, and the creation of brand image while selling their products. It depicts that companies are interested in defining the monetary value of a product to fulfill the customer demand at an appropriate price. Moreover, companies and customers both give importance to brand image, as companies are interested in developing a positive image in customers’ minds, and customers’ choices are further influenced by a positive brand image. Companies are focusing on product attributes to increase sales volume and enhance the brand image. The values associated with the sale of

products include: (i) product value; (ii) brand image; and, (iii) social value. These values are explained here.

(i) Product value is associated with the product attributes and is also sometimes called marketing value (Woodall, 2003). Companies in the food and beverage sector are aware of customers' tastes and preferences and focusing on nutrition, quality, price, and diversity of products.

Empirical excerpts related to the product value are as follows:

Company representative 2 interviewed on 20/01/2019 highlights various aspects of their products and narrates that: “[...] all our products, that we manufacture, are very high on nutrition and they have the best quality. We take pride in the fact that all our products go through with extensive quality testing with our global expertise and that is what sets us apart.”

Company representative 5 interviewed on 22/12/2019 also explains that: “[...] If we talk about product side then our focus is to continuously refine our food and beverage choices to meet changing consumer needs by reducing added sugars, saturated fat and salt, and by developing a broader portfolio of product choices, reaching more underserved communities and consumers.”

Company representative 6 interviewed on 22/12/2019 highlights the product attributes and states that: “[...] our products are the need of the art or need of the people, for example in case of bottled water, we realize that how quality is impacted in our society and how bad the water is, so bottled water is there to help them.” And “[...] Briefly our product goals include to reach less than 100 calories of at least 2/3rd of beverages, 1.1 gram of saturated fat per 100 calories and this is also publicly available on the website.”

The above-quoted empirical illustrations depict that product value from the company's perspective includes the nutritional and monetary value of the product and it is largely influenced by customers' choices. As one of the company representatives clearly states that:

“[...] it's the customers' choice and the supply and demand of the product depend on customers' choice. If they are interested in potato chips, then yes we want to make sure that we are the number 1 suppliers of this product.”

(ii) Brand image is also given immense importance by the companies. Fieldwork reveals that many factors can impact the brand image, for example, product attributes, compliance with laws, efforts towards social and environmental wellbeing, the logo of the company, and

information disclosure. Companies are putting efforts into developing a stronger and positive brand image for customers and global brands have the leverage of developing a reliable image in the eyes of customers. As people in developing countries are very much influenced by global brands and rely on them, even if they are low in quality as compared to the local brands.

Empirical illustrations related to the creation of a brand image is as follows:

Company representative 6 interviewed on 22/12/2019 narrates that: “[...] we have a global brand name, global portfolio, and we don’t want to spoil that and that’s the way to work.”

Company representative 3 interviewed on 26/01/2019 highlights the benefits of a positive brand image and expresses that: “[...] good relationships and business improvement are important aspects in case of customers and that’s what we get from there.”

Customers are also aware of the company’s efforts for enhancing its brand image. As one of the customers discusses the company’s efforts to enhance their image and states that:

“[...] whatever companies do to create value in terms of image or to develop the taste of the brand, won’t be effective unless the customer perceives the image of that company. So, in the case of Nestlé, customers think by looking at their website and logo that they have an integrated logic, and whosoever is associated with Nestlé in that nest, is part of Nestlé.”

(iii) Social value, as mentioned earlier, focuses on the company’s efforts to ensure that its business operations positively affect others. In line with the global sustainability goals, companies in Pakistan are directing their attention towards creating a positive social impact through their products. Though the scale of operations is small, but companies are trying to portray their social values through their activities. Company representative 4 interviewed on 04/02/2019 highlights the significance of social value and narrates that:

“[...] as a global company we do realize that in this world the times are changing and the corporations which were labelled that they are taking the blood out of the world and now the global model has been changed and we as a company realize that we will only be sustained, and our business will only be sustained if we move towards sustainability and we take care of our communities wherever we are operating in.”

Product attributes, social values, and brand image are associated with the sale of the product, and companies are putting efforts to improve these values and continuing this process to maintain and enhance their position in the market.

A review of various types of values in this section infers that value is a multidimensional concept and is not derived in seclusion, but collectively through each actor in an ecosystem as explained by Vargo *et al.* (2017). Values cannot be realized in isolation and they are co-created among diverse stakeholders through collaborations and resource exchange. These values are influenced by an ecosystem, and various factors in the ecosystem shape value propositions of different stakeholders, either ethical values, mutually beneficial values, or values associated with the products and sales.

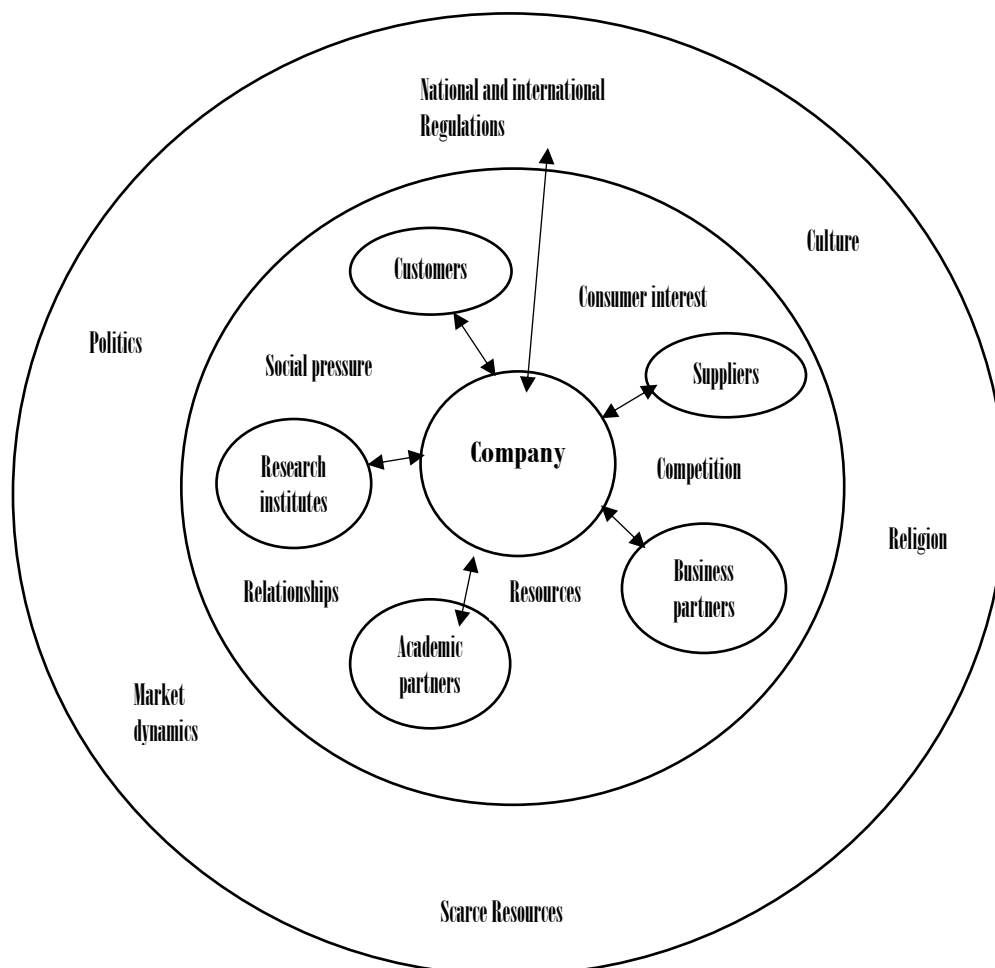
6.3. Role of the ecosystem: external factors common to all stakeholders

Ecosystems can be of many types; biological, industrial, digital, or business ecosystem. In this thesis, we are taking the business ecosystem as an aggregate concept of the external environment of an organization and interconnectivity among various factors and actors within that environment. It connects the relevant pieces of an economy including businesses, multiple stakeholders, and superordinate institutions, which can either support or hinder resource integration and mutual value creation among various stakeholders. It can also be termed as a service ecosystem if we consider multiple organizations in a study, who are involved in service-to-service exchange (Vargo and Akaka, 2012). Here the focus remains on the companies in the food and beverage sector, which are selling products to their customers. That is why we are using the term business ecosystem to describe the external factors and stakeholders' relationships of companies selected for this study. Moore (1998) defines the business ecosystem as an "extended system of mutually supportive organizations, communities of customers, suppliers, lead producers, and other stakeholders, financing, trade associations, standard bodies, labour unions, governmental and quasi-governmental institutions, and other interested parties. These communities come together in a partially intentional, highly self-organizing, and even somewhat accidental manner" (p. 168). This is a comprehensive definition of the business ecosystem, which highlights various stakeholders and the intensions of their interrelationships. Here we are taking the business ecosystem as a collective system of various factors and the collaboration and interaction among these factors to support or hinder business activities. We are dividing the role of the business ecosystem in the value co-creation process into two parts: (a) external factors common to all stakeholders to enable or obstruct the co-creation of value for sustainability; and, (b) interconnectivity of companies and their various stakeholders through platforms and resource exchange. Figure 6.2 illustrates various factors of the business

ecosystem identified through fieldwork and highlights multiple stakeholders and their relationship with the company.

These factors shape the values of stakeholders and influence their activities, such as resource utilization, buying decisions, welfare for society, or waste management. Stakeholders' relationships are rooted in collaborations within the ecosystem, and they are guided by superordinate institutions, such as religious, cultural, or political as also expressed by Greer *et al.* (2016). Stakeholder relationships with companies are discussed in detail in Chapter 7. Here, we are focusing on the first part of the business ecosystem, mainly to identify various factors in the external environment common to all stakeholders. Fieldwork reveals the following significant factors in an ecosystem: regulations, culture and religion, political factors, competition, social pressure, consumer interests, resource scarcity, and market dynamics.

Figure 6.2: Factors in the business ecosystem



The business ecosystem in Pakistan is evolving because of changing trends in the business environment. Within this ecosystem, multiple stakeholders compete and collaborate with each other on available resources, co-evolve, and jointly adapt to external disruption. Market dynamics can change at any point in time, for example, Pakistan's economy is going through

currency devaluation for the past few years, and this devaluation has a huge impact on multinational companies and affecting business models as it is very much linked with the cost of production. The unstable political situation of Pakistan along with the long-fought battle related to terrorism also impacts the day in and day out of businesses, as they are directly related to the economic trends and national security in particular. Both the policies set by the government agencies and leaders can affect the legal framework within which businesses operate, as well as the market conditions to affect consumer buying behaviours. Thus, there are multiple factors in an ecosystem that construct the sustainability landscape of Pakistan. However, in this section, the emphasis remains on the following factors: regulations; culture and religion; and, scarce resources. These are discussed in detail next.

6.3.1 Regulations

Regulations are national and international laws and standards to be followed by companies in a territory. The regulatory environment is non-trivial in driving companies' behaviour towards sustainability (Lozano, 2015). Various types of government authorities are working in Pakistan with different industries on sustainability initiatives driven by welfare as well as reputational motives (Subsection 6.1.2). Institutional regulatory arrangements externally legitimize companies' sustainable practices along with normative and cognitive factors⁴⁷ as explained by Hoffman (2001). These institutional arrangements reshape the competitive landscape for companies and pose certain pressures on companies to engage in sustainability initiatives (Ortiz-de-Mandojana *et al.*, 2016). For this research, the following regulatory bodies are selected as they are witnessed to have direct linkage with the company's sustainability efforts: EPA, PFA, IPO, and Ministry of water resources (see Appendix J).

Companies are required to comply with these regulations to maintain their competitive position as well as to secure themselves from any legal sanctions, as explained by Ortiz-de-Mandojana *et al.* (2016). All these authorities not only provide general guidelines and standards to the industries but are also involved with them on specific projects. For example, companies in Pakistan are legally bound to submit an environmental assessment report to EPA and take NOC before starting any new project. Apart from this, EPA is also involved with Nestlé, PepsiCo, and Coca-Cola on tree plantation and water replenishment projects. Similarly, any company cannot commence its business unless it has taken intellectual property right from IPO, which

⁴⁷ Normative factors consist of shared beliefs, social norms, values, in a given country and condition companies' sustainability initiatives. Whereas cognitive aspects consist of cultural rules and symbols (i.e., words, signs, and gestures) that guide a society's understanding of the reality (Hoffman, 2001; Ortiz-de-Moandojana *et al.*, 2016).

ensures that there are not any counterfeit products in the market through its enforcement agencies.

Empirical illustrations related to compliance with the regulatory environment are as follows:

Company representative 4 interviewed on 04/02/2019 highlights the compliance with local laws and states that: “[...] as it is our company policy that although we are a global company, but we have to follow the rule of the land. So, we try our best to comply with all the policies of the government.”

Company representative 6 interviewed on 22/12/2019 also narrates that: “[...] we follow all the local regulations like if there is food safety requirement from PFA so we will follow that.”

Company representative 5 interviewed on 22/12/2019 also explains that: “[...] and if there are any observations from the EPA then we address them proactively and we make sure that we are putting ample effort in terms of being compliant to everything.”

All the multinational companies stress their compliance with local laws and admit to preferring local laws if they are different from international ones. Along with these local regulations, companies also report to comply with some international laws, for example, PepsiCo is following American anti-corruption law. Moreover, all the multinationals in the food and beverage sector comply with the WHO standards, where the local standard for hygiene and food safety is not available in Pakistan. Companies are also following the regulations by the Securities and Exchange Commission of Pakistan, regulations by the Ministry of Commerce related to imports, tariffs, and customs related duties, and the Industrial ministry. These regulatory bodies monitor the activities of companies and in case of non-compliance, they are allowed to take any legal action or impose penalties on them. Most of the time companies comply with the regulatory requirements only to fulfill the scope of those regulations and to avoid penalties, as highlighted by Ortiz-de-Mandojana *et al.* (2016). Sometimes compliance with laws aligns with the company’s ethical aspirations and motivates them to pursue their sustainability objectives. The regulatory environment of Pakistan is going through various changes, especially after the charge of a new government in 2018. Companies also witness these modifications, as one of the company representatives’ interviewed highlights that:

“[...] absolutely, the regulatory framework is impacting our business big time, if you look at it over the last one year. Because there are a lot of regulatory changes that are

impacting our business directly or indirectly. For example, when it comes to our beverage side, the sugar content in it.”

Issues of water scarcity, water safety, waste management, nutrition, and hygiene are not new in Pakistan but have recently been given importance by the government. It is also identified through fieldwork that many stakeholders including regulatory bodies themselves and companies find conflicts in government regulations. According to them, there are clashes in the regulatory bodies and they have separate standards of water, effluent discharge, and transboundary movement of hazardous waste (also discussed in legal motives in Subsection 6.1.1). They argue that it is a battle of jurisdictions and a battle of powers. That is why due to the lack of homogenous national regulations, companies find it difficult to comply with conflicting regulations.

Empirical illustrations related to the clash of regulatory authorities are as follows:

Regulatory body 1 interviewed on 21/01/2019 highlights the lacunas in the regulatory system of Pakistan and narrates that: “[...] we do have standards for drinking water, Pakistan Standards and Quality Control Authority have separate standards and after that food authority also have standards for water. The water and sanitation authority has adopted its standards from WHO. So, there is a clash of various authorities in water management.”

Company representative 1 interviewed on 19/12/2018 talks about difficulties arising due to clashes in regulations and narrates that: “[...] the regulatory policies or the food policies or the food laws are different for even every province” and “[...] at times it becomes very difficult for the organizations like Nestlé, as it has such vast presence over the country. We are in Sindh, in Baluchistan, in Punjab, in Khyber Pakhtunkhwa, Gilgit-Baltistan, but again we have to follow the rules and policies and things like that. So, it’s high time that we need some sort of harmonization among policies and services in Pakistan.”

The complexity of the issue makes it challenging for companies to operate and comply with all the regulations. The regulatory environment also shapes the values of various stakeholders in an ecosystem, for example, the values of customers. In the case of Pakistan, customers are sometimes unaware of the regulatory requirements for sustainable practices and rely on the information disseminated through media to create an image of the company’s compliance with regulations and standards. These customer values and the values of other stakeholders are also

influenced by the culture of Pakistan, which shapes the regulatory environment of the country as well.

6.3.2 Culture and religion

Culture is shared ideas and beliefs that set standards for “perceiving, believing, evaluating, and acting” (Christie *et al.*, 2003, p. 265). Culture guides a society’s understanding and common ideas about the meaning of life. Organizations, as a part of society, are largely influenced by cognitive institutional pressures (Ortiz-de-Mandojana *et al.*, 2016), which are reflected in an organization’s activities. Here culture refers to the culture of a society, which significantly impacts the ethical reasoning of people, thus shaping the ethical conceptualization of the society, as expressed by Christie *et al.* (2003). Pakistan’s culture shows diversity in its ethnic groups in terms of language, clothing, food, arts, and religion. Islam is the dominant religion in Pakistan consisting of approximately 95 percent of the population along with other religious minorities of Buddhists, Christians, Parsis, and Hindus. Religious beliefs greatly influence the regulatory framework of the country and the choices of people. Christie *et al.* (2003) argue that culture, religion, and values are interlinked and cannot be isolated. Subsections 6.1.1 and 6.2.1 briefly explain how legal restrictions and culture shape ethical motivations and values and drive sustainable policymaking in companies. Chun (2019) asserts that different ethical values reflect different social norms and vary sometimes due to country and industry of origin. Due to this reason, when any company operates internationally, it is required to adhere to the ethical requirements of that country. Various factors in a country can impact the ethical conceptualization of companies, among them is the culture of a country (Epstein, 1987; Donaldson and Dunfee, 1994) and its religion (Rice, 1999).

Sustainability is not a well-recognized term in Pakistan’s culture. Most of the small and medium-sized companies do not even understand this term. Talking about large companies and multinationals, sustainability is a part of their social responsibility. So, rather than taking sustainability as a part of their business model, these companies are taking sustainability as their social responsibility. Customers, alliances, academic and research institutes, and suppliers expect companies to ethically use the country’s resources for sustainability. However, there is a lack of knowledge about whether companies are ethically utilizing resources or not. The reason being the absence of sustainability reporting in Pakistan. None of the companies selected for this study publish sustainability reports in Pakistan based on sustainability parameters by

GRI or any other reporting guidelines. The sustainability reporting of Nestlé is activity-based with minimal quantitative impact assessment.⁴⁸

The beliefs of people are largely influenced by religion. Both culture and religion shape the value system of society (Huismans and Schwartz, 1992). Islam being the dominant religion in Pakistan provides points of reference for evaluating any conduct and has a strong impact on the ethical conceptualization of companies, especially in the food and beverage sector. Every local and international food and beverage company in Pakistan is religiously and legally bound to use halal ingredients in their products.⁴⁹ From July 2019, the government of Pakistan has made mandatory halal labelling requirements for all the food and beverage companies in Pakistan.⁵⁰ By implementing this rule, Pakistan has become the first Islamic state to make halal labelling requirements mandatory for a wide range of products, either produced inside the country or importing from any other country. These labelling requirements entail all the food and beverage products to be certified by the halal certification body. On the one hand, halal certification labelling directly impacts the financial cost of the food and beverage products, and on the other hand, it socially impacts the image of the company. Although this labelling is mandatory as per the legal notification from the government, some of the company representatives are unaware of these legal bindings. As one of the company representatives explains that:

“[...] So far I don't know if there is anything like that. Some of our products already have it and some of our products don't have it in written form. But we don't have any product that is not halal. If somebody is doing anything which is not halal then it would be difficult for that person to operate. We do not have any alcoholic beverages being made and sold here. [...] Yes, it is also in many other countries like in Malaysia but so far this compulsion word has not come to us. I am not aware of it.”

The excerpt also highlights a lack of awareness about current legal requirements by the companies. Thus, we can infer from the fieldwork that the cultural and religious elements of a country define the value system and impact the overall regulatory landscape of a country. Vargo *et al.* (2017) also assert that the social and cultural context of a community derive values. Head of food department PCSIR, interviewed on 02/05/2019 discusses the influence of culture and religion on companies and states that:

⁴⁸ CSV report 2018, Available at: <https://bit.ly/2THoBLL> , assessed on 14/08/2019.

⁴⁹ Halal means permissible and lawful. Halal foods are foods that are allowed to be consumed under Islamic dietary guidelines. The foods that are not permitted are called haram, meaning "forbidden" in Arabic. (<https://www.thespruceeats.com/what-is-halal-food-2355726>, accessed on 05/08/ 2019)

⁵⁰ See full report at: <https://bit.ly/3rqnNuI> (Assessed on 18/07/2019)

“[...] culture no doubt affects because due to culture companies have gone into halal certification and companies need certifications for that. Even PepsiCo’s testing is also due to cultural influence which raised after some media campaigns against them and they started having tests from us to show the authenticity of their product and certification shows that this product is safe.”

Empirical work reveals that cultural and religious elements hinder businesses to engage in unethical business practices. Culture also shapes the mind and perception of people in a community. The perception of stakeholders, especially peoples’ thinking about the company, also influences the ecosystem. If the perception results in a positive brand image and good quality, then it can support business activities. It can also create a negative impact if people perceive that their voices are not heard by the companies. Social media and generally accepted norms of society are considered to have a strong impact on people’s perceptions. Culture also impacts the stakeholders’ communication with companies and sometimes hinders the connection between stakeholders (see details in Subsection 7.1.2). One such example is the perception of people in Pakistan that big companies do not bother what customers say, but in other countries may be customers are more confident that their voice is heard if they give any feedback or raise an issue. So, culture is of immense importance in shaping minds and can sometimes negatively affect companies’ reputation. The ecosystem is also influenced by the lack of awareness of stakeholders. As it is observed that few stakeholders, especially customers are unaware of various efforts companies and governments are doing for the benefit of the environment and society.

Empirical illustrations related to the cultural influence in shaping peoples’ perception are as follows:

Company representative 2 interviewed on 20/01/2019 expresses an opinion on cultural impact on the company’s reputation and narrates that: “[...] yes, the culture, the way people perceive, awareness of people. For example, now in Pakistan, the awareness of food quality and food safety is more because of some activists, and basically, social media is also playing an important role and do a lot of information sharing.”

Customer 6 interviewed on 27/02/2019 talks about a lack of awareness about the concept of sustainability and narrates that: “[...] whenever I buy a product, I go for looking its nutritious value, the calories it has its prices, but I never look at the recyclable icon. Because living in Pakistan, we are not aware of all these things.”

Fieldwork also identifies stakeholders who believe that their relationship with companies is not much affected by the culture of Pakistan. One of the business partners interviewed narrates that:

“[...] well with different partners, you have to understand their mentality and the way they work but I guess culture isn't that bigger factor. We require mercurial, we gel in with different sets of partners that we work with, with government, with the private sector, so the culture is not a big issue.”

However, most of the stakeholders in a business ecosystem are tacitly or explicitly influenced by cultural elements. Fieldwork reveals that culture, religion, regulatory landscape, and stakeholder perception are interconnected and influenced by each other. They construct an ecosystem for companies to understand their values, as well as the values of diverse stakeholders in that ecosystem. These factors shape the ethical values of every stakeholder and ethically motivate companies, their business partners, academic and research associations, and suppliers to pursue sustainability initiatives. Furthermore, these factors in an ecosystem also shape the perceptions of stakeholders especially customers, which are reflected in their buying decisions. Values associated with the brand image, emotional value, and monetary value are affected by social and cultural context and guide customers in taking buying decisions.

6.3.3 Resource scarcity

Resource exchange is fundamental for the creation of value and to survive and thrive in an ecosystem (Vargo *et al.*, 2017). Demand for resources is one of the driving forces for companies to interact and communicate with various stakeholders. Types of resources exchanged among multiple stakeholders are discussed in Chapter 7 (Section 7.2). Here resources are natural resources common and available to all stakeholders, for example, water, land, and air. All these resources also have a limit and are subject to diminish with their usage. It requires stakeholders to develop policies and guidelines for the efficient utilization of these resources.

Pakistan is facing water-related problems and water scarcity is one of the central issues, which requires its major users to recognize the need to ensure its sustainability. According to the International Monetary Fund (IMF) report, Pakistan is ranked third in acute water shortage countries in the world. United Nations Development Programme (UNDP) and the Pakistan Council of Research in Water Resources (PCRWR) also report that severe water crises will create an absolute water scarcity in the South Asian region by 2025 (Baloch, 2018). Sources also identify that the per capita water availability has dropped from “5,000 cubic metres per annum in 1951 to about 1,000 cubic metres in 2014”, which is further reducing (Dawn, 2018). This alarming situation highlights that the water crises are not new, but the stakeholders,

especially the government have recently started taking action on this. Currently, regulatory bodies, international associations, and NGOs are motivating businesses to work closely with them to battle the issue of water scarcity. National water policy 2018⁵¹, chief justice drive for water consumption⁵², AWS certification, and water replenishment projects by companies are steppingstones towards securing the water resources and use this resource efficiently. After 2018, regulatory bodies started playing their role to secure water resources, for example, aquifer charges by the government are implemented to prevent over usage of groundwater resources.

Empirical illustrations related to the awareness of water crises by companies and different partners are as follows:

Company representative 4 interviewed on 04/02/2019 narrates that: “[...] our sustainability goal in water is that we have to be 100% neutral which means whatever water that we are extracting from the ground we are able to replenish back the same amount of water into the ground.”

International association interviewed on 13/02/2019 talks about the urgency of the issue and narrates that: “[...] as you know that we just had national water policy out last year, though we are facing the water issues from the much longer period because we share our water resources with other countries in the region. But the national water policy just came out, which shows that we are taking the right steps, but we are still a bit slow in it.”

Business partner 1 interviewed on 17/01/2019 also narrates that: “[...] the way our economy is progressing, we are already lacking in water resources. We need to invest more in water resources, we need to invest in more efficient ways to conserve water.”

The urgency of the water crisis is a wake-up call for industries and it also greatly influences the sustainability landscape of Pakistan. However, changing regulations, culture, and scarcity of resources add complexities in the business ecosystem for industries. On the one hand, they are motivating stakeholders by directing their attention towards certain aspects. For example, companies are legally and ethically motivated for the sustainable use of water resources. On the other hand, these factors limit or restrict companies from different activities. For example,

⁵¹ National water policy was introduced in 2018 as a genesis of Pakistan water charter which outlines an integrated water management strategy for sustainable use of water resource. Available at: <https://bit.ly/3c2Mqaj>, accessed on 05/03/2021.

⁵² In 2018, the chief justice of Pakistan highlighted the issue of exploitation of water resource by bottled water companies in Pakistan and charged those companies to pay a suitable fee for using water resources. Available at: <https://www.dawn.com/news/1433084>, accessed on 05/03/2021.

regulations in Pakistan restrict the food and beverage companies to produce alcoholic products and to use ingredients prohibited in the religious dietary guidelines. These restrictions on particular operations are not only due to the regulatory framework of Pakistan, but they can also be due to the scope of work of companies and the availability of resources. Sometimes regulatory authorities do not allow companies to do any social activity which can be biased with the company's promotion. For example, Company representative 1 interviewed on 19/12/2018 discusses the limitations levied from the regulatory environment and narrates that:

“[...] We receive requests from the hospitals, from medical centers, for construction of dispensaries or making donations to some medical facilities, but we are very much direct in your response that sorry we can't do this and why we cannot do that is what people ask me, is just due to regulations and we have to follow them, the law of the land.”

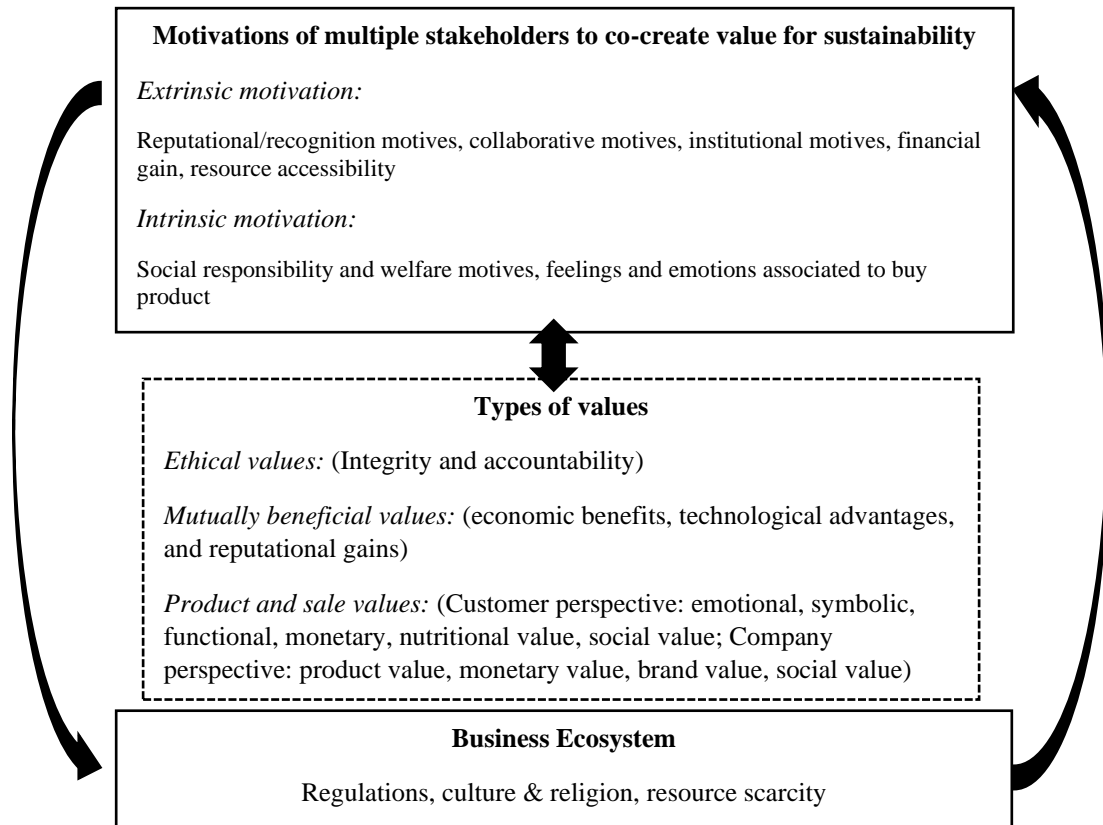
Fieldwork depicts that some regulations are also developed on the basis of religious accounts and cultural aspects, and such regulations are driven by cognitive pressures in an ecosystem, such as mandatory halal labelling requirements (see Subsection 6.3.2).

6.4. Overview of the chapter

Value co-creation processes are driven by diverse motives of companies and their stakeholders, which depict that motivation is an essential aspect of the value co-creation process. To understand the motivations to co-create values for sustainability, it is important to identify values, which significantly motivate stakeholders to co-create. This chapter focuses on the motivations of companies and stakeholders and it has shed light on three important aspects: motivations, values, and business ecosystem. Figure 6.3 illustrates an overview of the findings from the fieldwork.

The Figure shows diverse motives of multiple stakeholders to co-create values for sustainability, which are further divided into intrinsic and extrinsic motivations. Intrinsic motives are associated with the inherent interest in doing anything and are associated with feelings and emotions. Customer motives to buy a certain food and beverage product and ethical motives of companies and governments to initiate sustainability activities, are driven by intrinsic motivation. Whereas extrinsic motives are driven by the separable outcome. Reputational/recognition motives of multiple stakeholders, collaborative motives of companies, alliances, and partners to develop relationships, compliance with legal requirements, financial gain, and resource accessibility are driven by extrinsic motivations. Motivations are influenced by the values of multiple stakeholders, which are further shaped by the business ecosystem.

Figure 6.3: Motivations of multiple stakeholders to co-create values



Value co-creation process for corporate sustainability

Values are the subjective opinions of companies and their stakeholders to consider anything valuable from their own experiences in the food and beverage sector of Pakistan. The analysis identifies ethical values, mutually beneficial values, and values associated with the sale and utility of the product as significant value categories inferred from the responses of companies and stakeholders. Ethical values are associated with the right conduct and are shaped by legal responsibilities, regions, and industries. Mutually beneficial values are based on economic benefits, technological advantages, and reputational gains. Whereas, sale and product values are further categorized into emotional value, symbolic value, functional value, monetary or economic value, nutritional value, and value associated with the brand image. Motivations and values of companies and stakeholders provide input to the sustainability planning phase of the sustainability accounting and reporting process (Schaltegger and Wagner, 2006; Kaur and Lodhia, 2018) mentioned in Figure 5.1. Motivations and values help companies to identify and plan sustainability issues, which are further shaped by the business ecosystem.

A business ecosystem is a collective system of various factors and the collaboration and interaction among these factors to either support or hinder business activities. Fieldwork reveals

three important factors in an ecosystem: regulations, culture and religion, and resource scarcity. Where culture and resource availability affect the regulatory landscape of Pakistan and they are interlinked with each other. These factors derive the values of companies and their stakeholders in a community and motivate them to perform certain tasks. Here the focus is on understanding the values and motivations from a sustainability perspective. That is why the emphasis remains on how companies develop distinct processes and practices to consider the values and motivations of themselves and various stakeholders to develop relationships and resource sharing ties to co-create values for sustainability. These processes and practices of the companies to interact and exchange resources are discussed in the following chapter.

Chapter 7

Co-creation of value through interaction and resource exchange

7.0 Introduction

This chapter aims to elaborate on how companies co-create values through social interactions and resource exchange, referring to research question no. 2: “What processes are required to co-create values by multiple stakeholders?”. Motivations to co-create values are prerequisites of the value co-creation processes (Chapter 6), which guide the company’s course of value co-creation. To explain the company’s value co-creation processes, the concepts of collaboration and resource exchange are fundamental, as also explained in the S-D logic (Vargo and Lusch, 2004). S-D logic conceptualizes resources as any tangible or intangible thing which can be drawn by any stakeholder for either individual or mutual support (Vargo and Lusch, 2004; Lusch and Nambisan, 2015). Every individual possesses different kinds of resources, either operand or operant, and they develop and apply these resources to become better off. Vargo and Lusch (2004) assert that an individual’s own resources are sometimes not sufficient for survival and well-being. They require specialization and exchange for well-being (Lusch and Nambisan, 2015), which is facilitated through collaboration. Here, we are considering collaboration as a multidimensional social activity, which involves the construction of multiple accounts. These accounts are produced due to the accountability relationship developed between companies and their stakeholders and can either be in quantitative numbers or narrative forms (explained in Chapter 8).

The center point of this chapter remains on the processes of recognizing multiple perspectives of stakeholders’ relationships and their resource exchange mechanisms. We are assuming the company’s comprehensive set of interactions beyond economic focus as expressed by Gray (2002) and Killian and O'Regan (2016), which directs our attention towards understanding stakeholder relationships and resources to incorporate social and environmental impacts of businesses as well. Chapter 5 and Chapter 6 have identified focal sustainability issues by the companies' and stakeholders’ motivations and values, respectively. Here we are considering companies’ processes and practices to collaborate, interact, and exchange resources with stakeholders, to resolve the identified sustainable issues. The resource exchange provides input to execute the targeted sustainability activities, which is aligned with the sustainability accounting phase of the sustainability accounting and reporting process (Schaltegger and Wagner, 2006; Kaur and Lodhia, 2018) as explained in Section 5.3. Interaction with stakeholders helps companies in identifying material sustainability issues, develop sustainability targets, and resources required to achieve those targets. Active consideration of

these collaborative relationships and resource exchange mechanisms informs the ways companies do their businesses. This integrative thinking allows companies to efficiently utilize resources to contribute towards financial stability and sustainable development (see Section 7.2 for details). Considering these aspects, this chapter is divided into the following main sections: Section 7.1 identifies and explains accountability relationships among companies and stakeholders for the creation of accounts, and Section 7.2 discusses the types of resources exchanged during the value co-creation process among companies and stakeholders. Section 7.3 sheds light on the ecosystem enabling or hindering the interconnectivity of companies and their stakeholders through various platforms and resource exchange. The final section presents an overview of the entire chapter.

7.1 Accountability relationships among companies and stakeholders

Companies interact and collaborate with diverse stakeholders, and this interaction is the basis of the co-creation of value (Lusch and Vargo, 2014). The interactions and connections between companies and stakeholders are exhibited in an accountability relationship. This accountability relationship arises from any social interaction between the company and stakeholders and accounts for their activities in that relationship. Fieldwork depicts that accountability relationships create accounts that are facilitated through resource exchange and communication channels. The accounts formed during interaction and resource exchange practices among companies and stakeholders can either produce numbered or narrative accounts (See Chapter 8 for details). These accounts are created at various stages of any accounting project and mostly act as a function of explanation by the companies and sometimes self-insight. For example, if the parent company's policies require its subsidiary company to perform a certain task then the subsidiary company is accountable to execute and report the performance of that activity to the parent company. As one of the company representatives interviewed explains the focus on enhancing the nutritional profile of their products as per the instructions from the parent company and narrates that:

“[...] our annual bonus and annual performance rating are linked with nutrition as well. So, everyone has a target of increasing a certain percentage in the nutrition business and we have to achieve our targets, otherwise, we are penalized for that [...] There are global procedures like I have told you that our annual performance is linked with that. If the scores are low, then we are penalized for that”

Similarly, the issues of water scarcity and waste management in Pakistan suggest companies to conserve water and promote waste management behaviour. It requires companies to examine narrative accounts from community members, government bodies, and sometimes international

associations. The accounts produced during communication among companies and stakeholders are a result of the exchange of both operand and operant resources (Section 7.2). One of the company representatives interviewed explains that:

“[...] For projects like water filtration plant, the biggest beneficiary is the community. In such projects, we are fulfilling our responsibilities [...] if the community is not satisfied, then these things are brought into light, like during the community engagement meetings that we do all around the year.”

The experience and knowledge sharing among stakeholders help companies to understand the demands of the communities, identify problem areas, create awareness, and provide solutions. Once companies understand the problem space, they identify available resources to resolve that issue. The execution stage may also require the exchange of physical or intangible resources among companies and stakeholders. For example, in the case of water conservation, companies are engaged with various stakeholders at the problem identification and execution stages. The engagement between companies and stakeholders directs us to understand the accountability relationship between them. There is a need for proactive and frequent communication with stakeholders, which emphasizes an engagement with them through “inclusiveness, partnership, and dialogue” (Kaur and Lodhia, 2018, p. 340). The accounts produced in this interaction can help companies to understand various issues, identify their agendas, execute activities, and disclose their outcomes when required. Companies studied require the cooperation of diverse stakeholders to identify and resolve the social and environmental issues in the community. However, every company has diverse communication channels and specific protocols to engage with different types of stakeholders.

Engagement with stakeholders is a ubiquitous activity for companies and each encounter creates an account and poses different meanings for the actors involved. By considering these aspects, this section is divided into the following subsections: Subsection 7.1.1 discusses companies’ practices to interact with stakeholders, and Subsection 7.1.2 identifies and explains communication between the company and its stakeholders through various platforms and channels.

7.1.1 *Company’s processes and practices to interact*

As explained earlier that accountability arises because of the relationship between companies and stakeholders. However, companies require policies to interact and communicate with diverse stakeholders for passing accounts, which are produced due to these accountability relationships. This subsection discusses the overview of selected companies’ practices to

interact and collaborate with their stakeholders. These practices are identified through the documents, online sources, and responses from the company representatives, and explained in light of the views from the stakeholders about the impact of these practices on their interaction with the companies. Accountability is central to these interactions and relationships, which is dependent on the practices and procedures of the parties in that relationship. Here practices demonstrate the company's activities and procedures to interact with stakeholders. The interaction between stakeholders is a value co-creating activity and it involves a relational element, as explained by Neghina *et al.* (2015). Companies' relational interaction capabilities can be defined as the "ability to enhance the connection of social and emotional links with customers and other value network partners" (Karpen *et al.*, 2012, p. 25). Interactions with diverse stakeholders establish social and emotional connections, which creates accounts of mutually beneficial values for the parties involved. However, sometimes a company's policies and procedures inhibit this interaction. Here, we are discussing company practices from two perspectives: (i) company's perspective; and, (ii) stakeholders' perspective. These are explained next.

(i) Company's perspective

Fieldwork reveals that multinationals have strict departmental policies and procedures and due to this reason, sometimes they require a long time to make decisions for any collaborative initiative or to make any kind of change.

Empirical illustrations related to strict company's policies are as follows:

Company representative 2 interviewed on 20/01/2019 talks about Standard Operating Procedures (SOP) and narrates that: "[...] we have very strict rules, and no one can bypass those rules. So, if there is an SOP that ten people will sign it then authorize it, then everybody has to go through them. You cannot just do it with two people."

Company representative 4 interviewed on 04/02/2019 also discusses the company's restrictions and states that: "[...] there are a few restrictions in communicating with the stakeholders, but I believe that those are good restrictions because everybody is not allowed to communicate with all the stakeholders."

The empirical excerpts depict that companies have certain rules to interact with stakeholders and employees are not allowed to talk to any external stakeholder unless they are authorized to do so. For example, there is a department of public affairs that deals with any external party issues. Similarly, there is a regulatory affairs department who deals with regulatory bodies. In short, all the companies studied have strict policies, and they have different communication

channels for various kinds of stakeholders (see Subsection 7.1.2). Companies provide training to employees for dealing with diverse stakeholders. For example, companies have capacity-building workshops for workers to train them on the use of different communication channels with different kinds of stakeholders.

Empirical extracts related to the company's communication practices are as follows:

Company representative 5 interviewed on 22/12/2018 discusses the corporate affairs department and states that: “[...] we have a specific department, known as a corporate and regulatory department, that department engages with all the government stakeholders and make sure that they act as a bridge between the government and PepsiCo.”

Company representative 4 interviewed on 04/02/2019 also discusses the company's practices to communicate with diverse stakeholders and describes that: “[...] there is a proper mechanism that who would communicate with any specific stakeholders. If any media person or journalist approaches our production facility randomly then, in that case, everyone is not allowed to talk to them. Because you never know what information the media person gets from any person within our company and the next day he would go and put it on print media or electronic media.”

Companies not only train their own employees to communicate with stakeholders but also provide training for their business partners and suppliers. For example, PepsiCo and Nestlé have training programmes for farmers as explained in the responsible sourcing programmes in Subsection 5.2.2. Moreover, on community development projects, companies also provide training on hygiene, food safety, food technology, food storage, and packaging. Interactions with any kind of stakeholders are facilitated through various platforms (see Subsection 7.1.2) and result in the exchange of resources (see Section 7.2). These interactions and resource exchange are aimed to create mutually valued outcomes for stakeholders, as also highlighted by Lusch and Nambisan (2015).

(ii) Stakeholders' perspective

Various stakeholders, such as alliances, business and research partners, suppliers, and regulatory bodies are aware of companies' processes and practices to interact when they are in a formal relationship with the companies. Fieldwork reveals that strict policies and procedures of companies sometimes hinder or delay collaborative work. For example, it takes a long time for large companies to release funds for a project as it requires approval from various

departments and personnel. One of the research partners interviewed discusses the issues of delayed approvals by the companies and describes that:

“[...] sometimes things get delayed due to the requirements of taking approval from various levels or you can say that official matters take time for approval.”

Various communication channels are used for the interaction between companies and business and research partners, suppliers, and regulatory bodies, which are discussed in the following subsection. Another important stakeholder category is the customer, who is normally not aware of and not even interested in knowing the internal company policies and practices. Customers are mostly interested in the company's customer services, as it is the medium for them to exchange their views with the company. Most of the customers argue that normally if they have any issues with the product then they normally complain through local grocery stores from where they bought the product, rather than directly communicating with the company.

Empirical excerpts related to customers' views on the company's interaction practices are as follows:

Customer 7 interviewed on 27/02/2019 expresses interest in the company's customer service process and narrates that: “[...] company's customer service processes and practices can impact the communication between company and customers. Because it is the only medium that customers can interact with. Customers are not keen on knowing other policies and practices of the company that how they are developing their product.”

Customer 5 interviewed on 29/01/2019 discusses the lack of availability of communication channels and states that: “[...] generally shop keepers try to convey customers' issues to the company either through distribution channel or any other platform. Otherwise, there isn't any direct link between a customer with the company, and the platforms available for communication to customers are sometimes not considered reliable. So, the customer normally thinks that the company won't give the response to their queries and emails because of its large brand name and customers prefer to give their views to shop keepers rather than to the company.”

These illustrations depict that customers do not directly interact with companies, because they consider that their opinions and complaints may not be entertained. However, companies argue that they have open communication channels for their customers and other stakeholders (discussed in Subsection 7.1.2). Lack of awareness and deficiency of communication channels both can hinder the interactions between customers and companies. Most of the customers

perceive that due to strict procedures, large companies do not value their feedback and concerns. Normally every stakeholder, who communicates with the company, is interested in acknowledging his/her opinion by the company (as explained in Subsection 6.1.2, recognition motives). Fieldwork reveals that stakeholders, who are directly linked with the company in a mutually beneficial relationship, recognize that their opinions are valued by the companies.

Empirical illustrations related to stakeholders' views on incorporating their voices in the company's processes are as follows:

Business partner 1 interviewed on 17/01/2019 discusses their relationship with the companies and narrates that: “[...] most of the partners that we have, we are having a good communication strategy with them, and most of the hard parts get relayed in their reports. We have seen them reporting on the projects that we do and vice versa, if we also value the work they do particularly when it comes to the environment and we, kind of propagate that work through our medium of communication as well. So, I think it is one of the indicators to show that they value our work and incorporate that in their own system.”

Regulatory body 1 interviewed on 21/01/2019 also describes the accountability relationship with the companies and states that: “[...] Obviously they are bound to do this. It is the responsibility of the proponent to take our approval. If they don't come to us, then we go to them and send them an order for environmental approval.”

Customer 5 interviewed on 29/01/2019 talks about the importance of customers' views for the companies and states that: “[...] customers are the king of their marketing, so whatever they say about the product won't give benefit unless a customer is willing to buy that product. That is why companies do track the views and take feedback from customers through direct and indirect means and try to incorporate them in their policies.”

Company representatives also argue that they value the views of their stakeholders and incorporate them into their processes and practices (see Chapter 8 for details). However, every company has different platforms to communicate and gather opinions from different stakeholders. These engagement platforms are the company's formal and informal communication channels through which companies interact with various stakeholders and construct multiple accounts.

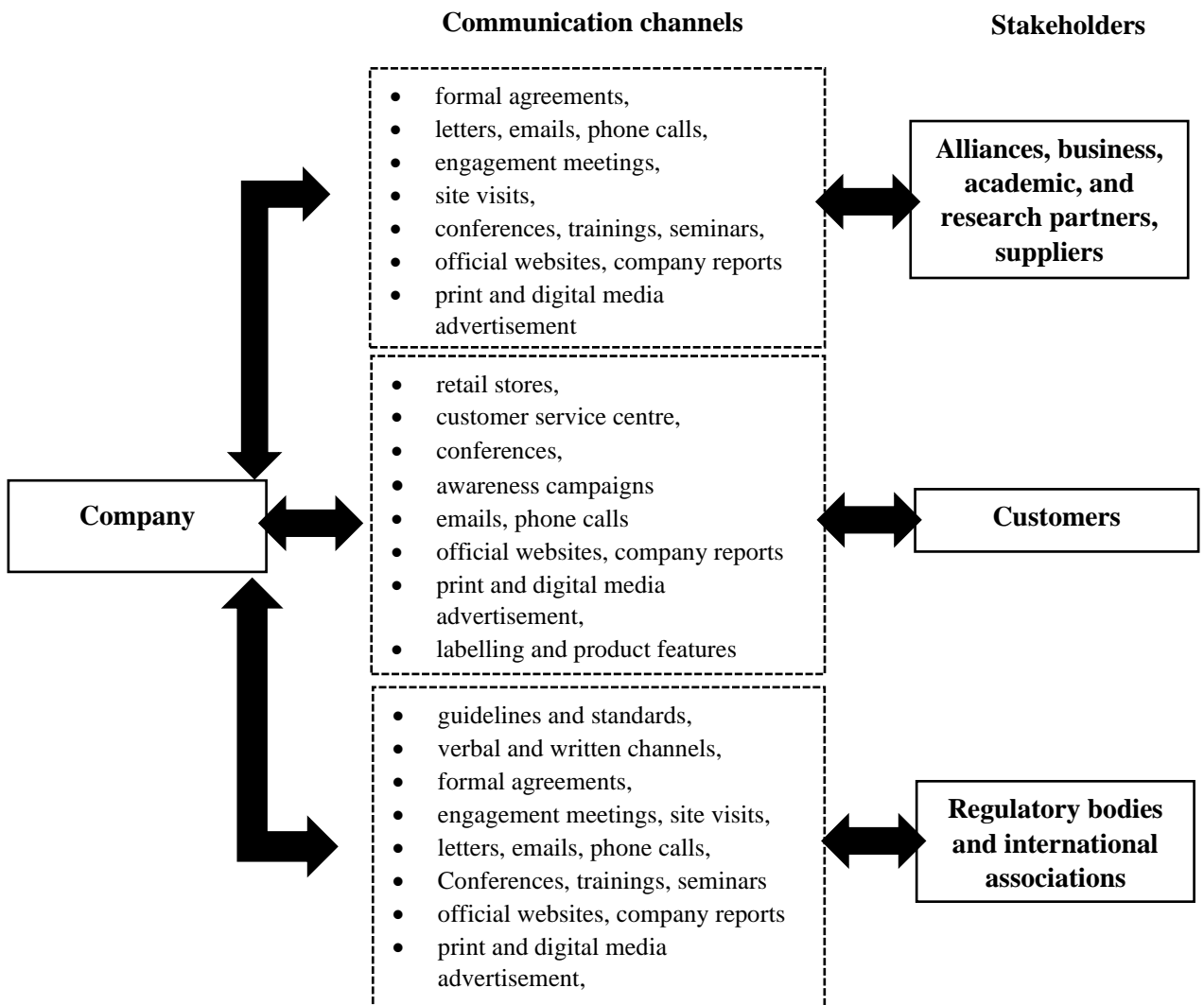
7.1.2 Communication

As discussed in the literature review (Subsection 2.2.2), S-D logic emphasizes the interactions between actors to integrate resources for the creation of mutual value (Greer *et al.*, 2016). The interactions between stakeholders require channels or platforms to exchange resources and they constitute a service ecosystem (Frow *et al.*, 2014; Greer *et al.*, 2016; Pera *et al.*, 2016). The accountability relationships among companies and stakeholders require formal and informal communication channels to exchange diverse resources, which can be named as engagement platforms (Ramaswamy and Ozcan, 2014). These engagement platforms, either online or off-line, should support the interactions between stakeholders with transparency and unlimited access to the information (Leclercq *et al.*, 2016). The engagement platform is considered a part of the service or business ecosystem (Subsection 3.2.5), but here we are discussing engagement platforms separately from the ecosystem, as a prerequisite for resource exchange. These engagement platforms are formal and informal communication channels between the selected companies and their stakeholders and provide structural support for the ecosystem. Resources are exchanged among companies and stakeholders through multidimensional engagement platforms, which can be physical or virtual touchpoints (Breidbach *et al.*, 2014). These engagement platforms facilitate one-way or two-way communication between two or more stakeholders. One of the company's representatives interviewed talks about the communication channels for stakeholders and states that:

“[...] People can call us, people can send us emails, requests, I usually receive a long list of requests for donation or some sort of sponsorship through NAATA also. Then we have got a Facebook page and Twitter. So, now there are multiple digital channels available everywhere. So, it's no more a closed-door thing for a corporate anymore. We have also offered our consumers' different types of channels.”

Figure 7.1 illustrates various communication channels identified during fieldwork. Some channels act as a source of communication between the company and all stakeholders, such as official websites, company reports, and print and digital media advertising. Some are specific to one group of stakeholders, such as a customer service center. All these communication channels allow one-way or two-way communication between a company and its stakeholders. However, mostly stakeholders are interested in obtaining information about how transparent the company is and how it is contributing to sustainability.

Figure 7.1: Communication channels between company and stakeholders



The communication channels highlighted in this section develop an ecosystem for social interactions, where stakeholders are engaged with each other and exchange resources. AccountAbility (1999)⁵³ states that stakeholder engagement is one of the significant components of the sustainability accounting process. On the one hand, it facilitates the identification of sustainability issues and on the other hand, it enables companies to exchange the resources for sustainable outcomes. The interactions with stakeholders help companies to understand stakeholders' values and motivations, which guides companies to identify various sustainability issues. For example, communication with regulatory bodies guides companies to emphasize water conservation, waste management, and nutrition. Similarly, interaction with customers helps companies to understand customer preferences and focus on enhancing their

⁵³ AccountAbility is a global consulting and standards organization that aims at improving sustainability performance of diverse organizations by guiding them on the social and environmental impacts of operations, stakeholder engagement, information dissemination through reporting (AccountAbility, 1999).

product values. However, there is widespread confusion from stakeholders' perspectives about the awareness of these communication channels. Here we focus on two aspects: (i) communication channels offered and available to the stakeholders by the companies; and (ii) awareness and use of these communication channels by various stakeholders. These are explained next.

(i) Communication channels from the company's perspective

Companies have some formal channels for two-way communication with various types of stakeholders, for example, community engagement meetings, site visits, customer complaint centers, social media pages, emails, and conferences. Most of the time, specific personnel are associated to communicate to the external stakeholders, for example, corporate relations team or project managers on any specific project.

Empirical extracts related to the company's communication channels are as follows:

Company representative 3 interviewed on 27/01/2019 discusses the diverse communication channels and narrates that: “[...] It can be written communication, telephonic communication, through emails [...] Our communication team does not have any biases involved and they are just there to listen and address the issues which have been raised by anybody in relation to the organization, be it the product, be it the person, be it services, be it anything else. So that individual is going to a completely third individual, which is the legal department usually or the corporate affairs department.”

Company representative 4 interviewed on 04/02/2019 talks about specific company personnel to communicate with stakeholders and explains that: “[...] we communicate it to stakeholders that there is a proper channel that who and on behalf of who would speak with each category of stakeholder. For example, there is a communications manager for the company and only he is allowed to talk if there is any media query. With regard to government, only I am allowed to deal with them.”

Company representative 7 interviewed on 22/12/2019 discusses their open communication channels and states that: “[...] Actually we are quite open to that. Normally for our business partners, like WWF, Roshni foundation, they have a point of contact depending upon the project on which they are working. Basically, the main contact point is PPGA, as it is in every organization. So, our PPGA employee coordinates with them.”

Apart from the channels mentioned in the empirical excerpts, companies also use other mediums to communicate and spread knowledge about the company and its operations. These channels mostly include company reports, official websites, advertisements, or any other visual mediums. Companies are sometimes legally obliged or sometimes bound by the parent companies to render accounts of their activities. PepsiCo and Coca-Cola recently launched their official website in Pakistan (Coca-Cola, 2019c; PepsiCo, 2019d), but Nestlé has its official website for Pakistan from the past many years, with a separate section for stakeholder inquiries and complaints (Nestlé, 2019d). Nestlé provides an online platform for its stakeholders to come up with innovative ideas for environmental and social wellbeing, named Henry Nestlé Programme (also mentioned in Subsection 6.1.2). PepsiCo Pakistan also has an official department for handling customer complaints as explained by the company's sustainability manager interviewed that:

“[...] There is a whole quality department, which is not only responsible for maintaining the quality within the plant but also to deal with customer complaints. There is a whole CAPA system that is correcting and preventing the action system, which arises from the customers' complaints. We are keeping track of all the customer complaints that occur monthly, in which area they have occurred, what was the root cause that is catered.”

Direct interactions with various stakeholders develop accounts that help companies to identify environmental and social issues of communities and also provide companies with ideas to resolve these issues. Another important channel through which companies communicate with their stakeholders is media, either print or digital. Media campaigns of all these companies are always in the limelight and their celebrity endorsements are also acknowledged by stakeholders. All these companies spend billions of dollars on their advertisement globally. Global annual reports of these companies show the following figures of their advertisement expenses in 2018: Nestlé spent \$20 billion on marketing and administration activities (Nestlé, 2019a), The Coca-Cola Company spent \$4 billion on its advertisement (Coca-Cola, 2019a), and PepsiCo spent \$2.6 billion on advertising (PepsiCo, 2019b). The budget and spending vary according to the company size and scale of operations in a specific region. In Pakistan, companies mostly use television as a medium to communicate with stakeholders and spend huge amounts on advertisements.⁵⁴ Companies consider advertisements as a strong communication channel to disseminate any information to a wide array of stakeholders. Companies are also legally obliged to disseminate information about their ingredients and the nutritional profile of their products

⁵⁴ According to the latest news report, Top 10 Advertisers on television in Pakistan include PepsiCo, Coca Cola, and Nestlé in their list. Available at: <https://bit.ly/3lx06ia>, accessed on 05/03/2021.

through proper labelling. Associate director PFA interviewed on 08/02/2019 emphasize the labelling requirements and states that:

“[...] in labelling requirements, we are very strict. As you know that most of our population is illiterate as the literacy rate is less than 50%. So, we are concerned about writing the warning signs in Urdu, and clearly mention that what is good for the kids, what is good for others. Because we are working a lot on these false claims and deceptive labelling.”

Nowadays, nutrition-conscious customers also require transparency in information about food ingredients of the products they are consuming. That is why labelling has become a compulsion for all food and beverage companies to avoid any misleading statements. Another important channel of conveying information to stakeholders is company reports. Only Nestlé Pakistan publishes annual financial reports and CSV reports every year. However, the sustainability reports of Nestlé do not disclose the quantitative measure of key performance indicators in line with the reporting indicators provided by GRI, except the statistics for energy consumption, GHG emissions, and water consumption.⁵⁵ Whereas, Coca-Cola Pakistan published its first sustainability report in 2012, which focuses on the approach of LIVE POSITIVELY™ to make a positive difference in the world through their sustainability activities.⁵⁶ After that Coca-Cola Pakistan has not published any report on its financial and sustainability data. Though the CCI publishes sustainability data of Coca-Cola Pakistan every year (as mentioned in Sections 4.3 and 5.2). Whereas PepsiCo globally publishes its sustainability reports yearly for its overall sustainability performance. These reports broadly explain their focal sustainability agendas, which are mainly water conservation, waste management, packaging, health and nutrition, women empowerment, and climate change. Stakeholders' perspectives on the perception and use of these communication channels are discussed next.

(ii) Communication channels from stakeholder's perspective

Various stakeholders communicate differently with companies. It is to be noted that communication depends upon the availability of the communication channels as well as awareness and willingness to use those channels. For the integration of resources, it is important

⁵⁵ Nestlé Pakistan publishes CSV report every year since 2012 which focuses on nutrition, water, and rural Development. The report demonstrates the CSV activities conducted by Nestlé Pakistan during the year in collaboration with various stakeholders for individuals and families, for communities, and for planet. Latest report available at: <https://bit.ly/3cB47gx>

⁵⁶ LIVE POSITIVELY™ target 7 core areas, which are, beverage benefits, healthy living, climate protection, community, packaging, water stewardship, and workplace. The report also demonstrates that the company also engages community to create shared value for people, planet, and prosperity. report available at: <https://bit.ly/2TszbaN>

to understand stakeholders' perspectives of these communication channels, frequency of use of these channels, and how it helps them in conveying their issues to the company or to get the desired information about the products and activities of the company.

Communication with alliances, business partners, suppliers, academic and research institutes vary from department to department and project to project. Most of these stakeholders use formal channels for two-way communication, for example, official letters, emails, and phone calls.

Empirical illustrations related to stakeholders' perspective of the company's communication channels are as follows:

Research institute 2 interviewed on 02/05/2019 explains that: “[...] Mostly we use telephonic medium and emails for communication. In rare cases, other mediums like SMS can also be used.”

International association interviewed on 13/02/2019 also talks about various communication channels with the companies and states that: “[...] It is one to one session, either via email or any other medium. One to one session when you need to talk to them about it in detail, listening to their side of the story as well. I also provide information regarding how I can facilitate them in AWS certification.”

Supplier interviewed on 12/02/2019 discusses the communication channels and states that: “[...] We are literally integrated to those companies and our key accounts manager is responsible for our customers' R&D, their sales, their brand, the procurement, everything related to that, even their logistics. So, we are well integrated into their system to understand how this project has to be executed.”

Companies in a formal and documented relationship with any business or research partner, or any suppliers, have prespecified channels to communicate concerns with each other. This communication facilitates the exchange of resources and creates value for the interacted parties. These stakeholders can also use digital forums, for example, Henry Nestlé Programme to share their ideas with the companies. Similar communication channels are used between companies and regulatory bodies when they are in a formal contractual relationship. However, regulatory bodies also use other communication channels to inform and guide industries. Normally regulatory bodies issue general guidelines for industries and also create awareness for the compliance on those guidelines and of any new technology in the market. Companies are required to be compliant with the regulations, and if the regulatory bodies find during

monitoring that any company is non-compliant then they can take any legal action against that company. The legal actions by the regulatory bodies are also communicated through verbal and written channels. Companies can also approach these authorities in case of any ambiguity or guidance on any initiative. Nowadays few regulatory bodies such as EPA and Climate, Energy, and Water Research Institute (CEWRI) are guiding companies towards sustainability and pushing them to treat their air, water, and solid wastes properly.

Empirical illustrations related to the communication of regulatory bodies are as follows:

Regulatory body 1 interviewed on 21/01/2019 discusses the procedures to communicate with them and narrates that: “[...] There are two ways to do this: our district offices are in all 37 districts; companies can come to us at our offices personally, and they can also communicate through head office.”

Regulatory body 4 interviewed on 29/01/2019 also describes that: “[...] we have registration forms and companies apply through those legal forms to register their intellectual property rights. There is also a legal fee for that as well. They apply through those forms and provide all data and information required on those forms. If we need to clarify anything before registration, any query, then we do correspondence with them by email or through courier service, postal service.”

Regulatory body 5 interviewed on 08/02/2019 highlights various communication channels and states that: “[...] Normally there is written kind of communication in the public sector. We ask them to write a letter and then we respond accordingly [...] We give them a ticket for proper fine and we have proper pro forma for that. So, give them notice for fine and everything is communicated to them through a written channel and nothing is verbal.”

Regulatory bodies are responsible for creating awareness on environmental protection and social wellbeing issues, but fieldwork reveals that many stakeholders, particularly small companies, and consumers in Pakistan, are unaware of the rules and regulations by the regulatory bodies. The awareness of food quality and food safety has increased because of some activists and social media. Food authority has now become active in ensuring food quality and issues reports every year for public awareness on safe food options available for customers.⁵⁷

⁵⁷ Government of Pakistan has banned the sale of fizzy drinks in schools and colleges and declare them unhealthy. Available on: <https://www.dawn.com/news/1332946>, assessed on 12/08/2019.

The media is also making efforts to create awareness for the general public on the issues related to water scarcity, waste treatment, nutrition, and recyclable packaging.

Empirical illustrations related to creating awareness by regulatory bodies are as follows:

Regulatory body 1 interviewed on 21/01/2019 narrates that: “[...] we create awareness through seminars to educate people, we have many orders for sustainable development, and we are bound to ensure sustainability in all our projects. We have environmentally certified laboratories in the private and government sector, and we certify those laboratories. They are required to get qualifications for what types of tests they can perform, and they take a license. We also have environmental consultants who provide legal and technical feasibility approval for any company.”

Regulatory body 4 interviewed on 29/01/2019 discusses the training platforms for stakeholder and states that: “[...] we have a special academy in our organization that is called IP academy of Pakistan and we run so many sessions with the chamber of commerce and industry and business associations, and also with so many other forums for awareness of the business community and especially for small and medium enterprises.”

Another important stakeholder category is the customer. Fieldwork reveals that customers' views vary about the communication channels to exchange resources with companies. Customers are the buyers of the products and with this respect, their behaviours are driven by various factors (Subsection 6.1.2) based on their value propositions (Subsection 6.2.3). The most common platforms to exchange resources among companies and customers are retail stores, from where customers buy the product by exchanging monetary resources. Apart from this platform, customers use other communication mediums to get knowledge about the products, their ingredients, and company efforts, such as official websites. Very few customers are found to be interested in giving feedback and complaints to the company via their customer service. The reason being a lack of trust that their voice will be heard and given any importance. Mostly customers use indirect channels to communicate their concerns with the company, for example, social media blogs and complaints to the local retail stores from where they have bought these products. Moreover, customers are also unaware of any direct channel of communication available for them and rely on the visual presentation of the company.

Empirical illustrations related to customer views on communication channels by the companies are as follows:

Customer 3 interviewed on 09/02/2019 discusses the way of communication with the company and narrates that: “[...] I cannot directly go and talk to people in the company so, I would just go to the shop for any issues. The shop owner may exchange that defective product and may return that to a distributor, but these things are I guess not communicated directly to the company. There will be so many intermediaries that the original message may not be communicated to the company personnel. So, it will be affecting my communication.”

Whereas Customer 5 interviewed on 29/01/2019 argues that companies become aware of customer preferences by any means and explains that: “[...] although there would be a very small percentage of people sharing their concerns on email or social media or using any platform to communicate, but their voice normally reaches through any channel to the company.”

Fieldwork reveals that most of the stakeholders, especially customers recognize the company’s activities and achievements through its visual efforts. The impact of visual presence on customers’ buying decisions is manifested in their responses.

Empirical extracts related to the impact of the company’s advertisement on customers are as follows:

Customer 7 interviewed on 27/02/2019 talks about the visual presence of companies and describes that: “[...] if somebody wants to buy a day-to-day product then I won’t go on the internet to google it and get out the information about the company [...] So, it’s basically the visual effects and how vocal is the company. I mean how often I come across their advertisement in the newspaper, how often I come across their advertisement on social media or another medium I am using. It’s mostly about signposting and signaling and how much you are conveying to a customer that yes your product is different from other products, from other brands and you can trust their products as much as you can.”

Customer 3 interviewed on 09/02/2019 also discusses the visual association with the brand and narrates that: “[...] what values me most is probably my association with the product since my childhood and I used to watch its advertisements and celebrities who used to come in those advertisements at that time. I used to be a big fan of them, so I think celebrity endorsement also had an impact on me and it influenced my buying decisions.”

These illustrations depict that visual media has a strong impact on customer buying decisions, realizing emotional value, shaping customers' minds, and aware them of any new features in the existing products, any new products, or any initiatives by the companies. Sometimes communication channels play a negative role for companies, especially the media. Any fake rumors about the companies or any unethical business practices come into the limelight because of the media. Fieldwork also highlights certain events where consumer behaviour is influenced by rumors and the company has tried to clarify the issue through the media. For example, Nestlé Pakistan was accused of delivering artificial milk to consumers, and as a result, the company started a campaign to clarify its position in the eyes of consumers. Following is the quote from one of the customers interviewed:

“[...] I have come across an advertisement related to Nestlé milk and they showed the whole supply chain through which they collect, store, and pack their milk.”

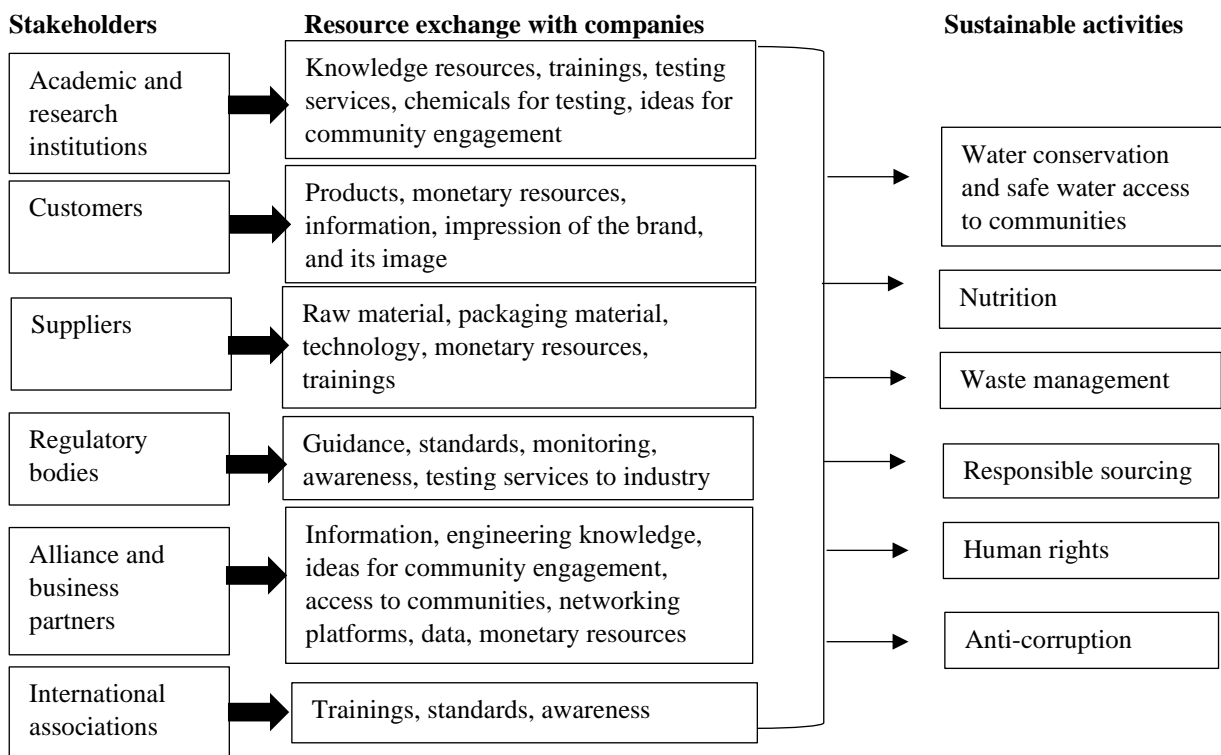
Overall, accurate information about the company, available through proper channels, influences the purchase decisions of customers. This information not only affects buying decisions but also creates the company's image in the entire ecosystem, which eventually impacts the company's relationships with other stakeholders. Vargo and Lusch (2017) state that within a business ecosystem, multiple stakeholders are involved in social interactions to exchange and integrate resources for the co-creation of values. These social interactions between stakeholders are antecedents to resource exchanges and resource integrations, as explained by Gummesson and Mele (2010). Stakeholders in an ecosystem evaluate their available resources and identify the potential resources. According to the S-D logic, these resources are divided into operand and operant resources. The resource exchange, either operand or operant is fundamental to co-create values.

7.2 Types of resources exchanged between companies and stakeholders

Research highlights the significance of resource exchange for the co-creation of value (Jaakkola and Hakanen, 2013; Frow *et al.*, 2014; Pera *et al.*, 2016). Fieldwork reveals that there are various types of resources that are exchanged between a company and its stakeholders. We can categorize them into two groups: operant resources and operand resources (Constantin and Lusch, 1994; Vargo and Lusch, 2004). Operant resources are processional or non-physical, and they are mostly associated with the exchange of intangible resources between companies and stakeholders and are capable of acting on other resources. The exchange of operant resources mainly includes knowledge, information resource, intellectual expertise, brand image, networking platform, and brand image. Whereas operand resources are physical in nature and include the exchange of tangibles such as products, materials, equipment, financial, human, and

technological resources (Vargo and Lusch, 2004). Vargo *et al.* (2017) argue that both types of resources are important for the co-creation of value, but operant resources are given more importance, as they focus on developing value propositions to determine values. Companies exchange resources with diverse stakeholders and then integrate these resources into their activities. Literature and fieldwork emphasize that an individual company's resources are sometimes not sufficient for their survival and welfare. They require specialization and the exchange of resources for wellbeing (Vargo and Lusch, 2004; Lusch and Nambisan, 2015). These resources are integrated by companies according to their value propositions. Values are co-created through an exchange of both types of resources (Fyrberg Yngfalk, 2013; Jaakkola and Hakanen, 2013; Roberts *et al.*, 2014; Hsieh and Hsieh, 2015; Kazadi *et al.*, 2016). Figure 7.2 illustrates the exchange of resources among stakeholders and companies studied in the food and beverage sector.

Figure 7.2: Resource sharing with multiple stakeholders



The resources identified from fieldwork are categorized into operant and operand resources, mainly to understand the nature of resources. Operant resources, identified from the fieldwork include any kind of knowledge, information resource, intellectual expertise, ideas for community engagement, training, awareness, guidance, standards, networking platform, and brand impression. Whereas operand resources exchanged are products, raw materials, equipment, packaging materials, financial resources, human resources, technology, testing

chemicals, and testing facilities. Another important operand resource that facilitates the exchange of other operand and operand resources is a relational resource, which is based on the relationships with stakeholders (Section 7.3 for details). The exchange of these resources produces multiple accounts, which are sometimes in narrative forms and most of the time in quantitative numbers. Narrative accounts help companies to understand sustainability related issues, develop strategies to execute them, and explain the outcomes. These accounts can be in the form of some knowledge, information sharing, ideas for community engagement, and some social and environmental outcomes. Companies sometimes disclose these accounts to the interested parties and sometimes embed them in their practices. Whereas, numbered accounts are mostly in quantified form, and companies are either legally responsible or obliged by the parent companies to disclose them transparently. Both narrative and numbered accounts are explained in more detail in Chapter 8. Developing such accounts requires companies to interact and communicate with stakeholders to identify sustainability issues and to exchange resources to achieve sustainability targets. The resource exchange is dependent on the type of stakeholders, the availability of resources, and the willingness to share those resources. This section highlights the various types of resources shared and exchanged among companies studied and different stakeholders from the sustainability perspective and divided into two subsections. Subsection 7.2.1 highlights the resources possessed and exchanged by companies, and section 7.2.2 elaborates on the resources possessed and exchanged by various stakeholders.

7.2.1 Resources possessed and exchanged by companies

Global sustainability reports of companies shed light on the operand and operand resources. On the one side, sustainability reports demonstrate the availability of physical resources, their utilization, and conservation, and on the other side, they also highlight the exchange of non-physical resources.⁵⁸ Interactions and collaborations between companies and stakeholders are recognized as ways to access and utilize maximum resources to resolve global unsustainable circumstances. Following is a quote from one of the interviewees:

“Resource sharing is important for the right utilization of resources. Nobody single-handed has the right vision to efficiently use all resources.”

Nestlé, PepsiCo, and Coca-Cola exchange a wide array of resources with their internal and external stakeholders. These companies provide training to their employees, which is focused on human rights, health and safety, environmental requirements for water quality and effluent

⁵⁸ Physical resources: such as products, raw material, equipment, and non-physical resources: trainings, campaigns, intellectual knowledge.

discharge in all their factories, gender diversity, stress and resilience, and anti-corruption or anti-bribery. Nestlé offers e-learning courses for all its employees, including leadership courses and workshops, and anti-corruption programmes (Nestlé, 2019c). The company regularly conducts its human right impact assessment across its global operations to identify abuses in its supply chain and mainly for labour rights. With external stakeholders, Nestlé, PepsiCo, and Coca-Cola exchange various tangible and intangible resources.

Empirical excerpts related to the company's resource sharing are as follows:

Company representative 1 interviewed on 19/12/2018 talks about diverse company resources and describes that: “[...] We are spending resources, we are involving human resources, then the financial part and the awareness part and the technology part. So, it depends from project to project.”

Company representative 2 interviewed on 20/01/2019 also states that: “[...] we transfer a lot of knowledge and technology amongst the stakeholders that we work with.”

Company representative 4 interviewed on 04/02/2019 highlights the significance of mutually beneficial resources and narrates that: “[...] I think with every stakeholder it's very important to have a mutually beneficial resource that you exchange or give and take. Not necessarily a physical resource but an intangible resource as well.”

Company representative 5 interviewed on 22/12/2019 also discusses the exchange of tangible resources and states that: “[...] Our franchise operations are not owned by us, we sell them the concentrate, and they produce their own bottles and sell by themselves. One thing that could have been in this example is that this is your concentrate, we sell it to them, and they give us the right amount of money [...] so whichever resource we have, we want to get the maximum benefit out of that, whether a human resource, a monetary resource, or any tangible resources.”

Company representative 7 interviewed on 07/02/2019 also highlights the exchange of tangible and intangible resources and quotes that: “[...] Sometimes its intellectual resources, like there can be some reports. Sometimes it can be simple give and take sort of thing that we give money to them and ask them to study certain parameters or test them.”

Nestlé, PepsiCo, and Coca-Cola are emphasizing sustainability activities and their focal areas in Pakistan are waste management, water safety and management, nutrition, responsible sourcing, human rights, and anti-corruption. To attain these objectives, these companies are

exchanging resources with multiple stakeholders as illustrated in Figure 7.2. These resources are integrated to achieve the sustainability outcomes of these companies. Companies are mainly involved in delivering products to their customers. Moreover, they are also monitoring the activities of their business partners, providing awareness, knowledge, and information to their stakeholders. One such example is the Nestlé healthy kids' programme which involves three stakeholders: students, schoolteachers, and parents of students. This programme provides nutritional and water conservation awareness to stakeholders involved. As a multinational, Nestlé has global expertise, and the company provides training to its suppliers and distributors so that they can learn systems and processes from them. Cola producers (PepsiCo and Coca-Cola) sell concentrate to their bottling partners in exchange for money. Bottling partners have manufacturing plants to further produce the beverages by using those concentrates and sell them.

Companies studied cross-fertilize diverse resources from a variety of stakeholders to achieve a better fit between resources, activities, and processes (Gummesson and Mele, 2010; Vargo and Lusch, 2011). However, companies integrate these resources differently, depending upon their needs and values. Fieldwork characterizes resource integration as a mix of both complementarity and redundancy (explained in Subsection 3.2.4), to create a better fit between sustainability activities, the company's processes, resources, and stakeholders' resources. During the entire process of resource integration companies jointly create values and incorporate those co-created values at multiple levels, as also explained by Lusch and Vargo (2014). Fieldwork highlights three types of values that motivate companies to integrate resources, which are: ethical values, mutually beneficial values, values related to the sale and utility of the product (Section 6.2). Companies put efforts to gather appropriate resources to realize these values. Values are determined through the integration and application of both operand and operant resources. For example, companies in Pakistan are ethically and legally motivated to conserve groundwater resources, which is an ethical value, and to realize this purpose, companies are exchanging resources with other stakeholders such as regulatory bodies, business partners, and international associations. Here the ethical values and mutually beneficial values are simultaneously driven by welfare, collaborative, financial, and reputational motives. Both operand and operant resources are exchanged for this purpose among the company and stakeholders including knowledge, ideas for community engagement, intellectual expertise, training, awareness, guidance, standards, networking platform, equipment, financial resources, human resources, and technology. All the resources integrated through this process are co-creating ethical values and mutually beneficial values to conserve

groundwater. It is also adding social value, which motivates consumers to buy the products of these companies. Thus, the entire process of value co-creation is contributing to the fight against water crises in Pakistan and to conserve natural resources. The case of groundwater conservation depicts that value co-creation is not limited to the exchange of resources among mere two stakeholders.

7.2.2 Resources possessed and exchanged by stakeholders

Possessing all the required resources, for example, knowledge, expertise, and credibility are beyond the control of a single organization (Kazadi *et al.*, 2016). This notion highlights the significance of sharing and exchanging resources with stakeholders. Different stakeholders share diverse kinds of resources with the company. Alliances, business partners, academic and research partners normally exchange both tangible and intangible resources with the company. These resources vary from project to project, for example, they can provide any service, such as testing facilities, share information, engineering knowledge, ideas for community engagement, access to communities, networking platforms, and research data. The focus of sharing these resources is to improve the products, their packaging, waste management practices, and water safety.

Empirical illustrations related to resource sharing among companies and business partners are as follows:

Business partner 1 interviewed on 17/01/2019 discusses sharing intangible resources and narrates that: “[...] we also provide them access to communities, we help connect organizations with their local environment [...] But on top of that, we have a range of expertise available, so we share engineering knowledge as well. We share information related to operations as well. But our basic resource is not capital, it’s human and besides human its knowledge that we rely on.”

Business partner 2 interviewed on 07/01/2019 also explains that: “[...] they provide us training on health, nutrition, and water and we communicate it further. In return, we are giving them a feeling of success regarding the impact that we are making.”

Research institute 2 interviewed on 02/05/2019 highlights the exchange of tangible and intangible resources and states that: “[...] We provide them testing facilities, we provide training as well as lab visits. We also support each other in comparing test results with each other to check the authenticity of the results. In rare cases, we can exchange any chemical for testing if it’s not available.”

Similarly, resource sharing with suppliers also varies from the type of suppliers. Suppliers normally share resources, such as raw material, packaging material, and technology, with the companies. Whereas companies provide monetary resources and sometimes responsible sourcing guidelines and training to their suppliers to improve their yield, raw material, technology, and packaging material. Sustainable farming programmes by Nestlé and PepsiCo are examples of resource exchange practices among companies and farmers (see Responsible sourcing programmes, Section 5.2.2). Following is a quote from one of the suppliers interviewed on the exchange of resources:

“[...] If they have a new product which is not aligned to the current equipment that we have, then we somehow reach an agreement with the procurement as well, if the brand is willing to give us the copyright for a certain number of period then we tend to invest heavily on that equipment as well.”

Nowadays, companies are focusing on green supply chain management (Carter and Rogers, 2008) by coordinating and integrating their suppliers' processes. However, here our focus remains on the processes of communication and resource exchange among the company and its suppliers, which are significant aspects of green supply chain management. Another important stakeholder category is the customer. Customers are interested in buying products with money, but during this exchange of tangible resources, certain intangibles are also exchanged, for example, information about labelling and the impression of the brand. Information from customers makes companies understand customers' tastes and preferences and it builds brand image.

Empirical illustrations related to resource sharing among companies and customers are as follows:

Customer 2 interviewed on 15/01/2019 discusses customer's expectations from companies to disclose certain information and narrates that: “[...] normally customers require information from the company regarding their products, their availability, their pricing, their safety standards, especially in this territory their halal certifications, and the ingredients that company is using in making its products.”

Customer 7 interviewed on 27/02/2019 also highlights the exchange of resources between company and customers and states that: “[...] if we talk about what company is giving me then they are providing me information, knowledge about their product, and a product itself. The company is giving me a good quality product, satisfying and meeting my needs, in exchange for money.”

The excerpts depict that customers are exchanging monetary resources with the companies, but at the same time expecting from them a value-buying product, compliant with the religious and regulatory guidelines for the food and beverage products. Regulatory bodies provide guidance, standards, monitoring, awareness, and sometimes testing services to the industry on sustainability issues (see Appendix J). For example, PFA has approved labs for food testing, and companies in the food and beverage sector are encouraged to get their food samples tested from these labs. The purpose is to monitor the hygiene and nutrition of food products and to this extent hold them accountable.

Empirical illustrations related to resource sharing among companies and regulatory bodies are as follows:

Regulatory body 2 interviewed on 27/01/2019 discusses the resource exchange with companies in the form of providing them testing services and narrates that: “[...] there are so many types of equipment for various things. There is separate equipment for noise, different equipment for field tests and wastewater, for temperature, PH, and Total dissolved solids called TDS. We go with our team and then measure all the aspects and then give them a report.”

Regulatory body 5 interviewed on 08/02/2019 also highlights the exchange of various resources and states that: “[...] We are exchanging multiple resources. We are issuing letters to the industry which are specifically concerned with that particular industry, for example, if Nestlé has applied for approval of a certain label, then we will be issuing a letter that will be pertained to that specific matter [...] We also provide sample testing services to industry, either from PFA’s own labs or outsourced labs.”

All the resources discussed here are exchanged among companies and a diverse array of stakeholders (also mentioned in Figure 7.2). Leclercq *et al.* (2016) state that this resource sharing allows the joint creation of value, where one stakeholder performs two roles: provider and beneficiary (Payne *et al.*, 2008). During the value co-creation processes, each stakeholder performs both these roles, which asserts that value is reciprocally created (Greer *et al.*, 2016). The exchange of resources is facilitated by various factors in an ecosystem. Section 6.3 discusses certain factors in an ecosystem that are available to all companies and stakeholders, such as, regulations, culture, and scarce resources, and enable or hinder value co-creation. However, connectivity among stakeholders is crucial for facilitating resource exchange in an ecosystem, as it not only supports resource exchange but also develops relationships among stakeholders (Leclercq *et al.*, 2016).

7.3 Role of the ecosystem: interconnectivity among companies and stakeholders

An ecosystem is taken as a collective system of various external factors and interconnections between various factors and stakeholders to either enable or hamper business activities (as explained in Section 6.3). External factors, such as regulations, culture, and religion, and scarce resources have been discussed in the previous chapter. Here our focus remains on the relationships among companies and their stakeholders, and how companies consider these relationships to create values. Every company relies on good relationships with its stakeholders and resources (Section 7.2) to create values. Companies can actively consider these relationships and resources to inform the way they do their business. Building on existing relations and resources allows companies to contribute to financial stability and sustainable development. The concept is highlighted in the integrated reporting framework by IIRC. The vision of IIRC is to create a world in which “integrated thinking is embedded within the mainstream business practice in the public and private sectors, facilitated by Integrated Reporting (IR) as the corporate reporting norm.” (IIRC, 2013a, p. 2).⁵⁹ The iterative process of integrated thinking and reporting results in the efficient utilization of resources and enables sustainable development.

Moore (2006) argues that companies require the participation of dozens or even hundreds of contributors to resolve a substantial solution to complex consumer needs. The system in which companies, their stakeholder relationships, and resources are embedded is a complex ecosystem, which facilitates the mutual creation of value (Breidbach *et al.*, 2014). In this ecosystem, engagement platforms or communication channels (mentioned in Subsection 7.1.2) provide structural support for the integration of resources. The relationships between stakeholders in an ecosystem are dependent on each other for their success or failure (Anggraeni *et al.*, 2007). It is already highlighted in Section 7.1 that these relationships are responsible to account for various actions and activities. All these relationships are embedded in an ecosystem and the resource exchange among stakeholders provides energy to this ecosystem and keeps it going, as also mentioned by Power and Jerjian (2001). Here our focus remains on the various aspects of stakeholders’ connections, which are embedded in an ecosystem. Fieldwork reveals that these aspects include: (i) nature of the relationship among the company and its stakeholders in terms of its duration, formal or informal tie; (ii) level of understanding and expectations from each other; and, (iii) outcome of the relationship. These aspects are explained next.

⁵⁹ “Integrated Thinking refers to the conditions and processes that are conducive to an inclusive process of decision making, management and reporting, based on the connectivity and interdependencies between a range of factors that affect an organization’s ability to create value over time”, Available at: <https://www.cimaglobal.com/Research--Insight/Integrated-thinking-1/>

(i) Nature of the relationship among company and its stakeholders

Various stakeholders have formal and informal ties with companies, depending upon their nature of the relationship. Companies also try to establish a good relationship with each stakeholder, which enables them to mutually benefit from each other. One of the company representatives describes that:

“[...] for example if I talk to you about a supplier, a vendor, we should treat him as a business partner, and it should not be like that we expect him to provide us anything on a very basic low cost and in that low cost that supplier is not providing us the quality that we expect and he is not getting sufficient profit out of it that then it is not going to be a mutually beneficial relationship.”

Stakeholders' relationships with companies vary in duration, degree of concern, and expectations. Accountability is crucial to the relationships between various stakeholders and companies, which is manifested in these relationships. Alliances, business and research partners, and suppliers share a formal relationship with these companies and both parties are accountable to share resources and disseminate information in such relationships. Normally companies and alliances, business and research partners, and suppliers sign a Memorandum of Understanding (MOU) before any project, and they are more concerned about long-term mutually beneficial relationships. Communication channels and types of resources exchanged among companies and the abovementioned stakeholders have been discussed in Section 7.1 and 7.2, respectively. Communication channels provide a platform for resource exchange, which supports relationship building among the parties involved.

Empirical excerpts related to alliances, business and research partners, and suppliers' relationships with the companies are as follows:

Business partner 1 interviewed on 17/01/2019 talks about a formal relationship with the company and narrates that: “[...] whichever project we run, we kind of have a formal agreement and based on that we work closely on different projects.”

Business partner 2 interviewed on 07/01/2019 also describes that: “[...] in our running project, they have always been very supportive, and we are working as per terms and conditions mentioned in our MOU [...] so our partnership brings us the benefit that we are trusted people, and it is mutually beneficial for both organizations.”

Research institute 2 interviewed on 02/05/2019 discusses the long-term relationship with the companies and states that: “[...] we have been involved with these companies

for a very long time. Especially Nestlé is more into testing and they have more samples from time to time. Coca-Cola has comparatively fewer samples for testing. Due to MOU with PepsiCo, they also send regular samples for testing to PCSIR, particularly for Lays and its flavours.”

Supplier interviewed on 12/02/2019 explains the supplying and shareholding relationship with companies and describes that: “[...] we have a formal relationship with them in business terms. We have certain shares in Coca-Cola and Nestlé as well, but not in PepsiCo [...] because we have grown with these companies and they are still our customers from the past fifty years.”

Benefits associated with these alliances and partnerships are dependent upon the nature and type of relationship. For example, if the alliance is between a large company and a start-up then the benefits associated with that relationship would be different. Because a start-up lacks a lot of financial resources and a large corporate has those resources but may not have innovation or time to explore a completely new market. Start-ups have the time, innovation, and they can focus on resolving one issue. So, mostly when a company and start-ups join hands then obviously the company shares financial resources and supports the start-ups because of their reputation and access to large customers and the start-ups can focus on the underlying functions. Founder of TrashIt, which is a start-up, interviewed on 05/04/2019 discusses their relationship with Nestlé and states that:

“[...] It is a formal tie, as there is a contract that includes whatever funding they are going to provide, whatever support they are going to provide [...] corporates and start-ups when they join together they can create a lot of value. When corporate and start-ups join hands then obviously corporates will be sharing resources, giving support and the start-ups can focus on the core operations. And also corporate being in business for so long can also give insights, can also give access to a lot of customers and also boost the products that have been pushed in the market because of their name.”

Similar formal ties are developed between companies and regulatory bodies. However, companies' relationships with the regulatory bodies have two sides, on the one hand, regulatory bodies are providing guidelines and standards for companies and on the other hand, they are also doing joint projects with the companies. Fieldwork reveals that multinationals are found to be careful about their working standards and comply with the rules and regulations of the country in which they are operating. For example, from the environmental point of view, the biggest concern is the disposal of wastewater by the food and beverage companies, and it is

noticed by EPA that these multinationals have good wastewater treatment plants at their facilities, and they do chlorination of their wastewater before disposal. However, PFA notifies some standards related to nutrition and labels which creates problems for multinationals sometimes.

Empirical extracts related to regulatory body relationships with companies are as follows:

Regulatory body 5 interviewed on 08/02/2019 discusses the compliance with the food laws and narrates that: “[...] Though multinationals are following good standards as far as the hygiene is concerned and PFA didn’t find any hygiene issues with them. But there are some standards related to nutrition and labels which create problems sometimes and they have to comply with them.”

Regulatory body 3 interviewed on 27/01/2019 highlights their concern with the waste generation and disposal by the companies and describes that: “[...] Our major concern is not on the products of Nestlé or any other company, we are concerned with the outlets of waste at their facilities. So basically, we monitor the quality of waste generated and disposed of after the production of the products.”

Relationships with regulatory bodies can also be challenging, as mentioned in the legal motives of Subsection 6.1.1. These challenges, such as clashes in the regulatory bodies and corruption can impede the company’s operations. Another important stakeholder category is the customer. Customers have an informal tie with the company and most of the time they are concerned about the product attributes (mentioned in Subsection 6.2.2). Majority of the customers interviewed state their long-term relationship with the company. Fieldwork reveals that this relationship is mutually beneficial, as customers get the desired products and companies earn revenues from the sale of products, which can be further used for research and development and new product development.

Empirical illustrations related to customers’ relationship with companies are as follows:

Customer 3 interviewed on 09/02/2019 discusses the duration of the relationship with the company and narrates that: “[...] I cannot recall the exact number of years but probably since my childhood or when I became able to understand different products and different things in the market, I know about Pepsi. I have been buying and consuming the products of this company from my childhood.”

Customer 7 interviewed on 27/02/2019 expresses the significance of the relationship with the company and states that: [...] I think it is a two-way relationship like as much as customers need any company, the company needs customers to grow their businesses. And this relationship is important for me because of the association I have with that company, I rely on their products, and I have full trust in them, and these are the basic needs of any relationship.”

However, few customers argue that their association with the company is not irreplaceable. They argue that the non-availability of the product and negative marketing can switch them to other similar products of the company’s competitors. Following is the quote from one of the customers interviewed:

“[...] you can say that it’s not irreplaceable. Because whatever they are selling, I can get those from other companies as well. I do not have any special tie for the company or the products.”

These kinds of customer relations can pose challenges for companies, as companies put a lot of effort to retain their customers. Overall, companies’ relationships with diverse stakeholders can either be formal or informal and they develop over time. Mutually beneficial relationships support each other and create a conducive environment to co-create values. To keep these relationships growing, a certain level of understanding must be developed between companies and their stakeholders, which is discussed here.

(ii) Level of understanding

Accountability relationships require all the parties involved to recognize each other’s aspirations, limitations, and responsibilities. Here the objectives of the companies studied are to have a clear understanding of its stakeholders and to create a flexible and open environment with them to communicate, keeping under its code of conduct.

Empirical excerpts related to the level of understanding between companies and their stakeholders are as follows:

Company representative 3 interviewed on 27/01/2019 explains their training to deal with diverse stakeholders and describes that: “[...] we are trained enough to understand different kinds of mindsets, whether we are dealing with someone from our country or with someone from any other country.”

Customer 3 interviewed on 27/01/2019 expresses expectations from the relationship with the companies and narrates that: “[...] the relationship needs more transparency, a

better communication system, a better understanding of dependence on each other for the exchange of information, and more reliance on each other.”

Customer 2 interviewed on 15/01/2019 also discusses that: “[...] complying with more stringent laws and regulations give an impression to the customer that the company is doing its best to produce a quality product, which is least harmful for the community.”

Business partner 2 interviewed on 07/01/2019 describes their relationship with the company and states: “[...] I feel that they are very warm and professional people and they always show respect towards me and my organization.”

Fieldwork reveals that diverse stakeholders expect differently from companies. Nowadays various stakeholders such as alliances, partners, regulatory bodies, customers, and suppliers are aware that business organizations are over-utilizing resources and generating waste in the environment. These stakeholders expect companies to be accountable for their activities and provide the outcome of those activities to the concerned stakeholders either in numbered or narrative accounts. For example, various stakeholders expect companies to efficiently utilize natural resources and manage unwanted hazardous wastes from their operations. One of the business partners interviewed describes that:

[...] companies have realized that the communities that they work in have their own set of issues related to water. So, if they are working ethically or they are making sure that their water systems are perfect, it doesn't mean that the system is operating efficiently as well. So, it's kind of bounds them and helps them think more outside the box rather than looking them just from the operations stream, they have now started looking from a community perspective as well.”

Regulatory bodies, suppliers, and customers are also aware of the issues related to packaging and plastic waste. Awareness about these issues through any platform, either media or word of mouth, raises the level of expectations of stakeholders from the companies to resolve such problems. Likewise, some stakeholders, especially customers understand the importance of the nutritional value of the food and beverage products. Most of the customers expect companies to meet the highest quality standards, comply with the regulations, try to work more on their social responsibilities, environmental protection, and be transparent in disseminating information. For example, sharing product's ingredients with the customers through labelling and on various other activities of companies through their websites and social media.

Empirical illustrations related to customers' expectations from companies are as follows:

Customer 3 interviewed on 27/01/2019 describes that: “[...] as a big multinational, I expect them to meet highest quality standards, comply with the regulations, and be transparent, try to work more on their social responsibilities and try to protect the environment.”

Customer 4 interviewed on 22/02/2019 narrates that: “[...] I don't know their stance about healthy food, as far as I know, there isn't any healthy food option by Pepsi. I would like that they should be doing something about their plastic [...] They are such a big company, and they have access to so many resources, either financial or human so they can stand and that will be a positive impact on society and environment.”

Customer 7 interviewed on 27/02/2019 also expresses an opinion about the labelling requirements and states that: “[...] there should be involvement in knowing that what ingredients the company is using in developing products, how transparent they are in making their product.”

Sometimes business organizations are involved in multi-stakeholder programmes and community engagement initiatives, in which they engage local or international companies, NGOs, regulatory bodies, community, media, research, and academic institutes. This is recognized that certain projects cannot be executed single-handed, they require collaborative efforts between the communities, civil society, political agents, and private companies as well. One such example is AWS, which employs three mutually reinforcing programmes for improved water stewardship, which are: a standard and verification system, membership of a multi-stakeholder association, and training. It requires a good relationship between the public, private, and civil society to facilitate bolstering the steps towards saving water, reducing water wastage, and improving the quality of water. An empirical excerpt from the international association describes that:

“[...] the strategy can develop a good relationship between the public, private, and civil society set up and facilitate how to further strengthen the steps towards saving water and reducing the amount of water that is wasted and improving the quality of water. So, it will be facilitating on all grounds.”

Alliances, business partners, and suppliers expect a smoother relationship and exchange of resources, such as knowledge, financial, and tangibles, for the benefit of both parties. Private

companies are collaborating with other companies, NGOs, and government agencies to work on joint projects, for example, tree plantation by PepsiCo and Coca-Cola, liter for light initiative, and water replenishment project by PepsiCo, and Healthy Kids and Healthy Women programmes by Nestlé. All these programmes are operational in collaboration with other companies such as bottling partners; NGOs, such as WWF-P, Roshni Foundation, CARE Foundation; and government agencies such as PFA and EPA.

Empirical illustrations related to business partners' and suppliers' expectations from companies are as follows:

Business partner 1 interviewed on 17/01/2019 narrates that: “[...] because these companies can impact the livelihood of farming communities and that way, we can generate a healthy economy. To do so, we need to make sure that these companies operate sustainably, more ethically.”

Supplier interviewed on 12/02/2019 discusses the mutual benefits and states that: “[...] So everything is vertically integrated, we make our own cylinders, we have our own ink house, we have a joint venture with Court Lurie, that's an international ink manufacturer, we have the joint venture with Stora Enso that makes the best board in the world. So, we have a lot of joint ventures with a lot of international manufacturers, so I believe that it's already known to them and they come to us for end-to-end solutions, or you can say cost-effective end-to-end solutions.”

Regulatory bodies have an important role to play in this collaborative environment because they provide guidelines and monitor the activities of companies.⁶⁰ Overall, every stakeholder is interested in a beneficial relationship with the companies, and they are interested in recognition of their efforts (as explained in Subsection 6.2.2 and 6.1.2 respectively).

(iii) The outcome of the relationship

Companies' relationships with stakeholders and their level of understanding and expectations from each other highlight the nature of connectivity between them. Fieldwork depicts that outcomes of the relationships between companies and stakeholders vary for different parties involved. Every stakeholder is interested in mutually beneficial outcomes. IIRC (2013b) defines outcomes as “the internal and external consequences (positive and negative) for the capitals as a result of an organization's business activities and outputs” (p. 8). Values are manifested in

⁶⁰ In case of non-compliance companies are liable to pay penalties. Recently Nestlé has paid heavy compensation on using ground water resources. Nestlé has been accused of contributing to the decrease of the ground water level that dries local water provisions for the sake of profit (Source: Interview with Regulatory body 1).

these outcomes and vary from the perspectives of stakeholders. For example, customer relations are based on the values associated with the experiences and benefits expected and achieved from the purchase of the products (Subsection 6.2.3). Normally FMCGs are concerned more about customers' tastes and preferences and their core purpose is to develop products according to the customer needs. The company's long-term relationships with customers turn out to be economically beneficial for them and lead to the long-term sustainability of their business. One of the company's representatives discusses beneficial outcomes of their relationship with customers and quotes that:

“[...] The benefits that we expect are mainly to get sustainability in our business because as far as we are there as an organization we contribute to the community and we can serve our customers to the best.”

Relationships with other stakeholders such as business and research partners, suppliers, and associations are dependent on each other for mutually beneficial outcomes. The benefits sought and achieved vary according to the scope of work of each stakeholder, but largely include economic benefits, technological advantages, and reputational gains, as explained in Subsection 6.2.2. Companies are sometimes legally obliged or bound by parent companies to disclose accounts of the outcomes of their activities.

Empirical extracts related to the beneficial outcomes of the company's relationships with stakeholders are as follows:

Company representative 4 interviewed on 27/01/2019 describes their relationship with stakeholders and narrates that: “[...] most of the benefits are intangible, and it's again that we would like to better serve our stakeholders so that they can grow, and we can grow. We work as business partners with every stakeholder either it's a supplier, a customer, or anybody. So, it has to be a relationship between two business partners.”

Business partner 1 interviewed on 17/01/2019 explains the outcome of their relationship with companies and narrates that: “[...] we make sure that our work gets recognized, and it is creating an impact on people, and peoples' livelihood [...] If you are talking about tangible benefits, yes we have offices to run, we have certain bills to pay, so as part of our agreement we exchange financial resources as well. But that is not our main focus [...] talking about intangible benefits which are more important for us are, the recognition and the impact.”

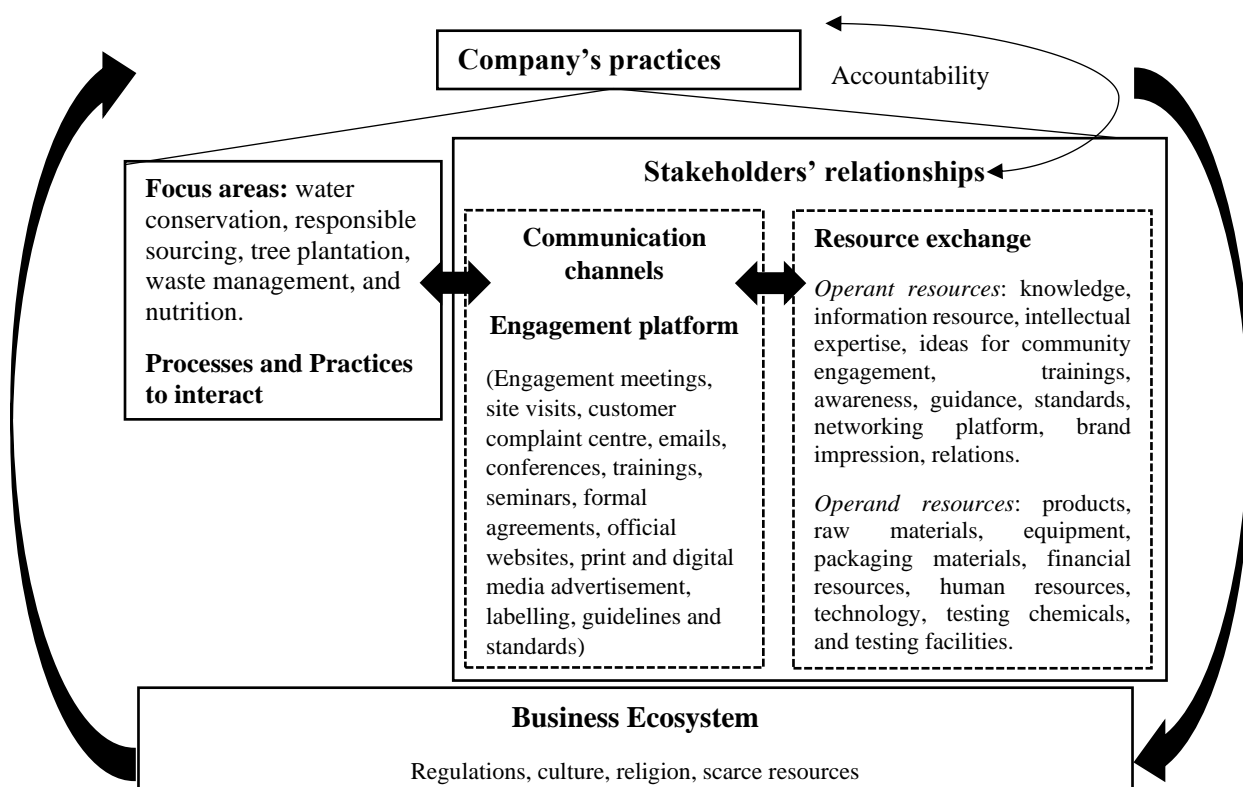
The packaging supplier interviewed on 12/02/2019 also narrates that: “[...] We create value for them in terms of selling their products in a better and more lucrative way in which it looks more attractive on the shelves for the consumers.”

The company’s approach towards sustainability is also reflected in these outcomes. But how the entire ecosystem, stakeholders’ relationships, and resource exchange co-create values for sustainable outcomes are discussed in the following chapter.

7.4 Overview of the chapter

This chapter sheds light on the processes and practices by which companies interact, exchange, and integrate resources with diverse stakeholders to co-create values. The nucleus remains on understanding the practices that are employed by the companies to interact and exchange resources with stakeholders to achieve sustainable outcomes. These practices are an important aspect of sustainability accounting and reporting process and produces accounts of activities at various stages of sustainability projects. The entire process of sustainability accounting and reporting is affected by the ecosystem in which all stakeholders, their relationships, and resources are embedded. Companies studied are using an integrative framework to collaborate, interact, and exchange resources with stakeholders, which is the basis of the co-creation of value. Figure 7.3 illustrates the value co-creation processes by companies that are progressing with the resource exchange and collaborative relationships with stakeholders. All these relationships are embedded in an ecosystem that facilitates and sometimes obstructs the co-creation of value.

Figure 7.3: Co-creation of values through interaction and resource exchange



Empirical work identifies that companies have different practices to collaborate and communicate with different stakeholders depending upon their accountability in each relationship. These practices are dependent on the experiences and values of stakeholders, and these values direct the company's attention toward environmental and social issues. Companies in the food and beverage sector of Pakistan are mostly focusing on the following sustainability activities: water-related initiatives, awareness, and training for responsible sourcing, waste management, and nutrition (Chapter 5). In order to achieve these sustainable outcomes, companies plan strategies to execute them.

Normally companies use formal and informal communication channels to interact and collaborate with stakeholders. These communication channels vary according to the type of stakeholder and the nature of the relationship with that stakeholder. Following communication channels facilitate the exchange of resources among the company and its stakeholders: engagement meetings, site visits, customer complaint center, emails, conferences, training, seminars, formal agreements, official websites, print, and digital media advertisement, labelling, guidelines, and standards. These communication channels facilitate the exchange of diverse resources, which are categorized into operand and operant resources. Where operant resources are mostly intangible and mainly include any kind of knowledge, information resource, intellectual expertise, ideas for community engagement, training, awareness, guidance, standards, networking platform, relations, and brand impression. While operand resources are mostly physical and include products, raw materials, equipment, packaging materials, financial resources, human resources, technology, testing chemicals, and testing facilities. All the resources are integrated through various communication channels and co-creating ethical values, product and sales values, and mutually beneficial values. However, value co-creation is not limited to the exchange of resources among mere two stakeholders, it is facilitated by the exchange of resources among a variety of stakeholders available in an ecosystem.

The ecosystem or business ecosystem is a collective system of various external factors and interconnections between various factors and stakeholders. External factors, such as regulations, culture, and religion, and scarce resources have been discussed in Section 6.3. Relationships among various factors and stakeholders in an ecosystem are extremely important to co-create values. Companies are using an integrative framework to actively consider their resources and stakeholder relationships to contribute towards financial stability and sustainable development. These relationships are dependent on multiple aspects in an ecosystem, such as duration of the relationship, formal or informal tie, level of understanding and expectations

form each other, and outcome of the relationship. Companies are mutually creating values and are interested in having sustainable outcomes from the processes of collaborations and resource exchange. The entire process provides information and knowledge about the company's sustainable activities, which can be further utilized to report the company's sustainability outcome. But how these co-created values inform the way companies perform their sustainability initiatives are highlighted in the next chapter.

Chapter 8

An integrated framework for corporate sustainability

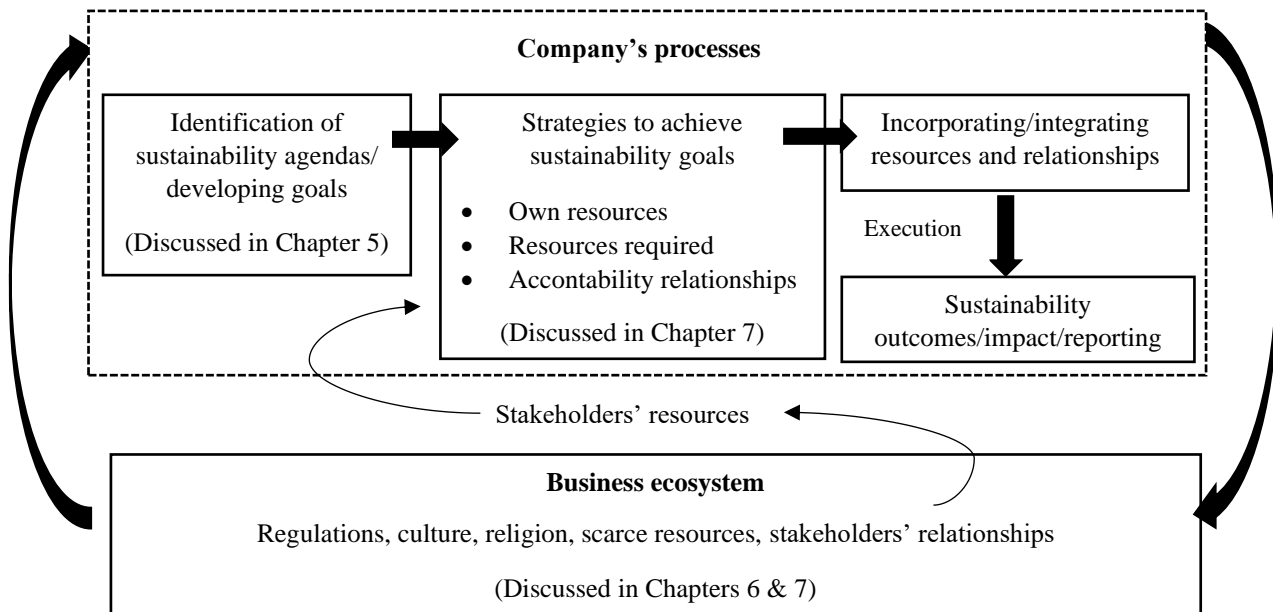
8.0 Introduction

This chapter aims to explore how mutually created values are manifested in the company's sustainable practices and outcomes, referring to research question no. 3: "How are co-created values reflected in the organization's sustainable outcomes?". So far, the process of value co-creation sheds light on the stakeholders' motivations, their relationships with companies, and resource exchange mechanisms to position sustainable accounting. These aspects help formulate an integrative framework, which emphasizes the needs of assessing and utilizing stakeholders' relationships and resources in sustainable planning, accounting, and reporting, as explained by Schaltegger and Wagner (2006) and Kaur and Lodhia (2018). Many business organizations have realized that to deal with complex sustainability issues, they require concerted efforts and resources of various stakeholders. However, it is always challenging to understand the aspects and outcomes of stakeholders' relationships with companies from sustainability perspectives. In such complex projects, diverse accounts are produced which can either be in the form of quantified accounting outcomes or non-quantitative narratives. These accounts are explained through sustainability accounting in this thesis, which provides the entire process of identification, planning, execution, and dissemination of sustainability related information and performance. The sustainability accounting process begins with the identification of the material sustainable matters in the food and beverage sector globally and in the context of Pakistan (Chapter 5), which are further refined by the motivations and values of stakeholders (Chapters 6). Material sustainability matters identified help companies studied to address these issues through collaboration and resource exchange (Chapters 7) and guide them to mutually create values for sustainable outcomes, as reported in sustainability disclosure in this Chapter. The entire process is either supported or impeded by the business ecosystem as explained in Sections 6.3 and 7.3.

Figure 8.1 illustrates the complexity of value co-creation process for sustainability, which accentuates the needs to identify the sustainability agendas and then to develop strategies to execute and report those sustainable activities. Sustainability issues and available resources are identified in Chapters 5, 6, and 7. Here the focus remains on integration of stakeholders' resources in sustainable outcomes. There is also a need to understand how mutually created values from these processes inform the ways companies practice sustainable development. For this purpose, this chapter is divided into the following sections: Section 8.1 explains the company's mechanisms to integrate stakeholders' resources for sustainability, and Section 8.2

sheds light on sustainability outcomes of the companies and reasons for concentrating on these sustainability outcomes. The final section presents an overview of the entire chapter.

Figure 8.1: An integrated framework for corporate sustainability



8.1 Mechanisms to integrate stakeholders' resources for sustainability

This section sheds light on the company's complex mechanisms to integrate the resources of diverse stakeholders in its processes and practices. It is recognized that stakeholders' opinions gathered through feedback channels, external relationships, and various communication channels identified in Subsection 7.1.2 provide grounds for managers to identify, prioritize, and execute key sustainability issues. The interactions between companies and stakeholders not only guide companies to recognize material sustainability matters but also guide them to exchange resources to address these issues.

Companies studied are involved in diverse activities to integrate resources from stakeholders to create values. IIRC (2013b) argues that organizations require a business model to transform their resources through activities, to create value for themselves and others. Where the business model takes inputs in the form of capital from the internal and external environment of the business organization, and further converts that input into output and outcomes for the organization. Here we are considering that the process of converting input into outcomes is not this much linear. Fieldwork reveals that the integration of stakeholders' resources in sustainable development is an ongoing process. It is not merely confined to the execution stage of any such activities. The regulations, feedback, opinions, tastes, and preferences of diverse stakeholders, guide companies to identify material sustainability issues. Further companies strategize the

execution of activities to meet the company's sustainability objectives. Identification of material issues and development of strategies to plan and execute various activities, emphasize the need to collaborate and exchange resources with stakeholders. These needs can be driven by the values and motivations of companies and their stakeholders, as explained in Sections 6.1 and 6.2. For example, companies can have legal, ethical, collaborative, financial, or reputational motives (Subsection 6.1.1), to inspire them to collaborate and exchange resources with various stakeholders for the desired outcomes.

However, the integration of stakeholders' relationships and resources is dependent upon the company's current resources and level of expertise of managers, as explained by Hall *et al.* (2015). Managers are accountable for developing stakeholder ties, which are represented and communicated through the company's accounting and reporting system. Gray *et al.* (1997) state that in this way accounting and reporting system reflect the managerial decision making about what aspects of the company are to be considered, and which stakeholders are to be prioritized and counted and which are not. For example, fieldwork depicts that guidelines and standards from regulatory authorities are ranked important and companies are accountable to carefully observe their implementation and disseminate accounts explicitly. The reason being the violation of guidelines from regulatory bodies can lead to penalties for companies. Fieldwork depicts that company representatives argue that they value the views of their stakeholders, but they prioritize and evaluate them before incorporating them into the company's processes and practices. One of the company representatives interviewed talks about the importance of stakeholders' opinions and describes that:

“[...] the views of stakeholders are very much important to the company, as I said it should be a mutually beneficial relationship. If we don't value our stakeholders and their opinions, then they won't value us which will result in many more issues than the existing ones. So other stakeholders do value us and so do us.”

Fieldwork depicts that stakeholder views are given value by the companies studied, but every company has different ways of gathering opinions from stakeholders. The Coca-Cola Company globally believes in having a continuous dialogue with its stakeholders and adopt a partnership approach for stakeholder engagement. The conversations and collaborations with the company and its stakeholders are highlighted in the company's global sustainability reports (Coca-Cola, 2019b, p. 40). PepsiCo also claims through its global official website a continuous engagement with its stakeholders and the use of various mechanisms to solicit feedback from stakeholders. For example, PepsiCo states that stakeholders demand variety in food, with more nutrition and transparency in information about the ingredients. In response, PepsiCo has globally adopted

goals to reduce saturated fats, sodium, and added sugar in its products. Moreover, it has improvised labelling policy to inform customers about product ingredients to make better choices.⁶¹ The global practices are also implemented in Pakistan, though the extent of their execution is not explicitly disclosed in available reports and website sources.

Companies' relationships through stakeholders' interactions and engagement are discussed in Chapter 7 in detail. It is highlighted that relationships among companies and stakeholders vary in terms of duration, formal or informal ties, level of understanding, expectations from each other, and expected outcome of the relationships. Our analysis demonstrates that the social interactions and relationships among companies and stakeholders impact companies' abilities to create values. Table 5.3 highlights various sustainability activities in Pakistan, where relationships between both companies and stakeholders are jointly creating values for sustainability. However, companies evaluate and prioritize relevant matters to identify material issues of sustainability. These material issues are recognized by consulting key stakeholders and global leadership teams, as identified in Section 5.2. This quote from a company representative is illustrative:

“[...] sometimes the community comes up with an idea or with some request that they need our intervention with them. Otherwise, we feel that at times what happens is that teams sit together at the beginning of every year and we see, considering our financial resources, that what sort of initiatives we could take, which is sustainable, which really uplifts the level of living in the society. So, its two ways. So, what happens is, basically it's a procedure, where we try to evaluate.”

The illustration depicts that companies identify their focal areas through the involvement of their stakeholders, as well as, through the evaluation of the available financial resources. We can infer that there can be many internal organizational factors that affect a company's approach towards incorporating the voices of stakeholders in its practices. For example, Nestlé arranges a conference every year in which the Nestlé team reviews its policies and values and takes feedback from various stakeholders to modify its policies and procedures if required. Nestlé also invites feedback from its customers either through stakeholders convening, Consumer Good Forum, or through the 'Talk to Nestlé' helpline which is a part of the compliance reporting system of Nestlé global (Nestlé, 2018b). Fieldwork demonstrates that stakeholder convenings

⁶¹ PepsiCo stakeholder's engagement is aimed to engage its customers, consumers, shareholders, employees, suppliers, and various other organizations. The input they receive from all these stakeholders provides them basis for the development, implementation, and evolution of sustainability agenda (PepsiCo, 2018c).

do not occur in Pakistan, but still, company representatives claim that they continuously engage with their stakeholders through various online platforms.

Empirical excerpts related to companies' views on incorporating the voices of stakeholders in their processes are as follows:

Company representative 5 interviewed on 22/12/2018 talks about the processes of changing company practices and narrates that: “[...] We have certain departments, who are custodians of our policies, so for example, if it’s a process or policy related to agro, then agro is the custodian of it. That is then looked after by another department, for example, the control department or finance. So that this process exists, and they do regular audit whether this process is being followed in its true spirit or not [...] That’s how in a collaborative manner we change our processes, we change our controls if required, and we change our policies, that’s how we do it. It’s a systematic approach through which you go about.”

Company representative 6 interviewed on 22/12/2019 also discusses the causes and processes of change in their practices and describes that: “[...] for example if there are complaints from customers then in such cases, we might need to change our processes. If there is a quality complaint coming again and again and there is something wrong with how the operator is packing the product then we do root cause analysis [...] if we realize that the complaint is true, and it is affecting the quality of our product then we do not pursue such practice and will definitely do something to resolve the issue.”

Company representative 1 interviewed on 19/12/2018 explains their procedure to integrate opinions of stakeholders and narrates that: “[...] If you talk about stage-wise things, starting from once we receive a request, there are two ways: we aspire to do something with a certain stakeholder, then we try to approach them. Obviously, it can be the other way around. Once you talk about communities, so usually what happens is--we have got a very extensive and regular community engagement programme.”

Evaluation and prioritization of the opinions and aspirations of stakeholders help companies studied to identify material sustainability matters. Fieldwork recognizes and demonstrates the following sustainability issues by the food and beverage companies in Pakistan: water conservation, responsible sourcing, waste management, nutrition, and human rights. Companies studied identify sustainability issues through stakeholders' relationships, strategize activities, develop targets, and define performance indicators for achieving sustainable outcomes. This phase coincides with the sustainability accounting stage of the sustainability

accounting and reporting process as also highlighted by Schaltegger and Wagner (2006) and Kaur and Lodhia (2018). Where companies' processes to interact with stakeholders, exchange resources, and mechanisms to integrate stakeholders' relations and resources in companies' practices are providing input to the sustainability accounting and reporting processes.

Chapter 7 sheds light on the practices of companies to interact and communicate with their stakeholders and the types of resources exchanged during this interaction, which guides companies to identify sustainability issues and also helps them to resolve these issues. It infers that the interaction between companies and stakeholders leads to resource exchange, to address focal sustainability issues. For this purpose, manager's knowledge and skills play an important role, as they are the ones who understand the company's resources and capabilities. CSV manager interviewed on 19/12/2018 states that:

“[...] So, what happens is that once a request is received, it passes through an evaluation process and we try that if it is possible and it coincides with our agenda also, we try to fulfill that. So, once that happens---because over here there is a problem that there is a rigorous process once you are going for structural intervention. You need to get the missions, you need to get NOCs, get permission from the tehsil management authority, district management authority, although you are doing a CSV project.”

The empirical excerpt demonstrates the complexity of the company's processes and practices to execute sustainability targets. The CSV manager further elaborates on the company's processes for the execution of sustainability targets:

[...] let us suppose if we aspire to make a school somewhere, so we have to see that the land---there's no issue with the land, it's not a disputed plot or it's not in the name of a single commodity or person. Because for us, usually, we try to keep everything very transparent. It's a tedious process, so the good part about us is that----we are directly involved in whatever we do over here either CSR or CSV.”

The intricacies of dealing with complex business issues are handled through managerial expertise, which further direct the company to shape its relationship with its stakeholders. Fieldwork also highlights stakeholders' opinions on whether the companies incorporate their voice in companies' practices or not (as explained in Subsection 7.1.1). Most of the business and research partners, suppliers, and few customers appreciate that companies integrate their opinions and concerns in their practices. Apart from them, companies are strictly bound to follow the guidelines and regulations from the regulatory bodies. Especially, when there is any legislation to change current processes, then companies are accountable to follow them. For

example, companies are obligated to install wastewater treatment plants in their factory area, as per the guidelines from EPA. We can say that companies studied have specific departmental procedures to identify, evaluate, and incorporate stakeholders' opinions in their practices. The entire process is aimed at embedding stakeholders' values into the company's own value system through co-creation. Further, these co-created values are manifested in the sustainability outcomes of the companies. These values are categorized into ethical values, mutually beneficial values, and values associated with the sale and utility of the products (Section 6.2). These values are co-created and realized through interaction and resource exchange among companies and stakeholders and reflected in companies' sustainability outcomes.

8.2 Sustainability outcomes

This section sheds light on the sustainability outcomes of Nestlé, PepsiCo, and Coca-Cola in Pakistan and an account of why these companies are focusing on these sustainability outcomes. Here we are considering a value-driven approach⁶² by the companies, where the values are embedded in the entire process of value co-creation for sustainability. Fieldwork reveals that companies and their stakeholders have diverse values, and these values drive them to interact and exchange resources for mutually beneficial outcomes. In other words, values are co-created by the collaboration and resource exchange practices among companies and their stakeholders. These interactions and interdependencies among companies, stakeholders, and factors and relationships in the ecosystem contribute towards the creation of values. These values may result in diverse outcomes for different stakeholders, as explained in "Value Creation: Background Paper" (IIRC, 2013b), which depicts that the internal and external consequences of any activity can vary for different stakeholders. Here our focus remains on how the values of diverse stakeholders are manifested in the sustainability outcomes of the companies studied. The emphasis continues on the types of values identified in Section 6.2, which are: (i) ethical values, (ii) mutually beneficial values, and (iii) values associated with the sale and utility of the products. It is understood through fieldwork that these values are realized when co-created among stakeholders through collaborations and resource exchange. For example, ethical values drive companies to engage with stakeholders for environmental protection and social wellbeing. In this way, ethical values are realized when companies interact and exchange resources to co-create these values for the benefit of society and the environment. However, these values are not mutually exclusive but are interdependent and overlapping. These values are reflected in the following sustainability agendas of the companies: water conservation, responsible

⁶² Value-driven approach incorporates diverse values of businesses and its stakeholders, such as social, emotional, ethical values in business processes and practices. Any process described through a value-driven approach asserts that values have significant role in that process.

sourcing, waste management, human rights, and nutrition (as highlighted in Chapter 5 and Section 8.2). The outcomes on these agendas are identified through company reports, website sources, and interviews. This phase coincides with the sustainability reporting phase of the sustainability accounting and reporting process by Schaltegger *et al.* (2006) and Kaur and Lodhia (2018). However, not all companies disclose their social and environmental accounts in publicly available reports. Overall, from available reports, website sources, and interviews it is identified the major focus of the companies studied remain on economic gains, water conservation, responsible sourcing, waste management, human rights, and nutrition. The entire processes explained in Chapters 5, 6, and 7 demonstrate that companies are motivated to co-create values and those co-created values are exhibited in their sustainability outcomes. Companies are focusing on economic returns, but also taking initiatives to protect the environment and to promote social wellbeing. The outcomes represented in this section depict focal sustainability agendas of the companies studied, outcomes of those agendas, companies' future vision on sustainability, and also identify some lacunas in the current practices. However, the scale of operations is small, which can be one of the reasons for not publishing sustainability reports locally. Moreover, awareness about sustainability and its reporting is also required for company representatives.

Global sustainability reports of the companies studied demonstrate that these companies are working on diverse areas, such as, human rights, nutrition, hygiene, and food safety, labelling, waste management, water conservation, responsible sourcing, improved farming practices, forest conservation, climate change, packaging, gender diversity, women empowerment, education, anti-corruption, reduction of child labour, supporting malnutrition people, using renewable energy, promoting education, reducing pollution in rivers and sea. Among these areas, only a few are targeted in Pakistan (Section 5.2). Fieldwork identifies that these sustainability agendas are identified through legal requirements, stakeholder relationships, parent company policies, and voluntary activities. Depending upon the source of the identification of sustainability agendas, companies develop accountability relationships with various stakeholders. The accounts produced as a result of accountability relationships can be explicit in the form of numbers or they can also be narrative accounts. All these accounts are disclosed either due to the legal requirements or the company's disclosure pattern. The accounts let the users and interested parties know the company's efforts, which incrementally elevate the company. As explained in Section 5.2, Nestlé publishes a CSV report every year in Pakistan, but PepsiCo and Coca-Cola do not publish any sustainability reports in Pakistan. The sustainability outcomes of Coca-Cola are disclosed by CCI. Globally these three companies

report their sustainability outcomes as per the reporting guidelines of GRI (see Appendix K). However, the reporting by Nestlé Pakistan is not according to the GRI guidelines and mostly descriptive.⁶³ Therefore, most of the sustainability outcomes outlined in this chapter are narrative and lack quantitative impact assessment. Moreover, the outcomes of all three companies are not comparable, as they are not developed on similar guidelines.

Fieldwork identifies that companies are least concerned about their sustainability outcome reporting and impact assessment in Pakistan. They are only interested in developing their positive image in the eyes of stakeholders. Surprisingly, few company representatives lack in explaining their reporting practices and adherence to the global reporting guidelines. However, they are concerned about sending their sustainability data numbers to the parent companies. Fieldwork reveals that parent companies disclose sustainability data in their publicly available reports. As seen in the case of CCI, sustainability data of Pakistan is reported in their annual sustainability reports.⁶⁴ Parent companies also provide information about sustainability reporting frameworks and guidelines, for example, CCI follows the guidelines of GRI, and globally The Coca-Cola Company report on the Integrated reporting framework by GRI. The following empirical excerpt depicts a lack of awareness by company representative about the reporting framework of the parent company:

“[...] Researcher: As far as I know global sustainability reports are based on an integrated reporting framework? What do you say about it?

Company representative: Okay, but everything cannot start everywhere at the same time. You have to do pilot projects. You start somewhere and then go to the next region and this is not like that you start the same thing in the whole world at the same time. It might have adverse impacts.”

The illustration depicts that perhaps the company representatives are unaware of the parent company's reporting guidelines and practices. Fieldwork demonstrates various sustainability initiatives by these companies, where their outcomes can be assessed through their reports. The sustainability reports represent that companies are focusing on various issues facing people, communities, and the environment. Some of these programmes are overlapping and impact people, communities, and the environment at the same time. Companies' economic outcomes

⁶³ While Coca-Cola report through CCI states that they measure and report sustainability performance by using the principles, standards, and methodologies by the GRI, the International Labour Organization, the UN Convention Against Corruption, and the Greenhouse Gas, Protocol developed by the World Resources Institute (CCI, 2018b).

⁶⁴ See details of Coca-Cola Pakistan reporting in CCI reports (CCI, 2018b).

are also affected because of all these communities and environmental initiatives (as discussed in financial motives in Section 6.1.1). However, companies argue that they are not only focusing on economic returns, but also environmental protection and social wellbeing. Here the focus is not just on economic accounts of the activities of the companies studied but also on accounts produced as a result of activities related to the wellbeing of the community and protection of the environment, along with an evaluation of why companies are focusing on these outcomes. These are discussed next.

8.2.1 Economic outcomes

Business organizations' major focus remains their economic development. Fieldwork identifies that companies are engaged in such activities where they find any potential for short or long-run financial gain. As explained in the financial motives of Section 6.1, companies studied prioritize and execute such activities, which are financially viable for them. Here we are focusing on the overall economic growth of Nestlé, PepsiCo, and Coca-Cola in Pakistan and attempt to shed light on any economic gains due to their sustainability initiatives. It is also observed that all companies studied disseminate their CSR and sustainability activities together. However, companies claim that sustainability is integrated into their daily work practices and CSR is their spending on community-related social activities. As explained earlier (Subsection 4.3.1) that only Nestlé publishes its management and CSV report in Pakistan and the other two companies do not regionally publish any reports. Therefore, official websites and reports (if any) are relied upon for information related to the economic outcomes of companies.

The economic outcomes are disclosed in the form of numbered accounts and companies sometimes provide narrative accounts of those numbered accounts to explain anything important to their users. Overall, companies studied depict growth in their annual profits from previous years. However, various factors in the ecosystem such as currency devaluation and raw material pricing have increased companies' costs, leaving a lesser net profit for them. The values realized here are mainly economic benefits for the parties involved. CCI reports a 7.3% volume growth in Coca-Cola sales during 2018 in Pakistan. However, it is reported that the gross margins of Coca-Cola declined in 2018, due to rising PET resin prices⁶⁵ and currency devaluation (CCI, 2019). CCI reports growth in the Pakistan region during 2018 and discloses the inauguration of the 6th new plant in Pakistan. The new plant increases the production capacity of the company by almost 15%. All the Coca-Cola plants in Pakistan are ISO 14001

⁶⁵ Polyethylene terephthalate normally called PET, is a clear, strong and lightweight plastic used for packaging.

certified.⁶⁶ Publicly available reports do not explicitly mention the expenditures on sustainable practices and CSR projects, they state that the company is investing in operational excellence. The company claims that its sustainability initiatives are saving costs and improving the economic, social, environmental performance of the country. For example, Coca-Cola reports that injecting PKR. 1 by them yields PKR. 5 in the economy (CCI, 2018b; CCI, 2018a). Similarly, the global annual report of PepsiCo states that in 2018 snack sales showed a double-digit increase which is almost 5%, whereas a single digit drop in beverage sales is also reported in Pakistan (PepsiCo, 2019b). PepsiCo mentions on its official website that its water-related programmes, energy-saving initiatives, packaging, and waste-reduction projects have saved \$600 million in cost between 2010-2015 (PepsiCo, 2019d).

Nestlé Pakistan shows an increase in after-tax profit from PKR. 5867 m in 2013 to PKR.11,545 m in 2018 (Nestlé, 2018a). It is reported that the sales showed an increasing trend from previous years but, along with a 21% decrease in after-tax profit from 2017 to 2018. The decrease in profit is due to rising raw material prices, operating expenditures, and currency devaluation. The company also states that for the betterment of the future, they are continuously investing and taking sustainable initiatives in their manufacturing facilities and communities in which they are operating. Their progress on these initiatives, such as water-saving and greenhouse gas emissions, is elaborated in the subsequent subsections. However, the expenditures on these operational areas and their impact on economic performance are not reported in numeric form. The company provides information about its spending on social and developmental initiatives, which is further segregated into two heads: donations and CSR projects; and, dairy sector development. From the past five years, a decrease in donations and CSR projects has been identified, from PKR. 59.2 m in 2014 to PKR. 7.5 m in 2018. Whereas dairy sector development spending shows an increase from PKR. 205 m in 2014 to PKR. 240 m in 2018 (Nestlé, 2018a). It depicts that companies are investing in those initiatives, which are beneficial for their growth. For example, Nestlé targets the sustainability of the dairy sector, as the company has a direct mutually beneficial relationship with the dairy sector. Overall, companies' operations demonstrate either increase or stability in their economic performance. This economic performance is demonstrated as a result of the creation of various accounts with diverse stakeholders. For example, sales are affected because of companies' relationships with customers, and purchases are affected because of their relationship with suppliers. However, fieldwork descopes how various environmental and social sustainability initiatives are

⁶⁶ ISO 14001 is an international standard for effective environmental management system.

specifically impacting the economic performance of the company. It is identified that companies are mainly financially motivated or ethically driven to pursue any kind of initiative or they may be legally bound to perform a certain task for sustainable development. The reporting practices provide limited disclosure of actions towards sustainability. Most of the time, the information disclosure is to represent the positive image of the company, as explained in reputational motive, and ignore the information on practices that are negatively affecting sustainability. For example, the amount of plastic waste these companies have already contributed to the environment and the crises caused due to over-usage of water are not disclosed.⁶⁷ Based on limited publicly available information, the next two subsections seek to shed light on the social and environmental accounts of companies' sustainability projects.

8.2.2 Outcomes of the activities for the wellbeing of people and communities

Individual and community-related initiatives of the companies studied aim for the wellbeing of their employees, suppliers, business partners, and communities in which they are operating. Their focal sustainability areas are mainly human rights, responsible sourcing, nutrition, and water. Table 8.1 lists the various programmes run by these companies and their outcomes to date. Due to the lack of reporting and inconsistent reporting standards, this table presents mostly narrative accounts of only those sustainable activities and their outcomes that are directly reported on publicly available sources. The values recognized and manifested in these outcomes are mainly ethical values, mutually beneficial values, nutritional values, functional values, product values, and social values.

Table 8.1: Programmes and activities for the betterment of people and communities

| Programmes | Activities | Outcomes (progress to date) | Stakeholders involved |
|--|--|--|---|
| Programmes for women | | | |
| <i>Nestlé Women programme</i> | <i>Healthy</i> Nutritional awareness sessions, digital engagement, hands-on healthy cooking classes, poster presentations and engagement with senior management, internships | Reached out to more than 4,000 young women across 11 universities nationwide | Benazir Income Support Program (BISP), FC College, Kinnaird College for Women |
| <i>Miscellaneous women related initiatives by Nestlé</i> | Training on Best Farm Practices, Capacity building, 1,500 help camps | 5,000 rural women trained, developed 11 entrepreneurs 300 female milk suppliers 30,000 farmers trained on good agriculture practices | Not given |
| <i>Tabeer Stores by Coca-Cola</i> | Provide microfinance to disadvantaged women | 13 stores established to date | Not given |
| Programmes for communities | | | |

⁶⁷ Coca-Cola, Nestlé, and PepsiCo are named among top big names contributing to plastic litter by the Break Free from Plastics organizations (Julian, 2019).

| Programmes | Activities | Outcomes (progress to date) | Stakeholders involved |
|--|---|--|---|
| <i>Nestlé Healthy Kids programme</i> | Educate children, train teachers, provides nutritious products | Educated more than 140,000 children in the rural, suburban and urban areas, Trained over 500 teachers on nutrition in 240 schools. Provides nutritious products to approximately 20,000 children 4 billion fortified servings | Punjab Worker Welfare Board, CARE Foundation, Zindagi Trust, The Federal Directorate of Education and Trust for education and development of deserving students |
| <i>Miscellaneous community programmes</i> | Nestlé: Providing livelihood opportunities to BISP beneficiaries, sales training | 100 beneficiaries to become Nestlé Pakistan sales agents | BISP |
| | Coca-Cola: Volunteering Programme for community development | 138 volunteers and 203 beneficiaries participated | Not given |
| | PepsiCo: Supporting value chain partners and worker's rights | Invested more than \$850 million since 2006 | PepsiCo Foundation and partners |
| <i>Drivers Safety Programme</i> | Training to drivers by Nestlé | Trained more than 19,000 drivers, including over 4,600 Nestlé drivers | National Highways and Motorway Police |
| Programmes for farmers | | | |
| <i>Mobile wallets Nestlé</i> | Registering dairy farmers and facilitate them with easy payment mechanisms | Registered more than 7,000 small dairy farmers, disbursed more than PKR 131 million in milk payments | Telenor Bank, Habib Bank Limited |
| <i>Nestlé Kisan Club and Kisan Club Qarza Saholat</i> | Collaborative approaches for cow purchase support, baled silage, farm machinery, animal health, breeding, and advisory services | Partners increased from 7 to 22 Benefits worth over PKR 384 million in 2017 vs PKR 274 million in 2016 PKR 447 Million loans given | Commercial banks, Prime Minister Youth Loan Scheme |
| Programmes for customers | | | |
| <i>Nutrition</i> | Reducing carbon in drinks by Coca-Cola | 21% reduction from 2010 | WHO guidelines. PFA guidelines |
| Programmes for employees | | | |
| <i>Executive Certificate</i> | Six months of executive certificate in the Agribusiness Management by Nestlé | Not given | Lahore University of Management Sciences |
| <i>Value Play Shop</i> | Value Play Shop programme by Coca-Cola focused on company values | 2,528 of employees completed this program | Not given |

Source: Nestlé Pakistan CSV reports from 2014-2018, CCI sustainability reports from 2014-2018, website sources

Programmes for women focus on awareness, training, and facilitation on various sustainability agendas, including human rights, responsible sourcing, nutrition, and water. Fieldwork reveals that companies have mostly extrinsic motivations to co-create values for women-focused sustainability outcomes such as reputational motives, collaborative motives, legal motives, financial motives, and resource accessibility motives as explained in Section 6.1. These programmes are executed in collaboration with various stakeholders, as indicated in Table 8.1, and co-create mutually beneficial values for the parties involved (Subsection 6.2.2). As one of the business partners narrates that:

“[...] We are working with Nestlé on a specific project, which is Nestlé healthy women programme. They conducted trainings on our campus, and it is related to women's health [...] Nestlé’s aim in this is to spread out the knowledge that how a female has to take care of herself.”

Such programmes are also creating social values and indirectly enhancing the sales and brand image of the companies. It depicts that values mentioned here, such as mutually beneficial values, social value, and brand value, are determined and realized only when they are co-created by working together with diverse stakeholders. Similarly, several community programmes, such as Nestlé Healthy Kids programme, livelihood programmes, and driver safety programmes are emphasized on human rights, nutrition, and water safety. These programmes are also discussed by company representatives. As one of the company representatives uttered:

“[...] FC College and Kinnaird are our partners for healthy women programme, it’s a nutrition awareness programme for younger women. CARE foundation and Trust school are among one of our few partners on Nestlé healthy kid programme. Another joint work with BISP, which is Banazir income support programme, it is our initiative we launched with our sales team two years back, where we are giving training to the recipients of BISP stipend.”

Here companies are motivated to mutually create values for themselves and the beneficiaries involved. The values co-created here are ethical values, mutually beneficial values, social values, and brand image, which are reflected in these activities. For example, there is a welfare motive to educate and nourish kids and for that purpose, companies are collaborating with various stakeholders to mutually create values for the wellbeing of the children. Some programmes are targeted for the training and welfare of farming suppliers as shown in Table 8.1. These programmes aim to provide farmers with financial support to improve their farming practices. Fieldwork reveals that Nestlé and PepsiCo have various initiatives to guide farmers to improve their practices and livelihood (Section 5.2). Such programmes also provide training to farmers for responsible use of water and to reduce waste as mentioned in Table 8.2. It depicts that these programmes are ethically driven by the companies for the wellbeing of the communities, by realizing their accountability towards the use of planetary resources. Moreover, companies engage in such activities because they require quality raw materials from their farming suppliers. In this way, providing training to farmers is a mutually beneficial approach for companies. Nestlé reports an increase in the dairy sector development spending, which is aligned with their core operations and mutually beneficial for them and their dairy partners.

Fieldwork reveals that companies studied are motivated to improve the nutritional profile of their products and are also legally accountable to disclose the nutritional information of their products. Companies are always concerned about the tastes and preferences of their customers, that is why they are always on the verge to improve their products for their customers. The values associated with the products and their sales can only be realized when resource exchange occurs between a company and a customer. Customers' product-related values help companies to identify material focal areas and converge companies' efforts towards co-creating those values. For example, reducing sugar content in carbonated beverages creates nutritional values for its buyers, which may, in turn, increase the sales of the products or can improve the brand image. Moreover, improvement in product features also increases the functional value of the product. Hence, companies are improving their product values, which in turn improves their sales and enhance brand image. These product-related values can also be legally driven, as in the case of mandatory halal food labelling on food and beverage products. Similarly, nutritional and labelling requirements by PFA provide guidelines for companies to improve their products and disseminate their ingredients transparently.

Along with the activities focused on people and communities, companies also provide training to its employees for ethical practices of resource consumption and human rights as shown in Tables 8.1 and 8.2. Fieldwork reveals that these trainings are focused on human rights of internal and external stakeholders, water conservation, waste management, and anti-bribery. The sustainability manager interviewed discusses the company's programmes for women empowerment and rights and states that:

“[...] we have worked for women's rights, we collaborated historically with different stakeholders like Kashf foundation to ensure sustainability. We have a headcount agenda where we are encouraging women to participate in all sorts of roles. So, we have a forklift operator who is a female. We have a distributor, who is the first woman to come into beverage distribution business for us. So, these are a few things that we are doing.”

All these activities depict companies' approaches towards improving the livelihood of the communities in which they are operating. However, the outcome mentioned here is not remarkable and covers only limited aspects. Moreover, the damage which has already been made requires more time and effort to be recovered. It is identified that companies initiate only those programmes which are beneficial for their own growth, either economically (mutually beneficial value) or symbolically (social value, improving brand name). Broadly these

programmes can be for the social wellbeing of the people and communities or for the betterment of the environment.

8.2.3 Outcomes of the activities for environmental protection

Nowadays, companies are ethically and legally required to be aware that if they want to grow sustainably, they should utilize the planet’s resources carefully and create a positive impact on the environment. For this purpose, companies studied are working to sustainably use resources, such as water, and manage their wastes to bring less harm to the environment. Companies studied are legally required to manage their water resources, reduce wastes at their working facilities, and improve nutritional profiles in Pakistan. Companies are responsible to perform according to the legal requirements of the country and disclose their progress on these initiatives. All these programmes are executed in collaboration with various stakeholders, thus creating mutually beneficial values. Moreover, ethical values, social values, and brand image are also realized during the entire process of identification and organizing environmental sustainability issues. Table 8.2 demonstrates the diverse programmes and activities of Nestlé, Coca-Cola, and PepsiCo for environmental protection, and their outcomes reported to date.

Table 8.2: Programmes and activities for the betterment of the environment

| Programmes | Activities | Outcomes (progress to date) | Stakeholders involved |
|-------------------------------------|--|---|--|
| Water-related programmes | | | |
| <i>Drip irrigation</i> | Nestlé: Installing drip irrigation Covering 40% of the drip installation cost HEIS | Installed drip irrigation on 68 acres in 2017, Saving up to 140 million liters of water | Punjab Agriculture Department Farmer community Pakistan Agriculture Research Council |
| <i>Waters Sense technology</i> | Nestlé: Developing sensors to measure the water level of soil and regularly sends data to a cloud | 20% reduction in water usage on farms | Waziup (EU-funded organization based in Europe), the University of Pao in France and Lahore University of Management Sciences |
| <i>Water safety for communities</i> | Nestlé: Providing access to clean and safe water Water Education for Teachers (WET) | 6 Drinking-Water Facilities to serve more than 60,000 people every day 26,000 children and 90 teachers trained through WET | Partner institutions |
| | Coca-Cola: Paani – Safe water initiative to provide safe water to communities | More than 900,000 people across Pakistan served since 2015 10-15% decrease in the incidence of water-borne diseases among the serving communities | WWF-Pakistan |
| | PepsiCo: Water use efficiency | Safe water to 9 million people since 2006 | PepsiCo Foundation and partners |

| Programmes | Activities | Outcomes (progress to date) | Stakeholders involved |
|--|--|---|--|
| Water safety at workplace | Nestlé: AWS Water, Sanitation and Hygiene (WASH) Pledge to provide training to access to safe water, sanitation and hygiene | Reduce water consumption from 2010 and 2017 by 14% and by 4% in 2017 from 2016 Saved 21,822 cubic meters of water 18% improvement in water efficiency Trained 4500 employees on WASH Pledge | WWF-P |
| | Coca-Cola water use ratio | 2.05 L/L (total water usage to total beverage production at each facility) | Not provided |
| | Recycled and reused water percentage Water discharge | From 2.4 to 3.4 percent in 2018 From 1.35 L/L to 1 in 2018 | |
| Waste reduction programmes | | | |
| Greenhouse gas emissions | Nestlé: Reducing production waste | Reduced by 19% per ton of product since 2010. Emissions were reduced by 21% from 2014 to 2018. | Guidelines from EPA |
| | Coca-Cola: GHG Emissions ratio | From 41.82 in 2015 to 32.96 in 2018 | |
| Vehicle emissions | To improve vehicle capacity | 10% reduction in CO ² emissions | Guidelines from EPA |
| Packaging waste reduction | Nestlé: Packaging optimization Collaboration with packaging teams | 292 tons less packaging usage in Nestlé, 93% decrease as compared to 2017 | Packaging suppliers, guidelines from EPA |
| | Coca-Cola: Waste recycling | 95.48% recycled waste at Coca-Cola plants | Not given |
| | Total waste ratio by Coca-Cola Packaging material saving | 8.92 g/L Glass saving (tons) 384.26 Resin savings (tons) 276.36 | |
| | PepsiCo reduction in packaging material | Reduced 100 million pounds of packaging material from the market | Not given |
| Programmes to reduce resource utilization | | | |
| Energy consumption | To reduce energy consumption Saving working in operations | Nestlé: Energy consumption reduced 24% per ton of product since 2010 and reduced by 6.5% in 2017 from 2016 Coca-Cola: From 0.40 in 2006 to 0.39 MJ/L – total energy 0.38 MJ/L – core operations | Not provided |
| Tree plantation | Tree plantation for climate protection | Nestlé: During 2018, 400,000 trees planted PepsiCo and Coca-Cola: Not provided | WWF-P, EPA |

Source: Nestlé Pakistan CSV reports from 2014-2018, CCI sustainability reports from 2014-2018, website sources

All the programmes mentioned in Table 8.2 focus on three sustainability agendas, mainly water management, waste reduction, and responsible sourcing. Companies' activities on these agendas can either be just for a social cause in case of voluntary activities, or it can be the company's approach towards long-term sustainability backed by the parent company's policies and legal requirements. Fieldwork reveals that companies discuss their sustainable activities along with CSR and sometimes use both terms interchangeably. According to their point of view, CSR and sustainability both are the company's initiatives for a social cause. For example, one of the sustainability managers interviewed states that:

“[...] One of our CSR projects that have been there in place is Pani, that is we been there installing water filtration plants across the country, in different cities. Pani, so it's installation of water filtration plants across the country. So, we are serving water, while we consume water, so we are trying to give it back to society.”

The excerpt depicts that water-related programmes can either fall under CSR activities or they can be companies' sincere efforts to sustainably use and conserve water resources. Fieldwork reveals that companies are accountable (ethical motivation) and legally bound (legal motivation) to manage water resources wisely and conserve these resources for the future. The water crisis in Pakistan is expected to face extreme scarcity in the future (Subsection 6.3.3). However, companies have recently started working on water safety and conservation programmes, for example, Paani initiative by Coca-Cola, groundwater replenishment programme by PepsiCo, and AWS by Nestlé. The government has also taken a recent stance on water conservation and started taking aquifer charges from stakeholders on the usage of groundwater resources (highlighted in Section 5.2). Companies studied have partnered with public and private sector organizations for safe and efficient use of water for people and communities, for example, drip irrigation systems, project WET, and Paani. Companies have also started working on water safety programmes at the workplace, for example, AWS by Nestlé, use of recycled water, water replenishment programmes, and WASH pledge. The outcomes reported in Table 8.2 depict a reduction in water usage and saving water resources from previous years. These programmes are executed in collaboration with other stakeholders.

Empirical excerpts related to the collaborative efforts on water-related projects are as follows:

Business partner 1 interviewed on 17/01/2019 talks about different water projects with the food and beverage companies and narrates that: “[...] with Coke we constructed community filtration plants, who will provide clean and safe drinking water for

communities. Recently we are venturing into constructing a groundwater replenishment system with PepsiCo [...] With Nestlé, which was more of improving a management system, so we were working with Nestlé to implement a water stewardship standard, a water management standard, which we call AWS. The idea was to upgrade their existing water management practice to a more hybrid practice that includes stewardship approach.”

Business partner 2 interviewed on 07/01/2019 talks about WET project mentioned in Table 8.2 and describes that: “[...] That training is basically water education for teachers, which is called WET. It is training about conservation of water, how you can save water, what the importance of water is, and how much scarcity we are facing in Pakistan. So, it is all about better water management practices starting from the household level and to the national level.”

Companies are involved in such projects because globally they are ethically accountable to minimize the use of the planet’s scarce resources, as well as legally advised to conserve water resources. Collaborating with diverse stakeholders co-create values for the benefits of all parties involved in such projects, such as economic gain, technological advantage, and reputational benefit. For example, developing Water Sense technology by Nestlé in collaboration with various academic and research institutions provides technological benefits for the beneficiaries. Water safety and conservation programmes also strongly impact social values and improve brand image. Interested stakeholders, such as customers and business partners realize companies’ efforts towards conserving scarce resources through company reports and other online or offline visual mediums. Such disclosures serve as a communicative persuasive mission for the companies as it is directly proportional to the development of a company’s positive image in the eyes of stakeholders.

Along with water-related programmes, companies are also working on waste reduction during production. Companies are legally bound to install waste treatment plants at their facilities and reduce any kind of liquid, gaseous, or solid waste. The outcomes reported in available reports depict a reduction in greenhouse gas emissions from factories, as well as a reduction in packaging wastes. The EPA works on various aspects of the environment and its assistant director interviewed talks about their collaborative efforts with the food and beverage companies:

“[...] Our scope includes every type of solid waste, either electronic, municipal, or industrial waste then air pollution, dust; after that liquid waste of every type either

municipal or industrial whichever is untreated; and after that gas emissions [...] Nestlé, Coke, or PepsiCo have installed their wastewater treatment after EPA orders, they send us their air monitoring to us regularly, their solid waste treatment is also according to our directions.”

Companies are legally and ethically motivated to engage in such waste reduction practices. The entire process of identifying waste outlets and strategizing mechanisms to reduce them led companies to recognize material aspects to create values. These values are co-created by working together with stakeholders, thus, creating mutually beneficial outcomes for the parties involved. Here, ethical and social values are also realized while resolving waste management issues. However, companies are not paying much attention towards the waste contribution of their throwaway packaging and materials. The report from Break Free From Plastic (Hofman, 2019) also reveals that Coca-Cola, PepsiCo, and Nestlé account for 14% plastic pollution worldwide.⁶⁸ In response to this alarming situation, companies have shown their commitment towards minimizing the impact of their packaging waste and have started working on reusable and recyclable packaging. According to the news report from CNN-Business, both Coca-Cola and PepsiCo are putting efforts towards sustainability commitments, by trying to increase the amount of recycled plastic in their bottles (Wiener-Bronner, 2019). Table 8.2 illustrates their progress in Pakistan in 2019, which has shown improvement from previous years.

Along with the abovementioned outcomes, companies are also working on following initiatives, which could also help in sustainable development: reducing energy consumption at work, increase in number of female representations which is one of the sustainability agendas by the UN, workers health and safety initiatives for the wellbeing of employees, and tree plantation initiatives to reduce the negative impacts of company operations. Nestlé has installed solar energy systems from 2017 for efficient energy usage and reports a total capacity of 0.5 MW through renewable energy sources. Coca-Cola reports an increase in its female representation from 4% in 2014 to 6.5% in 2018 (CCI, 2018b). Nestlé, PepsiCo, and Coca-Cola are also working on tree plantation initiatives in Pakistan in collaboration with WWF-P and EPA, but their outcome is not reported. Similarly, companies are also working on the health and safety of their employees. Coca-Cola reports a decrease in vehicle incident rate from 2.51 in 2014 to 1.83 in 2018 (CCI, 2018b). However, the scale of operations is still small, and companies

⁶⁸ Greenpeace/ Break Free from Plastic is a global coalition which engaged various member organizations (almost 10,000 volunteers) in 239 clean-ups in 42 countries on 6 continents, collecting over 187,851 pieces of plastic pollution. The report mentioned Coca-Cola as one of the biggest plastic waste contributors worldwide (Hofman, 2019).

require concerted efforts to tackle all such matters on a large scale. One of the company representatives talks about the limited efforts on sustainability issues and states that:

“[...] Well, we have project-specific KPIs and I don’t think that we have targets on that, for example, we have to do one thing on the product and other things on the planet, etc. Even within only people, there are several aspects to look upon, for example, there are elements of gender and youth elements within people, and then to enhance gender diversity within our company. So, it is a continuous process, and it depends on the KPIs of the project or initiative.”

However, company representatives argue that their efforts towards sustainability are going to be increased soon. The new investment by Nestlé at Kabirwala Factory Pakistan is also focused on creating positive value for the future, as the company planted 9400 trees near the factory to reduce the harmful effects of its operations on the environment. Moreover, the factory is also promoting water-saving initiatives in the communities where it is operating. The motivations to increase these efforts can be due to legal motives if they are from government or international bodies; ethical motives, if from parent company’s code of conducts; collaborative motives, if to access any resources for the mutual benefits; and financial or reputational motives, if requires some economic benefit or influencing brand name positively (Discussed in detail in Subsection 6.1.1).

Empirical excerpts related to the views of company representatives about future sustainability initiatives are as follows:

Company representative 2 interviewed on 20/01/2019 discusses an upcoming project on sustainability and narrates that: “[...] The end benefit here is that if you use an organic fertilizer; a) whatever you produce from that organic fertilizer, whether its fruits or vegetables or anything else, is going to be healthier and better. It is going to be organic, compared to the urea that we used which is full of chemicals; b) the soil itself gets the benefit because when a chemical-based fertilizer is used then the life of soil goes down. Let’s say that if a piece of land is going to give fruits for a hundred years when you put in a urea type of fertilizer in that reduces to half of its life. On the organic side, it increases the life of soil, so hundred can become a hundred and fifty for example. So, this is what we have in mind and this is one of the examples of how we support sustainability.”

Company representative 7 interviewed on 07/02/2019 talks about future sustainability agendas and states that: “[...] from 2019 onwards you will see many changes, you will

see more and more talkability in the public sphere or on media, social media as well particularly on water, nutrition, and youth development.”

The empirical excerpts indicate that some company representatives talk about CSR and sustainability at the same time. However, the important point is companies' attention towards sustainability efforts which clearly depicts that the sustainability landscape is evolving in Pakistan.

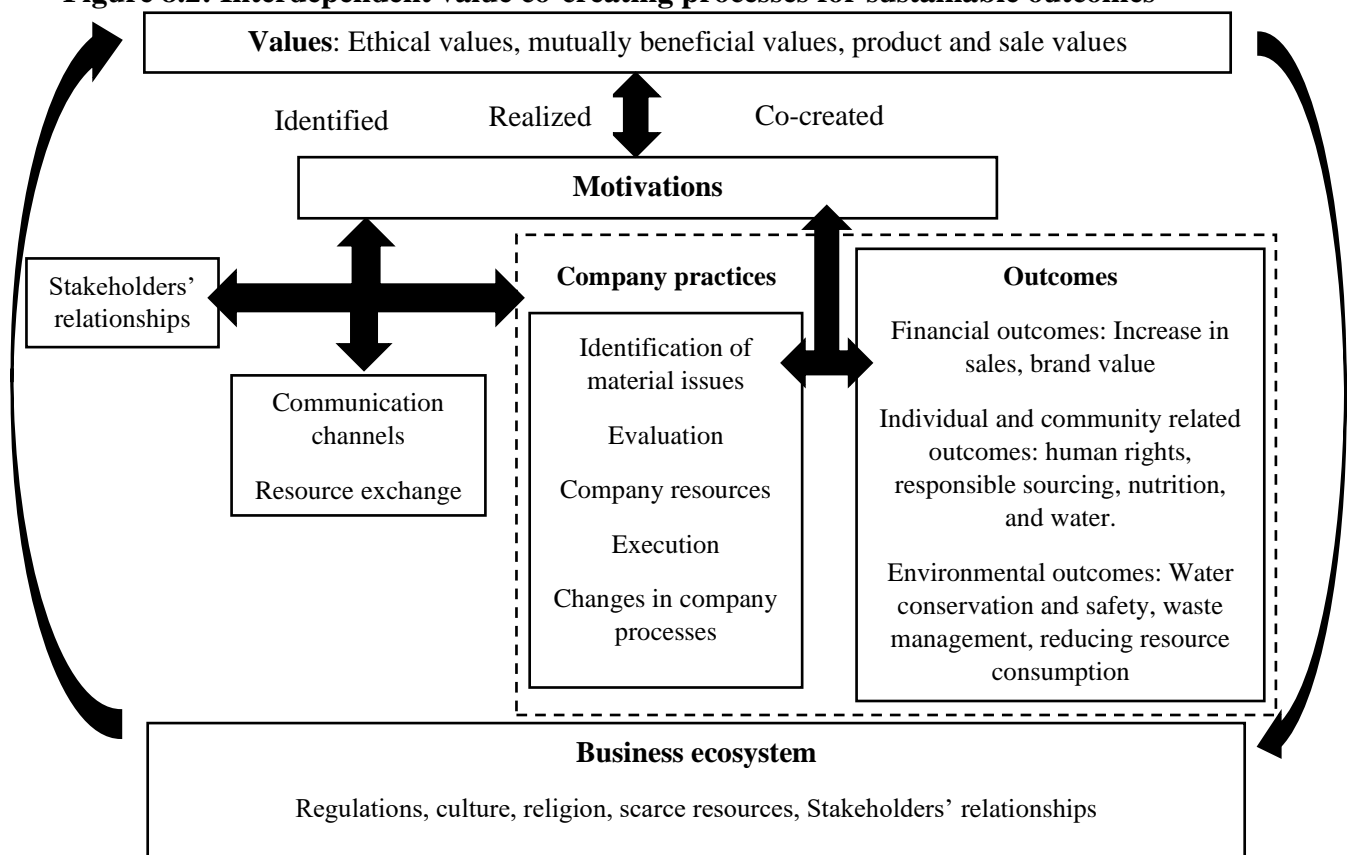
8.3 Overview of the chapter

This chapter discusses the mechanisms through which companies integrate mutually created values of diverse stakeholders to achieve the company's sustainable outcomes. To understand this integrative framework, the aspects of value co-creation processes for corporate sustainability are explained in Chapters 5-8. The aspects of this process are not discrete, and they do not demonstrate any linear relationship with each other. The motivations, values, communication, resources, stakeholders' relationships, and outcomes are interdependent and co-evolving as illustrated in Figure 8.2.

The values are identified, realized, and co-created in the entire process. These values motivate companies and stakeholders to interact and exchange resources. Companies have diverse mechanisms to communicate with stakeholders, which provides the basis for resource exchange and development of relationships between companies and stakeholders. The interactions between companies and stakeholders guide companies to identify material sustainability matters and exchange resources to address these issues. Fieldwork reveals that companies have specific departmental procedures to identify, evaluate, and incorporate stakeholders' opinions in their practices. The entire process is developing an integrated framework for sustainability illustrated in Figure 8.2 and based on interdependencies among multiple aspects of this process. The values mentioned in this process are manifested in the sustainability outcomes of the companies. Sustainable outcomes achieved due to motivations, resources, and efforts among companies and stakeholders lead us to propose the term “*co-sustainability*”. Where co-sustainability is the outcome of joint efforts and benefits among companies and stakeholders for achieving economic growth, social wellbeing, and environmental protection for the current and future generations. From company reports, online sources, and interviews, it is identified that the focal sustainability areas are water conservation, responsible sourcing, waste management, nutrition, and human rights. Business organizations' main objective remains economic returns highlighted in financial and reputational motives, but nowadays businesses are also driven to protect the environment and to promote the wellbeing of the communities where they are operating, mentioned in ethical, legal, and collaborative motives. Here the

outcomes of the companies are divided into the following three groups: financial outcomes, individual and community-related impact, and environmental outcomes. Financial outcomes are expressed through the sales and net profits of these companies. However, the expenditures on sustainability and operational excellence projects are not explicitly mentioned in the reports, which impedes to examine the impact of expenditure on sustainability projects on the financial performance of the companies. It is identified that social wellbeing initiatives target children, women, farmers, customers, and companies' employees. These initiatives are aimed to focus on human rights, responsible sourcing, nutrition, and water. The values of all stakeholders involved in these programmes are realized and manifested in the outcomes of such initiatives, which are mainly ethical values, mutually beneficial values, nutritional values, functional values, product values, and social values.

Figure 8.2: Interdependent value co-creating processes for sustainable outcomes



Along with the financial and social outcomes, companies are now emphasizing to conserve the planet's resources and to manage the company's wastes to bring less harm to the environment. These outcomes are important for environmental protection and they are overlapped with social and economic outcomes. For example, if one programme is aimed to replenish water back to the communities, then, on the one hand, it is giving back the used water to the communities

ensuring social sustainability and on the other hand, it is maintaining the natural ground level of water and thus safeguarding the environment. Such programmes are executed in collaboration with various stakeholders, and hence creating mutually beneficial values for the parties involved. Moreover, these mutually reinforcing programmes exhibit ethical values, social values, and brand image in their outcomes. The outcomes presented in this chapter reveal an integrated framework for sustainability, where various values, motivations, stakeholders, resources, factors, and relationships are entwined to enhance financial gain, social, and environmental sustainability. However, the efforts towards all these outcomes are quite recent in Pakistan and it would require a long time to recover the damage already made in societies and the environment. Air and water pollution, plastic recycling, climate change, deforestation, basic education and awareness, and malnutrition are very important areas within Pakistan, which require attention. Less effort has been witnessed in these areas especially in education and awareness, recyclable packaging, deforestation, air pollution, and malnutrition. Although globally the companies studied are working on these issues, as mentioned in Section 8.2, within Pakistan, more awareness and efforts are required by the government and various organizations.

Chapter 9

Concluding remarks

9.0 Introduction

This chapter aims to summarize the findings of empirical work in relation to the research questions. It also highlights the significant contributions of this study as well as some avenues for future research. A conceptual framework is developed to structure this research, as elaborated in Chapter 3. The conceptual categories identified and explained in the framework provided the aspects to be emphasized and explained in the empirical work. However, some further aspects of value co-creation processes are recognized from fieldwork analysis, such as factors and relationships in the business ecosystem and companies' distinct practices to identify, prioritize, and incorporate stakeholders' opinions. Chapter 4 elaborates on the methodology and methods applied to understand the processes of co-creation of value in the food and beverage sector of Pakistan. Chapter 5 to Chapter 8 present the empirical analysis and discuss various aspects of value co-creation processes among companies and stakeholders for sustainable outcomes. Overall, the research focuses on understanding the values and motivations of companies and their stakeholders to jointly generate sustainable outcomes in the context of the food and beverage sector of Pakistan. The meanings and creation of values identified in this research are considered a social phenomenon, which are more specific to the food and beverage sector of Pakistan and may change according to the context. A flexible case study research design is adopted with a room to unfold significant aspects of research with time. It is observed that the values are realized when co-created through social interaction and resource exchange among companies and stakeholders. These jointly created values are manifested in the sustainable outcomes of the companies.

The research demonstrates that corporate sustainability is a proactive approach for the creation of the long-term values for stakeholders, which requires the deployment of opportunities and diverse resources by the companies. However, to deal with complex issues of sustainability, companies need to collaborate and integrate resources with stakeholders. The current study has highlighted various aspects of the processes through which companies and their stakeholders are motivated to mutually create values for sustainable outcomes. These outcomes are not only economically beneficial for the parties involved but also provide prospects for environmental protection and social uplift. To summarize the findings and contributions of this study, this chapter is divided into the following sections: Section 9.1 sheds light on the approaches to understand each research question, and section 9.2 explains the theoretical and practical

contributions of this study. The final section 9.3 suggests directions for some future research possibilities.

9.1 Approaches to understand research questions

The research aims to examine the processes through which companies interact and collaborate with diverse stakeholders to co-create values for sustainable outcomes. To fulfill the objective of this research, we developed three main research questions highlighted in Sections 1.1 and 2.5. Here we are reconsidering those questions to explain how the entire research is converged to answer these questions.

9.1.1 RQ1: Who are the important stakeholders for business organizations to co-create values for sustainability?

Needless to say, that organizations require to engage with diverse stakeholders for the creation of long-term values. Earlier studies focus on customers to co-create values, ignoring diverse stakeholders (Hult *et al.*, 2011; Aarikka-Stenroos and Jaakkola, 2012; Kornum and Mühlbacher, 2013; Vallaster and Von Wallpach, 2013). This PhD thesis is contributing towards identifying the role of diverse stakeholders in the co-creation of values and additionally reflect on the influence of co-created values on the sustainability outcomes of the companies. A case study research is designed to have an in-depth understanding of the phenomenon. Multiple cases from the food and beverage sector of Pakistan are selected for this study. Within each case, official documents, website sources, and semi-structured interviews are used for collecting data. Empirical work has identified various stakeholders from the global sustainability disclosure reports of the selected companies. These stakeholders belong to any one of the following sets: (i) stakeholders who get benefits from companies' sustainability initiatives; (ii) stakeholders who are associated with companies for achieving sustainability objectives; and, (iii) stakeholders who are influencing companies to engage in sustainable business practices. These stakeholders are categorized into the following seven groups after a thorough review of the empirical data: company representatives, academic and research institutes, customers, suppliers, regulatory bodies, alliance and business partners, and international associations. Similar stakeholder categories are identified in the context of Pakistan for all three companies. It is also identified that all the stakeholders mentioned in sustainability reports fall into one of these categories and have either one-way or two-way communication with the companies. At this point, it is also made clear that shareholders and financial institutions are not considered separate stakeholder categories for this study, as they both are most of the time associated with the economic returns of the company. Here we have categorized those stakeholders, who are

directly or indirectly linked with the companies in achieving sustainable outcomes and reported in sustainability reports of the companies.

It is explained in the literature that businesses are shifting from mere shareholders' value approach to a holistic stakeholders' value approach. This multi-stakeholder' view is highlighted in the conceptual framework of this study, where it elaborates on the stakeholder theory (Freeman, 1984). The stakeholder theory attempts to encourage managers of the company to have shared values by bringing its core stakeholders together. Here we have focused on stakeholder theory to realize the saliency of multiple stakeholders in gaining resources to co-create values for sustainability. Earlier research mostly focuses on the normative aspects of stakeholder theory (Donaldson and Preston, 1995) or the descriptive aspects (Kaur and Lodhia, 2018) as explained in Subsection 2.3.1. The current study identifies that the descriptive, instrumental, and normative aspects of this theory are observed concurrently. These aspects are mutually supportive in recognizing the salient stakeholders, prioritizing them, engaging them, and incorporating their views in companies' diverse processes, such as identification of customer preferences and analysis of any legal requirements. The descriptive or managerial aspect asserts that the stakeholder theory is used to explain the nature and scope of various relationships among companies and stakeholders. It is empirically elaborated in the current study through companies' processes and practices to: (a) develop engagement platforms; and, (b) identify factors concerning interconnectivity among companies and their stakeholders. Companies and stakeholders are accountable to each other in such relationships and further companies take into account these relationships to identify, prioritize, and execute key sustainability issues. It is also observed that the relationships between companies and stakeholders not only guide companies to recognize material sustainability matters but also to exchange resources to address these issues. This notion pinpoints the instrumental nature of stakeholder relationships, which creates value for the parties involved. Here stakeholder's engagement is considered as a tool to meet the sustainability objectives of the company.

Along with the descriptive and instrumental nature of stakeholders' inclusion in achieving the company's objectives, nowadays some companies contend that their accountability goes beyond their relationship with stakeholders. Such companies argue that they are accountable for their activities to communities and the environment in which they are operating. This responsible approach is highlighted in the normative aspect of the stakeholder theory, which asserts that the relationship between companies and stakeholders is based on morality. Fieldwork identifies that the processes of stakeholder engagements are primarily aimed at embedding stakeholders' values into the company's value system through the mutual creation

of value. However, it is also identified that companies' core operations, their practices, and the entire ecosystem contribute towards the identification and prioritization of stakeholders, and in incorporating the resources of stakeholders in companies' activities and reporting framework. As highlighted in the literature and empirical work of the current research companies require stakeholders to interact and exchange resources to co-create values for sustainable outcomes. To understand the complex value co-creation processes between companies and stakeholders, a conceptual framework is developed and explained in Chapter 3. This conceptual framework provides the basis for structuring the research to understand companies' processes and practices to co-create values with multiple stakeholders for sustainable outcomes.

9.1.2 RQ 2: *What processes are required to co-create values by multiple stakeholders?*

To comprehend a process, it is very important to recognize the purpose of that process. Here the purpose to understand the value co-creation process is to achieve sustainable outcomes through stakeholders' involvement. Sustainable outcomes mean any endeavors which can bring long-term economic, social, and environmental benefits for the entire ecosystem, including communities, factors, and relationships. Literature also highlights that no organization can single-handedly resolve sustainability issues, it requires concerted efforts by companies and stakeholders to mutually create values. For the joint creation of values, companies and stakeholders are motivated to exchange resources to pursue any sustainability objective. However, possessing a resource does not mean that value can be created. Willingness to exchange resources and integration of resources can bring beneficial outcomes. To understand the complexities of possession of resources and willingness to exchange resources, this research has firstly identified stakeholders and their motivations to co-create values. Focal sustainability areas are identified in the food and beverage sector of Pakistan from companies and stakeholders' responses. It is observed that the most widely focused sustainability areas in Pakistan are water conservation, responsible sourcing, waste management, nutrition, and human rights. Companies have recognized these sustainability areas through various sources, which are mainly legal, parent company's policies, stakeholders' relationships, and voluntary. Fieldwork indicates that subsidiary companies of large multinationals are aligned with the agendas of their parent companies. However, the business ecosystem, including local regulations, culture, religion, scarce resources, stakeholders' pressures, and relationships may sometimes modify the regional sustainability agendas. As in the case of Pakistan, religion and regulations prohibit the food and beverage companies to produce certain products in Pakistan, which are being sold elsewhere.

To achieve sustainability objectives, companies require collaboration and resource exchange with their stakeholders. Every stakeholder can bring a unique resource for the company only if that stakeholder is motivated to share that resource with the company. Stakeholders' values inspire them to exchange resources with companies. These values are shaped by the ecosystem in which companies, stakeholders, and relationships are embedded. Companies integrate all resources through their processes and practices to achieve sustainable outcomes. Here, various aspects of value co-creation processes are identified, which are: values, stakeholders, motivations, collaboration, resource exchange, relationships, companies' processes and practices, sustainable outcomes, and ecosystem. Some aspects are consistent with the conceptual categories defined and elaborated in Chapter 3, such as stakeholders, values, motivations, resources, and outcomes. While others have emerged from field data, such as company practices, relationships with stakeholders, and some unique factors in the ecosystem. All these aspects presented above, helped the development of a complex integrated framework to create multiple accounts for the joint creation of values for sustainable outcomes. This integrated framework outlines the aspects of value co-creation processes for sustainability.

Stakeholders identified and categorized in this study are found to have varying values, depending upon their tastes, preferences, available resources, and ecosystem. These values are further divided into the following three groups: (i) ethical values, taken as a value-based approach for right conduct, dominated by integrity and accountability; (ii) mutually beneficial values, focused on economic gains, technological advantages, and reputational gains for the parties involved; and, (iii) values associated with the sale and utility of the products, including monetary values, product values, brand image, emotional values, symbolic values, functional values, nutritional values, and social values. The first two types of values are found to be common among companies, academic and business alliances, research partnerships, suppliers, and international associations. Whereas values associated with the sale and utility of the products are specifically interpreted from the perceptions of companies and customers. It is to be noted that these values are recognized and constructed within the context of the food and beverage sector of Pakistan. The values might differ for other industries and regions, which opens an avenue for future research. Moreover, beneficiaries can only realize these values, when they jointly create them with the relevant value-creating partners. Fieldwork identifies that motivation is a driving force to engage with any stakeholder, to communicate and collaborate with them, exchange resources, and develop relationship ties.

Here the emphasis remains on the identification of motives of companies and stakeholders to collaborate and exchange resources for sustainable outcomes. In this way, companies and

stakeholders are mutually creating values for economic benefit, social wellbeing, and environmental protection. Every stakeholder has different motives to co-create values for sustainable outcomes, as highlighted in Section 6.1 in detail. Companies are inspired to pursue sustainability agendas because of the expected direct or indirect financial gains, reputational advantages, collaborative intentions, and sometimes legal or ethical reasons. Business partners, academic and research associations, and suppliers are jointly putting efforts for sustainability because of reputational and recognitional advantages, access to unique resources, financial gains, and sometimes due to ethical inspirations. Regulatory bodies and international associations are obliged to function for the betterment of the communities. Therefore, their efforts are dominated by welfare motives and sometimes by reputational and recognitional motives to create their positive image. Customers are most of the time unaware of their contributions towards sustainability. However, fieldwork identifies diverse customer motives, for example, feelings and emotions to buy, nutritional motives, and recognitional motives, which guide companies to improve values associated with the sale and utility of the products. These values are reflected in the sustainability agendas of these companies. To reduce the complexity of diverse motives in the value co-creation process, the abovementioned motivations are further divided into intrinsic and extrinsic motivations, mainly to understand whether these motivations are internally driven or externally driven. It is identified that the ethical motives of stakeholders to pursue sustainability and customers' feelings to buy any food and beverage product are internally driven. Whereas, pursuing sustainability to improve reputation, to fulfill the requirements of regulatory bodies, getting economic or resource benefit, and joint efforts for mutual benefits are extrinsically motivated. It is also identified that most of the motivations to practice sustainability are externally driven, which depicts the desire to get rewards for engaging in sustainability activities. These values and motivations play the roles of antecedents for the interaction and resource exchange mechanisms among companies and stakeholders.

Companies have distinct practices to interact, collaborate, and exchange resources with stakeholders. Accountability arises due to this interaction between companies and stakeholders, which is an ongoing process of giving and receiving accounts. These accounts are produced due to the relational nature of social interactions between companies and stakeholders, which further leads to value co-creating activities for sustainable outcomes. Here accounts are articulated through accountability relationships between companies and stakeholders and include all social interactions that are not just for economic benefits, but environmental protection and social uplift as well. However, interested parties always require some kind of

platform to interact with each other. Fieldwork identifies that stakeholders' perceptions about the opportunities to communicate and exchange diverse resources differ according to the nature of their relationship with the companies. Stakeholders' awareness about the communication platform varies with the degree of formality of their relationship with the companies. In a contractual or formal relationship, normally all the interested parties are aware of each other's expectations and limitations. It is also observed that customers are not interested in companies' internal practices and they are concerned about only those attributes of the companies which provide them with their desired valued products. Fieldwork also reveals that many stakeholders especially customers are unaware of any direct communication channels with companies. Even the official websites of PepsiCo and Coca-Cola recently became operational in Pakistan and very few stakeholders are informed about this. However, either directly or indirectly, customers are communicating with companies through their purchase decisions. Companies recognize customers' tastes, preferences, and behaviours through their buying patterns, which help companies to identify focal areas. We recognize various direct and indirect communication channels between companies and their stakeholders. Some channels act as a common source of communication between companies and all stakeholders such as official websites, company reports, and print and digital media advertisement. Some are specific to one group of stakeholders, such as the customer service center. However, all these communication channels allow either a one-way or a two-way communication between the company and its stakeholders, which not only provides platforms to exchange resources for the companies, but also for the stakeholders. Here, resources denote stocks of tangibles or intangibles available in an ecosystem and can be utilized to create values.

In the process of co-creation of value for sustainability, resources are required to be assessed and exchanged among companies and stakeholders. We have categorized these resources into operand and operant resources, as explained by Constantin and Lusch (1994) and Vargo and Lusch (2004). Fieldwork identifies that operand resources exchanged among companies and stakeholders are products, raw materials, equipment, packaging materials, financial resources, human resources, technology, testing chemicals, and testing facilities. Whereas, operant resources mainly include any kind of knowledge, information resource, intellectual expertise, ideas for community engagement, training, awareness, guidance, standards, networking platform, brand impression, and relationships. Companies integrate these resources to identify, prioritize, and strategize focal sustainability areas. Another important aspect identified from fieldwork is an ecosystem, where stakeholders' values, motivations to communicate, and exchange resources are embedded. A business ecosystem is an aggregate concept of the external

environment of companies and interconnectivity among various factors and actors within that environment. Fieldwork identifies that various factors in an ecosystem can either support or hinder companies' path towards sustainability mainly, regulations, culture and religion of a country, and scarce resources. These factors are interconnected with each other, as well as with all the stakeholders in that ecosystem. Companies' activities are largely influenced by the entire ecosystem, including external factors and relationships with stakeholders. Fieldwork reveals that the ecosystem, through its factors and stakeholders' relationships ascertains the thresholds and limits of that ecosystem and also determines the types of activities required to create values in that system over time. In this ecosystem, engagement platforms or communication channels provide structural support for the exchange and integration of resources, which develops value-creating relationships among companies and stakeholders. Diverse mechanisms are required to consider and integrate various factors and resources in an ecosystem to jointly construct values. We have emphasized on the reflection of mutually created values through these processes on sustainable outcomes.

9.1.3 RQ3: *How are co-created values reflected in the organization's sustainable outcomes?*

This research question is not responded in isolation with the previous research questions. It is a continuation of the interdependent linkages among the aspects of value co-creation processes towards sustainable outcomes. Here the focus is directed towards the manifestation of co-created values in sustainable outcomes of the companies. An important point to be considered is that the values discussed in this research are identified, realized, and co-created in the entire process. These values are not discrete aspects of this process, as these are linked with all other aspects of this value co-creative process. The interdependencies and interconnectivity among aspects of this process develop an integrative framework for sustainability. Where various stakeholders are motivated to jointly create values for sustainable outcomes. The guidelines, feedback, opinions, tastes, and preferences of diverse stakeholders, guide companies to identify, prioritize, and execute sustainable practices. It is analyzed that the identification of material issues and the development of strategies to plan and execute various activities emphasize the need to collaborate and exchange resources with stakeholders. These needs are driven by the values and diverse motives of companies and their stakeholders. Company sustainability reports, website sources, and interviews highlight that companies use a twin-track approach to identify focal sustainability areas, which considers both inside-out and outside-in approaches as a driving force to integrate into sustainable business practices (explained in Subsection 2.1.4). Fieldwork observes that the food and beverage sector of Pakistan focuses on water conservation, responsible sourcing, waste management, human rights, and nutrition. These

focal areas are identified by the companies either from the guidelines of the parent companies or engagement with stakeholders in an ecosystem.

The outcomes are divided into three groups, which are: economic returns, the wellbeing of people and communities, and environmental safety. Companies are legally and sometimes ethically accountable to disclose the accounts of their outcomes to their stakeholders. We aim to recognize how the values identified, realized, and co-created in the entire process are reflected in these outcomes. Financial outcomes are expressed through companies' sales and net profits over the years. An increase in the economic return has always been a priority area for businesses. However, companies studied claim that investment in sustainability projects is not aimed to create economic value but to benefit society and the environment. Fieldwork identifies that companies' sustainability efforts are mutually beneficial for the parties involved. Sustainability agendas of the companies studied in Pakistan are in line with their parent companies' efforts, as the targets normally come from the global leadership teams. However, the business ecosystem, including local regulations, culture, religion, scarce resources, stakeholders' pressures, and relationships modify the global sustainability agendas. The benefits associated with pursuing these agendas can be economically advantageous for one party or providing access to resources or desired products for others.

Outcomes from social wellbeing initiatives are also mutually beneficial for the parties involved. Such initiatives target children, women, farmers, customers, and companies' employees and are focused on mainly human rights, responsible sourcing, nutrition, and water. The values of all the stakeholders involved in the identification, planning, and execution of these initiatives are realized and manifested in the outcomes of such initiatives. These values are mainly ethical, mutually beneficial values, nutritional values, functional values, product values, and social values. Similarly, companies studied have identified areas for environmental protection in Pakistan, which mostly emphasize water conservation and waste management. These outcomes are considered important to protect the environment and are sometimes overlapped with social and economic outcomes. For example, water replenishment projects give back the used water to the communities to use as well as maintain the natural ground level of water. Collaborative efforts of diverse stakeholders are required to exhibit ethical values, social values, and brand image in safeguarding the environment. The economic, social, and environmental outcomes are demonstrated through an integrative framework, where values, motivations, resources, stakeholders' relationships, companies' processes, and practices, and various external factors are entwined.

9.2 Contributions of the study

This research study contributes to the literature of problematizing the corporate sustainability narrative by the companies. The rising social and environmental issues are pressing various business organizations to move from their profit-making paradigm towards a triple-tiered approach of sustainability. A multi-stakeholder value co-creative approach is identified and suggested to resolve various unsustainable issues in the business ecosystem. The study contributes to theorizing the relationship between various aspects of value co-creation processes and sustainability. Moreover, it also provides support to a company's practices for managing diverse stakeholders to jointly create values for sustainable outcomes. All these contributions are explained in some detail next.

9.2.1 *Linking co-creation of value and sustainability*

This study contributes towards identifying the linkages involved in the co-creation of value by multiple stakeholders and the production of sustainable outcomes. A review of extant literature has highlighted the emerging nexus between value co-creation and sustainability. The current study has theoretically contributed to the development of an integrated sustainability framework through multi-stakeholder' value co-creation processes. The conceptual framework brings together a comprehensive set of conceptual categories of value co-creation processes, not previously done in a single framework. Most of the earlier studies have focused on values, actors co-creating values, and engagement platform as important elements of the value co-creation process. The framework developed for this study has additionally highlighted stakeholders, motivation as a driving force, resources, business ecosystem, and sustainability outcomes as significant conceptual categories in developing a value co-creative framework for sustainability.

The empirical findings further provide an understanding of the aspects of value co-creation processes for sustainability. Values, motivations, resources, stakeholder relationships, integration of resources, companies' practices, sustainable outcomes, and business ecosystem are identified as being important aspects of value co-creation processes for sustainability. These aspects help companies to identify, prioritize, and execute sustainability agendas. Values are realized and mutually created in the entire process of identification and execution of sustainability objectives. The values identified here also add to the creation of values in the stakeholder theory. Where stakeholder theory suggests that companies are required to deliver values to its stakeholders beyond mere economic benefits. This notion of stakeholder theory suggests that companies perform various activities for the benefits of its stakeholders beyond financial gains. The current study also highlights that companies can create values for their

stakeholders for social wellbeing, environmental protection, and economic gain concurrently. The values discussed here cannot be created unless companies and stakeholders jointly pool in and integrate resources for mutual benefits. Unlike most other studies, this study highlights that descriptive, instrumental, and normative aspects of stakeholder theory are observed simultaneously. This study elaborates on interdependent linkages among various aspects of stakeholder theory, mainly to identify the significant stakeholders, prioritizing them, engaging with them, and incorporating their views in companies' processes for sustainable outcomes.

Another important contribution of this study is linking the sustainability accounting and reporting process explained by Schaltegger and Wagner (2006) and Kaur and Lodhia (2018) with the value co-creation processes for sustainability explained in our study. Where sustainability accounting and sustainability reporting processes develop an accountability system to assess and disseminate the data on sustainability performance of the companies. Both sustainability accounting and reporting process and value co-creation processes for sustainability begin with the identification of focal sustainability areas and further proceed to achieve sustainable outcomes. The value co-creation processes provide input for sustainability planning and accounting stages. The entire process of linking sustainability goals and outcomes requires companies to develop strategies to interact with stakeholders and to integrate resources for the desired outcomes. The empirical analysis contributes to the development of an integrated value co-creative framework for sustainability. This framework outlines the interdependent and interconnected aspects of value co-creation processes for sustainability, where various values, motivations, stakeholders, resources, factors, and relationships are interwoven to enhance financial gain, social, and environmental sustainability. The analysis illuminates our understanding of the joint efforts and benefits for engaging in sustainable practices and we can term it as "co-sustainability". This term explicates the mutual efforts of companies and their stakeholders in the identification, prioritization, and execution of sustainable practices. However, companies' endeavors to tackle unsustainable consequences have recently been given importance in Pakistan and it would require a long time to recover the damage already made in societies and the environment.

9.2.2 Stakeholder categories

The methodological richness on the use of primary and secondary sources of data is unique in its context. The use of company documents, website sources, and interviews led us to contribute towards categorizing diverse stakeholders into seven distinct groups. These stakeholders are substantial in mutually creating values for sustainable outcomes. The following seven stakeholder groups are identified: Company representatives, academic and research institutes,

customers, suppliers, regulatory bodies, alliance and business partners, international associations. Regulatory bodies and international associations provide standards and guidelines for sustainable outcomes and other stakeholders collaborate and exchange resources that are integrated by companies for the employment of sustainable practices. The stakeholder categorization facilitates the identification, motivations, values, resources, and contributions of each stakeholder in co-creating values for sustainability.

The categorization can help companies to identify and prioritize key stakeholders who can contribute to the development and execution of sustainable business practices. The analysis further highlights the focal sustainability agendas of the food and beverage companies and recognizes the contributions of each stakeholder category in the identification and execution of sustainability targets. Fieldwork reveals that the following sustainability agendas are targeted by the food and beverage sector in Pakistan: water conservation, responsible sourcing, waste management, nutrition, and human rights. For attaining these objectives various stakeholders contribute through different channels and resources. Companies, regulatory bodies, academic and research institutes, alliances and business partners, and international associations are collaborating and sharing resources for water safety and replenishment, waste management, and tree plantation. Similarly, companies are engaging suppliers and business partners for developing workers' rights and enhancing responsible sourcing initiatives, mainly to maintain sustainability in the supply chain. Moreover, companies are also exchanging and integrating resources from customers and regulatory bodies to improve the nutritional profile of their products.

9.2.3 Motivations to co-create values

The processes of co-creation of value recognized in this research highlight various important aspects that require attention from academicians, researchers, practitioners, regulators, and policymakers. One such aspect is the motivations of diverse stakeholders to co-create values for sustainability. It is identified that earlier studies address motivations to co-create values for sustainability in two separate literature streams. The first stream explains the key role of motivations of companies to co-create values (Leclercq *et al.*, 2016) and the second stream identifies their motives to engage in CSR and sustainability initiatives (Bansal and Roth, 2000; Schaltegger and Burritt, 2018). This study contributes to the literature by combining both the abovementioned motivations and identifies the diverse motives of companies as well as their stakeholders, which inspire them to co-create values for enhancing corporate sustainability. These motivations are identified separately for each stakeholder category and then overlapped and segregated into intrinsic and extrinsic motivations. Managers within organizations can

understand the motives of diverse groups of stakeholders and can plan strategies to engage with them.

Similarly, previous literature sheds light on the values from producer and consumer perspectives. However, this study identifies the values of companies as well as other stakeholders. It is important to understand what values are created, how they are conceived, and for whom they are created. Value is considered as a subjective perception and may vary for every stakeholder. These values are identified, realized, and co-created during the entire process to be reflected in sustainability outcomes. The study broadly categorizes values into (i) ethical values, (ii) mutually beneficial values, and (iii) values associated with the sale and utility of the products. These values are recognized only when mutually conceived, which shows that these values are realized when co-created by companies and their stakeholders. Fieldwork reveals companies' processes and practices through which companies interact and exchange resources with its stakeholders to create values. The outcomes of these co-creative processes may vary for different stakeholders according to their value propositions. The abovementioned categorization simplifies the complex values of different stakeholders, which can benefit companies in eliminating their unnecessary costs associated with understanding and providing the desired values to its stakeholders at the right time. However, these values are identified in a specific context and might differ in other industries or regions.

9.2.4 Resource exchange practices

The empirical findings also identify the importance of resources and types of resources that each stakeholder possesses and willing to exchange. Resource exchange is fundamental in the co-creation of values. That is why it is important to identify the types of resources that each stakeholder is willing and able to exchange for sustainable outcomes. Companies' internal processes help them to realize the resources required for sustainable business activities. This further highlights the identification of stakeholders, who possess these resources and also the platforms which are required to exchange and integrate resources for pursuing sustainability. The study contributes through the identification of resources that each stakeholder group can exchange with companies studied to mutually create values to meet sustainability targets. All the resources integrated through companies' processes and practices are co-creating different types of values. The study also contributes through the identification of lack of awareness and deficiency of communication channels between companies and stakeholders, especially customers, as both lack of awareness and channels can hinder the interactions between customers and companies. The work also highlights the interest of stakeholders regarding the acknowledgment of their opinions by the companies. Fieldwork reveals that stakeholders, who

are directly linked with the company in a mutually beneficial relationship, recognize that their opinions are valued by the companies. Every company has different platforms to communicate and gather opinions from different stakeholders. These engagement platforms are the company's formal and informal communication channels through which companies interact with various stakeholders and construct multiple accounts.

9.2.5 Contributions to practice

Progress in the advancement of the sustainability landscape of a developing country is an important area around the globe. This study sheds light on the current sustainability conceptualization by companies studied in Pakistan and pinpoints lacunas in their current practices. These companies are focusing on water safety and waste reduction initiatives. However, keeping in view the overall conditions in Pakistan, less effort has been witnessed in areas especially in education and awareness, recycled plastic packaging, deforestation, air pollution, and malnutrition. The analysis underlines the clashes in the regulatory bodies on water consumption and waste management, which adds difficulties in standardizing the processes for industries. Problems of corruption in organizations and lack of awareness among communities about wellbeing and environmental protection efforts are also creating problems in sustainable development. The abovementioned issues highlight avenues for companies to identify important unaddressed sustainability areas in Pakistan. It also encourages regulatory bodies to develop standardized guidelines for industries through mutual consent. Moreover, the study sheds light on the loopholes in the existing practices and suggests a way forward to tackle existing unsustainable issues and further develop strategies for sustainability in areas still suppressed in Pakistan, such as education and awareness, recycled plastic packaging, malnutrition, air pollution, and deforestation.

Empirical analysis highlights that companies' practices and the ecosystem in which companies are operating play significant roles in creating values. It is identified that the ecosystem through its factors and relationships (Moore, 1998) impacts the motivations and values of companies and stakeholders embedded in that ecosystem. The emphasis remains on the regulations, culture and religion, scarce resources, and stakeholders' relationships. The study focuses on the unique cultural and religious aspects of the ecosystem and contributes through the identification of cultural and religious elements of Pakistan. These elements, such as norms of the society and halal food requirements, define the value system, and impact the overall regulatory landscape of Pakistan. Understanding these factors in the ecosystem is very important for organizations to operate sustainably. Moreover, the aspects of value co-creation processes for sustainability

emphasized in this research can guide policymakers to propose strategies to better manage their relationships with stakeholders and to capture values from them.

9.3 Avenues for future research

The emphasis on corporate sustainability and the involvement of multiple stakeholders to mutually create values for sustainable outcomes open avenues for future research. The current findings demonstrate that natural resources and the environment is deteriorating due to excessive consumption. There is a serious requirement to restore the natural system and to keep unsustainable activities under control primarily to maintain harmony in the potential to meet the current and future human needs and aspirations. This study highlights the interdependent relationships among companies and various stakeholders to achieve sustainable outcomes. However, in the field of sustainable development and value co-creation, various areas are still underrepresented and require further attention. There is a need to develop a universally accepted approach for measuring and disclosing sustainability performance. Sustainability accounting can play a role in developing grounds for establishing sustainability information disclosure tools. Furthermore, every country should create awareness and guidelines for mandatory sustainability data disclosure requirements. In this way, a direction can be provided to organizations, to promote sustainable development and monitor their sustainability performance. Currently, most of the business organizations are using GRI guidelines worldwide for sustainability data reporting. However, companies report only positive outcomes of their activities, ignoring the negative outcomes. As explained by Harris *et al.* (2010), interaction and resource exchange may not always lead to positive outcomes but can also co-destruct values. Therefore, a standardized mandatory reporting framework should be developed and implemented to analyze the positive and negative impacts of companies' outcomes. It will also facilitate the comparison of information disclosure by various companies.

The current study aims to reduce the gap in understanding how resources from all stakeholders can be used to co-create values in the sustainability domain. The study has shed fresh insight into the value co-creation processes for sustainability from an interpretive perspective. Fieldwork took almost 15 months (July 2018 to October 2019), including documentary analysis as well as conducting and transcribing interviews. The empirical analysis is not separated from the data collection phase, as they both coincide with each other. However, due to time constraints, the researcher could not prolong the data collection phase. The amount of data collected during this period provided rich information about various aspects of value co-creation processes. Still, the processes identified in this study can be validated in other industries and countries for comparative analysis. Research can be conducted to identify the

processes of value co-creation of similar companies in developed economies. Moreover, the values categorized in this study are also contextually rooted and may vary in other settings. Additionally, an opportunity is also available for researchers to develop a multi-stakeholder value co-creative scale to understand the perceptions and aspirations of stakeholders in more detail. Further, the scale so developed can be used to understand the impact of co-created values on companies' outcomes.

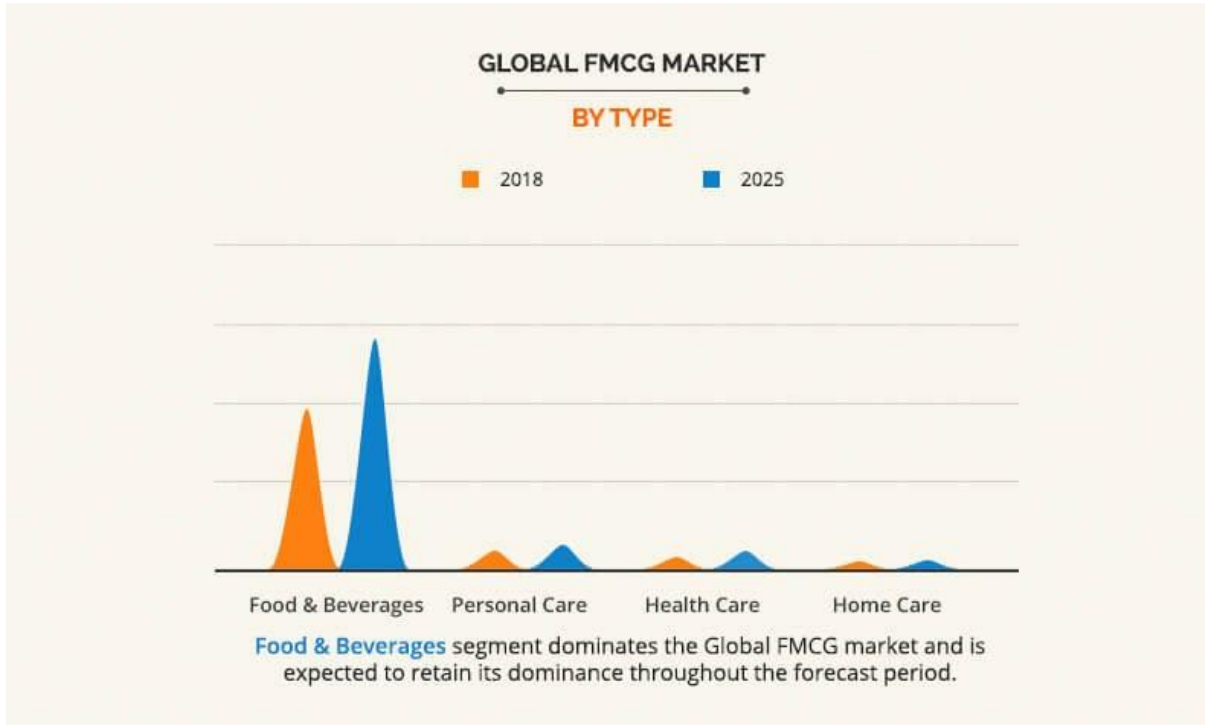
The context of Pakistan is interesting from various perspectives, such as it is a developing economy with an increasing population, growing demand from consumers, and complex diverse factors in its business ecosystem. The sustainability outcomes identified through fieldwork depict the insignificant scale of initiatives in Pakistan. It appears that a long time is required to recover the damage already made in societies and the environment. Currently, attention has been given mostly to water safety and conservation and waste management. The emphasis increased after realizing the acute danger of becoming a water-starved country in the near future, as well as becoming one of the most polluted countries in the world. However, air and water pollution, climate change, deforestation, recycled plastic packaging, basic education and awareness, and malnutrition also are extremely important areas, which require more attention in Pakistan. This study provides an account of the sustainability landscape of Pakistan, which analyzes the current state and opens avenues for developing strategies for the betterment of the environment and communities. As mentioned in Section 4.3 only Nestlé Pakistan publishes separate sustainability reports yearly and the other two companies, PepsiCo and Coca-Cola, do not publish separate sustainability reports in Pakistan. This lack of availability of data impedes the examination of sustainability initiatives of these companies. Moreover, the lack of detailed quantitative data in available reports obstructs examination of the relationship between expenditure on sustainability projects and the financial performance of the companies. Website sources, available reports, and interviews are relied upon to explore the focal sustainability areas and their outcomes, mentioned in Section 8.2. Further research can be conducted to investigate the relationship between investment in sustainability initiatives and the company's financial performance based on global sustainability reports of these companies.

The study contributes to developing a holistic integrated sustainability framework for corporate sustainability in which value co-creative processes are elaborated. Moreover, the processes identified here are found to be parallel with sustainability accounting and reporting processes. In this way, this research is highlighting some important issues of sustainability accounting that have been ignored by conventional accounting. For example, accountability relationships with stakeholders, which are explained through the creation of numbered and narrative accounts in

this research. Further research can be conducted to explore the accountabilities and account-giving relationships among companies and stakeholders in other organizational settings and contexts. Accountability can also be studied in relation to the availability of various resources in the business ecosystem. However, companies can play their role to create more value for the available resources, which will not only benefit them but also to the society and environment. For this purpose, this research is suggestive of companies to collaborate with stakeholders, mainly to integrate diverse resources and in this way co-create values for sustainable outcomes.

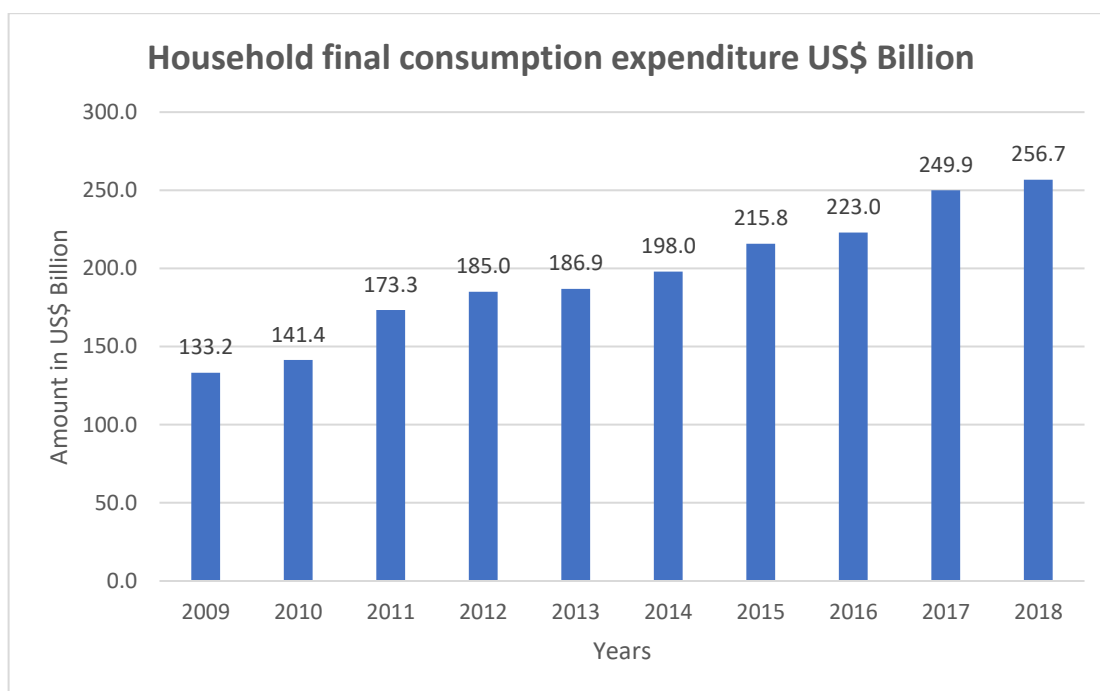
Appendices

Appendix A: Share of the food and beverage sector in the global FMCG market



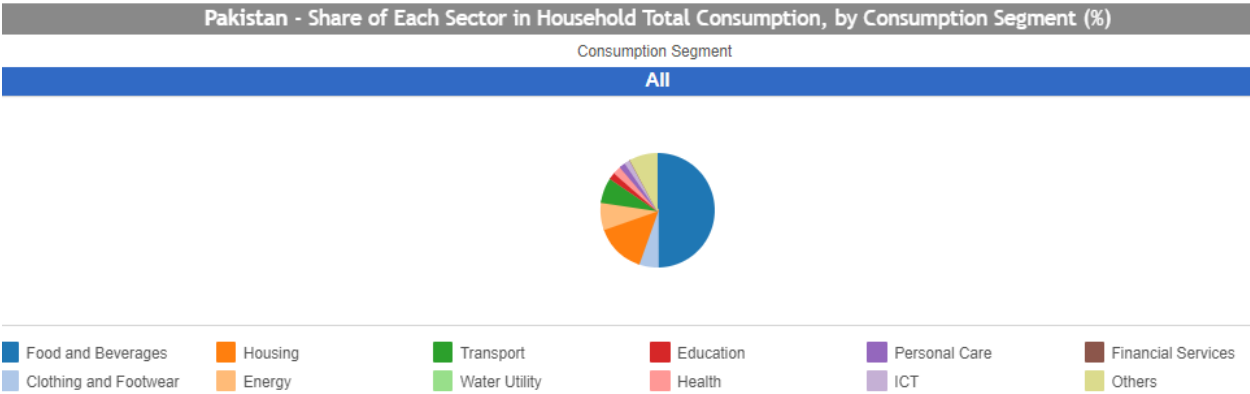
Source: FMCG Market by Type (Food & Beverage, Personal Care, Health Care, and Home Care) and Distribution Channel (Supermarkets & Hypermarkets, Grocery Stores, Specialty Stores, E-commerce, and Others): Global Opportunity Analysis and Industry Forecast, 2018 - 2025 (Sable, 2019)

Appendix B: Household final consumption expenditure of Pakistan in US\$



Source: World Development Indicators (2019)

Appendix C: Share of each sector in household total consumption of Pakistan



Source: The World Bank (2018)

Appendix D: Summary of agreements and conventions of sustainable development by the United Nations (1992-2017)

| Agreements and conventions | Objectives |
|---|--|
| <p>Agenda 21 (1992) The UN Conference on Environment and Development in Rio de Janeiro, Brazil, 3–14 June, 1992</p> | <p>Agenda 21 is a comprehensive plan of action to be taken globally, nationally, and locally by organizations of the UN System, governments, and major groups in every area in which human beings impact their environment. This agenda formalized the following nine ‘Major Groups’ related to sustainable development: Women, Children and Youth, Indigenous Peoples, NGOs, Local Authorities, Workers and Trade Unions, Business and Industry, Scientific and Technological Community, and Farmers (see https://bit.ly/1EjqrTs).</p> |
| <p>Rio+20 The Future We Want (2012) The UN Conference on Sustainable Development in Rio de Janeiro, Brazil, 20–22 June, 2012</p> | <p>World leaders, along with participants from governments, private sectors, NGOs, and other groups, came together to shape how to reduce poverty, advance social equity, and ensure environmental protection on the crowded planet for a better future. The Conference focused on two themes: (i) a green economy in the context of sustainable development poverty eradication; and (ii) the institutional framework for sustainable development (see https://rio20.un.org).</p> |
| <p>Addis Ababa Action Agenda (2015) The UN Third International Conference on Financing for Development in Addis Ababa, Ethiopia, 13–16 July, 2015</p> | <p>The Action Agenda established a strong foundation to support the implementation of the 2030 Agenda. It provided a new global framework for financing sustainable development by aligning all financing flows and policies with economic, social, and environmental priorities (see https://bit.ly/2GdDMZV).</p> |
| <p>2030 Agenda (2015) The Sustainable Development Goals (SDGs) set by the UN General Assembly, 25 September, 2015</p> | <p>The SDGs officially came into force on 1 January, 2016. The next 15 years are expected to see these goals universally applied to all countries in attempts to mobilize efforts to end all forms of poverty, fight inequalities, and tackle climate change, while ensuring that no one is left behind (see https://bit.ly/1OTd4Sr).</p> |
| <p>Paris Agreement (2016) The Paris Agreement within the UN Framework Convention on Climate Change (UNFCCC), ratified in October, 2016</p> | <p>The Paris Agreement went into effect on 4 November, 2016, dealing with greenhouse-gas-emissions mitigation, adaptation, and finance. Under this Agreement, each country must determine, plan, and regularly report on the contribution that it undertakes to mitigate global warming (see https://bit.ly/2L3Ao1a).</p> |

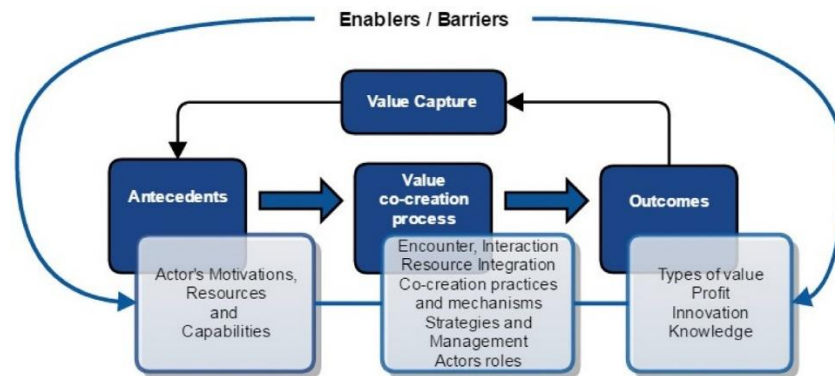
Source: Adapted from United Nations, SUSTAINABLE DEVELOPMENT KNOWLEDGE PLATFORM (2017)

Appendix E: Corporate sustainability measurement instruments

| Source identified | Authors, who have identified | Typology of source |
|---|--|-----------------------|
| Dow Jones Sustainability Index (DJSI) | Rahdari and Rostamy (2015) Antolín-López et al. (2016) | Index |
| MSCI ESG Research, FTSE4Good Index Series | Rahdari and Rostamy (2015) | Index |
| Climate Counts Bloomberg ESG Data, Corporate Knights Magazine, Thompson Reuters (Asset4), Oekom Corporate Ratings | Rahdari and Rostamy (2015) | Rating systems |
| Global reporting initiative (GRI) | Roca and Searcy (2012), Rahdari and Rostamy (2015), Antolín-López et al. (2016), Docekalova and Kocmanova (2016), Burritt and Schaltegger (2010) | Reporting framework |
| United Nations Global Compact (UNGC) | Rahdari and Rostamy (2015), Antolín-López et al. (2016) | Reporting framework |
| ISO standards | Rahdari and Rostamy (2015), Antolín-López et al. (2016) | Management guidelines |
| AschG, OHSAS 18001, AA1000 | Rahdari and Rostamy (2015) | Management guidelines |

Appendix F: Value co-creation process by de Oliveira and Cortimiglia

Value co-creation process



Source: de Oliveira and Cortimiglia, 2017

Appendix G: Interview guide

Research topic: Corporate sustainability: The role of co-creation of value by multiple stakeholders in the food and beverage sector of Pakistan

The interview guide is prepared to develop an in-depth understanding of the value co-creation processes. Major aspects of value co-creation processes have been identified and elaborated in a conceptual framework. This research aims to identify the motives of multiple stakeholders to co-create value for sustainability. The interview guide is prepared for each stakeholder category with similar focal points but slightly different types of questions. Category 1 is company representatives, who are to be interviewed to identify the processes and procedures used by the selected companies to co-create value. Categories 2-7 are external stakeholders, whose motives to co-create and types of values for sustainability are to be identified.

Broad themes for interview questions: Relationship with the company, sustainability knowledge, values, motivation to co-create value, types of resources integrated, and ecosystem for value co-creation

Stakeholders' categories:

| Category no. | Stakeholders | Definition |
|--------------|----------------------------------|---|
| 1 | Company representatives | Appropriate personnel for this study |
| 2 | Academic and Research institutes | Academia, scientists, researchers and research consortium with various institutes |
| 3 | Customers | Includes all such individuals and organizations who buy or use the business products. |
| 4 | Suppliers | Any organization, farmers supplying any raw material, equipment to business |
| 5 | Regulatory bodies | It includes any public authority or a government agency responsible for exercising autonomous authority |
| 6 | Alliance and Business partners | Collaboration with other businesses and partnerships for business interest with both national and international |
| 7 | International associations | An international membership, scope, or presence either for profit or not-for-profit |

Category 1: Company representatives

| No. | Main interview questions | Probing questions |
|-----|---|---|
| 1. | Tell me about yourself and the nature of your work? | |
| 2. | What are the core values of your company? (In Pakistan's context) | |
| 3. | What are the most important values while dealing with different stakeholders? | ➤ <i>Why are these important for you?</i> |

| No. | Main interview questions | Probing questions |
|-----|---|---|
| 4. | How does your company incorporate new values in its operations? | <ul style="list-style-type: none"> ➤ <i>What new values are produced while dealing with stakeholders?</i> ➤ <i>How these values impact your company?</i> |
| 5. | What kind of resources do stakeholders exchange with the company? | <ul style="list-style-type: none"> ➤ <i>How important is it to exchange resources with other stakeholders?</i> ➤ <i>What benefits does your company expect and achieve from this?</i> |
| 6. | How does your company integrate resources from stakeholders? | <ul style="list-style-type: none"> ➤ <i>How do resources transform, improve, and utilize for various purposes in the company?</i> ➤ <i>What procedures do you have in place to support resource integration?</i> |
| 7. | How does the exchange of resources create value for the company? | |
| 8. | What is your company's approach towards sustainability? | <ul style="list-style-type: none"> ➤ <i>How does your company contribute towards it?</i> ➤ <i>What are the activities you are involved in to achieve this objective?</i> |
| 9. | How do external stakeholders contribute towards this objective? | <ul style="list-style-type: none"> ➤ <i>How do they communicate with you?</i> <i>(Information seeking/ information sharing/ feedback)</i> ➤ <i>What channel(s) stakeholders use to communicate their concerns or share ideas with the company?</i> ➤ <i>With whom? What is the frequency of communication?</i> ➤ <i>Can you elaborate on the nature of relation/interaction between stakeholders and the company?</i> |
| 10. | What does your company do to encourage various stakeholders to interact? | <ul style="list-style-type: none"> ➤ <i>Do you give any incentives to those who share their views with you?</i> |
| 11. | How do your organization's processes impact interaction? | <ul style="list-style-type: none"> ➤ <i>How does your company incorporate stakeholders' views and concerns in its practices over time?</i> |
| 12. | What are some of the regulations that your company follows while dealing with stakeholders? | <ul style="list-style-type: none"> ➤ <i>How are they implemented?</i> ➤ <i>Are they different in Pakistan?</i> ➤ <i>Are these differences due to regulations or any other factors?</i> |

Category 2: Academic and research institutions

| No. | Main interview questions | Probing questions |
|-----|--|--|
| 1. | From how long you have been in relation to ----- company? | <ul style="list-style-type: none"> ➤ <i>Do you have a formal or informal tie with ---- company?</i> ➤ <i>Why this relationship is important for you?</i> |
| 2. | What are the most important values while dealing with ----- company? | <ul style="list-style-type: none"> ➤ <i>Why are these important for you?</i> ➤ <i>What new values are produced while dealing with----company?</i> |
| 3. | How much background information about the company affects your decision? | <ul style="list-style-type: none"> ➤ <i>Why is this important?</i> |
| 4. | How sustainability efforts of --- company influence your relationship? | <ul style="list-style-type: none"> ➤ <i>How does your relationship with --- company contribute towards sustainability?</i> |

| No. | Main interview questions | Probing questions |
|-----|---|---|
| 5. | How do you communicate with this company? | <ul style="list-style-type: none"> ➤ <i>What are the activities you are involved in to achieve this objective?</i> ➤ <i>What channel(s) do you use to communicate your concerns or share ideas with --- company?</i> ➤ <i>With whom? What is the frequency of communication?</i> ➤ <i>Do you get any incentives for sharing your views with --- company?</i> ➤ <i>Can you elaborate on the nature of relation/interaction between you and --- company?</i> |
| 6. | How do --- company's processes impact the interaction? | ➤ <i>How do you think --- company incorporates your views and concerns in its practices?</i> |
| 7. | How does the country's regulatory environment impact the relationship between you and ---- company? | <ul style="list-style-type: none"> ➤ <i>What are some of the other factors that affect this relationship?</i> ➤ <i>Why do you think they are important?</i> |
| 8. | What kind of resources do you exchange with ---- company? | ➤ <i>How important is it to exchange resources with --- company?</i> |
| 9. | What benefits does your institute expect and achieve from this relationship? | ➤ <i>Why do you think these are important?</i> |
| 10. | Why do you want to be engaged with ---- company in the future? | |

Category 3: Customers

| No. | Main interview questions | Probing questions |
|-----|---|--|
| 1. | From how long you have been in relation to ----- company? | <ul style="list-style-type: none"> ➤ <i>Do you have a formal or informal tie with ---- company?</i> ➤ <i>Why this relationship is important for you?</i> |
| 2. | What values you most in buying product(s) of this company? | ➤ <i>Why are these important for you?</i> |
| 3. | How much background information about the company affects your decision? | <ul style="list-style-type: none"> ➤ <i>Why is this important?</i> ➤ <i>Do you think that usefulness of this product is always the same for you?</i> ➤ <i>Do you think that you have utilized the product at its best? If yes, then how? If no, then why not?</i> |
| 4. | How sustainability efforts of --- company influence your decision of buying its products? | ➤ <i>How does your relationship with --- company contribute towards sustainability?</i> |
| 5. | How do you communicate with this company? | <ul style="list-style-type: none"> ➤ <i>What channel(s) do you use to communicate your concerns or share ideas with ---- company?</i> ➤ <i>With whom? What is the frequency of communication?</i> ➤ <i>Do you get any incentives for sharing your views with --- company?</i> ➤ <i>Can you elaborate on the nature of relation/interaction between you and ---- company?</i> |
| 6. | How do --- company's processes impact your interaction with the company? | ➤ <i>How do you think --- company incorporates your views and concerns in its practices?</i> |
| 7. | How does the country's regulatory environment impact the relationship between you and ---- company? | <ul style="list-style-type: none"> ➤ <i>What are some of the other factors that affect this relationship?</i> ➤ <i>Why do you think they are important?</i> |

| No. | Main interview questions | Probing questions |
|-----|--|--|
| 8. | What kind of resources do you exchange with ---- company? (Monetary/information) | ➤ <i>How important is it to exchange resources with --- company?</i> |
| 9. | What benefits do you expect and achieve from this relationship? | ➤ <i>Why do you think these are important?</i> |
| 10. | Why do you want to buy the products of this company in the future? | |

Category 4: Suppliers

| No. | Main interview questions | Probing questions |
|-----|---|--|
| 1. | Tell me about yourself and the nature of your work? | |
| 2. | From how long you have been in relation to ----- company? | ➤ <i>Do you have a formal or informal tie with ---- company?</i> ➤ <i>Why this relationship is important for you?</i> |
| 3. | What values you most in supplying material to this company? | ➤ <i>Why are these important for you?</i> ➤ <i>What new values are produced while supplying materials to----company?</i> |
| 4. | How much background information about the company affects your decision? | ➤ <i>Why is this important?</i> |
| 5. | How sustainability efforts of --- company influence your decision of supplying materials to this company? | ➤ <i>How does your relationship with --- company contribute towards sustainability?</i> |
| 6. | How do you communicate with this company? | ➤ <i>What channel(s) do you use to communicate your concerns or share ideas with ---- company?</i> ➤ <i>With whom? What is the frequency of communication?</i> ➤ <i>Do you get any incentives for sharing your views with --- company?</i> ➤ <i>Can you elaborate on the nature of the relation/interaction between you and ---- company?</i> |
| 7. | How do --- company's processes impact your interaction with the company? | ➤ <i>How do you think --- company incorporates your views and concerns in its practices?</i> |
| 8. | How does the country's regulatory environment impact the relationship between you and ---- company? | ➤ <i>What are some of the other factors that affect this relationship?</i> ➤ <i>Why do you think they are important?</i> |
| 9. | What kind of resources do you exchange with ---- company? | ➤ <i>How important is it to exchange resources with --- company?</i> |
| 10. | What benefits do you expect and achieve from this relationship? | ➤ <i>Why do you think these are important?</i> |
| 11. | Why do you want to be engaged with this company in the future? | |

Category 5: Regulatory bodies

| No. | Main interview questions | Probing questions |
|-----|--|--|
| 1. | From how long you have been in relation to ----- company? | ➤ <i>Do you have a formal or informal tie with ---- company?</i> ➤ <i>Why this relationship is important for you?</i> |
| 2. | What are the most important values while dealing with ----- company? | ➤ <i>Why are these important for you?</i> ➤ <i>What new values are produced while dealing with----company?</i> |

| No. | Main interview questions | Probing questions |
|-----|---|--|
| 3. | How much background information about the company affects your decision? | ➤ <i>Why is this important?</i> |
| 4. | How sustainability efforts of --- company influence your relationship? | ➤ <i>How does your relationship with --- company contribute towards sustainability?</i> ➤ <i>What are the activities you are involved in to achieve this objective?</i> |
| 5. | How do you communicate with this company? | ➤ <i>What channel(s) do you use to communicate your concerns or share ideas with ---- company?</i> ➤ <i>With whom? What is the frequency of communication?</i> ➤ <i>Do you get any incentives for sharing your views with --- company?</i> ➤ <i>Can you elaborate on the nature of relation/interaction between you and ---- company?</i> |
| 6. | How do --- company's processes impact the interaction? | ➤ <i>How do you think --- company incorporates your views and concerns in its practices?</i> |
| 7. | How does the country's regulatory environment impact the relationship between you and ---- company? | ➤ <i>Does it facilitate or hinder the interaction?</i> ➤ <i>What are some of the other factors that affect this relationship?</i> ➤ <i>Why do you think they are important?</i> |
| 8. | What kind of resources do you exchange with ---- company? | ➤ <i>How important is it to exchange resources with --- company?</i> |
| 9. | What benefits does your organization expect and achieve from this relationship? | ➤ <i>Why do you think these are important?</i> |
| 10. | Why do you want to be engaged with ---- company in the future? | |

Category 6: Alliance and business partners

| No. | Main interview questions | Probing questions |
|-----|---|--|
| 1. | Tell me about yourself and the nature of your work? | |
| 2. | From how long you have been in relation to ----- company? | ➤ <i>Do you have a formal or informal tie with ---- company?</i> ➤ <i>Why this relationship is important for you?</i> |
| 3. | What are the most important values while developing an alliance/partnership with ----- company? | ➤ <i>Why are these important for you?</i> ➤ <i>What new values are produced in this relationship?</i> |
| 4. | How much background information about the company affects your decision? | ➤ <i>Why is this important?</i> |
| 5. | How sustainability efforts of --- company influence your relationship? | ➤ <i>How does your relationship with --- company contribute towards sustainability?</i> ➤ <i>What are the activities you are involved in to achieve this objective?</i> |
| 6. | How do you communicate with this company? | ➤ <i>What channel(s) do you use to communicate your concerns or share ideas with ---- company?</i> ➤ <i>With whom? What is the frequency of communication?</i> ➤ <i>Do you get any incentives for sharing your views with --- company?</i> ➤ <i>Can you elaborate on the nature of relation/interaction between you and ---- company?</i> |
| 7. | How do --- company's processes impact the interaction? | ➤ <i>How do you think --- company incorporates your views and concerns in its practices?</i> |

| No. | Main interview questions | Probing questions |
|-----|---|---|
| 8. | How does the country's regulatory environment impact the relationship between you and ---- company? | <ul style="list-style-type: none"> ➤ <i>Does it facilitate or hinder the interaction?</i> ➤ <i>What are some of the other factors that affect this relationship?</i> ➤ <i>Why do you think they are important?</i> |
| 9. | What kind of resources do you exchange with ---- company? | <ul style="list-style-type: none"> ➤ <i>How important is it to exchange resources with --- company?</i> |
| 10. | What benefits does your organization expect and achieve from this relationship? | <ul style="list-style-type: none"> ➤ <i>Why do you think these are important?</i> |
| 11. | Why do you want to be engaged with ---- company in the future? | |

Category 7: International associations

| No. | Main interview questions | Probing questions |
|-----|---|--|
| 1. | From how long you have been in relation to ----- company? | <ul style="list-style-type: none"> ➤ <i>Do you have a formal or informal tie with ---- company?</i> ➤ <i>Why this relationship is important for you?</i> |
| 2. | What are the most important values while dealing with ----- company? | <ul style="list-style-type: none"> ➤ <i>Why are these important for you?</i> ➤ <i>What new values are produced in this relationship?</i> |
| 3. | How much background information about the company affects your decision? | <ul style="list-style-type: none"> ➤ <i>Why is this important?</i> |
| 4. | How sustainability efforts of --- company influence your relationship? | <ul style="list-style-type: none"> ➤ <i>How does your relationship with --- company contribute towards sustainability?</i> ➤ <i>What are the activities you are involved in to achieve this objective?</i> |
| 5. | How do you communicate with this company? | <ul style="list-style-type: none"> ➤ <i>What channel(s) do you use to communicate your concerns or share ideas with ---- company?</i> ➤ <i>With whom? What is the frequency of communication?</i> ➤ <i>Do you get any incentives for sharing your views with --- company?</i> ➤ <i>Can you elaborate on the nature of relation/interaction between you and ---- company?</i> |
| 6. | How do --- company's processes impact the interaction? | <ul style="list-style-type: none"> ➤ <i>How do you think --- company incorporates your views and concerns in its practices?</i> |
| 7. | How does the country's regulatory environment impact the relationship between you and ---- company? | <ul style="list-style-type: none"> ➤ <i>Does it facilitate or hinder the interaction?</i> ➤ <i>What are some of the other factors that affect this relationship?</i> ➤ <i>Why do you think they are important?</i> |
| 8. | What kind of resources do you exchange with ---- company? | <ul style="list-style-type: none"> ➤ <i>How important is it to exchange resources with --- company?</i> |
| 9. | What benefits does your organization expect and achieve from this relationship? | <ul style="list-style-type: none"> ➤ <i>Why do you think these are important?</i> |
| 10. | Why do you want to be engaged with ---- company in the future? | |

Appendix H: List of stakeholders selected for research study

a) List of interviewees

| Sr no. | Interviewees | Date of interview | Relationship to the company | Designation | Organization |
|---------|---|-------------------|-----------------------------|---------------------------|--------------------------|
| P1.N | Company representative 1 | 19/12/2018 | Employee | CSV manager | Nestlé |
| P2.N | Company representative 2 | 20/01/2019 | Employee | Marketing manager | Nestlé |
| P3.C | Company representative 3 | 26/01/2019 | Employee | Sustainability manager | Coca-Cola |
| P4.C | Company representative 4 | 04/02/2019 | Employee | Public affairs manager | Coca-Cola |
| P5.P | Company representative 5 | 22/12/2019 | Employee | HR plant head | PepsiCo |
| P6.P | Company representative 6 | 22/12/2019 | Employee | Sustainability manager | PepsiCo |
| P7.P | Company representative 7 | 07/02/2019 | Employee | Corporate affairs manager | PepsiCo |
| P8.C | Customer 1 | 14/01/2019 | Customer | Marketing consultant | Coca-Cola |
| P9.C | Customer 2 | 15/01/2019 | Customer | Chartered accountant | Coca-Cola |
| P10.P | Customer 3 | 09/02/2019 | Customer | Lecturer | PepsiCo |
| P11.P | Customer 4 | 22/02/2019 | Customer | Student | PepsiCo |
| P12.N | Customer 5 | 29/01/2019 | Customer | Lecturer | Nestlé |
| P13.N | Customer 6 | 27/02/2019 | Customer | Student | Nestlé |
| P14.NPC | WWF-P (Business partner 1) | 17/01/2019 | Alliance | Senior officer | Nestlé/PepsiCo/Coca-Cola |
| P15.N | CARE foundation (Business partner 2) | 07/01/2019 | Alliance | Area manager | Nestlé |
| P16.NPC | Alliance for Water Stewardship (AWS) | 13/02/2019 | International association | Country coordinator | Nestlé/PepsiCo/Coca-Cola |
| P17.NPC | Packaging supplier | 12/02/2019 | Supplier | Manager sales | Nestlé/PepsiCo/Coca-Cola |
| P18.NPC | Environmental protection agency (Regulatory body 1) | 21/01/2019 | Regulatory body | Assistant director | Nestlé/PepsiCo/Coca-Cola |
| P19.NPC | Environmental protection agency (Regulatory body 2) | 27/01/2019 | Regulatory body | Inspector EPA | Coca-Cola |
| P20.NPC | Environmental protection agency (Regulatory body 3) | 27/01/2019 | Regulatory body | Director General EPA | Nestlé/PepsiCo/Coca-Cola |

| Sr no. | Interviewees | Date of interview | Relationship to the company | Designation | Organization |
|----------------|---|--------------------------|------------------------------------|--------------------------------|--------------------------|
| P21.NPC | Intellectual property organization (Regulatory body 4) | 29/01/2019 | Regulatory body | Director | Nestlé/PepsiCo/Coca-Cola |
| P22.NPC | Food authority (Regulatory body 5) | 08/02/2019 | Regulatory body | Associate director | Nestlé/PepsiCo/Coca-Cola |
| P23.N | FC college (Academic partner) | 07/01/2019 | Academic partner | Head of external affairs | Nestlé |
| P24.N | TrashIt (Business partner 3) | 05/04/2019 | Alliance | Founder | Nestlé |
| P25.N | Climate, Energy and Water Research Institute (CEWRI) (Research institute 1) | 29/04/2019 | Research institute | Principal scientific officer | Nestlé |
| P26.NPC | Pakistan Council of Scientific and Industrial Research (PCSIR) (Research institute 2) | 02/05/2019 | Research institute | Head of Food department, PCSIR | Nestlé/PepsiCo/Coca-Cola |

b) Along with the abovementioned stakeholders, following stakeholders were also contacted but did not respond or were inappropriate for interviews

| Sr. No | Stakeholder | Contact | Relationship with the company | Organization |
|---------------|--|--|--------------------------------------|--------------------------|
| 1 | Food and Agriculture Organization (FAO) Pakistan | Via official email on 22/04/2019 and 05/05/2019 | International association | Nestlé/PepsiCo/Coca-Cola |
| 2 | Rotary Pakistan | Via official email on 21/01/2019 and 16/02/2019 | Business partner | Coca-Cola /PepsiCo |
| 3 | Kashf foundation | Via official email on 21/01/2019 and 16/02/2019 | Business partner | Coca-Cola /PepsiCo |
| 4 | Roshni foundation | Via official email on 21/01/2019 and 16/02/2019 | Business partner | PepsiCo |
| 5 | UNDP | Via official email on 09/01/2019 and 21/01/2019 | International association | PepsiCo/Coca-Cola |
| 6 | Pakistan Agricultural Technology Transfer Activity (PATTA) | Email to the director on 10/01/2019 | Regulatory body | Nestlé/PepsiCo/Coca-Cola |
| 7 | Federal water management cell | Email to the director on 10/01/2019 Initial telephonic discussion | Regulatory body | Nestlé/PepsiCo/Coca-Cola |
| 8 | WBCSD | Email to relevant personnel on 09/01/2019 and 31/01/2019 | International association | Nestlé/PepsiCo/Coca-Cola |
| 9 | WHO | Email to relevant personnel on 09/01/2019 and 31/01/2019 | International association | Nestlé/PepsiCo/Coca-Cola |

Appendix I: Stakeholder categories of all three companies

Appendix I-1: Nestlé Global (Stakeholders Categories)

| Year | Sr No. | Stakeholders identified | Contribution of stakeholders | Nature of the relationship |
|---|--------|---|--|---|
| Category 1: Academic and Research institutes | | | | |
| 2018, 17 | 1 | Academics; PhD student programme | Research on areas where nutrition can have a beneficial impact on health outcomes | Academic partnership with Nestlé Institute of Health Sciences (NIHS) |
| 2018, 17 | 2 | Think tanks, academia and ESG investment community | Address issues that are specific to our value chain and where to create shared value. | Stakeholders convening |
| 2017, 13 | 3 | EpiGen Global Research Consortium (EpiGen) | Impact of nutrition and lifestyle on maternal and infant health To understand optimal nutrition for mothers during pregnancy, infants to promote metabolic health | Research through engaging mothers Nestlé Research Center (NRC) and the EpiGen Consortium |
| 2017 | 4 | Retail partner: Metro | Nestlé Programme on Value Chain Transparency and Product Traceability | Pilot studies |
| 2017 | 5 | Software providers: fTRACE | Nestlé Programme on Value Chain Transparency and Product Traceability | Pilot studies |
| 2017 | 6 | Consumer Goods Forum Task Force | Nestlé Programme on Value Chain Transparency and Product Traceability | Pilot studies |
| 2017 | 7 | World Federation of Hydrotherapy and Climatotherapist | Healthy hydration | Conference |
| 2017 | 8 | Italian Society of Preventative and Social Pediatrics (SIPPS) | Healthy hydration | Conference |
| 2018, 17 | 9 | Materials Recovery for the Future (MRFF) | To find recovery solutions for flexible plastic packaging in the United States | Research Collaboration |
| 2017 | 10 | Leading scientists | To continually improve our recommendations | Engage |
| 2017, 16 | 11 | Health practitioners/Dieticians | The event, entitled Mindful Portions Start with You: Help Create a Movement! | workshop |
| 2017, 16 | 12 | Consumer advocates | Engaging authorities for informing nutritional importance | Engage |
| 2017, 16 | 13 | Public health researchers | Engaging authorities for informing nutritional importance | Engage |
| 2017, 16, 15, 14, 13 | 14 | Healthcare professionals | Take their feedback on nutritional issues, offer nutritional care programs, Trainings, Share research findings with them | Training, engagement |
| 2016 | 15 | Samsung Strategy and Innovation Center (SSIC) | To harness the combined power of nutrition science and digital sensor technologies | Research collaboration with NIHS |
| 2015 | 16 | University of Agriculture Faisalabad | To trial the direct seeding of rice | Research Collaboration |
| 2015 | 17 | Cambridge Institute for Sustainability Leadership's (CISL) | Helped to measure natural capital in the UK dairy sector in 2015 | Joint work |
| | 18 | Cambridge University | Senior management attend sustainability programmes | Programmes |
| 2015 | 19 | San Pellegrino Group | Hydration conference | Conference |

| Year | Sr No. | Stakeholders identified | Contribution of stakeholders | Nature of the relationship |
|------------------------------|--------|---|---|-------------------------------|
| 2018, 17, 16, 15, 14, 13 | 20 | NIHS | To help improve the management of diseases using nutritional solutions, expand role of nutrition, health maintenance | Research since 2011 |
| | 21 | Nestlé Clinical Development Unit (CDU) | To evaluate the impact of its foods and ingredients on human biology | Research & Development (R&D) |
| | 22 | NRC | To help fulfil Nestlé's vision of Good Food, Good Life, with good food central to a balanced, healthful lifestyle for consumers | R&D |
| 2014 | 23 | Public health opinion leaders, third-party organizations, pediatricians | To share the results of researches through the Nestlé Nutrition Institute, | Share information |
| 2014 | 24 | Waters Corporation | Research project that could lead to vitamin combinations tailored to individual needs. | Research collaboration |
| 2017, 16, 15, 14, 13 | 25 | Experts | Nutrition experts, experts from government, academia, civil society and business to discuss how to accelerate SD | Discussion |
| | | Experts | To develop and improve our corporate policies and commitments, strengthen our business | Convenings |
| | | Experts | Creating Shared Value Forum to accelerate sustainable development | Forum |
| 2014 | 26 | European Society for Pediatric Gastroenterology, Hepatology and Nutrition | Nestlé provides an education grant to run a Diploma course on gastroenterology and nutrition for pediatricians | Supporting |
| 2014 | 27 | Harvard Kennedy School of Government | To study the public contributions of private enterprise | Research |
| 2014 | 28 | Cellular Dynamics International (CDI) | To support research on maintaining health and managing conditions such as diabetes and obesity. | Long-term agreement with NIHS |
| 2013 | 29 | European Research Council | Research grants on nutrition | Research |
| 2013 | 30 | Hospital das Clinicas da Faculdade de Medicina da Universidade de São Paulo | Study on the effects of micronutrients on health in children | Collaboration with NIHS |
| 2017, 13 | 31 | Philippines Food and Nutrition Research Institute (FNRI) | Research on micronutrient deficiencies, which can cause major health problems | Joint work |
| Category 2: Customers | | | | |
| 2018, 17, 16, 15, 14, 13 | 1 | Individuals and families | Healthier life, educate about food loss and waste, sustainable purchasing decisions | Support, Educate |
| 2018, 17, 16 | 2 | Retailers | For promoting healthier food, in simplifying and standardizing food date labels by 2020 | Joint work |
| 2018, 17 | 3 | Retailers and consumers | In simplifying and standardizing food date labels by 2020 | Consumer Goods Forum (CGF) |
| 2018, 17 | 4 | Food service providers | To improve nutritional content through support and training | Worldchefs, Nutripro, blogs |
| 2017 | 5 | Chefs | Influence the nutritional content of the food served | Nestlé Professional business |

| Year | Sr No. | Stakeholders identified | Contribution of stakeholders | Nature of the relationship |
|------------------------------|--------|---|---|------------------------------|
| 2018, 17, 16, 15, 14 | 6 | Customers and the general public. | 'Talk to Nestlé' through Tell us | Compliance Reporting System |
| | 7 | Consumers | Inform consumers about the nutritional composition of a food or beverage, To provide fact-based environmental information | Labels, information sharing |
| 2015 | 8 | Consumers, such as kids | Nestlé Healthy Kids Global Programme on nutrition education and physical activity | Activity based interaction |
| 2016 | 9 | Food professionals | To inspire healthier eating habits and lifestyles for individuals and families | Global partnership |
| 2015 | 10 | Healthcare providers | Offer nutrition education services and programmes for healthcare professionals | Programmes |
| 2018, 17, 16, 15, 14, 13 | 11 | Parents, caregivers | Empower them to foster healthy behaviours in children, prepare balanced meal, Healthy hydration | Support, provide information |
| | | Mothers, caregivers | Nestlé Start Healthy Stay Healthy will give online nutrition education services in 2014 | Online course/training |
| 2018, 17, 16, 15, 14, 13 | 12 | Schools | Helping remove children from labour into education through building or refurbishment through the Nestlé Cocoa Plan | Joint work |
| 2018, 17, 16, 15, 14, 13 | 13 | Women | Gender action programme is helping to improve women's income, Training farmers on nutrition | Programmes |
| | | Women | Series of gender awareness training | Training |
| 2018, 17, 16, 15, 14, 13 | 14 | Health care professionals | Online educational service via Nestlé Nutrition Institute, to promote healthy hydration | Online course/training |
| 2014 | 15 | Community liaison officers | To identify the children at risk, and to engage with cocoa farmers in an open and transparent way | Joint work |
| 2013 | 16 | Teenagers | learn to cook balanced meals through a nationwide education programme called 'Eat Tasty and Healthy'. | Training |
| 2013 | 17 | Consumer panel | To ensure that taste preference and better nutrition go hand in hand | Food testing |
| Category 3: Suppliers | | | | |
| 2018, 17, 16, 15, 14, 13 | 1 | Suppliers | Nestlé conducts responsible sourcing audits with suppliers for compliance of Nestlé supplier code | Audit |
| 2018, 17, 16, 15 | | Suppliers | To implement action plans to save water in our upstream supply chain | Engagement |
| 2017 | | Suppliers | Continuously improve our green coffee supply chain | Interaction |
| 2016 | | Suppliers | To map their sourcing according to RSG | Joint work |
| 2014 | | Suppliers | Improving the water efficiency of our complex agricultural supply chain | Action plan/Joint work |
| 2018, 17, 16, 15, 14, 13 | 2 | Suppliers, upstream business partners, and distributors | External grievance system 'Tell Us' | Communication channel |
| 2018, 17 | 3 | Ingredient suppliers | To accelerate product and technology development. | Innovation partnership |
| 2018, 17, 16, 15 | 4 | Equipment suppliers | To accelerate product and technology development, to share knowledge, and test and monitor different refrigerants | Innovation partnership |
| 2015 | 5 | Agri suppliers | Helps farmers increase their yields and quality | Supporting |

| Year | Sr No. | Stakeholders identified | Contribution of stakeholders | Nature of the relationship |
|------------------------------|--------|---------------------------------------|--|---|
| 2018, 17, 16, 15 | 6 | Palm oil suppliers | Collaborative upstream Labour Rights Impact Assessment | Partnership |
| 2017 | 7 | Golden Agri-Resources (GAR) | Palm oil supplier, engage in human right impact assessment with Nestlé as well | Joint work |
| 2014 | 8 | Oil suppliers | To replace the partially hydrogenated soybean/cottonseed oil with a high oleic soybean oil | Collaboration |
| 2017 | 9 | Third-party logistics providers | To track our environmental performance and improve efficiency | Partnership |
| 2018, 17, 16, 15, 14, 13 | 10 | Farmers | Responsible sourcing | Training |
| 2018, 17 | | Farmers | Hygiene training and tools for farmers in five languages, and disseminated them through external partners To promote better agricultural practices and help improve their livelihoods | Training |
| 2015 | | Farmers | Strategies to improve food availability and dietary diversity/capacity building | Pilot studies/ Training |
| 2014 | | Farmers | Helping farmers to increase knowledge and skills in rural development by Nestlé Dairy Farming Institute | Training |
| 2016 | | Farmers | Through the Sustainable Agriculture Initiative at Nestlé (SAIN) for water use | Training |
| 2015 | 11 | Farmers and communities | To assess the poor nutrition status | Studies |
| 2016 | 12 | Local coffee farmers | The Nescafé Coffee Center in Pu'er, Yunnan provides training and quality assurance services | Training |
| 2015 | 13 | Agripreneurs | Farmer training support program | Training |
| 2018, 17, 16, 15, 14, 13 | 14 | Partners, suppliers, farmers, workers | To help build resilient, thriving communities as part of a secure, long-term supply chain | |
| Category 4: Employees | | | | |
| 2018, 17, 16, 15, 14, 13 | 1 | Employees | Challenging discrimination and promoting women's rights | Women's International Networking Conference |
| 2018, 17, 16, 15, 14 | | Employees | Nestlé needs YOUth, to empower employees | Private Sector Forum of UN General assembly |
| 2018, 17, 16, 15, 14, 13 | | Employees | Empowering employees to be environmental stewards | Training |
| 2018, 17, 16, 15 | | Employees | Operationalizing Nestlé Integrity Reporting System, which is an Internal grievance mechanism | Nestlé Integrity Reporting System |
| 2018, 17, 16, 15, 14, 13 | | Employees | Grievance handling | Tell us |
| 2018, 17 | | Employees | Quality Competency Development tools to all markets | Training |
| 2018, 17, 16, 15, 14, 13 | | Employees | Training on bribery and corruption. | Training |
| 2018, 17, 16 | | Employees | Compliance e-learning course on ' Anti-Corruption Programme for employees | Online course/ training |

| Year | Sr No. | Stakeholders identified | Contribution of stakeholders | Nature of the relationship |
|--------------------------------------|--------|---|---|--|
| 2018, 17,16 | | Employees | Adoption of local Anti-Corruption Policy implementation procedures in markets where further reinforcement is required | Policy |
| 2018, 17, 16, 15, 14, 13 | | Employees | Unconscious bias | Training |
| 2018, 17, 16, 15, 14, 13 | | Employees | Training on creating shared value, Nutrition Quotient (NQ)/ environmental training | Training |
| 2018, 17, 16, 15, 14, 13 | | Employees | E-learning courses for all employees, Leadership course and worksgops | Courses, Training |
| 2018, 17, 16, 15, 14, 133 | | Employees | Nestlé Environmental Requirements for water quality and effluent discharge in all factories | Training |
| 2018, 17, 16, 15, 14, 13 | | Employees | To reduce human rights risks in our operations. | Training |
| 2018, 17, 16, 15, 14, 13 | 2 | Marketing employees | Implement a strengthened Nestlé Marketing Communication to Children Policy | Training to marketing teams |
| 2018, 17, 16, 15 | 3 | Employees, human resource business partners, leaders and senior leaders | Training on stress and resilience through Nestlé Guidance on Stress and Resilience in 2015 | Training |
| 2018, 17, 16 | 4 | Young people below 30 years | Giving them employment to help tackle unemployment in this age group | Hiring |
| 2018, 17, 16, 15, 14, 13 | 5 | Workers and community members | Identify abuses in supply chain | Human rights impact assessments |
| Category 5: Regulatory bodies | | | | |
| 2018, 17 | 1 | UK Government | Initiative called Purina, has been looking at how pouches can be recycled. | Joint work |
| 2018, 17, 16 | 2 | US Government | Feed the Future initiative that supports national approaches to addressing the causes of hunger and poverty | Partnership |
| | | US Government | For Climate Smart Cocoa, which aims to support smallholder cocoa producers | Joint work |
| 2018, 17 | 3 | Ministry of Health | To promote Healthy hydration | Partnering |
| 2017 | 4 | CONAFOR: Mexico's National Forestry Commission | Alliance with Nestlé water Mexico to conserve forest | Alliance |
| 2018, 17 | 5 | Danish Institute for Human Rights | Human right impact assessment in palm oil supply chain | Joint work |
| 2017 | 6 | Government's Food and Nutrition Research Institute | Micronutrient Deficiency Forum | Forum |
| 2018, 17 | 7 | International Labour Organization (ILO), the Turkish Ministry of Labour | Improve workers' livelihoods and protect children in our agricultural supply chain. | dialogue, engagement and collective action |
| 2017, 16 | 8 | Thai government | For safe working and living conditions on vessels in the seafood industry | For training |
| 2018, 17, 16, 15, 14, 13 | 9 | Governments | Dealing with climate change issues | Partnership and communication |
| | | | To provide a better understanding of the benefits of water | Collaboration |

| Year | Sr No. | Stakeholders identified | Contribution of stakeholders | Nature of the relationship |
|---|--------|---|---|--|
| 2018, 17, 16, 15, 14, 13 | 10 | Government agencies | Address issues that are specific to our value chain and where to create shared value. | Stakeholders convening |
| 2015 | 11 | ILO Maternity Protection Convention | Nestlé launched a global Maternity Protection Policy, based on the ILO | Regulatory requirement |
| 2014 | 12 | Singapore government's Agency, A*STAR, | To set up global research programmes in food science and technology | Strategic partnership |
| 2014 | 13 | Public health authorities | They recommend a reduction in the intake of added sugars | Regulatory requirement |
| 2014 | 14 | Industry and governments | Communicate best practices through them | Joint work |
| 2018, 17, 16, 15, 14, 13 | 15 | European Commission | Piloting the EU method for environmental assessment of food products Product Environmental Footprint project | Regulatory requirement |
| 2018, 17, 16, 15, 14, 13 | 16 | Industry and government | To help explain the complex topic of environmental sustainability to non-specialists | Collaboration |
| 2018, 17, 16, 15, 14, 13 | 17 | Government, academia, and multilaterals | To understand stakeholder expectations and concerns | Stakeholders convening |
| Category 6: Alliance and Business partners | | | | |
| 2018, 17, 16, 15, 14, 13 | 1 | International Cocoa Initiative (ICI) ICI | To identify the challenges of, and solutions for, child labour. Nestlé is helping identify and address specific incidences of child labour | Working closely Collaboration |
| 2018, 17, 16, 15, 14, 13 | 2 | International Federation of Red Cross and Red Crescent Societies (IFRC) IFRC IFRC IFRC | Global Water and Sanitation Initiative To improve access to clean water, sanitation and hygiene in rural communities Support projects that improve access to WASH facilities in the cocoa-growing regions To improve access to water and sanitation To provide water and sanitation facilities and hygiene training | Partnership Partnership Partnership Training |
| 2018, 17, 16, 15, 14, 13 | 3 | 2030 Water Resources Group (WRG) 2030 WRG | Promoting opportunities to improve best practice in water stewardship To address supply and demand issues in water-stressed locations by 2030 | Public-private-civil society collaboration Public-private-civil society collaboration |
| 2018, 17, 16, 15, 14, 13 | 4 | Businesses | To achieve reductions in saturated fats in our foods and beverages | Joint work |
| 2018, 17, 16, 15 | 5 | Cereal Partners Worldwide | To increase the levels of whole grain in our breakfast cereals, to reformulate recipes to reduce the sugar content in breakfast cereals | Joint venture with General Mills |
| 2018, 17, 16 | 6 | The Climate group | To accelerate climate action | Joint work |
| 2018, 17, 16 | 7 | Sustainable Food Lab (SFL) | To implement the Water Risk Assessment and Mitigation in agricultural material | Collaboration |
| 2018, 17, 16 | 8 | RE100 | Influential businesses committed to using 100% renewable electricity | Collaboration |

| Year | Sr No. | Stakeholders identified | Contribution of stakeholders | Nature of the relationship |
|----------|--------|---|---|----------------------------------|
| 2018, 16 | 17, 9 | SustainAbility: An independent consultant and think tank | To identify the issues that matter most to our business and stakeholders, to better support our reporting and strategic decision-making | Joint effort |
| 2018, 16 | 17, 10 | Natural Capital Coalition | To understand, measure and value impacts of companies on the natural environment | Joint work |
| 2018, 16 | 17, 11 | Champions 12.3 | A coalition of business executives working towards achieving SDG, to accelerate progress towards halving food waste by 2030 | Coalition of business executives |
| 2018, 16 | 17, 12 | DBV Technologies | To develop a patch-test tool for diagnosing Cow's Milk Protein Allergy in infants | Partnership |
| 2018, 16 | 17, 13 | California Water Action Collaborative | A platform for stakeholders to work together on projects to improve water security | Collaboration |
| 2018, 16 | 17, 14 | Sustainable Agriculture Initiative (SAI) Platform | To implement the Water Risk Assessment and Mitigation in agricultural material | Collaboration |
| 2017, 14 | 15 | ProForest | Technical expertise in agricultural supply chains, responsible sourcing | |
| 2018, 16 | 17, 16 | Ceres | Implement the Guide for Responsible Corporate Engagement in Climate Policy since 2020 | Joint work |
| 2018, 16 | 17, 17 | CDP | Implement the Guide for Responsible Corporate Engagement in Climate Policy since 2020 | Joint work |
| 2018, 17 | 18 | Polish Dietetics Association | Healthy hydration, Campaign to choose water instead of sugared beverages | Partnering |
| 2018, 17 | 19 | European Union Pledge | Voluntary industry advertising pledge to support parents in making the right diet and lifestyle choices for their children. | Joint work |
| 2018, 17 | 20 | Trash Free Seas Alliance® | To participate in consumer good forum solid waste working group | Partnership |
| 2018, 17 | 21 | International Reference Centre for the Life Cycle of Products, Processes and Services | For life-cycle impact category indicator for the biodiversity effects of marine littering | Collaboration |
| 2018, 17 | 22 | Manos al Agua | Empowering Colombian coffee farmers to manage water and address the risks to coffee production | Collaboration |
| 2018, 17 | 23 | Danone | To develop a PET plastic bottle made from 100% renewable materials | NaturALL Bottle Alliance |
| 2018, 17 | 24 | CEFLEX: A Circular Economy for Flexible Packaging | Guidelines for flexible packaging, infrastructure needed to collect, sort and recycle | Collaboration |
| 2018, 17 | 25 | Packaging and Recycling Alliance for Indonesia's Sustainable Environment (PRAISE) | To improve packaging waste management in the country | Collaboration |
| 2018, 17 | 26 | Industry-wide collaboration | To build a common understanding of local waste management systems | Partnerships |
| 2018, 17 | 27 | World Alliance for Efficient Solutions | Dealing with climate change issues | Nestlé provides funding |
| 2017 | 28 | SarVision | Starling service provides high-resolution satellite and radar images to measure the performance of Zero deforestation ambition | Partnership |
| 2017 | 29 | Thai Union company | Renovate Thai fishing boat | joint work |

| Year | Sr No. | Stakeholders identified | Contribution of stakeholders | Nature of the relationship |
|-------------|---------------|--|---|--|
| 2017 | 30 | Global business support company UL | Audited more than 10% of the vessels in our Thai seafood supply chain this year | Partnering |
| 2018, 17 | 31 | Jacobs Foundation TRECC programme | To include literacy education, bridge schools and schooling in villages | Partnership |
| 2015,14,13 | 32 | Rainforest Alliance | To roll out the Nescafé Plan | Partnership |
| 2016 | 33 | External partners | To develop a roadmap on labour rights in agricultural supply chains | Collaboration |
| 2016 | 34 | Expert partners | To improve access to water and sanitation across our value chain | Joint work |
| 2016 | 35 | National Highways and Motorway Police (NH&MP) | Drivers' training institute to ensure the safety and well-being of our employees | Collaboration |
| 2016 | 36 | US company Accera | To fund clinical trials in Axona | Joint work |
| 2016 | 37 | GE Healthcare | To support critically ill people, and older people suffering from malnutrition | Collaboration with NHS |
| 2015 | 38 | Partners | To deliver the Healthy kid programme to over 8 million children, to identify those factories where Nestlé has a potential impact on Important Water Areas | Joint work |
| 2014 | | Partners | To source credible data on deforestation, to identify Important Water Areas around our operations. | Partnership |
| 2015 | | Partners | To deliver our Healthy Kids Global Programme | Joint work |
| 2015 | 39 | NGO Pur Projet | Planting trees/Shrubs among crops helps to tackle soil erosion for land sustainability | Partnership |
| 2015 | 40 | USCRG, which is a cooperative of farmers | To develop improved farming practices and social conditions. | Joint work |
| 2015 | 41 | ANADER, the National Extension Service for Rural Development | To promote training in better farming practices | Joint work |
| 2015 | 42 | Energie Jeunes | 'School dedication' scheme | Partnership |
| 2015 | 43 | Un Stage et Après: An Internship and After | To host on average 10 school children each month for a 'week of discovery' | Collaboration |
| 2014 | 44 | Partners, communities and government agencies | To take feedback on our human rights and rural development approach | Joint work |
| 2013 | 45 | Common Code for Coffee Community, called 4C | To roll out the Nescafé Plan | Membership |
| 2014 | 46 | Healthier America's Drink Up initiative | A programme that guides people to drink more water | Partnership |
| 2014 | 47 | Companies | To provide apprenticeships, traineeships and readiness for work events to young people | Alliance for YOUth |
| 2014 | 48 | Honey Care Africa | An East African fair-trade honey company currently working with 15 000 farmers in South Sudan | Joint work |
| 2013 | 49 | The Red Cross Society of Côte d'Ivoire | To provide water and sanitation facilities and hygiene training | Training |
| 2014 | 50 | World Animal Protection | World Animal Protection shares its expertise on farm animal health, care and welfare | International animal welfare NGO partnership |
| 2014 | 51 | The Forest Trust | To map our supply chains for sugar, soya, palm oil and paper | NGO Partners |
| 2017 | 52 | Verité | Technical expertise in agricultural supply chains, responsible sourcing | |

| Year | Sr No. | Stakeholders identified | Contribution of stakeholders | Nature of the relationship |
|---|--------|--|--|--|
| 2017 | 53 | TFT | Technical expertise in agricultural supply chains, responsible sourcing | |
| 2017 | 54 | Olam | Improve workers' livelihoods and protect children in our agricultural supply chain. | Dialogue, engagement and collective action |
| 2017 | 55 | Dairy Sustainability Framework (DSF) | Approach to drive and measure improvements in sustainable dairy | Joint initiative |
| 2017 | 56 | The Seafood Task Force | To align industry behind a common code of conduct | Partnering |
| 2017 | 57 | Trillion Tonne Communiqué | Dealing with climate change issues | Nestlé provides funding |
| 2015 | 58 | World Economic Forum's Alliance of CEO Climate Leaders | To contribute to the global agreement achieved at the COP21 | Joint work |
| 2014 | 59 | International Association of Athletics Federations (IAAF) | Kids' Athletics programme to improve the nutrition, health and wellness of children globally | Joint work |
| Category 7: International associations | | | | |
| 2018, 17, 16, 15, 14, 13 | 1 | United Nations Global Compact (UNGC) | Implement the Guide for Responsible Corporate Engagement in Climate Policy since 2020 | Sustainability initiative |
| 2018, 17 | | UNGC | Strategic policy initiative for business commitment towards sustainability | Sustainability initiative |
| 2018, 17 | | UNGC | Blueprint for Business Leadership Platform, Breakthrough Innovation Challenge | Action platforms |
| 2017, 16 | 2 | World Resources Institute (WRI) | Developing of an open-source valuation methodology for 'Sustainable Cost of Water'. | Supporting |
| | | WRI | To develop Food Loss and Waste Accounting and Reporting Standard | Active contribution |
| | | WRI | To determine the 'sustainable cost of water'. | Joint work |
| 2018, 17, 16, 15, 14 | 3 | CEO Water Mandate | To develop, implement and disclose their water sustainability policies and practices. | founding signatory |
| 2014 | | CEO Water Mandate | Public disclosure guidelines | Supporting |
| 2015 | | CEO Water Mandate | Participate in its workstreams on Policy Engagement and the Human Right to Water | Signatory |
| 2018, 17, 16, 15, 14, 13 | 4 | Fair Labor Association (FLA) | Technical expertise in agricultural supply chains, responsible sourcing | |
| | | FLA | To combat child labour | Joint work |
| | | FLA | To identify and implement new ways of working | Joint work |
| | | FLA | To publish report on Nestlé's cocoa supply chain | Joint work chain |
| | | FLA | To identify child labour in cocoa supply chain, helps to understand root causes, develop appropriate measures in response. | Joint work |
| 2018, 17, 16, 15, 14, 13 | 5 | World Business Council for Sustainable Development (WBCSD) | To achieve 50 signatories of the WASH Pledge | Supporting |
| 2016 | | WBCSD | Achieve access to safe water, sanitation and hygiene (WASH) for all employees | Supporting |
| 2014 | | WBCSD | To improve access to water and sanitation | Joint work |

| Year | Sr No. | Stakeholders identified | Contribution of stakeholders | Nature of the relationship |
|----------------------------------|--------|--|--|--|
| 2013 | | WBCSD | Commits businesses to upholding the human right to water and sanitation within their operations | Signatory |
| 2018, 17, 16, 15, 14, 13 | 6 | World Health Organization (WHO) | Standards for micronutrients | Reports |
| 2014 | | WHO | To contribute to improving children's food environments by assessing all children's products | Regulatory requirement |
| 2014 | | WHO | Nestlé follows the criteria based on nutrition science and public health dietary recommendations | Regulatory requirement |
| 2014, 13 | 7 | Institute of Medicine | Nestlé follows the criteria based on nutrition science and public health dietary recommendations | Regulatory requirement |
| | | Institute of Medicine | To contribute to improving children's food environments by assessing all children's products | Regulatory requirement |
| 2018, 17, 16, 15, 14, 13 | 9 | International Food and Beverage Alliance (IFBA) | To comply with the global Policy on Advertising and Marketing Communications to Children | Membership |
| 2018, 17, 16, 15, 14, 13 | 10 | AWS | Global standard for good water stewardship performance certification | Founding member and contributor |
| 2018, 17 | 11 | Caring for Climate | Renewing our efforts to improve energy efficiency, reducing our GHG emissions | Supporting |
| Category 8: Miscellaneous | | | | |
| 2018, 17 | 1 | Third party assessment team | To conduct a formal materiality assessment | |
| 2016 | 2 | NGOs | To deal with healthcare problems of farmers and their families | Joint effort |
| 2017 | 3 | Policymakers | Engaging authorities for informing nutritional importance | Science-based evidence dossier |
| 2017 | 4 | Trade association CAOBISCO, and international and local NGOs | Improve workers' livelihoods and protect children in our agricultural supply chain. | dialogue, engagement and collective action |
| 2018, 17 | 5 | Trade unions | To improve labour practices | Engage internationally |
| 2017 | 6 | Stakeholders | Events on kids' nutrition at the IUNS 21st International Congress of Nutrition | Stakeholders discussion event |
| 2017 | 7 | 20 expert stakeholders | To explore Nestlé's role in contributing to optimal nutrition in the first 1000 days of life | Dialogue |
| 2017 | 8 | New York Declaration on Forests | Dealing with climate change issues | Nestlé provides funding |
| 2018, 17 | 9 | How2Recycle® | Communicates standardised information on a wide range of product packaging | Membership |
| 2017 | 10 | The Nestlé Nutrition Council and the CSV Council. | External advisory councils for governance structure | Advise |
| 2016 | 11 | Nestlé Nutrition Institute (NNI) | World's largest private publisher of nutritional information | Share information |
| 2016 | 12 | Employees, suppliers, customers and consumers | Responsible stewardship of water | Every part of value chain |
| 2016 | 13 | World Food LCA Database | Support the development | Supporting |
| 2016 | 14 | Multiple stakeholders | Stakeholder convenings and forums | Dialogue |

| Year | Sr No. | Stakeholders identified | Contribution of stakeholders | Nature of the relationship |
|------|--------|--|--|----------------------------|
| 2015 | 15 | Multiple stakeholders | Stakeholder convenings and forums | Dialogue |
| 2015 | 16 | Independent auditors | Compliance infant formula manufacturer | Audit |
| 2015 | 17 | Joint Water Risk Assessment and Mitigation project | Enabling food companies to share strategies for assessing and mitigating water risks | Membership |
| 2014 | 18 | Stakeholders | Studies on nutrition | Engagement |
| 2014 | 19 | External stakeholders | To provide feedback via our 'Tell us' reporting mechanism | Reporting mechanism |
| 2014 | 20 | Auditors | To audit the policies and procedures applied by our Wyeth Infant Nutrition business | Audit |
| 2014 | 21 | Third-party distributors | To comply with national legislation, Nestlé Policy, WHO Code | Provides training |
| 2014 | 22 | Stakeholders | Nestlé Creating Shared Value Forum series and regular stakeholder convenings. | Convenings |
| 2014 | 23 | Partnerships, industry bodies, NGOs, Research institutions | To learn and share best practice for water | Collaboration |
| 2014 | 24 | NGOs, academia, government, industry associations, International bodies | Nestlé business model and our role in influencing collective action and facilitating change on SD. | Stakeholders convening |
| 2013 | 25 | Leading forums, European Food Sustainable Consumption, Production Round Table, Food Drink Europe | To help explain the complex topic of environmental sustainability to non-specialists | Collaboration |

Appendix I-2 Nestlé Pakistan (Stakeholders Categories)

| Year | Sr No. | Stakeholders identified | Contribution of stakeholders | Nature of relationship |
|---|--------|--|--|------------------------|
| Category 1: Academic and Research institutes | | | | |
| 2018, 16, 15, 14 | 1 | Lahore University of Management Sciences (LUMS) | Executive Certificate program to create a cadre of competent and skilled professionals in the agribusiness sector | Collaboration |
| 2018 | | LUMS | Developing smart soil moisture sensors to reduce water consumption on farms | Joint work with Nestlé |
| 2018 | | LUMS | To develop and scaling up technologies that can help save water in agriculture. | Collaboration |
| 2015, 16, 17, 18 | 2 | PCSIR Laboratories | Food sample testing | Collaboration |
| 2017, 18 | 3 | Climate, Energy and Water Research Institute (CEWRI) | Installation of solar powered irrigation system with highly efficient irrigation system for enhancement of water productivity. | Joint work with Nestlé |
| 2018 | 4 | Sustainable Development and Policy Institute (SDPI) | To generate awareness and enhance the dialogue around water issues | Partnership |
| 2018, 16, 15 | 5 | Institute of Business Administration (IBA) | For the promotion of agricultural entrepreneurship in Karachi | Partnership |
| 2018 | 6 | University of Pao | Developing smart soil moisture sensors to reduce water consumption on farms | Joint work with Nestlé |
| 2018 | 7 | Forman Christian College | For benefitting individual and families | Partnership |
| 2018 | 8 | The Trust school | For benefitting individual and families | Partnership |
| 2018 | 9 | Kinnaird College for women | For benefitting individual and families | Partnership |

| Year | Sr No. | Stakeholders identified | Contribution of stakeholders | Nature of relationship |
|------------------------------|--------|--|---|---------------------------------------|
| 2018 | 10 | Lahore College for women university | For benefitting individual and families | Partnership |
| 2018 | 11 | National university of science and technology | For benefitting individual and families | Partnership |
| 2018 | 12 | Bahauddin Zakariya university | For benefitting individual and families | Partnership |
| 2018 | 13 | Agricultural University Faisalabad | For benefitting communities | Partnership |
| 2015 | | Agricultural University Faisalabad | To improving the existing research facilities at the laboratories along with their infrastructure. | MoU with Nestlé |
| 2016 | 14 | LGS Landmark Schools | To bring about a positive change in our children so that they can have a brighter and healthier future | Collaboration |
| 2016 | 15 | Partner educational institutions | Nestlé Pakistan organised Project WET (Water Education for Teachers) training sessions | Training sessions |
| 2015 | 16 | Mashal school | Nestlé Pakistan provides nutritional support to the underprivileged students | Nutritional support |
| 2015 | 17 | University of Veterinary & Animal Sciences, Lahore | To improving the existing research facilities at the laboratories along with their infrastructure. | MoU with Nestlé |
| 2014 | 18 | Mountain School Changla Gali | Nestlé Pakistan provides each student with a daily serving of milk | Supporting |
| Category 2: Customers | | | | |
| 2018, 16, 15 | 1 | Kids | Nestlé Healthy kids' program | Supporting |
| 2018, 16, 15 | 2 | Women | Healthy women program | Supporting |
| 2016, 15 | | Women | To raise awareness on how nutrition impacts young women and their next generation through NHW | Training and support |
| 2016 | | Women | Established Vocational Training Centre to provide sewing and stitching training | Training through community engagement |
| 2016, 15, 14 | | Young women | Kero Aitemaad initiative to create shared value by aspiring young women to have a flourishing career | Training and support |
| 2018 | 3 | Beneficiaries | Have become Nestlé Pakistan Sales Agents through rural deep reach project | Supporting |
| 2016, 15 | 4 | Consumers | Providing with fortified products addressing the needs of millions of consumers | Products |
| 2016, 15 | | Consumers | NHW awareness to consumers through packaging, business communication and personal interaction | Products |
| 2016, 15 | | Consumers | Nutrition Support Programme provides milk, to approximately 20,000 children and underprivileged people | Supporting |
| 2016, 15 | 5 | Youth | To educate and sensitise rural youth on better farming practices | Rural school training |
| 2016, 15 | 6 | Mothers and teachers | Nestlé Healthy Kids Program to ensure that children understand the value of nutrition and physical activity | Training |
| 2016, 15, 14 | 7 | Local communities | Nestlé Pakistan has established 8 clean drinking water facilities through Community Engagement Programme | Supporting |
| 2018, 16, 15 | 8 | Teachers | Responsible use of water through Project Water Education for Teachers (WET) | Collaboration |
| Category 3: Suppliers | | | | |

| Year | Sr No. | Stakeholders identified | Contribution of stakeholders | Nature of relationship |
|--------------------------------------|--------|--|--|-------------------------------|
| 2018 | 1 | Small farmers | Nestlé Pakistan's offers different training programs generate further income | Training and support |
| 2018, 16, 15 | 2 | Women agriprenuers | Capacity building trainings for rural women to improve livestock, healthcare facilities, and boost income | Training and support |
| 2016 | 3 | Farmers | The Nestlé Chaunsa Project aims to improve livelihood of farmers within the Chaunsa Mango sector | Supporting |
| 2018 | | Farmers | Nestlé Pakistan is conducting farmer trainings through its own and community training farms. | Training |
| 2018 | | Farmers | Farmer Help Camps to support and improve the livelihoods of farmers | Support |
| 2016 | | Farmers | Rural Development programmes, to interact with farmers in dairy value chain in Pakistan | Interaction |
| 2016 | 4 | Dairy farmers | To help them increase milk production and their income to ensure a better life | Training |
| 2016 | | Dairy farmers | Improving dairy farm sustainability through Kisan club | Support |
| 2016, 15 | | Dairy farmers | Farmer Help Camps to Improve dairy farm sustainability | Training and support |
| | 5 | Packages Ltd | Packaging material supplier | MoU with Nestlé |
| 2016 | 6 | Female milk suppliers | To train them on Best Farm Practices through village gatherings | Training |
| Category 4: Employees | | | | |
| 2018 | 1 | Rural men and women | Nestlé Pakistan's offers different training programs to rural men and women employment | Training |
| 2018, 16, 15, 14 | 2 | Employees | To engage and assist underprivileged communities through their direct and indirect participation | Mashal-e-Rah program |
| Category 5: Regulatory bodies | | | | |
| 2018 | 1 | Punjab Government | To promote drip irrigation in community to help save water | Partnership |
| 2016 | | Punjab Government | Introducing Hose Reel irrigation system at Nestlé training farm | Collaboration |
| 2018 | 2 | Pakistan Agriculture and Research Council (PARC) | To install a High Efficiency Irrigation System (HEIS) on 6-acre crop sites as a training site for farmers | Partnership |
| 2018, 16 | 3 | Agriculture Department Punjab | Nestlé Chaunsa Project to improve the livelihood of farmers | Partnership |
| 2018 | | Agriculture Department Punjab | To promote drip irrigation in order to encourage farmers to adopt the high efficiency irrigation technique | Collaboration |
| 2016 | 4 | The Ministry of Planning Development and Reform of Pakistan | To bring about a positive change in our children so that they can have a brighter and healthier future | Collaboration |
| 2016 | 5 | Water Management Wing (Agriculture Department, Government of Punjab) | Water Resource Management Project to provide subsidy for drip irrigation | Partnership |
| | 6 | Environmental protection agency | Monitor environment and also involved in joint projects | Provides standards+joint work |
| | 7 | Intellectual property organization | Provides copyrights | |
| | 8 | Food authority | Standards and guidelines for food and beverage companies | Standards |

| Year | Sr No. | Stakeholders identified | Contribution of stakeholders | Nature of relationship |
|---|--------|---|---|--------------------------------------|
| 2015 | 9 | National Disaster Management Authority | Nestlé Pakistan donated 80,000 liters of water to be distributed at centres set up for heat stroke affectees | Donation |
| Category 6: Alliance and Business partners | | | | |
| 2018 | 1 | Benazir Income Support Program (BISP) | It provides livelihood opportunities for BISP beneficiaries through rural deep reach program To provide basic nutrition knowledge to rural women | Collaboration |
| 2018 | 2 | Prime Minister Youth Business Loan Program (PMYBL) | To facilitate farmers with competitive financing solutions for farm extension, cow purchase | Partnership |
| 2018 | 3 | Commercial banks | To facilitate farmers with competitive financing solutions for farm extension, cow purchase | Partnership |
| 2018 | 4 | WWF-Pakistan | To facilitate the implementation of AWS Standard within the factory. | Alliance |
| 2016, 15, 14 | | WWF-Pakistan | To implement the AWS standard at Nestlé's factories in the country | Partnership |
| 2018 | 5 | Punjab Worker Welfare Board (PWWB) | To facilitate Nestlé healthy kid programme | Partnership |
| 2018 | 6 | CARE Foundation | To facilitate Nestlé healthy kid programme | Partnership |
| 2018 | 7 | Zindagi Trust | To facilitate Nestlé healthy kid programme | Partnership |
| 2018 | 8 | The Federal Directorate of Education | To facilitate Nestlé healthy kid programme | Partnership |
| 2018 | 9 | Trust for Education and Development of Deserving Students (TEDDS) | To facilitate Nestlé healthy kid programme | Partnership |
| 2018 | 10 | Telenor Bank (previously known as Tameer Bank) | To register <7,000 small dairy farmers and disburse <PKR 131m in milk payments via mobile wallets. | Collaboration |
| 2018 | 11 | Habib Bank Limited | To register <7,000 small dairy farmers and disburse <PKR 131m in milk payments via mobile wallets. | Collaboration |
| 2018, 16, 15, 14 | 12 | NH&MP | Established the first drivers' training institute for well-being of community | Collaboration |
| | | NH&MP | To train fleet drivers for vehicle management | Joint work with Nestlé |
| 2018 | 13 | Waziup (EU-funded organization based in Europe) | Developing smart soil moisture sensors to reduce water consumption on farms | Joint work with Nestlé |
| 2018 | 14 | Partners | Training through Project Water Education for Teachers (WET) | Training |
| 2018 | 15 | Dairy and Rural Development Foundation (DRDF) | For benefitting communities | Partnership |
| 2016, 15, 14 | | DRDF | To develop communities, alleviate poverty, and generate income and employment through dairy project | Partnership |
| 2018 | 16 | International Finance corporation (IFC) | For benefitting communities | Partnership |
| 2015 | | IFC | To increase fresh milk volume with good quality at selected commercial dairy farms | Farm development project, joint work |
| 2016 | 17 | Servis Shoes | To bring about a positive change in our children so that they can have a brighter and healthier future | Collaboration |

| Year | Sr No. | Stakeholders identified | Contribution of stakeholders | Nature of relationship |
|---|--------|---|--|------------------------|
| 2015, 14 | 18 | Australia-Pakistan Agriculture Sector Linkages Programme (ASLP) | Pilot initiative to support mango farmers in southern Punjab. | Partnership |
| 2014 | 19 | Marie Adelaide Leprosy Hospital (MALC) | Nestlé helps the under-privileged people through nutritional support | Partnership |
| Category 7: International associations | | | | |
| 2018 | 1 | AWS Standard | Guides companies and organizations on how to improve their water efficiency onsite and offsite | Standards |
| 2018, 16, 15 | 2 | WASH, an initiative of the World Business Council for Sustainable Development | To implement access to safe water, sanitation and hygiene at the workplace | Signatory |
| Category 8: Miscellaneous | | | | |
| 2016 | 1 | Stakeholders | Nutrition, Health and Wellness (NHW) communication to internal and external stakeholders | |

Appendix I-3: PepsiCo global (Stakeholders Categories)

| Year | Sr No. | Stakeholders identified | Contribution of stakeholders | Nature of relationship |
|---|--------|--|---|------------------------|
| Category 1: Academic and Research institutes | | | | |
| 2018, 17, 16 | 1 | Consumer Goods Forum's (CGF's) | Multi- manufacturer, multi- retailer health and wellness pilots for healthier life | Participation |
| 2016 | 2 | Healthy Washington County (Md.) | Launched pilot in collaboration with local public health initiative | Collaboration |
| 2016 | 3 | Experts in behavioral science | To learn how to better market nutritious products | Consultation |
| 2016, 17 | 4 | Business Renewables Center, Rocky Mountain Institute | To inform renewable energy procurement strategy | Joint work |
| 2016 | 5 | Sabritas Center for Agricultural Development | To develop 11.5 million potato mini-tubers or seeds | R&D |
| 2016 | 6 | Shift's Business Learning Program | To help review and improve PepsiCo approach to human rights management and performance. | Joint work |
| 2015 | 7 | Cambridge University | Developed i-crop technology with PepsiCo, which is a Web-based platform for "precision farming" | Joint work |
| 2015 | 8 | Columbia Water Center (CWC) at Columbia University | To test and deliver solutions for water insecurity around the world. | Partnership |
| 2013 | 9 | Nutrition and health experts | Global dialogue on health and wellness to address the changing needs and desires of our consumers | Engagement |
| 2013 | 10 | Gatorade and the Gatorade Sports Science Institute | To study new and innovative ways to help athletes improve performance through hydration and nutrition | Joint work |
| 2013 | 11 | Columbia Water Center at the Columbia University | To find out solutions to the global water crisis | Partnership |
| 2013 | 12 | Congressional Black Caucus Foundation, | A research and educational institute to improve the socioeconomic status of African Americans | Partnership |

| Year | Sr No. | Stakeholders identified | Contribution of stakeholders | Nature of relationship |
|------------------------------|--------|-----------------------------------|--|---|
| Category 2: Customers | | | | |
| 2018, 17, 16, 15, 14, 13 | 1 | Consumers | Make informed choices by communicating responsibly about Pepsi products. | Information sharing |
| | | Consumers | Dedicated, 24-hour, toll- free phone line | Engagement |
| | | Consumers | Contact pages on branded websites | Engagement |
| | | Consumers | Social media | Engagement |
| 2018, 17, 16, 15, 14, 13 | 2 | Retail and Food Service Customers | Annual retail customer survey | Engagement |
| 2018, 17, 16, 15, 14, 13 | 3 | Parents and caregivers | To make appropriate decisions for their children | Support |
| 2016, 15 | 4 | Women and girls | Benefit at least 12.5 million women and girls around the world in communities near where we work | supporting initiatives |
| | | Women and girls | PepsiCo and the PepsiCo Foundation will invest \$100 million to benefit at least 12.5 million women and girls | supporting initiatives |
| | | Women and girls | Enabling access to safe water around the communities where PepsiCo works | supporting initiatives |
| 2016 | 5 | Brazilian consumers | To transform portfolio of PepsiCo to provide more of what consumer wants | |
| Category 3: Suppliers | | | | |
| 2018, 17, 16, 15, 14, 13 | 1 | Growers | Through SFI, encourage and support best practices that benefit growers, their workers and our business | Partnering |
| | | 2016 | Growers | Through our Sustainable Farming Initiative, to use less water, reduce emissions and get more crops from their efforts |
| 2018, 17, 16 | | Growers | Supplying direct growers with efficient irrigation equipment | Training and support |
| 2015 | | Growers | To halve the water and energy needed to grow the potatoes PepsiCo uses in Walkers crisps. | Joint work |
| 2015 | | Growers | In water- stressed or water- scarce areas supporting growers in value chain in better managing their water use | Support |
| 2018, 17, 16 | 2 | Farmers and multi-sector partners | Expansion of our Sustainable Farming Initiative | Connection |
| 2018, 17, 16 | | Farmers and multi-sector partners | To improve working conditions, protect the environment, and stimulate growth in agricultural communities | Connection |
| 2016 | 3 | U.S. dairy farmers | Unused parts of oranges become feed for farmers— resulting in zero food waste. | Joint work |
| 2016 | 4 | Farmers | Replaced flood irrigation with drip irrigation | Joint work |
| 2018, 17, 16, 15 | | Farmers | Sustainable Farming Initiative to respect human rights and reinforce sustainable agricultural practices | Policy |
| 2014 | | Farmers | To develop effective water management plans for addressing water risk, efficient drip irrigation methods | Joint work |

| Year | Sr No. | Stakeholders identified | Contribution of stakeholders | Nature of relationship |
|--------------------------------------|--------|--|---|------------------------|
| 2016 | 5 | Palm oil suppliers | To address potential deforestation and human rights issues before they materialize | Joint work |
| 2016 | 6 | Suppliers | To develop country's first-ever certified sustainable cane sugar volumes | Joint work |
| | | Suppliers | To respect human rights in our broader value chain. | Joint work |
| | | Suppliers | Conduct Sustainable Sourcing Program (SSP) to assess our direct suppliers | Assessment |
| 2015 | | Suppliers | 88 percent of our top- targeted key suppliers completed the SCoC training | Training |
| 2014 | | Suppliers | To assess risk, conduct audits and solve issues with our suppliers through our enhanced Sustainable Sourcing Program (SSP). | Joint work |
| 2013 | | Suppliers | Efficient use of water resources | Joint work |
| 2018, 17 ,16 | 7 | Suppliers, vendors, contractors, consultants, agents | Apply suppliers code of conduct by PepsiCo for human rights | Policy |
| 2016 | 8 | Coconut growers | PepsiCo support positive on-farm impacts and broader farming communities | Training and support |
| 2013 | 9 | Coconut suppliers, Regon Group | To send processed effluent from the wastewater treatment plant to a neighbouring farm to be used for irrigation | Partnering |
| Category 4: Employees | | | | |
| 2018, 17 ,16, 15, 14 | 1 | New staff | Training on human rights and global code of conduct | Training |
| 2018, 17 ,16, 15, 14 | 2 | Employees | Organizational health surveys and pulse surveys | Engagement |
| | | | Annual ethics training and Speak Up training | Training |
| 2016 | | Employees | To report suspected violations of Values, Code, our policies or applicable laws through Speak Up! Hotline, | Communication channel |
| 2016 | 3 | Wang Xuezheng | Supports the introduction of new and nutritious oatmeal products for Chinese consumers | Employee |
| 2016 | 4 | Managerial employees | 38 percent of management roles throughout PepsiCo were filled by women | Employment |
| 2016 | 5 | Working caregivers | PepsiCo opened PEPstart, a new on-site Bright Horizons Early Education Center | Support |
| 2015 | 6 | PepsiCo associates | Improved water-use, electricity, and gas efficiency from 2006 to 2014 | Joint effort |
| | | PepsiCo associates | Reducing waste sent to landfill by approximately 70 percent | Joint effort |
| 2014 | 7 | Associates and their families. | PepsiCo provides a variety of wellness, work-life quality and financial counselling programs | Counselling programs |
| | | Associates and their families. | Healthy Living educational campaigns to our global associates | Support |
| Category 5: Regulatory bodies | | | | |
| 2018, 17, 16 | 1 | Ministry of Water and Irrigation | Collaborative approach to replenishment in high-water-risk locations where PepsiCo operate | Partnering |

| Year | Sr No. | Stakeholders identified | Contribution of stakeholders | Nature of relationship |
|---|--------|---|---|--|
| 2016 | 2 | White House Equal Pay Pledge | Signed the White House Equal Pay Pledge in 2016 | Regulatory |
| 2014 | 3 | Myanmar's first Centre of Excellence for Business Skills Development (CEBSD). | To improve employment prospects for youth in Myanmar | Collaboration of PepsiCo, UNESCO and the Myanmar Ministry of Education |
| 2013 | 4 | Children's Food & Beverage Advertising Initiative U.S. | Compliance with our Advertising to Children Pledges in US | Compliance |
| 2013 | 5 | Advertising Standards Canada | Compliance with our Advertising to Children Pledges in Canada | Compliance |
| 2013 | 6 | Myanmar Ministry of Education | To help university graduates and unemployed youth enter the commercial workforce | Supporting PepsiCo |
| Category 6: Alliance and Business partners | | | | |
| 2018, 17, 15, 14 | 1 | Inter-American Development Bank | Enables better municipal governance of water resources | Public-private partnership |
| | | Inter-American Development Bank | Working on sustainability | Public-private partnership |
| | | Inter-American Development Bank | To launch the Sustained Program to Improve Nutrition (Spoon) | Grant from PepsiCo Foundation |
| | | Inter-American Development Bank | To find out solutions to the global water crisis | Partnership |
| 2018, 17, 15, 14 | 2 | Partner | To provide access to safe water to a total of 25 million people since 2006 | Joint work with PepsiCo foundation |
| | | Partner | Successfully worked to provide access to safe water for more than 9 million people globally since 2006 | Partnering with PepsiCo Foundation |
| | | Partner | To help communities in Mexico, Brazil, Jordan, China, Colombia, India, better manage and efficiently use water. | Joint work |
| 2016, 15 | 3 | Closed Loop Fund | Investing \$100 million to raise recycling rates in the U. S | Pepsi is founding member |
| | | Closed Loop Fund | To avoid more packaging waste being sent to landfill or polluting our oceans | Collaboration |
| 2018, 17, 15 | 4 | WWF | To address water risk as part of their water Challenge. | Joint work |
| | | WWF | Renewable Energy Buyers' Principles initiative | Signed by PepsiCo |
| | | WWF | 9 out of 9 on the World Wildlife Fund's Palm Oil Buyers Scorecard for 2015 | Progress |
| 2016 | 5 | Ellen MacArthur Foundation | To help create a circular economy for plastics, New Plastics Economy initiative | Joint work |
| 2016 | 6 | USDA, Share Our Strength and Feeding America | To expand Food for Good to reach more underserved communities and help families get the nutrition they need. | Partners |
| 2016 | 7 | Partnership for a Healthier America (PHA) | To help build healthier futures for children. | Independently verify Pepsi |
| 2016 | 8 | Nutrition Greenhouse | PepsiCo's first collaborative incubator program to accelerate the growth | Collaboration |
| 2016 | 9 | TB Alliance | PepsiCo's R&D team has applied its taste expertise to block the bitterness of certain types of paediatric TB medicines. | Joint work |
| 2018, 17, 15 | 10 | The Nature Conservancy (TNC) | Protecting water and the land around our watersheds | Collaboration |

| Year | Sr No. | Stakeholders identified | Contribution of stakeholders | Nature of relationship |
|-------------|--------|---|---|--------------------------------------|
| 2016 | 11 | Danimer Scientific | To develop bio-based compostable packaging for PepsiCo's snack brands. | Joint work |
| 2016 | 12 | The Recycling Partnership | To improve curb side recycling for 20 million U.S. households | Partners |
| 2018, 17,16 | 13 | Liter of Light organization | To support access to light for communities where PepsiCo does business | Partners |
| 2015 | 14 | Partners and experts | To meet products goals to contribute towards global efforts around food security, nutrition, health and well-being. | Joint work |
| 2015 | 15 | Non-profit partners | To develop innovative sustainable solutions to address challenges in underserved communities | Partnering with PepsiCo foundation |
| 2015 | 16 | International Youth Foundation | Young women and men in Mexico are taught skills sought by employers through an educational program | Co-sponsored with PepsiCo foundation |
| | | | To increase the workforce readiness of Mexicans between the ages of 15 and 29 | Partnering with PepsiCo foundation |
| 2015 | 17 | FUNDES organization | PepsiCo's Tostitos brand is engaged in its 10th year of supporting and promoting local economic development | Partnering |
| 2014 | 18 | Trader Joe's | Developed Daily Table, dealing with complex challenges of malnutrition, lack of affordability of nutritious options and wasted food | Grant from PepsiCo Foundation |
| 2014,13 | 19 | MyShelter Foundation | To build the Liter of Light program, which takes plastic bottles from waste and recycles them to bring eco- friendly natural light | Partnership |
| | | MyShelter Foundation | Light via the PepsiCo Liter of Light program | Partnership |
| 2013 | 20 | The Healthy Weight Commitment Foundation (HWCF) | Public education campaign for healthy lifestyle | Supported by PepsiCo |
| | | | To support a number of initiatives aimed at promoting physical activity. | Partnership |
| 2013 | 21 | Strauss Group | To expand the portfolio of nutritious products | Joint venture |
| 2013 | 22 | Wholesome Wave | To improving access to and affordability of produce in underserved urban and rural communities | Joint work with Naked Juice |
| 2013 | 23 | GENYOUth Foundation | To nurture children's health and wellness in schools | Support by Quakers |
| 2013 | 24 | Asian Football Development Project | To encourage women and young people, to play a greater role in society through football-focused activities | Strategic partnership |
| 2013 | 25 | Healthier America | To support the "Drink Up" water initiative | Partnership |
| 2013 | 26 | U.K.-based sustainable development organization Forum | 2030 Future Scenarios project for the future to help develop scenarios of environmental and health risks | Joint work |
| 2013 | 27 | The Safe Water Network | To find out solutions to the global water crisis | Partnership |
| 2013 | 28 | China Women's Development Foundation | To find out solutions to the global water crisis | Partnership |
| 2013 | 29 | Water.org | To find out solutions to the global water crisis | Partnership |

| Year | Sr No. | Stakeholders identified | Contribution of stakeholders | Nature of relationship |
|---|--------|---|---|-------------------------------|
| 2013 | 30 | 2030 WRG | To find out solutions to the global water crisis | Partnership |
| | | 2030 WRG | To address global and local environmental sustainability challenges around the world | Joint work |
| 2013 | 31 | Wholistic Transformation Resource Centre (WTRC) | WaterHope a social enterprise to empower disadvantaged communities by building water stations | Partnership |
| 2013 | 32 | Forest Stewardship Council (FSC) | To introduce the first FSC-certified packaging | Partnership |
| 2013 | 33 | Tetra Pak | To introduce the first FSC-certified packaging | Partnership |
| 2013 | 34 | Kum & Go | Recycling program to address the lack of on-the-go recycling options | Partnership |
| 2013 | 35 | Walmart | To launch a recycling initiative called the Closed Loop Fund | Joint work |
| 2013 | 36 | U.S. Environmental Protection Agency | ENERGY STAR Partner | Partnership |
| 2013 | 37 | Validus, LLC and Business for Social Responsibility | To collaborate on a standard that works for any farm, any crop, anywhere. | Collaboration |
| 2013 | 38 | Unilever | Partnership on Lipton includes sourcing 100 percent Rainforest Alliance certified tea | Partnership |
| 2013 | 39 | U.S. Hispanic Chamber of Commerce (USHCC) | Involvement and leadership of PepsiCo executives through Supplier Diversity Program | Involvement |
| 2013 | 40 | U.S. Pan-Asian American Chamber of Commerce (USPAACC) | Involvement and leadership of PepsiCo executives through Supplier Diversity Program | Involvement |
| 2013 | 41 | Feeding America | To help fight hunger with Feeding America and its partner food banks | Strategic partnership |
| 2013 | 42 | FoodBank Russia | To deliver more than 2,000 tons of donations | Joint work |
| 2013 | 43 | Magic Breakfast | To help children in school by alleviating hunger | Partnering |
| 2013 | 44 | World Food Programme (WFP) | To combat hunger in Benin through the school meals program | Partnership |
| 2013 | 45 | American Red Cross, Save the Children, Give2Asia | Funds for disaster relief to communities in need | Joint work |
| 2013 | 46 | WBCSD | To address global and local environmental sustainability challenges around the world | Joint work |
| Category 7: International associations | | | | |
| 2018, 17, 16, 15, 14, 13 | 1 | Beverage Industry Environmental Roundtable (BIER) | Pepsi provides support and technical insights in the beverage sector's journey towards maximizing positive impact at the watershed level. | Support and Technical insight |
| | | BIER | To achieve 2025 sustainability goals | Membership |
| | | BIER | To address global and local environmental sustainability challenges around the world | Joint work |
| 2018, 17, 16, | 2 | World Resources Institute (WRI) | To handle water issues | Guidelines |
| | | WRI | To achieve 2025 sustainability goals | Partners |

| Year | Sr No. | Stakeholders identified | Contribution of stakeholders | Nature of relationship |
|----------------------------------|--------|--|--|-------------------------|
| 15, 14, 13 | | WRI | To address global and local environmental sustainability challenges around the world | Joint work |
| 2018, 17, 16, 15, 14, 13 | 3 | WHO | Nutrient levels in the majority of our products are informed by the daily intake guidelines of WHO | Guidelines |
| | | WHO | Dietary guidelines | Guidelines |
| | | WHO | Sodium- reduction strategies for the Prevention and Control of Noncommunicable Diseases 2013–2020 | Guidelines |
| 2016 | 4 | Universal Declaration of Human Rights | Declaration on fundamental Principles and Rights at Work. | Guidelines |
| 2018, 17, 16 | 5 | International Labour Organization | Declaration on fundamental Principles and Rights at Work. | Guidelines |
| 2016 | 6 | Ceres | To address water risk as part of their water Challenge. | Membership |
| 2018, 17, 16 | 7 | UN Global Compact | To address global and local environmental sustainability challenges around the world | Membership |
| 2014 | 8 | UN Global Compact CEO Water Mandate | To align corporate water stewardship with the corporate responsibility | Joint work |
| 2013 | 9 | Bonsucro | To reduce the environmental and social impacts of sugar cane production while recognizing the need for economic viability. | Membership |
| 2013 | 10 | Rainforest Alliance- and Fairtrade-certified sources | Certified sourcing for sustainable agricultural raw materials | Guidelines |
| 2013 | 11 | Roundtable on Sustainable Palm Oil (RSPO) | To increase the supply of sustainable palm oil products | Membership |
| 2013 | 12 | National Minority Supplier Development Council (NMSDC), | Involvement and leadership of PepsiCo executives through Supplier Diversity Program | Involvement |
| 2013 | 13 | Women Business National Enterprise Council (WBENC) | Involvement and leadership of PepsiCo executives through Supplier Diversity Program | Involvement |
| Category 8: Miscellaneous | | | | |
| 2016, 15, 14, 13 | 1 | Tomoooh Saad Abdul-Latif Education Program | To help approximately 25,000 students with access to education | Funded by PepsiCo |
| 2016 | 2 | Disruptive start-ups, cutting-edge academic institutions, innovative NGOs, competitors and governmental agencies | To address complex shared challenges | Engagement |
| 2016 | 3 | Stakeholders | Initiate and support collaborative efforts to address water risk and mitigate water insecurity | Support and Collaborate |
| 2016 | 4 | External organizations | Human rights–related issues have been highlighted by external organizations | External pressure |
| 2016 | 5 | SSP | on-site audits of first-tier suppliers were conducted by the SSP using the Sedex Members Ethical Trade Audit procedure | Audit |
| 2016 | 6 | U.S. Pakistan Women’s Council | Developed a food safety internship program in 2016 with PepsiCo | Joint work |

| Year | Sr No. | Stakeholders identified | Contribution of stakeholders | Nature of relationship |
|------|--------|---|--|----------------------------|
| 2015 | 7 | Suppliers, business partners and customers. | Actively pursuing emission reductions across our value chain | Joint work |
| 2014 | 8 | Local NGO | To eliminate the food deficiencies caused when school lunch programs are not available during the summer months. | PepsiCo R&D and Local NGOs |

Appendix I-4: PepsiCo Pakistan (Stakeholders Categories)

| Year | Sr No. | Stakeholders identified | Contribution of stakeholders | Nature of relationship |
|---|--------|---|---|-------------------------------|
| Category 1: Academic and Research institutes | | | | |
| 2017 | 1 | Ferozsons Laboratories Limited. | Hepatitis C awareness program for employees | joint work |
| 2018 | 2 | PCSIR laboratories | Food testing | MOU |
| Category 2: Customers | | | | |
| 2018 | 1 | Children | Scholarship for School going children in urban and rural areas. | Pepsi foundation |
| 2018 | 2 | Students | Scholarships for College and University students in Mathematics, Mass Communication, Population Planning and Environment. | Pepsi foundation |
| 2018 | 3 | Teachers | Funding support to the teacher's resources Centre, Karachi, for a teacher training programme. | Pepsi foundation |
| 2018 | 4 | Agency Holders, Whole sellers and retailers | Distribution channel to provide a full coverage to its target market | joint work |
| 2018 | 5 | Youth | Change the game challenge to inspire them to provide sustainability solution in real business world | Competition |
| Category 3: Suppliers | | | | |
| | 1 | Packages limited | Packaging material suppliers | Suppliers |
| | 2 | Farmers | Sustainable farming initiative | Support |
| Category 5: Regulatory bodies | | | | |
| | 1 | Pakistan Science Foundation | Establishment of mobile science caravans with private organisation and Pakistan Science Foundation | Pepsi foundation |
| | 2 | Environmental protection agency | Monitor environment and also involved in joint projects | Provides standards+joint work |
| | 3 | Intellectual property organization | Provides copyrights | Regulatory |
| | 4 | Food authority | Standards and guidelines for food and beverage companies | Standards |
| | 5 | Pakistan Environmental protection Council (EPC) | Guidelines for the industry in order to make their operations environment friendly | Guidelines |
| Category 6: Alliance and Business partners | | | | |
| 2017,18 | 1 | Shell Pakistan | "Select Stores And Shell Shops" project | Collaboration |
| 2018 | 2 | Outfitters, Leisure club, BTW | cool new clothing line | Collaboration |
| 2018 | 3 | WWF | Interactive information session on reuse of organic waste. | Seminar |

| Year | Sr No. | Stakeholders identified | Contribution of stakeholders | Nature of relationship |
|---|--------|---|--|-------------------------------------|
| | | WWF | Water replenishment project | |
| 2016 | | WWF | To mitigate environmental change (planting) | Joint work |
| 2016 | 4 | Liter of Lite | To launch a unique CSR campaign which has already been executed in a remote area called Jalozai IDP camp | Collaboration |
| | 5 | Edhi foundation | PepsiCo gave 1 million donations to Edhi foundation | Support |
| 2016 | 6 | SOS children's village | Volunteers from pepsiCo organized an event as part of lighting up lives CSR campaign | Support |
| 2016 | 7 | Buksh Foundation | Lighting up lives' initiative | Collaboration |
| 2016 | 8 | Roshni Welfare Association | Lighting up lives' initiative | Collaboration |
| 2014 | 9 | CARE foundation | Sustainable mentoring relationship between staff members from PepsiCo Pakistan and young girls attending schools | Joint work under I am PEPSI program |
| | 10 | Bottling partners | Manufacturing and distribution | Joint work |
| Category 7: International associations | | | | |
| 2018 | 1 | UNDP | Interactive information session on reuse of organic waste. | Seminar |
| 2017 | 2 | UN Women | To promote gender equality at workplace under Women empowerment principle | Joint work |
| 2017 | 3 | UN global compact | To promote gender equality at workplace under Women empowerment principle | Joint work |
| | 4 | WHO | Guidelines to reduce sugar contents in carbonated drinks | Guidelines |
| 2018 | 5 | WASH, an initiative of the World Business Council for Sustainable Development | To implement access to safe water, sanitation and hygiene at the workplace | Signatory |
| 2018 | 6 | AWS | For water safety and conservation | Member |

Appendix I-5: The Coca-Cola Company (Stakeholders Categories)

| Year | Sr No. | Stakeholders identified | Contribution of stakeholders | Nature of relationship |
|---|--------|---|---|------------------------|
| Category 1: Academic and Research institutes | | | | |
| 2016 | 1 | Human rights experts, advocates, business leaders | Hosted 9th Human Rights Conference | Academic platform |
| 2017 | 2 | University of Reading | To reduce packaging footprints | Pilot study |
| 2018 | 3 | Ipsos | To conduct the Ripple Effect Study, to assess how improved access to water and sanitation enables women's empowerment and promotes gender equality. | Research collaboration |
| 2015, 14 | 4 | Participation Teen Challenge | A program funded by a 10-year, \$10 million Coca-Cola Canada grant | Research program |
| 2015, 14 | 5 | American College of Sports Medicine | Global health campaign | Joint work |
| 2015, 14 | 6 | AIMPROGRESS | Co-hosted supplier capacity-building events | Collaboration |
| 2015, 14 | 7 | American Federation of Teachers (AFT) | To provide input into our human rights due-diligence studies on issues related to child labour | Collaboration |

| Year | Sr No. | Stakeholders identified | Contribution of stakeholders | Nature of relationship |
|------------------------------|--------|--|---|--------------------------------------|
| 2015, 14 | 8 | Barefoot College | To train more than 600 grandmothers from impoverished communities to be solar engineers. | Support by Coca-Cola |
| 2015, 14 | 9 | U.S Centers for Disease Control and Prevention (CDC) | To deliver much-needed supplies to those affected and to support education efforts to aid in Ebola prevention. | Collaboration |
| 2015, 14 | 10 | U.N. climate negotiations | Support the discussion on climate change | Conference |
| 2015, 14 | 11 | U.S. Council for International Business | Seventh conference on business and human rights jointly sponsored with Coca-Cola company | Conference |
| 2015, 14 | 12 | U.S. Chamber of Commerce | Seventh conference on business and human rights jointly sponsored with Coca-Cola company | Conference |
| 2015, 14 | 13 | International Organization of Employers | Seventh conference on business and human rights jointly sponsored with Coca-Cola company | Conference |
| 2014, 13 | 14 | Yale University's Global Health Leadership Institute | To analyze and document our best practices in order to create a model for replication. | Engaged |
| 2015, 14 | 15 | University of Exeter | To conduct a study to show how habits, beliefs, family dynamics in homes influence recycling rates. | Joint research |
| 2015, 14 | 16 | Imperial College London | Research on the impacts of our packaging across their entire life cycle, from production to reuse or disposal | Support by Coca-Cola |
| Category 2: Customers | | | | |
| 2017 | 1 | Women | From fruit farmers to artisans to small retailers and distributors, the company is helping women overcome business barriers. | Support |
| 2018 | | Women | United Purpose's program to help women become self-sufficient. | Through Coca-Cola foundation |
| | | Women | To empower hundreds of women in cities to operate laundry businesses | Through Coca-Cola foundation |
| 2016, 15 | | Women | The Foundation enabled women's economic empowerment, including in Myanmar with "Swan Yi," helping women learn about land rights, domestic violence laws, and basic financial literacy | Support through Coca-Cola foundation |
| 2018, 17 | 2 | Local communities | The Coca-Cola Foundation has given back nearly \$1 billion to help strengthen local communities worldwide | Through Coca-Cola foundation |
| | | | For efforts including water stewardship, women's economic empowerment and disaster relief, water stewardship, women's, economic empowerment and disaster relief in 2017. | Donation |
| 2015,14 | 3 | Customers | To help Coca-Cola grow its business and continually improve sustainability performance. | Buyers |
| 2015,14 | 4 | Retailers | To help Coca-Cola grow its business and continually improve sustainability performance. | Retail partners |
| Category 3: Suppliers | | | | |
| 2016 | 1 | Suppliers | Compliance with our Supplier Guiding Principles | Compliance |
| 2015,16 | 6 | Suppliers | Development of a healthy and more sustainable agricultural supply chain | Collaboration |

| Year | Sr No. | Stakeholders identified | Contribution of stakeholders | Nature of relationship |
|------------------------------|--------|--------------------------------|---|---|
| 2015,14 | | Suppliers | To help Coca-Cola grow its business and continually improve sustainability performance. | Support |
| 2015,14 | | Suppliers | Consistent in providing material and ingredients to plants and ensure by Supplier Management Program | Suppliers |
| 2015,14 | | Suppliers | To acquire Global Food Safety Initiative (GFSI) standard | Support by Coca-Cola |
| 2015,14 | | Suppliers | To avoid violations of land rights across our supply chain | Joint work |
| 2015,14 | | Suppliers | To actively stay on coca cola's continual improvement path. | Partnering |
| 2015,14 | | Suppliers | towards engaging suppliers of key ingredients through Supplier Engagement Program for sustainable agriculture | Engagement |
| 2014,13 | | Suppliers | Coca-Cola company requires them to be certified as meeting Global Food Safety Initiative (GFSI) standards | To ensure quality |
| 2014,13 | | Suppliers | To make tremendous progress in improving performance in supply chain overall, and specifically in the sugar industry | Collaboration |
| 2018 | 2 | Cutrale, Orange juice supplier | Assured its own farms against the Sustainable Agriculture Initiative's Farm Sustainability Assessment (SAI-FSA) | Joint work |
| 2018 | 3 | Foods & Inns Ltd (F&I) | Mango sustainability program to train and provide tools to farmers | Partnership |
| 2017 | 4 | Bottling partners | Working together to contribute more than \$1.7 billion to the agroecosystem | Collaboration |
| 2016 | 5 | Farmers | Contribute to our agricultural supply with support for smallholder sourcing to engagement with industry and suppliers. | Collaborative work |
| 2015,16 | | Farmers | Development of a healthy and more sustainable agricultural supply chain | Collaboration |
| 2015,16 | | Farmers | To encourage more sustainable farming practices | To expand their work |
| 2014,13 | | Farmers | Providing good agricultural practices, drip irrigation and modern farming technique through Project Unnati | Guidelines and training |
| 2014,13 | | Farmers | To prioritize the well-being through Project Unnati | Supporting |
| 2014,13 | 6 | MeadWestvaco (MWV) supplier | Participation in The Coca-Cola Company's Pass It Back program provides an opportunity to gain a greater understanding of potential human rights risks | Pass it back program |
| Category 4: Employees | | | | |
| 2015,14 | 1 | Employees workers | and Global Workplace Rights (GWR) group is charged with addressing global issues | Policy |
| | | Employees workers | and Human Rights Policy in accordance with the International Labour Organization's Declaration on Fundamental Principles and Rights at Work, and the UN Global Compact. | Policy |
| | | Employees workers | and A six-week campaign to encourage employees to buckle up | Joint work with Network of Employers for Traffic Safety |
| | | Employees workers | and A six-week campaign to encourage employees to buckle up | Joint work with National Highway Traffic |

| Year | Sr No. | Stakeholders identified | Contribution of stakeholders | Nature of relationship |
|---|--------|---------------------------------------|--|---------------------------------|
| | | | | Safety Administration, Training |
| 2014, 13 | | Employees and workers | Health and safety trainings | |
| 2015, 14 | 2 | Workers | User-friendly kiosks where workers can take the online anti-bribery training | Training |
| 2015, 14 | 3 | Employees | Certification process for our Code of Business Conduct and Workplace Rights. | Certification |
| Category 5: Regulatory bodies | | | | |
| 2015, 14 | 1 | Government | To galvanize global action across the Golden Triangle of business | Coalitions |
| | | Government | To help address the public health challenges | Coalitions |
| | | Government | Launched new programs Kenya@50 Legacy Project and the Women's Enterprise Fund for women empowerment | Partnership |
| 2018 | | Government | Discussion on issues of recycling, reducing plastic waste, and water security, as well as reinforcing contribution to achieving the UN SDGs. | Joint work |
| | | Government | To address specific barriers to business success that women entrepreneurs face. | Partnerships |
| 2015, 14 | 4 | White House's Climate Initiative | House's Data To connect America's agricultural sector to the data it needs to gauge the impact of climate change | Joint work |
| 2015, 14 | 5 | Cambodian government | Coca-Cola Company signed a Memorandum of Understanding (MOU) with its Anti-Corruption Unit | MOU signed by Coca-Cola company |
| 2014, 13 | 6 | European Food Safety Authority (EFSA) | To reaffirm the safety of aspartame (sweetener) after completing a full risk assessment. | Guidelines |
| 2014, 13 | 7 | South African government | To establish human and workplace rights standards. | Joint work |
| Category 6: Alliance and Business partners | | | | |
| 2016 | 1 | Bottling partners | Compliance with our Supplier Guiding Principles | Compliance |
| 2016, 15 | | Bottling partners | Identify opportunities to reduce the consumption and recycling of water | Joint work |
| 2016, 15 | | Bottling partners | Development of a healthy and more sustainable agricultural supply chain | Joint work |
| 2015, 14 | | Bottling partners | To ensure that our Company values are embedded throughout the Coca-Cola system | Joint work |
| 2015, 14 | | Bottling partners | To actively stay on coca cola's continual improvement path. | Partnering |
| 2018 | | Bottling partners | reducing impact on climate | Collaboration |
| 2018 | 2 | Bottling partners, Coca-Cola İçecek | Creating a culture that emphasizes a safe and healthy environment. | Collaboration |
| 2018 | 3 | Costa Limited | To prioritizing consumers' preferences | Acquisition |
| 2018 | 4 | Coca-Cola Hellenic Bottling Company | To enhance postconsumer packaging collection and engage in anti-littering and other public-education campaigns | Joint work |
| 2018 | 5 | Ioniqa Technologies | To transform hard-to-recycle plastic waste into high-quality, food-grade PET plastic. | Loan agreement |
| 2018 | 6 | Loop Industries | For authorized bottlers to purchase 100% recycled PET plastic. | Joint work |
| 2014, 13 | 7 | Ceres | To accelerate and expand the adoption of sustainable business practices and solutions to build a healthy global economy. | Partnership |

| Year | Sr No. | Stakeholders identified | Contribution of stakeholders | Nature of relationship |
|--------------|--------|---|---|--|
| 2018 | 8 | BODYARMOR | To prioritizing consumers' preferences | Minority ownership |
| 2018 | 9 | Dunkin' Donuts | Announced a line of branded iced coffee beverages | Partnership |
| 2018 | 10 | International Food & Beverage Alliance (IFBA) | To put meaningful actions in place to reduce the exposure of children to advertising of all products high in fat, salt or sugar. | Joint work |
| 2018 | 11 | World Federation of Advertisers (WFA) | To put meaningful actions in place to reduce the exposure of children to advertising of all products high in fat, salt or sugar. | Joint work |
| 2018 | 12 | The EU Pledge initiative | To put meaningful actions in place to reduce the exposure of children to advertising of all products high in fat, salt or sugar. | Joint work |
| 2018 | 13 | Children's Food and Beverage Advertising Initiative (CFBAI) | To put meaningful actions in place to reduce the exposure of children to advertising of all products high in fat, salt or sugar. | Joint work |
| 2018 | 14 | Circulate Capital, an investment management firm | To incubating and financing companies and infrastructure that prevent the flow of plastic waste into the world's oceans | Investment by Coca-Cola |
| 2018 | 15 | Ocean Conservancy | Ocean Conservancy and its Trash Free Seas program, which work to invest in trash collection and recycling systems to make sure trash never gets in the ocean. | Coca-Cola Foundation-supported |
| 2017 | 16 | Lazos de Agua | The Coca-Cola system and partners are investing \$25 million to provide safe water access and resources to 200,000 citizens | Joint work |
| 2018 | 17 | Ellen MacArthur Foundation | UN Environment New Plastics Economy Global Commitment, which focuses on framing the circular economy as an innovation opportunity, | Joint work |
| 2017 | 18 | UK Department for International Development (DFID) | To support the educating Nigerian girls in in New Enterprises (ENGINE) program | Partnership |
| 2018 | 19 | Bottling partners | Acquired AdeS®, the leading soy-based beverage brand in Latin America | Combine acquisition |
| 2018 | 20 | 2030 Water Resources Group | Global partnership for water work | Partnership |
| 2018 | 21 | The Nature Conservancy | Global partnership for water work | Partnership |
| 2018 | 22 | Global Water Partnership-Mediterranean | Global partnership for water work | Partnership |
| 2016, 15 | 23 | Bottling partner, Coca-Cola HBC | Focused on establishing several pathways to compliance with SAGP for all key agricultural ingredients | Partnership |
| 2014, 13 | 24 | Partners | Together We Move' is an effort to increase our joint advocacy efforts and support active lifestyles in communities | Joint work |
| | | Partners | For inclusive recycling, partnering with Multilateral Investment Fund, the Inter-American Development Bank, the AVINA Foundation | Partnership on joint work |
| 2015, 14, 13 | | Partners | Replenish Africa Initiative (RAIN), with more than 140 partners to provide 2 million people with safe water access | Joint initiative |
| 2016 | 25 | Swan Yi | Helping women learn about land rights, domestic violence laws, and basic financial literacy | Joint effort with Coca-Cola foundation |

| Year | Sr No. | Stakeholders identified | Contribution of stakeholders | Nature of relationship |
|-------------|---------------|--------------------------------|---|-------------------------------|
| 2016 | 26 | Ellen MacArthur Foundation | Participated in collective action toward packaging solutions through collaborations | Collaboration |
| 2016 | 27 | Closed Loop Fund | Participated in collective action toward packaging solutions through collaborations | Collaboration |
| 2016 | 28 | Fost Plus | Participated in collective action toward packaging solutions through collaborations | Collaboration |
| 2018 | 29 | WWF | To develop climate-smart solutions and policies. | Joint work |
| 2016 | | WWF | Working for water stewardship | Joint work |
| 2016, 15 | | WWF | Awareness and collective action for water stewardship | Joint work |
| | | WWF | Women for Water and Sanitation Declaration and the joint statement on access to water, sanitation and hygiene and freshwater ecosystem conservation | Signed Declaration |
| | | WWF | Introduce practices to reduce agricultural runoff and improved the biological diversity of the tea farm | Partnering |
| 2015, 14 | | WWF | To help local farmers increase corn yields, reduce post-harvest waste and reduce their environmental footprints. | Partnership |
| | | WWF | To help protect and conserve freshwater resources and create a more water secure future | Joint work |
| | | WWF | To implement projects to help improve farm production and practices | Partnership |
| | | WWF | To achieve changes that Coca-Cola company seek across the globe | Joint work |
| | | WWF | To assess the plant materials, we use for Plant Bottle packaging. | Joint work |
| 2014, 13 | | WWF | To set goals across water, packaging, climate, and agriculture to support protecting freshwater resources | Conservation partnership |
| | | WWF | To assess the environmental and social performance of plant-based materials for potential use in Plant Bottle packaging. | Joint work |
| | | WWF | Implementing projects to help improve farm production and practices | Partnering |
| 2016 | 30 | USAID | Working for water stewardship | Joint work |
| 2015, 14 | | USAID | To achieve changes that Coca-Cola company seek across the globe | Joint work |
| 2015, 14 | 31 | WWF, UNDP, TechnoServe, USAID | To help suppliers and producers test and refine new techniques and methods | Partnership |
| 2014, 13 | | WWF, UNDP, TechnoServe, USAID | To improve crop yields and farmer incomes while reducing environmental impact | Joint work |
| 2016 | 32 | UNDP | Working for water stewardship | Joint work |
| 2016, 15 | | UNDP | Launched the New World programme in 2014. | Partnership |
| 2015, 14 | | UNDP | Launched sustainable Human Development Initiatives | Collaborative work |
| 2015, 14 | | UNDP | Running a program 'Every Drop Matters'-A water sustainability program | Partnership |
| 2016, 15 | 33 | Global Challenge | Water Working for water stewardship | Joint work |
| 2015, 14 | | Global Challenge | Water To use and conserve the planet's natural resources wisely, especially freshwater. | Partnership |
| 2014, 13 | | Global Challenge | Water To Anchor Coca-Cola company's water stewardship efforts | Collaborative work |

| Year | Sr No. | Stakeholders identified | Contribution of stakeholders | Nature of relationship |
|--------------|---------------|--|---|-------------------------------|
| 2016, 15 | 34 | IFC | Working toward giving millions of women opportunities to build their businesses, support their families and build their communities | Partnership |
| 2015, 14, 13 | | IFC | Supporting women's entrepreneurial potential around the world through our 5by20™ initiative | Partnership |
| 2014, 13 | | IFC | For women economic empowerment | Partnership |
| 2016, 15 | 35 | IFC and Solidaridad | For sugarcane | Partnering |
| 2016, 15 | 36 | Bill & Mallinda gates foundation | Working toward giving millions of women opportunities to build their businesses, support their families and build their communities | Partnership |
| 2015, 14, 13 | | Bill & Mallinda gates foundation | To make an impact in their communities and helping Coca-Cola move the needle toward our goal. | Collaboration |
| 2016, 15 | 37 | Technoserve | Working toward giving millions of women opportunities to build their businesses, support their families and build their communities | Partnership |
| | | Technoserve | On multiple initiatives on sustainable source of top agricultural ingredients | Partnership |
| 2015, 14, 13 | | Technoserve | To make an impact in their communities and helping Coca-Cola move the needle toward our goal. | Collaboration |
| 2014, 13 | | Technoserve | To provide hands-on expertise in promoting sustainable agriculture and business practices | Partnership |
| 2016, 15 | 38 | Mercy corps | Working toward giving millions of women opportunities to build their businesses, support their families and build their communities | Partnership |
| | | Mercy corps | Working on sugarcane | Partnering |
| 2015, 14 | | Mercy corps | To make an impact in their communities and helping Coca-Cola move the needle toward our goal. | Collaboration |
| 2016, 15 | 39 | Inter-American development bank | Working toward giving millions of women opportunities to build their businesses, support their families and build their communities | Partnership |
| 2015, 14, 13 | | Inter-American development bank | Supporting women's entrepreneurial potential around the world through our 5by20™ initiative | Partnership |
| 2015, 14 | | Inter-American development bank | To make an impact in their communities and helping Coca-Cola move the needle toward our goal. | Collaboration |
| 2014, 13 | | Inter-American development bank | For women economic empowerment | Partnership |
| 2016, 15 | 40 | Nature Conservancy | Global water replenishment projects | Joint work |
| 2016, 15 | | Nature Conservancy | Supported by Coca-Cola for freshwater replenishment projects in watersheds | Supporting |
| 2015, 14 | | Nature Conservancy | To use and conserve the planet's natural resources wisely, especially freshwater. | Partnership |
| 2014, 13 | | Nature Conservancy | To Anchor Coca-Cola company's water stewardship efforts | Collaborative work |
| 2016, 15 | 41 | LimnoTech | Global water replenishment projects | Joint work |
| 2016, 15 | 42 | Deloitte | Global water replenishment projects | Joint work |
| 2016, 15 | 43 | Ocean Conservancy's annual international coastal cleanup | To clear trash from beaches and waterways | Coca-Cola is partnering |

| Year | Sr No. | Stakeholders identified | Contribution of stakeholders | Nature of relationship |
|----------|--------|---|--|-------------------------------------|
| 2016, 15 | 44 | Heifer International | Partnering on Promesa Café | Partnering |
| 2015, 14 | | Heifer International | To develop Promesa-Café program in the agricultural region | Joint work |
| 2016, 15 | 45 | Jinjing Tea Company | Introduce practices to reduce agricultural runoff and improved the biological diversity of the tea farm | Partnering |
| 2016, 15 | 46 | Howard G. Buffett Foundation | Sustainable coffee sourcing | Partnership |
| 2015, 14 | | Howard G. Buffett Foundation | To develop Promesa-Café program in the agricultural region | Joint work |
| 2016, 15 | 47 | SABMiller | To embrace sustainable procurement standards. | Bottling partnership |
| 2016, 15 | 48 | Coca-Cola FEMSA | To embrace sustainable procurement standards. | Bottling partnership |
| 2014, 13 | 49 | Coca-Cola FEMSA, Philippine government's Technical Education and Skills Development Authority, regional microfinance institutions | To empower women by joint work with Coca-Cola Philippines through STAR programme | Golden Triangle partnership |
| 2015, 14 | 50 | Country Calorie Commitment | To promote goals such as reducing calories in consumers' diets | Public-private partnership programs |
| 2015, 14 | 51 | EPODE International Network (EIN) | To build coalitions that effect change across a host of topics, including well-being. | Partnership |
| 2015, 14 | 52 | Exercise is Medicine® (EIM). | To build coalitions that effect change across a host of topics, including well-being. | Partnership |
| 2015, 14 | 53 | StreetGames | Bringing sports and activities to the doorsteps of young people in disadvantaged communities | Partnering |
| 2015, 14 | 54 | The Alliance for a Healthier Generation | To reduce the number of beverage calories consumed per person by 20 percent in the US by 2025 | Joint work |
| 2015, 14 | 55 | The Clinton Foundation | To reduce the number of beverage calories consumed per person by 20 percent in the US by 2026 | Joint work |
| 2015, 14 | 56 | The American Beverage Association | To reduce the number of beverage calories consumed per person by 20 percent in the US by 2027 | Joint work |
| 2015, 14 | 57 | The Alliance for Artisan Enterprise | To apply small loans for business through the Kiva platform (Field partner of alliance for artisan) | Partnership |
| 2015, 14 | 58 | Negros Women for Tomorrow Foundation (NWTF), | Assisting an estimated 2,000 women in rebuilding their lives and businesses through training, financial resources and peer mentoring | Partnership |
| 2015, 14 | 59 | Project Last Mile | To assist African governments, get critical medicines and medical supplies | Public-private partnership |
| 2015, 14 | 60 | RED | To help raise awareness and money for The Global Fund to Fight AIDS, Tuberculosis and Malaria | Joint work |
| 2014, 13 | | RED | To help make a unique contribution toward delivering essential medical supplies to the communities that need them. | Partnership |

| Year | Sr No. | Stakeholders identified | Contribution of stakeholders | Nature of relationship |
|----------|--------|---------------------------------------|---|---------------------------|
| | | RED | To inspire people to MOVE for the MOVEMENT to help deliver an AIDS-free generation. | Joint work |
| 2015, 14 | 61 | One Foundation | To provide safe drinking water through the Clean Water Project | Joint work with Coca-Cola |
| 2015, 14 | 62 | Natuurpunt (NGO) | Water restoration project | Joint work |
| 2015, 14 | 63 | Water Action Hub | To use and conserve the planet's natural resources wisely, especially freshwater. | Partnership |
| 2014, 13 | | Water Action Hub | To Anchor Coca-Cola company's water stewardship efforts | Collaborative work |
| 2015, 14 | 64 | Latin America Conservation Council, | To use and conserve the planet's natural resources wisely, especially freshwater. | Partnership |
| 2015, 14 | 65 | Coca-Cola Enterprises (CCE) | High level of environmental consciousness is reflected in the region's recycling infrastructure, government policy and public | Bottling partnership |
| 2015, 14 | 66 | SeaWorld® Parks & Entertainment | To debut the first-ever refillable plastic souvenir cup made with PlantBottle technology. | Partnership |
| 2015, 14 | 67 | Climate and Clean Air Coalition | To help the Coalition responsibly manage climate impacts | Joint work |
| 2015, 14 | 68 | Global, regional and local partners | To increase the amount of sustainably sourced cane sugar, corn and sugar beets used in beverages | Joint work |
| 2015, 14 | 69 | Bonsucro | The Coca-Cola Company's work with Bonsucro as part of a business case study | Business case study |
| 2015, 14 | 70 | Conservation International | To achieve changes that Coca-Cola company seek across the globe | Joint work |
| 2015, 14 | 71 | The Consumer Goods Forum | To achieve changes that Coca-Cola company seek across the globe | Joint work |
| 2015, 14 | 72 | SAI platform | To achieve changes that Coca-Cola company seek across the globe | Joint work |
| 2015, 14 | 73 | Solidaridad | To achieve changes that Coca-Cola company seek across the globe | Joint work |
| 2015, 14 | 74 | The Sustainability Consortium | To achieve changes that Coca-Cola company seek across the globe | Joint work |
| 2015, 14 | 75 | White House's Climate Data Initiative | Food Resilience Program of the White House's Climate Data Initiative to cut carbon pollution in US | Joint work |
| 2015, 14 | 76 | Songyuan | Sustainable agriculture project continued to progress in 2014 | Joint work |
| 2015, 14 | 77 | Cargill | To help local farmers increase corn yields, reduce post-harvest waste and reduce their environmental footprints. | Partnership |
| 2015, 14 | 78 | Ernst & Young LLP | To performed review-level assurance for the calendar year on sustainability indicators | Independent accountants |
| 2014, 13 | 79 | Ernst & Young | To review that nearly all markets provide front-of-pack energy (calorie) information following coca cola's global policy on nutrition labelling | Independent accountants |
| 2014, 13 | 80 | PureCircle | To attain GRAS (Generally Recognized as Safe) status for Rebaudioside M, a new stevia sweetener | Partner |
| 2014, 13 | 81 | EPODE International Network | To boost physical activity and nutrition education programs | Partnership |
| 2014, 13 | 82 | EPODE International Network | To implement an obesity prevention model with the U.S. Chamber of Commerce | Partners |
| 2014, 13 | 83 | Exercise is Medicine™ | To boost physical activity and nutrition education programs | Partnership |

| Year | Sr No. | Stakeholders identified | Contribution of stakeholders | Nature of relationship |
|---|--------|--|---|------------------------|
| 2014, 13 | 84 | Misfit Wearable | To create and distribute a special edition of the Shine™ activity tracker. | Partnership |
| 2014, 13 | 85 | FIFA and the Olympic Games | To inspire teens to move, by building sports facilities for youth that harness the excitement and interest generated by these events | Partnership |
| 2014, 13 | 86 | International Union of Food and Allied Workers (IUF) | Taking actions in health and safety work | Joint work |
| 2014, 13 | 87 | Bipartisan Policy Center Council on Health and Innovation. | To advance employee engagement initiatives, healthy living and employee well being | Partnership |
| 2014, 13 | 89 | Philippine Red Cross | To sponsor the roughly 700,000 runners who participated in the second Million Volunteer Run (MVR2). | Partnership |
| 2014, 13 | 90 | Latin America Conservation Council | To Anchor Coca-Cola company's water stewardship efforts | Collaborative work |
| 2014, 13 | 91 | US Water Partnership. | To Anchor Coca-Cola company's water stewardship efforts | Collaborative work |
| 2014, 13 | 92 | 2030 WRG | For water conservation and security | partnering |
| 2018, 17, 16, 15, 14 | | 2030 WRG | To improve water policy in several countries around the world | Founding member |
| 2014, 13 | 93 | Zero Emission Resource Organization (ZERO). | To assist us in analyzing the environmental benefits of bioplastics and how to promote their use. | Partnership |
| 2014, 13 | 94 | Ford | To use PlantBottle technology beyond packaging for the first time | Partnership |
| 2014, 13 | 95 | Trust for the National Mall | For an ongoing recycling program on the National Mall in the U.S. capital | Partnership |
| 2014, 13 | 96 | National Park Service | For an ongoing recycling program on the National Mall in the U.S. capital | Partnership |
| 2014, 13 | 97 | Yangtze River Delta Research Institute of the Circular Economy | To advance technologies that use local agricultural wastes to make ingredients for polyester plastic | Collaboration |
| 2014, 13 | 98 | Bioplastic Feedstock Alliance | To support the responsible development of plastics made from plant-based material. | Joint work |
| 2014, 13 | 99 | OpenIDEO.com | To help improve at-home recycling habits in partnership with open innovation platform | Partnership |
| 2014, 13 | 100 | FIFA | To manage waste collection during the 64 matches of the 2014 FIFA World Cup | Partnership |
| 2014, 13 | 101 | Alliances | To launch innovative growing and production methods that seek to benefit the communities and environments | Joint work |
| 2014, 13 | 102 | PwC | For sustainable agriculture and supply chain operations | Partnership |
| Category 7: International associations | | | | |
| 2015,16 | 1 | White House's American Business Act on Climate Pledge. | Coca-Cola joined | Membership |
| 2018 | 2 | Climate-Resilient Value Chains Leaders Platform | To enable company value chains and communities to thrive in the face of climate change and allow companies to learn from peers addressing climate risks | Membership |
| 2018 | 3 | Consumer Goods Forum (CGF) | To help the world's retailers and consumer goods manufacturers collaborate alongside | Membership |

| Year | Sr No. | Stakeholders identified | Contribution of stakeholders | Nature of relationship |
|--------------|--------|---|---|-------------------------------------|
| | | | other key stakeholders, secure consumer trust and drive positive change. | |
| 2018 | 4 | DEMETO, a European chemical recycling consortium | To bring to reality a revolutionary new way to chemically recycle PET. | Member of Industrial Advisory Board |
| 2018 | 5 | World Health Organization | People should limit their daily intake of added sugar to no more than 10% of their total energy/calorie consumption. | Support by Coca-Cola |
| 2015, 14 | 6 | International Food & Beverage Alliance (IFBA). | To comply with their responsible marketing commitments | Guidelines |
| 2015, 14 | 7 | EIN (International NGO) | To reduce childhood obesity and its associated health risks | Supporting by Coca-Cola |
| 2015, 14, 13 | 8 | UN Women | Supporting women's entrepreneurial potential around the world through our 5by20™ initiative | Membership |
| 2016, 15 | | UN Women | Working toward giving millions of women opportunities to build their businesses, support their families and build their communities | Membership |
| 2015, 14, 13 | 9 | Oxfam | To conduct human rights due diligence studies focused on land rights, child labor and forced labor | Agreement |
| 2015, 14 | 10 | WaterAid | To recognizes the interdependence of WASH and freshwater ecosystems and supports SDG | Coca-Cola is a joint signatory |
| 2016, 15 | | WaterAid | Women for Water and Sanitation Declaration and the joint statement on access to water, sanitation and hygiene and freshwater ecosystem conservation | Signed Declaration |
| 2018 | 11 | CEO Water Mandate | Water work | Membership since 2007 |
| 2015, 14, 13 | | CEO Water Mandate | To use and conserve the planet's natural resources wisely, especially freshwater. | Membership |
| 2015, 14 | | CEO Water Mandate | To encourage and assist companies in the development, implementation and disclosure of water-related sustainability policies and practices | Membership |
| 2014, 13 | | CEO Water Mandate | To Anchor Coca-Cola company's water stewardship efforts | Collaborative work |
| 2015, 14 | 12 | Bioplastic Feedstock Alliance | To assess the plant materials, we use for PlantBottle packaging. | Joint work |
| 2015, 14 | 13 | World Economic Forum's New Vision for Agriculture | To achieve changes that Coca-Cola company seek across the globe | Joint work |
| 2015, 14 | 14 | UN Global Compact | Involved in multi-stakeholder initiatives with Coca-Cola company | Joint work |
| 2014, 13 | | UN Global Compact | Coca-Cola company was beverage sponsor of the Caring for Climate (C4C) Business Forum | Beverage sponsor |
| 2015, 14 | | UN Global Compact | Coca-Cola company is signatory from 2006 and have been a member of the UNGC LEAD program. | Signatory |
| 2018 | 15 | World Economic Forum | Global Plastic Action Partnership, which fosters collaboration to tackle plastic waste issues. | Membership |
| 2015, 14 | | World Economic Forum | Involved in multi-stakeholder initiatives with Coca-Cola company | Joint work |
| 2014, 13 | 16 | UN Global Compact Child Labour Platform | To eliminate child labor | Membership |

| Year | Sr No. | Stakeholders identified | Contribution of stakeholders | Nature of relationship |
|----------------------------------|--------|--|--|--------------------------------|
| 2014, 13 | 17 | World Resources Institute | To Anchor Coca-Cola company's water stewardship efforts | Collaborative work |
| 2014, 13 | 18 | UNDP | Longstanding partnership between the Coca-Cola Eurasia and Africa Group on 'Every drop matters' | Partnership |
| 2014, 13 | 19 | United Nations Human Settlements Programme | Support My School program | Joint work |
| 2014, 13 | 20 | Plant Technology Collaborative | PET Focused on accelerating the development and use of 100 percent plant-based PET materials and fibres | Coca-Cola is a founding member |
| Category 8: Miscellaneous | | | | |
| 2015, 14 | 1 | Civil society | To galvanize global action across the Golden Triangle of business | Coalitions |
| 2015, 14 | | Civil society | To help address the public health challenges | Coalitions |
| 2015, 14, 13 | 2 | Accenture | Work on behalf of IFBA to measure compliance with IFBA's responsible marketing commitment | Audit |
| 2015, 14 | 3 | NGOs | Launched new programs Kenya@50 Legacy Project and the Women's Enterprise Fund for women empowerment | Partnership |
| 2015, 14 | 4 | National League Urban | To promote women's economic empowerment in North America | Support by Coca-Cola |
| 2015, 14 | 5 | SER – Jobs for Progress National | To promote women's economic empowerment in North America | Support by Coca-Cola |
| 2015, 14 | 6 | Rainbow/PUSH Coalition | To promote women's economic empowerment in North America | Support by Coca-Cola |
| 2015, 14 | 7 | EKOCENTER | To support women entrepreneurs while supplying safe water and solar power in remote areas | Initiative by Coca-Cola |
| 2015, 14 | 8 | Better than cash alliance | Transition from cash to digital payment | Coca-Cola is a member |
| 2015, 14 | 9 | Golden Triangle of partnerships | To help replenish water resources | Partnership |
| 2015, 14 | 10 | External stakeholders | To respecting human and workplace rights within our system. | Dialogue |
| 2015, 14 | 11 | European Platform for Action on Diet, | Regional activation of Coca-Cola company in well-being by participating in events | Participation |
| 2015, 14 | 12 | Physical Activity and Health | Regional activation of Coca-Cola company in well-being by participating in events | Participation |
| 2015, 14 | 13 | Stakeholders | To give comments, suggestions and critiques on sustainability practices and reporting through contact us | Virtual agent |
| 2014, 13 | 14 | Catalyst (NPO) | Catalyst award for focusing on improving business opportunities for women. | Awarded Coca-Cola |

Appendix I-6: Coca-Cola Pakistan (Stakeholders Categories)

| Year | Sr No. | Stakeholders identified | Contribution of stakeholders | Nature of relationship |
|---|--------|-------------------------|---|--------------------------------|
| Category 1: Academic and Research institutes | | | | |
| 2016 | 1 | LUMS Centre | Aquatic To provide state-of-the-art swimming facilities | Sponsored by Coca-Cola company |
| | 2 | PCSIR | Testing of products | Joint work |
| Category 2: Customers | | | | |

| Year | Sr No. | Stakeholders identified | Contribution of stakeholders | Nature of relationship |
|---|--------|--|--|-------------------------------|
| | 1 | Retailers and distributors | Who buys the products from companies and sale them to the final consumers | Buyers |
| | 2 | Kids, youngsters, women, men | Users of the product | Consumers |
| Category 3: Suppliers | | | | |
| | 1 | Machinery and equipment suppliers | Production and other machinery suppliers | Suppliers |
| | 2 | Raw material suppliers | Farmers and other raw material suppliers | Suppliers |
| | 3 | Packages Ltd | Packaging material suppliers | Suppliers |
| Category 4: Employees | | | | |
| | 1 | Employees | Workplace right policy for betterment of employees in accordance with high standards of integrity | |
| | | Employees | Human right statement for betterment of employees in accordance with high standards of integrity | |
| Category 5: Regulatory bodies | | | | |
| | 1 | Environmental protection agency | Monitor environment and also involved in joint projects | Provides standards+joint work |
| | 2 | Intellectual property organization | Provides copyrights | Regulatory |
| | 3 | Food authority | Standards and guidelines for food and beverage companies | Standards |
| Category 6: Alliance and Business partners | | | | |
| 2017 | 1 | Indus Earth Trust (IET) | To launch a water replenishment project | Joint work |
| 2017, 18 | 2 | Kashf Foundation | Coca-Cola funded project 'Women Economic Empowerment Program' | Partnership |
| 2015 | 3 | CARE foundation | To focus on promoting education of communities | Joint work |
| Since 2012 | 4 | Rotary International | To provide clean drinking water by mitigating the transmission of water borne diseases | Partnership |
| 2016 | | Rotary International | Inaugurate solar water filtration plant | Joint work |
| Since 2012 | 5 | Pakistan National Polio Plus Committee | To provide clean drinking water by mitigating the transmission of water borne diseases | Partnership |
| Since 2008 | 6 | WWF-P | Integrated watershed management (IWM) project in Ayubia National Park | Joint work |
| 2014 | 7 | Edhi Foundation | Multi-faceted fundraising campaign entitled "Bottle of Change" | Partnership |
| 2016 | 8 | The Citizens Foundation (TCF) | Joint project by Coca-Cola Export Corporation (TCCEC) to support education | Joint work |
| 2015 | 9 | MGPO | 'Integrated Water Resource Management for Food Security, Safe Drinking Water and Sanitation Services | Joint work |
| 2016 | 10 | UN-Habitat Pakistan | To mitigate the impact of climate change | Partnership |
| 2010 | 11 | International relief development (IRD) | To economically empower families effected in flood | Joint work |
| Category 7: International associations | | | | |
| 2018 | 1 | AWS | For water safety and conservation | Member |
| 2016 | 2 | UNDP | Project 'Zindagi' partnered with Rotary international and Coca-Cola company | Joint work |

| Year | Sr No. | Stakeholders identified | Contribution of stakeholders | Nature of relationship |
|-------------|---------------|--------------------------------|---|-------------------------------|
| Since 2014 | | UNDP | Every drop matters program | Joint work |
| 2017 | | UNDP | 'New World Program' with MGPO (NGO) and Coca-Cola company | Joint work |

Source: Global reports of The Coca-Cola Company, PepsiCo, and Nestlé' from 2013-2018 and local reports Nestlé', CCI from 2014-2018, website sources

Appendix J: Regulatory bodies working in Pakistan for sustainability

| Regulatory bodies | Scope of work | Standards |
|---|---|--|
| Environmental protection agency (EPA) of Pakistan | To enforce standards for companies using the environment in any form either in; aquifers, generating solid wastes, causing air pollution, dust, liquid waste of every type either municipal or industrial whichever is untreated, and gaseous emissions | <ul style="list-style-type: none"> • Punjab environmental protection act 2012 • Punjab polythene ordinance 2002 <p>These are standards for the discharge of effluents, wastes, air emissions, or noise</p> |
| Food authority of Pakistan | To enforce food hygiene and quality standards | Punjab pure food regulations 2018 |
| Intellectual property organization (IPO) of Pakistan | It is concerned with providing copyright, trademarks, patents, and other general types of intellectual property regulation. | IPO Pakistan ACT 2012 |
| Ministry of water resources | Development of the country's water and hydropower resources to meet current and future challenges of water shortage and provision of affordable, environmental friendly renewable energy. | <ul style="list-style-type: none"> • National water policy 2018 • Chief justice drive for water consumption. |

Source: 1. Available at: <https://epd.punjab.gov.pk/>, assessed on 14/08/2019; 2. Available at: <http://www.pfa.gop.pk/>, assessed on 14/08/2019; 3. Available at: <http://ipo.gov.pk/>, assessed on 14/08/2019; 4. Available at: <https://mowr.gov.pk/>, assessed on 14/08/2014

Appendix K: GRI sustainability reporting guidelines for companies

| GRI Series | GRI Standard Disclosure | Description |
|--|-------------------------|---|
| 100 Universal standard series | | |
| Foundation | GRI 101 | Reporting Principles for defining report content and quality |
| General Disclosures | GRI 102 | To report contextual information about an organization and its sustainability reporting practices |
| Management Approach | GRI 103 | How an organization manages a material topic |
| Topic-specific Standards | | |
| 200 series (Economic topics) | | |
| Economic performance | GRI 201-1 | Direct economic value generated and distributed |
| | GRI 201-2 | Financial implications and other risks and opportunities due to climate change |
| | GRI 201-3 | Defined benefit plan obligations and other retirement plans |
| | GRI 201-4 | Financial assistance received from government |
| Market Presence | GRI 202-1 | Ratios of standard entry level wage by gender compared to local minimum wage |
| | GRI 202-2 | Proportion of senior management hired from the local community |
| Indirect Economic Impacts | GRI 203-1 | Infrastructure investments and services supported |
| | GRI 203-2 | Significant indirect economic impacts |
| Procurement practices | GRI 204-1 | Proportion of spending on local suppliers |
| Anti-corruption | GRI 205-1 | Operations assessed for risks related to corruption |
| | GRI 205-2 | Communication and training about anti-corruption policies and procedures |
| | GRI 205-3 | Confirmed incidents of corruption and actions taken |
| Anti-competitive behaviour | GRI 206-1 | Legal actions for anti-competitive behaviour, anti-trust, and monopoly practices |
| 300 series (Environmental topics) | | |
| Materials | GRI 301-1 | Materials used by weight or volume |
| | GRI 301-2 | Recycled input materials used |
| | GRI 301-3 | Reclaimed products and their packaging materials |
| Energy | GRI 302-1 | Energy consumption within the organization |
| | GRI 302-2 | Energy consumption outside of the organization |
| | GRI 302-3 | Energy intensity |
| | GRI 302-4 | Reduction of energy consumption |
| | GRI 302-5 | Reductions in energy requirements of products and services |
| Water | GRI 303-1 | Water withdrawal by source |
| | GRI 303-2 | Water sources significantly affected by withdrawal of water |
| | GRI 303-3 | Water recycled and reused |
| Biodiversity | GRI 304-1 | Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas |
| | GRI 304-2 | Significant impacts of activities, products, and services on biodiversity |
| | GRI 304-3 | Habitats protected or restored |
| | GRI 304-4 | IUCN Red List species and national conservation list species with habitats in areas affected by operations |
| Emissions | GRI 305-1 | Direct (Scope 1) GHG emissions |

| GRI Series | GRI Standard Disclosure | Description |
|--|--------------------------------|---|
| | GRI 305-2 | Energy indirect (Scope 2) GHG emissions |
| | GRI 305-3 | Other indirect (Scope 3) GHG emissions |
| | GRI 305-4 | GHG emissions intensity |
| | GRI 305-5 | Reduction of GHG emissions |
| | GRI 305-6 | Emissions of ozone-depleting substances (ODS) |
| | GRI 305-7 | Nitrogen oxides (NOX), sulphur oxides (SOX), and other significant air emissions |
| Effluents and waste | GRI 306-1 | Water discharge by quality and destination |
| | GRI 306-2 | Waste by type and disposal method |
| | GRI 306-3 | Significant spills |
| | GRI 306-4 | Transport of hazardous waste |
| | GRI 306-5 | Water bodies affected by water discharges and/or runoff |
| Environmental compliance | GRI 307-1 | Disclosure 307-1 Non-compliance with environmental laws and regulations |
| Supplier environmental assessment | GRI 308-1 | New suppliers that were screened using environmental criteria |
| | GRI 308-2 | Negative environmental impacts in the supply chain and actions taken |
| 400 series (Social topics) | | |
| Employment | GRI 401-1 | New employee hires and employee turnover |
| | GRI 401-2 | Benefits provided to full-time employees that are not provided to temporary or part-time employees |
| | GRI 401-3 | Parental leave |
| Labour management relations | GRI 402-1 | Minimum notice periods regarding operational changes |
| Occupational health and safety | GRI 403-1 | Workers representation in formal joint management–worker health and safety committees |
| | GRI 403-2 | Types of injury and rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities |
| | GRI 403-3 | Workers with high incidence or high risk of diseases related to their occupation |
| | GRI 403-4 | Health and safety topics covered in formal agreements with trade unions |
| Training and education | GRI 404-1 | Average hours of training per year per employee |
| | GRI 404-2 | Programs for upgrading employee skills and transition assistance programs |
| | GRI 404-3 | Percentage of employees receiving regular performance and career development reviews |
| Diversity and equal opportunities | GRI 405-1 | Diversity of governance bodies and employees |
| | GRI 405-2 | Ratio of basic salary and remuneration of women to men |
| Non-discrimination | GRI 406-1 | Incidents of discrimination and corrective actions taken |
| Freedom of association and collective bargaining | GRI 407-1 | Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk |
| Child Labour | GRI 408-1 | Operations and suppliers at significant risk for incidents of child labour |
| Forced or compulsory labour | GRI 409-1 | Operations and suppliers at significant risk for incidents of forced or compulsory labour |
| Security practices | GRI 410-1 | Security personnel trained in human rights policies or procedures |
| Rights of indigenous peoples | GRI 411-1 | Incidents of violations involving rights of indigenous peoples |

| GRI Series | GRI Standard Disclosure | Description |
|----------------------------|--------------------------------|---|
| Human rights assessment | GRI 412-1 | Operations that have been subject to human rights reviews or impact assessments |
| | GRI 412-2 | Employee training on human rights policies or procedures 8 Disclosure |
| | GRI 412-3 | Significant investment agreements and contracts that include human rights clauses or that underwent human rights screening |
| Local communities | GRI 413-1 | Operations with local community engagement, impact assessments, and development programs |
| | GRI 413-2 | Operations with significant actual and potential negative impacts on local communities |
| Supplier assessment | GRI 414-1 | New suppliers that were screened using social criteria |
| | GRI 414-2 | Negative social impacts in the supply chain and actions taken |
| Public policy | GRI 415-1 | Political contributions |
| Customer health and safety | GRI 416-1 | Assessment of the health and safety impacts of product and service categories |
| | GRI 416-2 | Incidents of non-compliance concerning the health and safety impacts of products and services |
| Marketing and labelling | GRI 417-1 | Requirements for product and service information and labelling |
| | GRI 417-2 | Incidents of non-compliance concerning product and service information and labelling 7 Disclosure 417-3 Incidents of non-compliance concerning marketing communications |
| Customer privacy | GRI 418-1 | Substantiated complaints concerning breaches of customer privacy and losses of customer data |
| Socioeconomic compliance | GRI 419-2 | Non-compliance with laws and regulations in the social and economic area |

Note: The GRI Standards are required for sustainability reports of every type of company and released on 19 October 2016. Before that, companies used to follow G4 reporting guidelines (latest version updated in 2015, available at: <https://www2.globalreporting.org/standards/g4/Pages/default.aspx>). G4 guidelines provided guidelines on standard and specific disclosures for companies. General standard disclosures include the following: strategy and analysis, organizational profile, identified material aspects and boundaries, stakeholder engagement, report profile, governance, and ethics and integrity. Whereas specific standard disclosures include the following: disclosures on management approach, economic, environmental, and social categories, and their indicators.

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