

Chapter 9

The Role of Non-profit Organisations (NGOs) in Value Creation: Lessons from the Recycling of Fishing Gear in Norway



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Abstract Value chain collaboration and volunteering by non-governmental organisations (NGOs) are success factors that enhance fishing gear recycling. Using multiple cases of NGOs from the Norwegian value chain of recycled plastic fishing gear, we highlight the role of NGOs in fishing gear recycling through collaborative partnerships with small- and medium-sized enterprises (SMEs). The Blue Circular Economy (BCE) project provided us with the opportunity to understudy and highlight this contextually rich phenomenon. Our study shows that sustainable value creation can be achieved through marine plastics recycling, value chain collaboration, volunteering initiatives/operations, and local innovation system (LIS) leading to new process, service, and product development. The chapter provides increased understanding of the role of NGOs within the value chain. Value chain collaboration between SMEs and NGOs stimulates innovation in the local environment (LIS) and within the industry. Collaboration drives the innovation process and enhances recycling of marine plastics. Marine plastics with a focus on waste fishing gear recycling can lead to sustainable value creation. NGOs therefore occupy a key position in the value chain not only for advocacy, but also for value creation.

Keywords Value creation · Volunteerism · Marine plastics · Fishing gear recycling · NGO-SME collaboration · Not-for-profit · Stakeholder engagement · Innovation potential · Innovation system · BCE project

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List of Abbreviations

BCE	Blue Circular Economy
CSR	Corporate social responsibility
MPP	Marine plastic problem
MPR	Marine plastics recycling
NGO	Non-governmental organisations
NPA	Northern Periphery and Arctic area
NPD	New product development
SME	Small- and medium-sized enterprise

9.1 Introduction

Partnerships between for-profit firms and social organisations can lead to shared value that both increases societal well-being and is profitable (Menghwar and Daood 2021; Porter and Kramer 2011). One form of shared value is the creation of sustainable value. Sustainable value creation means the greening of the value of the supply chain, producing more environmentally friendly or eco-efficient products, providing consumers with information, and creating awareness about sustainable consumption through advertising, marketing, and product information (Chatain and Plaksenkova 2019; Kong et al. 2002). Sustainable value creation faces unique challenges to each of the economic sectors like public, private, or non-profit organisations, to manage resources strategically, offer new solutions, and manage costs (Bryson 2018; Cabral et al. 2019; Koster et al. 2019). Non-governmental organisations (NGOs) have a critical role in sustainable development, especially in their partnership with key stakeholders, in serving the needs of individuals and communities (Austin 2000; Kong et al. 2002). Worldwide many of the NGOs are developing a more sophisticated understanding of environmental issues, based on sound scientific research, and are developing effective strategies to solve environmental problems through strategic collaborations or partnerships.

The twenty-first century has seen increased interdependency amongst stakeholders in finding solutions to the world's pressing environmental and social problems. Cross-sector collaboration amongst public, private, and non-profit organisations is intensifying day by day (Austin 2000; Haack et al. 2012). The role of NGOs as watchdogs of large cross-sectoral collaboration and their advocacy role in developing good practices are well established in the literature (Valente 2012; Van Cranenburgh et al. 2013). However, little is known about how NGO interactions and collaboration with SMEs can be sources of value creation. The literature on marine plastics pollution is generic and not related directly to fishing gear recycling and the role that NGOs play in the intervention process. Hence, this chapter seeks to explore interactions and collaborative initiatives between NGOs and other key stakeholders, in the context of the recycling of fishing gear in Norway. Using multiple cases, we

seek to explore the following research question: *how are NGOs accelerating plastics recycling and promoting sustainable value creation in the fishing gear industry in Norway?* Through this study, we identify the salient success factors, processes, and procedures by which NGOs influence value creation in the industry.

Our analysis identified value chain collaboration and volunteering initiatives and operations by NGOs as success factors that enhance marine plastics recycling. In this chapter, we use ‘non-profit’ organisation (NPO) and ‘non-governmental’ organisation (NGO) interchangeably with the same intended meaning and purpose. Value chain collaboration between SMEs and NGOs stimulates innovation, process, and new product development within the industry. Collaboration drives the innovation and new product development process and enhances recycling of marine plastics. Increased collaboration amongst actors within the value chain also enhances volunteering initiatives and operations of the NGOs. Sustainable value creation is achieved through marine plastics recycling, value chain collaboration, volunteering initiatives and innovation, and new product and process development (through local innovation system). These processes and factors provide increased understanding of the role of NGOs within the value chain. NGOs’ roles go beyond volunteering operations and can be sources of new ideas, testing of new processes, development of new products and services, and catalysts for innovation. NGOs therefore occupy a key position in the value chain not only for advocacy but also for value creation. In the next section, we present the theoretical frame of reference for the study through a review of the literature. This is followed by a description of the research design and methodology; then, a discussion of the findings and finally some concluding remarks is made.

9.2 Literature Review

9.2.1 *Strategic Value Chain Collaboration: A Stakeholder Theory Approach*

The collaboration between business organisations and non-governmental organisations is no longer restricted to philanthropy and charity but has demonstrated extended diversity in recent decades, with a range of coalitions addressing environmental issues and codes of conduct (Arya and Salk 2006; Austin and Seitanidi 2012). In the context of increasing public awareness and active participation towards environmental issues, emerges new expectations from both business entities and non-governmental organisations to come closer and initiates new strategies through collaboration (Jamali and Keshishian 2009). In addition, the convergence of political, social, and economic pressures from all sides has been accelerating these types of collaboration to a greater extent (den Hond et al. 2015). The search for new resources, opportunities, and more effective organisational approaches is bringing non-governmental organisations and business corporations together (Harrison et al. 2001; Shumate et al. 2018).

These collaborations are also emerging day by day because businesses are increasingly re-evaluating their traditional business models and seeking new strategies of engagement with their communities that will have greater economic relevance and higher social and environmental impact (Baur and Schmitz 2012; Rivera-Santos et al. 2017). Consequently, more corporate executives have been willing to consider an alternative perspective to strategic management, integrating both social and environmental responsibilities, and this has been paralleled in turn by proliferation of non-governmental organisations seeking to promote more ethical and socio-environmental responsible business practices (Dhanani and Connolly 2015; Guay et al. 2004).

Modern stakeholder theory was first introduced and best described as a conceptual model by Freeman (1984). He explained that firms must go beyond merely maximising shareholder value to address the interests of their stakeholders, who can influence or are influenced by the organisations' purpose (Freeman 1984, 2004). Shareholder value is the value delivered to the equity owners of the firm due to management's ability to increase sales, earnings, and cash flow, which leads to an increase in dividends and capital gains for the shareholders (Hayes and Scott 2021). Financial economists contend that, when the corporate enterprise maximises shareholder value, everyone—workers, consumers, suppliers, and distributors—will, as a result, be better off (Lazonick and O'sullivan 2000, p. 27). Stakeholders are seen as contributing to the firms' resource-creating capacity holders. Stakeholders are also considered as potential beneficiaries and risk bearers as well (Post et al. 2002). Ayuso et al. (2014) show that stakeholder theory can relate to the literature of corporate social responsibilities broadly and corporate sustainability within this. The theory provides a suitable theoretical framework for analysing the relationship between the business community and society and shows a win-win direction for both entities (Cordeiro and Tewari 2015). To turn corporate social responsibility (CSR) into a business objective, may perhaps best be achieved by the transformation of intangible social and environmental issues, into tangible stakeholder interests (Dmytriiev et al. 2021). Reflecting this, scholars have explicitly begun to apply stakeholder theory in the real-life context. This has largely been done by examining stakeholder pressures on business organisations, to adopt proactive environmental planning, strategies, and action plans through innovations that they hope will result in improved environmental performance (Freeman et al. 2021). To describe how stakeholders, including regulators, customers, and activists such as non-governmental organisations, research institutes, local authorities, and industry associations, impose institutional pressure on the governing bodies of the business organisations, which were probably the first attempt to introduce a framework using stakeholder theory (Delmas and Toffel 2004, 2008, 2010). Our study presents a conceptual framework focussing on SMEs-NGOs collaboration that generate value from the recycling of marine plastics in Norway.

9.2.2 Sustainable Value Creation: A Dynamic Capabilities Approach

Business models for sustainability are considered a mechanism for business organisations to create synergies amongst economic, environmental, and social values which consequently leads to sustainable value creation (Evans et al. 2017; Surie and Ashley 2008; Zott et al. 2011). Despite the burgeoning literature on sustainable business models (SBMs) and sustainable supply chain management; very few introduce how different supply chain business models institutionalise situational logics and related power relations, and how these business models impact on sustainable value creation (Lüdeke-Freund 2020; Muñoz and Cohen 2018; Tregidga et al. 2013). Dynamic relationship enables sustainable value creation and resolves sustainability related trade-offs (Brennan and Tennant 2018). Value is created when tangible factors of production like processes, business models, products, services, and infrastructure are brought into specific combinations with ideas of sustainability impact and sustainability values (Esch et al. 2019; Roome and Louche 2016). Sustainability value has recently been considered pivotal to sustainable business model innovation (BMI) (Ordonez-Ponce et al. 2021).

Cultural resources are important to lead sustainable value creation (Esfahbodi et al. 2016), which are ideologically conditioned on how structural resources may be utilised and effect their diffusion into society (Maas and Rosendaal 2016; Panapanaan et al. 2016). There is an inherent connection between the societal aspirations of sustainability and firm-level goals (Pitelis 2013). Trade-offs will always occur when organisations promote their own economic growth at the expense of environmental and social goals (Sewchurran et al. 2019). This trade-off demands an equal combination of cultural and structural resources and results in some aspects of the triple-bottom line approach (Hahn and Figge 2011; Pagell and Shevchenko 2014).

Conceptual Model

The dynamic capabilities theory is an extended application of the resource-based view (RVB) of the firms (Barney 2001). Teece et al.'s (1997) 'dynamic capabilities and strategic management' study puts forward the dynamic capabilities' perspective as an extension of the resource-based view of the firm (Arranz et al. 2020). 'Dynamic capabilities' are defined as the firms' abilities to integrate, build, and reconfigure internal and external competencies to address rapidly changing environments (Teece et al. 1997). Eisenhardt and Martin (2000) considered the dynamic capabilities as a set of specific and identifiable processes such as product development, strategic decision making, and alliances (Eisenhardt and Martin 2000). Dynamic capabilities are foreseeable behavioural patterns through which the organisations manage their resources with the objective of obtaining success (Nelson and Winter 2002). Therefore, dynamic capabilities enable organisations to develop innovation and encompass the management of capabilities and resources of all functions of firms, with the final objective to achieve a competitive advantage (Teece 2007; Zahra et al. 2006). In addition to our use of the stakeholder theory as the foundation for the collaborations

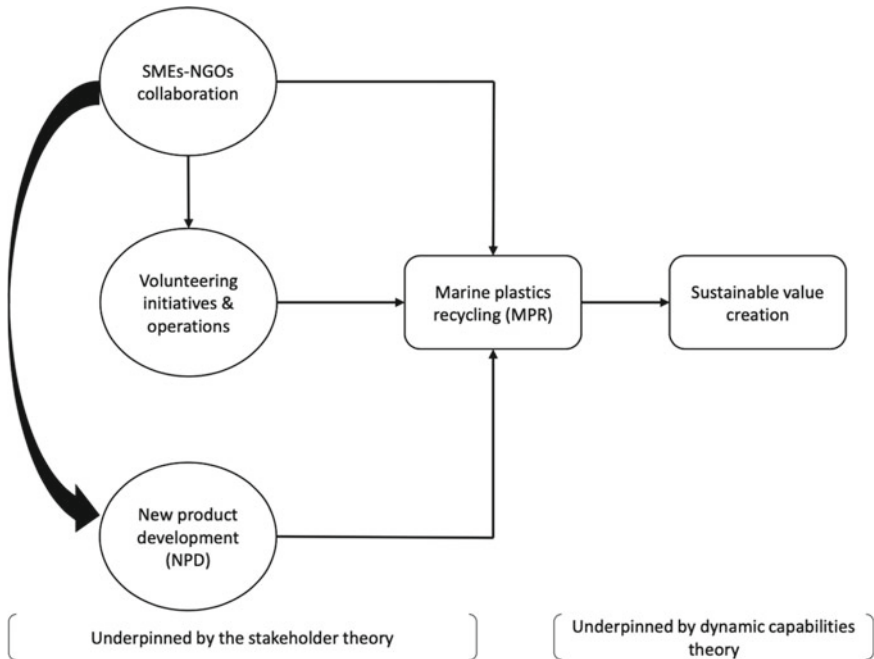


Fig. 9.1 Conceptual framework of the study

we explore between NGOs and SMEs, we also highlight the role of dynamic capabilities. Based on the relationships discussed above, a conceptual framework showing all constructs is shown in Fig. 9.1. This model serves as a guide for the data collection and analysis.

9.3 Research Design and Methodology

The selection of research methodology depends on the research paradigm and the objectives of the study (Guba and Lincoln 1994). The study's design is explorative and qualitative. We used multiple case studies in order to provide new insights and to help increase our understanding of the issues at stake. The major benefit of the qualitative approach is that it provides a depth and richness of data, which is difficult to attain through quantitative research (Voss 2010; Yin 2011). The qualitative case study is a desirable research approach for realists whose goal is to describe and explain phenomena, capturing the appropriate level of complexity (Bhaskar 2014). By using a case study method, researchers can get a holistic view and explore social processes in rich and complex detail. In this process, contextual variables that affect actors' behaviour can be observed and identified (Lindgreen et al. 2020).

9.3.1 Case Selection

Case selection or sampling is an important methodological choice in case study research (Miles and Huberman 1994). Sampling in qualitative research involves two actions. The first action is to set boundaries that define aspects of the target case(s) that can be studied within the limits of time and budget. The second action is to create a sample frame that has a potential for uncovering, confirming, or qualifying the basic processes or constructs that underpin the study (Miles and Huberman 1994). Accordingly, we chose Norway as the research setting for two reasons; the first is the feasibility of obtaining rich qualitative data (e.g. through interviews) within the time and budget constraints, the second is that the Blue Circular Economy (BCE) project’s mission is to create sustainable value in the fishing gear industry in the Northern Periphery and Artic (NPA) region (Blue-Circular-Economy 2020; Charter 2020), where Norway appears to have the biggest fishing industry (Charter 2017). The BCE project provides a rich and highly contextualised phenomenon that we seek to explore. The case study approach helps build a picture of the context that the phenomenon is embedded in and is appropriate for describing actors, structure, and agency relations taking place through social interaction (Yin 1994). Our study is based on six cases—all are non-profit organisations, both local and international, and have their operations in Norway. All the key informants interviewed for the study belong to organisations that are part of the network ‘Marine litter Møre and Romsdal’ (Nettverk Marin Forsøpling Møre og Romsdal) whose activities are funded by the Norwegian Retailers’ Environment Fund (Handelens Miljøfond) and the Norwegian Environment Agency (Miljødirektorat). Table 9.1 summarises the key characteristics of the selected cases, whilst Table 9.2 showcases some of the key actors in the Norwegian plastics value chain.

Table 9.1 Overview of the case firms

Case	NGO	Type of operation	Location (origin)	Funding source
1	Plastpiratene	Beach cleaning	Lepsøya (Norway)	Sponsors and partners
2	Rydd Møre	Beach cleaning	Ålesund (Norway)	Sponsors and partners
3	Nordic Ocean Watch	Beach cleaning	Oslo (Norway)	Sponsors and donation
4	Visjon AS	Research and consultancy	Valderøya (Norway)	Partners and consultancy fee
5	World Wildlife Fund: WWF	Wilderness preservation and environment safety	Gland (Switzerland)	Sponsors, partners, and donation
6	Runde Miljøsentor	Research institution	Runde (Norway)	Sponsors and partners

Table 9.2 Overview of recyclers and manufacturers

ID	Firm	Type of operation	Location (origin)	Value chain role
1	Noprec	Recycling	Ottersøy (Norway)	Key actor
2	Containerservice	Waste management and logistics	Ottersøy (Norway)	Supporting role
3	Plasto	Manufacturer	Åndalsnes (Norway)	Key actor ^a
4	Partnerplast	Manufacturer	Åndalsnes (Norway)	Key actor ^a
5	Ørskog Plast Industri	Manufacturer	Ørskog (Norway)	Key actor

Note ^aThough focus is on SME-NGO interactions, a few of the firms are medium–large-sized organisations

9.3.2 Data Collection and Analysis

Data analysis in case studies is typically carried out in two steps, the first of which is the within-case analysis (Ayres et al. 2003). The researcher documents how the data from individual respondents within each organisation were handled, with respect to how specific research topics were addressed. This is generally accomplished by coding, in which the raw data are converted or coded to understandable components, which can be more easily compared across respondents (Eisenhardt 1989). This coding and identification process could be supported by different qualitative research-based software (Lindgreen et al. 2020). In this study, semi-structured interviews with a set of open-ended questions were used to collect data. Observations, BCE workshop interactions, and Webpage documents were sources of secondary information collected from the recyclers and manufacturers. Six interviews were conducted with the NGOs (see Table 9.1). A standardised semi-structured interview guide (see Appendix) was used, though the interviews were flexible, and interviewees were allowed to present deeper insight into the issues under consideration. Whilst in some instances, follow-up interviews were conducted to clarify issues. Open-ended questions were used to create a dialogue and discussion with the interviewer. Because of the COVID-19 pandemic, all interviews were conducted through Zoom. The questions were kept as short and specific as possible. Leading questions and questions with a strong positive and negative association were avoided. With permission, the interviews were recorded to avoid biased interpretations and conclusions. This allowed for more accurate transcription of the interviews. After conducting and transcribing the interviews, the interviewees were given the opportunity to review the transcript and make any revisions if necessary. The analysis was performed in four stages: evaluation, examination, coding, and categorisation. The software used for analysing qualitative data was NVivo. NVivo facilitates handling a large amount of qualitative data in a very useful way (Zamawe 2015) and was useful in identifying the key issues and organising the data into the themes underlying the data structure as shown in Fig. 9.2.

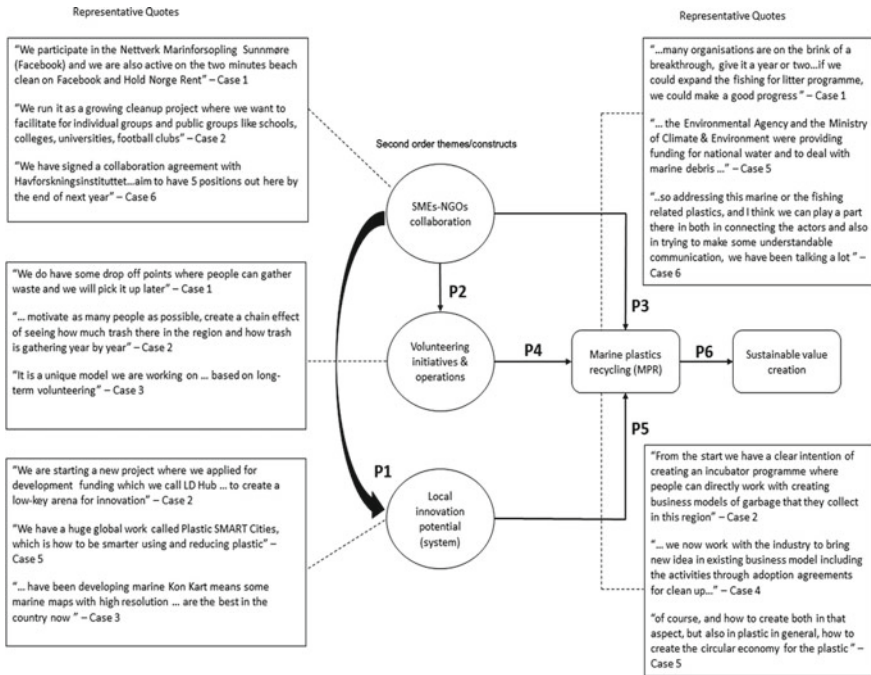


Fig. 9.2 Proposed conceptual framework and data structure

9.4 Findings and Discussion

Innovation is the successful exploitation and commercialisation of new ideas. It is far more than the common perception that innovation is only about new ideas or research and development (R&D). Innovation can cover processes, technology, organisation, and marketing, in the development and commercialisation of novel products and services providing value to customers. Innovation can occur at four main levels (technologies/products/services; process; organisational; business). Innovation includes but is not restricted to the ideas and research stages of the innovation cycle, or to novel technology alone, although these are core elements, innovation includes ‘low tech’ and is not restricted to ‘high tech’ technologies (Clark and Charter 2007). Similarly, eco-innovation is described as the process of developing new products, processes, or services which provide customer and business value but significantly decrease environmental impact (Clark and Charter 2007; Fussler and James 1996). The literature review and our six cases provide the insights associated with the role of non-profit organisations to create sustainable value through marine plastic recycling in the fishing gear industry. Based on these insights, a conceptual framework is proposed to delineate stakeholders’ interests through strategic collaboration amongst them, which leads to marine plastics recycling (MPR) and creates sustainable value through the best utilisation of dynamic capabilities of the organisations.

Figure 9.2 presents the framework and explains the relationship amongst the proposed propositions which are discussed below. We define strategic value chain collaboration as an external form of collaboration between small- and medium-sized enterprises (SMEs) and non-governmental organisations (NGOs) which simultaneously introduce economic, social, and environmental success for the involved parties and therefore increase public awareness and active participation towards sustainability (Arya and Salk 2006; Austin and Seitanidi 2012). These types of collaborations have been on the rise as most organisations are increasingly re-evaluating their traditional business models and looking for new sustainable options (Baur and Schmitz 2012; Rivera-Santos et al. 2017). For example, in our case study, we observe a good number of clean-up projects are accomplished through collaboration. A key informant of one of the beach cleaning cases stated, ‘... we run it as a growing clean-up project where we want to facilitate for individual groups and public groups like schools, colleges, universities, football clubs’ (Case 2). This type of collaboration also accelerates local innovation systems (with the possibility of new product, process, and service development) strategies in the fishing gear industry as well. For example, another informant of an NGO said, ‘... we are doing a huge global work called Plastic SMART Cities, which is how to be smarter using and reducing plastics’ (Case 5). Accordingly, the following proposition is suggested:

Proposition 1 *Value chain collaboration between non-governmental organisations (NGOs) and small- and medium-sized enterprises (SMEs) stimulates innovation and enhances the local innovation system (leading to new product, process, and service development).*

From our field study, we observed examples of value chain collaboration between SMEs and NGOs. In addition, we visited the NGOs to observe at first-hand how they conduct their operations. From these observations and from the data analysis, their role in volunteerism and activism to deal with the fishing gear pollution problem was insightful. The data analysis shows the dramatic impact of the activities of the NGOs, regarding marine plastics recycling. Our analysis shows that the NGOs have strong and common motivations (for example, social and ethical responsibilities to our world) and make use of a range of communication platforms (for example, different online platforms). NGOs are actively involved in fund-raising initiatives (for example, sponsorship, partnerships, donations, and government funding). NGOs have a range of sources for funding their operations. Collaborations between NGOs and SMEs are reliable sources of funding, both locally and internationally. NGOs and SMEs enter into partnerships where funds flow from the SMEs to NGOs and in return, new product and process development ideas, community engagement and reputational advantages, flow to the SMEs and the local environment. SMEs want to be seen to be contributing to both the environmental and social needs of the community through collaboration with the NGOs. Our analysis also shows that NGOs use a variety of platforms to engage with their stakeholders and the public. Social media, for instance Facebook and Instagram, are playing an important role in this regard. The key informant of an NGO stated, ‘...more or less all the clean-up stuff we do, we do in cooperation with the different organisations. And so, it’s not that

common that we do it by ourselves, but we do it together with other beach cleaning organisations in order to both have a big impact when it comes to actual cleaning itself and social media is great means of communication for us' (Case 5). Thus, we posit the following proposition:

Proposition 2 *Value chain collaboration between non-governmental organisations (NGOs) and small- and medium-sized enterprises (SMEs) promotes volunteering initiatives and operations.*

The stakeholder theory (Freeman 1984, 2004) provides a suitable theoretical framework for understanding the interactions and relationships between an organisation and its stakeholders. The theory highlights the successful consequence between business organisations and society and shows a win–win situation for both entities (Cordeiro and Tewari 2015). It paves the way of turning corporate social responsibility into business objectives through the transformation of intangible social and environmental issues into tangible stakeholders' interest in the best way (Dmytriyeve et al. 2021). Plastics are essential and ubiquitous materials in our daily lives and address numerous societal challenges. Cumulative production of plastics now exceeds 8000 million metric tonnes, of which approximately 9% has been recycled, 12% incinerated, and 79% accumulated in landfills of the natural environment (Pravettoni 2018).

With the exception of concrete and steel, plastics are now the most common manmade material (Carney Almroth and Eggert 2019). In every year, more than 10 million tonnes of plastics enter the ocean annually (Jambeck et al. 2015), and more than 80% of marine litter are plastics ('European Parliament' 2019; Geyer et al. 2017). If the trend continues, the amount of plastics making its way into the oceans is set to double from 2010 to 2025, rising from approximately 8 million metric tonnes in 2010 to 16 million metric tonnes in 2025 (Jambeck et al. 2015; Pravettoni 2018). There are different types of plastics polymers, but the market and the litter found in the marine environment are dominated by six substances: polypropylene (PP), polyethylene (PE), polyvinylchloride (PVC), polyurethane (PUR), polyterephthalate (PET), and polystyrene (PS), which together comprise approximately 80% of total plastics production ('Plastics Europe' 2017). Not all plastics are equally problematic. Beach, ocean, and river litter surveys show that certain plastic products and materials are more likely to enter the environment than others, with about 50% of items found, and are single use plastic items (Addamo et al. 2017). These are commonly used products that are difficult to recycle, easily littered, and often made of low-density plastics polymers, which means they often float (Willis et al. 2018).

To combat these issues, there is an increase in policies that target specific types of plastic waste (Carney Almroth and Eggert 2019). In this study, we mainly focus on understanding how strategic collaboration between SMEs and NGOs can impact on recycling marine plastics, more specifically, lost or discarded fishing gear made of plastic. NGOs have been playing an essential role in recycling marine plastics, particularly in their partnership with key stakeholders such as SMEs, and in serving the needs of individuals and communities. As one of our informants of one NGO

stated, ‘...the Environmental Agency and the Ministry of Climate and Environment were providing funding for national waters and to deal with the marine debris...they were the ones getting funding from them, and for that amount of money that we were providing for the different kinds of activities, for instance; having beach clean-ups, having underwater clean-ups, participating, and building on the national beach clean-up, they do a lot of policy works that we did to get marine plastics on the agenda for and for different politicians in Norway ... and we also contributed to challenging all the different political parties in Norway to a zero-tolerance vision for plastics, that was in 2017 at RNC in August’ (Case 5). Many of these NGOs are developing a more sophisticated understanding of marine plastics problem (MPP) based on sound scientific research through the collaboration with universities and research institutes. Another informant said, ‘...so addressing this marine or the fishing related plastics, and I think we can play a part there in both in connecting the actors and also in trying to make some understandable communication, we have been talking a lot about that’ (Case 6). In the study’s context, we observed SME-University/Research-NGO collaborations. Collaboration between SMEs and universities (e.g. NTNU), research institutes (e.g. SINTEF, Møreforskning) and NGOs were observed and noted. The informant from the environmental centre (Case 6) said, ‘...we work with the science, with the research and then we have the visitor centre and it’s about communication to the public and where people can come in and learn about birds and the oceans and the global nature and plastics and we work in both places’. These collaborations are geared towards the development of effective strategies to solve environmental problems such as marine pollution. Based on the empirical evidence and theory, we propose:

Proposition 3 *Value chain collaboration between non-governmental organisations (NGOs) and small- and medium-sized enterprises (SMEs) enhances marine plastics recycling.*

Proposition 4 *Volunteering initiatives and operations by the non-governmental organisations (NGOs) enhance marine plastics recycling.*

Proposition 5 *Local innovation potential (system) can enhance marine plastics recycling.*

Cultural or structural resources like strategic partnerships between SMEs and NGOs are very important to lead sustainable value creation (Esfahbodi et al. 2016). These resources help apprehend societal aspirations of sustainability and the aspects of triple-bottom line approach (Hahn and Figge 2011; Page11 and Shevchenko 2014; Pitelis 2013). Dynamic capabilities of an organisation lead new product development strategies and networking (Eisenhardt and Martin 2000). Our informant from Case 4 said, ‘...we now work with the industry to bring new ideas in existing business models including the activities through adoption of agreements for clean-ups’. The informant from Case 2 said, ‘...from the start we have a clear intention of creating an incubator programme where people can directly work with creating business models of waste that they collect in this region’. And finally, the informant from Case 5 stated,

‘...of course, and how to create both in that aspect, but also in plastic in general, how to create the circular economy for the plastic’. Based on our findings, the dynamic capabilities of both SMEs and NGOs are helping them to leverage social capital achieved and developed via networking and value chain collaboration. Consequently, these interactions and collaborations accelerate marine plastic recycling initiatives which furthermore can enhance value creation sustainably. Hence, we posit that:

P6. *Marine plastics recycling can lead to sustainable value creation.*

9.5 Summary

Based on the review of the literature, we developed a conceptual framework (Fig. 9.1). We further demonstrate empirically how the data structure (Fig. 9.2) justifies the proposed framework. Our data structure shows the link between value chain collaboration and volunteering by non-governmental organisations (NGOs). Our data structure shows thematic analysis that focussed on the innovation potential that is stimulated from the collaborations and interactions. Innovation systems are known to structure firm processes (Rantisi 2002): it channels the process by developing a specialised labour market, facilitating the linkages between key innovating actors and other groups in the industry and defining (and redefining) the use-values of commodities (Rantisi 2002). For example, case 2 states *‘we are starting a new project where we applied for development funding which we call LD Hub....to create a low-key arena for innovation’*. Hence, we appraised our initial model with a focus on the link between SME-NGO collaboration and new product development, to a focus on the local innovation potential (system) of the fishing gear recycling cluster in the North-West of Norway. The waste fishing gear recycling industry in the North-West of Norway is in its developmental stage and is supported by the well-developed and dynamic marine and maritime clusters. Knowledge spill-overs between the marine, maritime, and the waste fishing gear industry enhance the innovativeness of the clusters. Industrial district and regional innovation systems are closely related but capture different aspects of regional economic development. Given the ‘nestedness’ of a system in other systems, one regional innovation system can support several districts (and clusters). However, in some cases, districts (or clusters) may be considered as local innovation systems with independent innovation patterns (Muscio 2006). The waste fishing gear recycling industry despite being dependent on the marine and maritime industry has its own innovation peculiarities and features. Sustainable value creation can be achieved through waste fishing gear recycling, value chain collaboration, volunteering initiatives/operations, and the local innovation system (leading to new process, service, and product development). Value chain collaboration between SMEs and NGOs stimulates innovation in the local environment (local innovation system) and within the industry. Collaboration drives the innovation process and enhances recycling.

9.6 Conclusion

In line with Porter and Kramer's (2011) view that shared value can be created through business partnering with social organisations, this book chapter highlights value chain collaboration and volunteering by NGOs as success factors that enhance fishing gear recycling. Value chain collaboration between SMEs and NGOs stimulates innovation (possibly new product, processes, and service development) within the industry. Collaboration drives the innovation and process improvement and enhances recycling of marine plastics. Furthermore, fishing gear recycling can lead to sustainable value creation. This book chapter provided initial insights based on an explorative study.

Appendix

Interview Guide

- Organization/association (Date of establishment; What motivates its establishment?).
- Is the NGO a member of an umbrella organisation/association?
- Do you have a board? And do you have a charity number?
- How does the organisation/association raise funds?
- How important is the NGO's role in addressing the issue of marine plastic pollution?
- Which of the following stakeholders does the NGO interact with: Plastic producers? Waste Management (Logistics)? Port Authorities? Waste Management (Recycling)? Municipality? National Government?
- Please provide more insight on your interactions with these stakeholders.
- Please describe any interaction between the NGO and the SMEs, and other stakeholders involved in the fishing gear recycling value chain? Please, provide contact details.
- How does this interaction take place?
- How does this interaction influence your activities?
- Please tell us how you influence business/industry policies and strategies?
- What kind of interaction/relationships do you have with the SMEs?
- Who is the most important stakeholder you are dealing with?
- Please provide some more insight on how the NGO deals with this important stakeholder.

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