



Master Thesis

Financial Sustainability while maintaining Environmental Impact

A Multiple Case Study on Marine Conservation Organisations for Plastic
Debris

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Abstract

Through the grounded theory approach, this study develops a model that distinguishes three types of Marine Conservation Organisations, focused on either collecting plastic debris or preventing it from reaching the oceans. These three types differentiate on characteristics like revenue and number of employees. Based on public information and six in-depth interviews, the research finds that the organisations can undertake several (sequential) steps to improve financial sustainability, while maintaining a positive environmental impact. To prevent the organisation from limiting focus to either financial sustainability or environmental impact, it can set guardrails over time. The research also contextualises current financial income streams of Marine Conservation Organisations.

Keywords: Financial Sustainability, Marine Conservation Organisations, Environmental Impact, Grounded Theory,

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1. Introduction

In 2010, research estimated that between 4.8 and 12.7 million metric tons of plastic had entered the oceans during that year (Geyer, Jambeck & Law, 2017). Over time, plastic debris has increased on a local and global scale and is expected to nearly triple by 2040 if no drastic action is taken (Reddy & Lau, 2020). This amount of plastic forms a serious threat to several marine species through infestation, entanglement and intoxication (Morrison, Shipman, Shrestha, Squier & Whitney, 2019). The debris accumulates in concentrated areas and contains harmful chemicals that leach into the sea (Rios, Jones, Moore & Narayan, 2010). Some of the intoxicating plastics that are ingested by fish are consumed by humans and thus form a worldwide health risk (Boerger, Lattin, Moore & Moore, 2010). In 2018, Deloitte estimated that marine plastic pollution could have resulted in a loss of six to nineteen billion USD for eighty-seven countries (Viool, Gupta, Petten & Schalekamp, 2019). Costs include revenue loss in marine tourism, governmental clean-up expenses and revenue decrease for local fishers (Morrison et al., 2019).

As marine conservation has become part of the UN sustainability goals (Jefitic, Sheavly & Adler, 2009), several Marine Conservation Organisations have dedicated their energy and time to collecting the debris or preventing plastic from reaching the oceans (Marine Bio, 2019). The term Marine Conservation Organisation refers to an organisation “focused on the management, restoration, and sustainable use of marine resources” (Bos, Pressey, & Stoeckl, 2015, p116). Some organisations focus on capturing and recycling the plastic (Sainte-Rose, Lebreton, Lima Rego, Kleissen & Reisser, 2016), while others focus on advocacy of governmental policies or marine education to create awareness around the issue (Hartley, Thompson, & Pahl, 2015)

However, the revenue of these organisations is limited and mostly dependent on funds and donations, creating an issue of financial sustainability (Binet, Diazabakana, Laustriat, Hernandez, 2015; Bos et al., 2015). Financial sustainability is understood as the ability of organisations to maintain financial capacity over time (Bowman, 2011). Previous research states that the costs of cleaning the ocean heavily outweigh the global funding available to solve this issue by at least six billion USD (TEEB, 2013; Parker & Cranford, 2010; Bos et al., 2015). Additionally, the duration of the funding for marine conservation projects usually does not match the time required to achieve the intended conservation objectives (Bos et al., 2015), leading to high project fragmentations, and decrease in stakeholder confidence and qualified staff

retainment (SFI, 2012). Ultimately, short-term funding leads to withdrawal of the financial support before the potential ecological and social benefits are realised (Gurney, Cinner, Ban, Pressey, Pollnac, Campbell, Tasidjawa & Setiawan, 2014). Last, the finance mechanisms for marine conservation are underdeveloped and could even increase the gap in global conservation funding through its economic activities (Bos et al., 2015). The concerns regarding the funding mechanisms were confirmed in 2015 when a large group of international experts wrote a letter to the New York Times that advocates business and world leaders to initiate new funding mechanisms to support global marine conservation operations (Bos et al., 2015). Therefore, to tackle global plastic pollution, the financial sustainability of Marine Conservation Organisations needs to be improved.

Only a small number of studies display suggestions to improve the financial sustainability of Marine Conservation Organisations while maintaining a positive environmental impact (Spergel & Moye, 2004; Magnier, Mugge & Schoormans, 2018; Boss et al., 2015; Binet et al., 2015). First, a number of research papers focus on one specific suggestion to increase financial sustainability like recycling plastic, (Magnier et al., 2018), conservation finance (Huwyler, Käppeli, Serafimova, Swanson & Tobin, (2014) or tourism (Gerlich, Amar, Valdebenito, Castilla, Fernandez, Godoy & Biggs, 2013). However, these papers do not specifically address the operations to collect plastic or prevent it from reaching the ocean. In addition, Spergel and Moye (2004) published over thirty mechanisms to finance Marine Conservation Organisations. While relevant for this study, this cannot be considered an academic paper, as its goal is simply to familiarize conservation professionals with the options to finance their operations. To our knowledge, there is only one academic paper focused on how Marine Conservation Organisations can tackle financial instability while maintaining a positive environmental impact (Bos et al., 2015). Environmental impact can be defined as any change to the environment, whether adverse or beneficial, resulting from a facility's activities, products or services (Thorn, 2015). While Bos et al. (2015) constitute a valuable first step, the paper remains conceptual and states that more insights and empirical results are needed to move this research forward.

As the research on improving financial sustainability for Marine Conservation Organisations, while maximizing environmental impact, is limited, this case study will address the following research question:

To what extent can Marine Conservation Organisations of plastic debris become financially sustainable while maintaining its environmental impact?

Through a grounded theory approach this qualitative research further explores the application and conditionalization of earlier suggestions to improve financial sustainability for Marine Conservation Organisations. In addition, the research will analyse these suggestions on their environmental impact. The paper does so through in-depth interviews with six Marine Conservation Organisations, accompanied by internal documents and external sources.

The main contribution of this research entails the demonstration of how Marine Conservation Organisations can undertake (sequential) steps to simultaneously increase financial sustainability and environmental impact. Not only does this study contribute to the growing body of marine conservation literature by its contextualization of previous suggestions to improve financial sustainability, but it also takes into account the environmental impact of the suggestions. With this theoretical advance, we respond to previous calls for research into the further development of the financial sustainability of Marine Conservation Organisations (Bos et al., 2015). The research specifically focuses on organisations that aim to collect plastic or limit the flow of plastic into the oceans.

2. Literature Research

While research on financial sustainability of Marine Conservation Organisations is increasing (Bos et al., 2015), this is rarely focused on organisations that collect plastic debris or prevent it from reaching the oceans. However, previous literature on improving financial sustainability of Marine Conservation Organisations, NGOs and social businesses could potentially still be relevant to the focus of this research. Therefore, the essential earlier research on these three topics will be discussed in sequential order.

2.1 Marine Conservation financing

A limited number of studies have been published on the support of Marine Conservation Organisations. The available mechanisms are divided into four categories: governmental support, non-governmental support, self-generated mechanisms and partnerships. For some categories, several steps can be taken to increase and stabilize flow of income, but these are relatively undiscovered.

2.1.1 Governmental support

Governmental support plays an important role in the financial sustainability of Marine Conservation Organisations as they determine local and international regulations that could restrict organisations in their operations, but also offer financial support to several of the organisations (Bos et al., 2015; Spergel & More, 2004).

Funds & Redirecting subsidies

While Marine Conservation Organisations have several mechanisms to improve financial sustainability, organisations are still dependent on the support of local, regional, national or international governmental funds (Binet et al., 2015). A fund can be defined as money that can only be used for a specific purpose; must be kept separate from other financial sources; and is managed separately (Huwlyer et al, 2014). Depending on political agendas, Marine Conservation Organisations may be supported through governmental funds (Bos et al., 2015). Another idea that has surfaced is the redirection of subsidies towards more sustainable enterprises (Rangeley & Davies, 2012). For example, by redirecting subsidies to fisheries that use sustainable material for their fishing nets, governments indirectly limit the amount of plastic that enters the ocean and thus shorten the duration of plastic collection operations, improving financial sustainability of the organisations.

Regulations

Furthermore, governments determine the regulations that corporations are bounded by (Bos et al., 2015). These regulations influence the motivation of corporations to limit their environmental impact (Bos et al., 2015), either through negative or positive incentives. Negative incentives can be taxes (Parry, 1995) or fines (Arguedas, 2013) for production, usage or release of plastic. In turn, fines and taxes can be used to further fund Marine Conservation

Organisations. Governmental bodies can also incentivise businesses to reduce their environmental damages through policies that support ‘green accounting’ and transparency in environmental impact (Serafy 1997; Cairns, 2000; Rout, 2010). Last, as impact investment is on the rise, governments are responsible for setting the market infrastructure and policies for these investments to be carried through (Bugg-Levine & Emerson, 2011; Salamon, 2014).

Justification and advocacy for the needs of the Marine Conservation Organisations are required to increase governmental support, (Bos et al., 2015). The financial strategy and associated business plan can be particularly helpful to convince governmental bodies to strengthen support. When coupling these with specific environmental objectives these can be powerful advocacy tools (Binet et al., 2015). Governmental support can also be improved if they are shown that marine resources generate substantial economic benefits (Spergel & Moye, 2004).

2.1.2 Non-governmental support

Marine Conservation Organisations also depend on non-governmental financial support like donations, private funding or commercial-driven investments (Huwyler et al., 2014). As the governmental financial support is limited, donations and commercial-driven impact investments are essential for marine conservation operations to scale up (Huwyler et al, 2014).

Donations

The first large source of non-governmental support is donations from donor agencies, foundations, NGOs, private sector companies and individuals (Spergel & Moye, 2004). In many cases, the government funds have served as a mechanism to attract donations, as governmental support acts as a guarantee of positive environmental impact (GEF, 2003). Large donation sources include international donor agencies, like the European Union (EU), foundations owned by wealthy individuals (Spergel & Moye, 2004) or international NGOs that raise income for marine conservation projects (Lapham & Livermore, 2003). The latter is usually gathered through other international donor agencies or from individual members through traditional fundraising and special programs (Spergel & Moye, 2004).

Private funding

Secondly, the private sector also supports Marine Conservation Organisations through private funding (Norris, 2000). These funds are solely meant for one purpose and are managed separately from other cash flow, providing long term sustainable funding for carrying out conservation operations (Norris, 2000). An example of this is endowment funds, which generate income for NGOs through the interest that is gained from investments in bank deposits, treasury bonds and corporate stocks (Scott Dupree, Parnetti, Prasad & Turitz, 2000).

Impact Investing

Over the last few years, the impact-investment industry has been growing rapidly (Bugg-Levine & Emerson, 2011; Huwyler et al., 2014). Several entities have been providing the infrastructure that is needed to bring together social entrepreneurs and investors to discuss impact investments. Whilst a limited number of events have been focused on marine conservation (Bos et al., 2015), this could become an essential future revenue stream for organisations that focus on plastic debris. However, this financial mechanism still faces challenges like (i) insufficient monetary benefits of conservation programs; (ii) structural differences between conservation projects and traditional business models; and (iii) environmental benefits are, without regulatory intervention, often externalities for the investors involved (Huwyler et al., 2014).

To increase non-governmental income streams, several steps can be taken by Marine Conservation Organisations (Huwyler et al., 2014; Binet et al., 2015). As some of the conservation investment mechanisms are rather undeveloped, a professional management approach must be followed that fosters connectivity with other NGOs, sharing of best practices and rapid replication (Huwyler et al., 2014). This also includes the setup of financial planning and environmental impact reports to identify the financial and environmental return for future investors and donors (Binet et al., 2015). The verification of the environmental impact can be confirmed by the Marine Conservation Organisations as investors will perceive this as a 'seal of approval' (Huwyler et al., 2014). The organisations can also assist in further developing conservation impact measurement techniques and act as facilitation for large-scale conservation operations to build trust among the participants.

2.1.3 Self-generated mechanisms

Research states that Marine Conservation Organisations can also be further financially empowered through self-generated mechanisms (Bos et al., 2015; Magnier et al., 2019; Spergel & Moye, 2004). The upcoming paragraphs will focus on the mechanisms that apply to the operations of collecting the plastic and preventing it from reaching the ocean.

Financial Strategy

While a financial strategy does not offer direct revenue, research shows that maintaining a financial strategy before and throughout the duration of the marine conservation operations increases financial sustainability, as investors and other stakeholders display more confidence in the project (Bos et al., 2015). The strategy includes an estimate of the total costs and revenue of the operations, the impact of the operations, and potential investors (Bos et al., 2015). Bos et al. (2015) suggest integrating financial planning into early stages of the project to enable feedback between financial analyses and other planning aspects. This reduces the delay between planning and implementation, and allows for early identification of finance mechanisms. Preferably, the strategy includes diversification of revenue streams to lower financial risk (Markovitz, 1952).

Recycling

Next, another mechanism to improve financial sustainability is the recycling of the plastic that is collected by Marine Conservation Organisations (Magnier et al., 2019). Rather than selling or throwing away the plastic, organisations like the Ocean Cleanup have decided to recycle this into new products (Ocean Cleanup, 2020). This method can increase financial sustainability. First, research states that consumers are willing to pay (WTP) a price premium for products made from ocean plastic, as long as the quality and functionality of the product are the same as the traditional product (Magnier et al., 2019). At the same time, the organisation limits its negative environmental impact as the sold products are made of recycled materials. Furthermore, sustainable products activate a moral effective evaluation of the offering and increase the purchase intention (Bradru, Orquin & Thøgersen, 2014; Koenig-Lewis, Demody & Urbye, 2014).

However, recycled products can also be associated with lower quality (Lin & Chang, 2012), incapability, unattractiveness and disgust (Baxter, Aurrisisschio & Childs, 2017). The consumer evaluation of recycled products also depends on the type of product (Magnier et al., 2019). Thus,

the sale of recycled products could be a promising revenue stream for marine conservation operations through its high WTP, but also carries risks like lower quality and functionality.

2.1.4 Partnerships

To increase the financial sustainability of Marine Conservation Organisations, increased collaboration is required between sectors and disciplines (social sciences, marine ecology, business, impact investing) (Bos et al., 2015). Partnerships between the organisations, governments and corporations can increase both financial sustainability and environmental impact (Bos et al., 2015). For example, marine conservation experts can advise corporations how to limit plastic pollution and reach their CSR goals, or engage in advocacy to increase understanding within governments to request policy changes and funding arrangements (Bos et al., 2015). The limitation of corporate plastic pollution leads to the desired plastic reduction while communicating the impact of the plastic collection and reduction increases political support (Hudson, Van de Weerd, Sherman & Adams, 2013).

2.2 Financing other Non-Governmental Organisations

While financial sustainability of Marine Conservation Organisations has remained relatively undiscovered, previous research has displayed more attention towards financing non-governmental organisations, other than marine conservation.

First, earlier literature has shown extensive research on a national level for the financial sustainability of NGOs within developing countries like Kenya (Wachira, 2016), Ghana (Ebenezer, Musah, Ahmed, 2020), Belize (Griffith, 2016), Bolivia (Merida, Arce, Moscoso, Ramirez, Riveros, Bratt, 2006), Kosovo (Stanovci, Metin, Ademi, 2019), Nairobi (Chepkemai & Njeru, 2017) or Indonesia (Davis, 2013). Although the circumstances and governmental support within the country might vary, the literature states a clear overlap in creating financial sustainability for NGOs. In particular, strategy and financial planning are recognized as important tools to improve financial sustainability (Chepkemai & Njeru, 2017; Stanovci et al., 2019; Griffith, 2016; Ebenezer et al., 2020; Wachira, 2016). Furthermore, the articles emphasize the importance of self-generated income (Davis, 2013; Griffith, 2016; Ebenezer et al., 2020), diversified funding (Davies, 2013; Griffith, 2016; Ebenezer et al., 2020; Wachira, 2016) and a good donor relationship (Ebenezer, 2020; Wachira, 2016).

Researchers have also approached the topic of financial sustainability of NGOs on a global level (Austin, 2007; Metin, 2017). While Austin (2007) states how partnerships between corporations and NGOs can create value for both parties, Metin (2017) confirms that partnerships between NGOs have a positive effect on the financial sustainability of the organisations.

2.3 Combining Financial Sustainability and Environmental Impact

Lastly, previous research has also shown proof of balancing financial sustainability and environmental impact, creating shareholder value through the offer of sustainable products and services. The following two theories will discuss how businesses can sustain their financial health while ensuring a positive environmental impact.

2.3.1 Sustainable Value Framework

The Sustainable Value Framework (Hart & Millstein, 2003) distinguishes the dimensions through which businesses can create shareholder value and contribute to global sustainability simultaneously. Global sustainability can be defined as the ability to meet the needs of the present without compromising the ability of future generations to meet their needs (Butlin, 1989). To maximize shareholder value, an organization must perform well within all four quadrants continuously: Clean Technology, Sustainability Vision, Pollution Prevention and Product Stewardship (figure 1). The quadrants are divided through two dimensions of ‘today versus tomorrow’ and ‘internal versus external’.

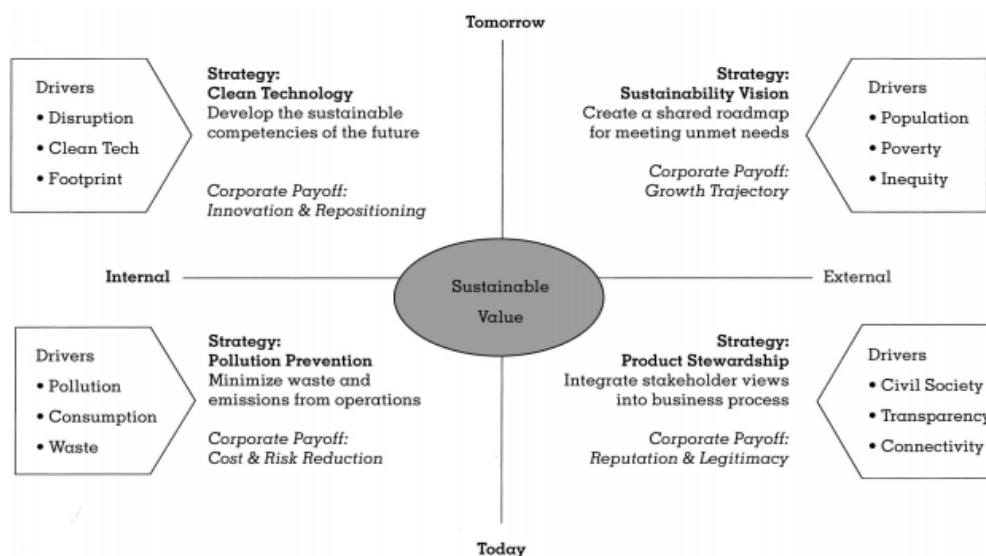


Figure 1: Hart, S.L. & Millstein M.B. (2003), Sustainable Value Framework

The Sustainable Value Framework could offer Marine Conservation Organisations several opportunities to improve financial sustainability while maintaining a positive environmental impact. If the organization collaborates with investors and wishes to create shareholder value, it can apply the model directly to its operations. For example, Marine Conservation Organisations aim to reduce plastic waste (pollution prevention) and convince partner organisations to do the same (product stewardship). The corporate payoff of these decisions are reduced costs (Christmann, 2000), increased profit (Sharma & Vredenburg, 1998) and reputation improvement that increase consumers' desire to associate their actions with the organisation (Roome & Hinnells, 1993). Concerning future shareholder value, some organizations have also been known to accelerate through developing clean technology to replace or reduce the dependency on plastic and leapfrog standard current routines and knowledge (Vergragt & van Grootveld, 1994). To illustrate, the Ocean Cleanup has recently launched a method that allows the organization to recycle plastic waste into new products. Lastly, the opportunities at the bottom of the economic pyramid have been increasing as the issues of plastic mismanagement and river pollution (Lebreton, Zwet, van, der., Damsteeg, Slat, Andrady, & Reisser, 2017) have been growing. There seems to be a clear need to tackle plastic pollution in developing countries. Organisations like Plastic for Change, Packa-Ching and the Plastic Bank offer a potential solution to this issue by collecting plastic, offering the donors money in return in countries like South Africa and Bangalore and sell the plastic to corporations (Racapé, 2019).

In addition, Marine Conservation Organisations have been known to assist corporations to increase shareholder value and global sustainability simultaneously. For example, the organisation A Plastic Ocean Foundation has initiated the program #RightBin through which the organisation assists corporations in their waste management and ensures that the collected plastic is recycled. This is an example through which the organization increases shareholder value for the corporation through reduced costs (Christmann, 2000) and an improved reputation (Roome & Hinnells, 1993). A Plastic Ocean Foundation receives financial compensation, which increases its financial sustainability.

2.3.2 Maximizing Financial Sustainability and Environmental Impact

To increase revenue, an organization will have to award time and manpower to moderate its financial stability (Smith & Besharov, 2017). Examples of this are the publication of financial planning, yearly reports or other finance-related documents. Furthermore, if the organisation aims to increase its revenue, it might have to invest time, money and energy into gaining awareness among investors, donors or corporations (Glynn, 2000). While a focus on both financial sustainability and environmental impact can spark organisational innovation and creativity (Dalpiaz, Rindova, and Ravasi, 2016), it has also shown to generate on-going struggles to maintain legitimacy with external stakeholders (Pache & Santos, 2013) and persistent conflict between members (Glynn, 2000; Battilana & Dorado, 2010).

Smith and Besharov (2017) explain how organizations can focus on both financial sustainability and social impact without limiting one another (figure 2). An organisation can do so through several steps. When focusing on both financial sustainability and social impact, internal conflicts might arise (Smith & Besharov, 2013). When competing demands continually reappear, organisations should navigate through these conflicts (Jay, 2013; Ashforth & Reingen, 2014). Organisations can do so by reinterpreting identity and experimenting with practices by questioning, reconsidering, and shifting their understandings of “who we are.” Second, when experimenting with practices, organisations try out possible alternatives through low-cost investments: feasibility studies and pilot programs. To prevent that the organisation shifts too far to either side, it can apply ‘guardrails’ to reinforce one of the missions. Examples are dedicated roles or forged ties with external stakeholders. Organisations can experiment within the guardrails, but the allowed space to experiment will become narrower and stronger as organisations learn from earlier iterations of enactment. Lastly, while a clear distinction between social and financial goals is set, the model also stresses interdependence should be acknowledged.

This theory is built on the concept of businesses that maintain roughly equal importance of financial income and social impact, which differs from the organisational structure of the selected organisations within this research. However, financial sustainability can be of importance for the organisation to continue or expand its operations, which is why these theories can be of importance for this research.

The aforementioned research question can be categorized as qualitative research as the goal is to find rich and complex understandings of the phenomenon and generate new theory (Gephart, 2004). Within this research, acquainted knowledge can limit the advancement of the results we may find (Gioia, Corley and Hamilton, 2013). To prevent this, the grounded theory approach (Glaser & Strauss, 1968) will be used to build theories from empirical research and develop new propositions. This approach addresses the contextualized interpretative realities of the tangible mechanisms of creating financial sustainability in data by systematically analysing and interpreting “the actual production of meanings and concepts used by social actors in real settings” (Gephart, 2004, p457). This method consists of three different steps: understand the topic literature, develop observations in the field, and follow an iterative process between data collection and analysis to maintain flexibility during the theory development (Eisenhardt, 1989).

3.1 Theoretical Sampling

The collected data stems from two sources. First, publicly available data, like annual reports, previous interviews and financial statements of the NGO, offer an internal view over several years and display an insight into the NGO's strategy, policies and financial health. In addition, the majority of the findings are based on individual in-depth interviews with each of the selected organisations to collect data on the interpretative reality of the organisations.

The Case Study Method (Eisenhardt, 1989) was chosen due to lack of research on this particular topic. Research suggests using between four and ten cases, as less than four cases will restrict the quality of the data while more than ten cases could deliver excessive details, blurring the crucial takeaways of the research (Eisenhardt, 1989). The cases were selected on a theoretical, non-statistical basis, and were picked on a worldwide basis, as the research addresses a global issue. The main criterion to select an organisation is its (side) mission to rid the ocean of plastic. Research outcomes will be analysed and scanned on cross-case patterns (Eisenhardt, 1989). These could be similar answers to questions or noticeable differences. Finally, the research will compare the findings to the current theory, aiming to generate new insights on how to ensure financial sustainability for Marine Conservation Organisations.

A total of twelve organisations were approached by email or website. Six organisations responded timely and were willing to share their insights and experiences. Table 1 profiles each of the selected organisations through a brief description of its operations and other characteristics. The selected organisations range in revenue, number of employees, date of foundation and location. One organisation requested to remain anonymous, which is why the organisation is labelled 'organisation N'. The selection of the interviewees was based on the availability of the employees or by choice of the organisations. Important to note is that within large organisations, the employee might not be aware of the full operational reach and financial health of the organisation. To compensate for this restriction, annual and financial reports offer support to fill in unanswered questions. The last selected organisation is the Ocean Cleanup. Although the organisation was unresponsive to the request of an interview, it remains selected within the research, as I believe this organisation to be highly value adding to the research, due to its size and unique operations. The organization has also published annual reports that offer extensive insights into the organisation.

Organisation	Location	Founded	Main Operations	Number of Employees	Position of Interviewee
A Plastic Ocean Foundation	Hong Kong	2012	Dedicated to creating a wave of change to stop plastic pollution and to be part of the solution through science, education and policy advocacy.	6	Campaigner
Organisation N	California, United States	1994	We connect young people with scientists, experts, politicians and businesses to have real conversations about plastic consumption.	5	Education Director
Clear Blue sea	California, United States	2016	Clear Blue Sea's mission is to cleanse the ocean of plastic pollution with the Floating Robot for Eliminating Debris, FRED, which harvests marine plastic for commercial upcoming and recycling while collecting plastic pollution data. We believe in advocating, creating, sharing and implementing solutions to remediate and mitigate ocean plastic pollution	5 -15 (+ 60 interns)	Director of Sustainability
Marine Conservation Society	Ross-on-wh, United Kingdom	1983	The Marine Conservation Society is the UK's leading charity for the protection of our seas, shores and wildlife.	100+	Beachwatch Officer
Oceana	Madrid, Spain	2001	A non-profit ocean conservation organization focused on influencing specific policy decisions on the national level to preserve and restore the world's oceans.	250+	Marine Scientist
OceanCare	Zurich, Switzerland	1989	Through research and conservation projects, campaigns, environmental education, and involvement in a range of important international committees, OceanCare undertakes concrete steps to improve the situation for wildlife in the world's oceans.	12	Science and Education
Ocean Cleanup	Rotterdam	2013	The Ocean Cleanup develops technology to extract plastic pollution from the oceans and intercept it in rivers before it can reach the ocean.	93	N/A

Table 1: Marine Conservation Organisations profiles

3.2 Data Collection and Analysis

As explained before, the grounded theory approach leads to a simultaneous collection and analysis of the data that was gathered from the interviews and public information (Charmaz, 2006). The interviews took place during a period of approximately one month between October

2020 and November 2020. The public information allows for data triangulation, and confirms or denies some of the claims that are made by the employee during the interview.

Throughout the interviews, the majority of respondents emphasized the importance of operational choices, partnerships, and financial mechanisms to maintain financial sustainability, but also displayed several limitations and organisational perceptions to these factors. As this agrees with earlier literature, the research was able to further elaborate on the contextualization of these topics. To still ensure a balance between financial sustainability and environmental impact, organisations were asked how they ensured a positive environmental impact (table 2).

The interviews were based on an open interview approach (Weiss, 1995). Rather than specifying closed questions beforehand, the interview followed an approach that encourages the interviewer to dive into topics of interest on the spot. Although most interviews had four questions set beforehand, the progress and direction of the interview depend on the answers of the interviewee. The interviewee was frequently asked to elaborate on the given answers. In addition, the interview consists of open questions that allowed the respondent to choose the preferred direction. Subsequently, the respondent answered in a way that he or she seems fit and elaborates on topics that are perceived as important. The advantage of this method is that the research is able to gather the perception of the organisation's operations, partnerships and financial mechanisms without forcing the direction. Depending on the progress of the answers given in the interview, some topics received more attention than others, due to the theoretical contribution of the answer.

Interview Questions
1. Could you tell me a bit more about your organisation, and what you are currently working on?
2. Could you tell me a bit more about who you have collaborated with over the years?
3. Previous research states that some Marine Conservation Organisations struggle to remain financially sustainable, could you tell me how this has developed over the years for your organisations?
4. When selecting your operations, partnerships or financial income streams, until what extent do you take into account the impact of these decisions?

Table 2: In-depth interview questions

This research approach is in line with the aforementioned grounded theory approach (Eisenhardt, 1989). The interview approach allows the interviewee to state their perception of the situation they find themselves in and make plausible sense, formed by past life experiences and social context (Weiss, 1995; Edmondson, 2003; Isabella, 1990). Secondly, the research interprets and structures the perceptions of the interviewees and interlinks this with previous literature (Nag, Corley & Gioia, 2007). This is usually referred to as the “abduction” or “analytical induction” (Suddaby, 2006). This implies that the research draws on and extends prior literature on the essence of operational choices, partnerships and financial mechanisms for the creation of financial sustainability and environmental impact of Marine Conservation Organisations that tackle the issue of marine plastic debris.

On average the interviews took 45 minutes each and were transcribed afterwards. The duration of the longest interview was one hour and fifteen minutes and the shortest interview lasted 30 minutes. As research progressed, the interviews were reviewed on additional learning and potential literature contributions to establish the direction and focus of the next interview.

3.3 Coding Process

To analyse interviews outcomes, the research continues to follow the grounded theory approach, which implies to code the collected data (Charmaz, 1996). The process of coding the data creates clarity and structure in the outcomes of the research. As the coding summarizes and marks the essential topics within the interview, this allows one to recognize trends. This may lead to unforeseen areas and topics of interest than initially set.

The coding process was initiated by coding the answers given to each question. As most questions contained multiple lines of explanation, some required more than one code. By coding the answers to each question, the research can build its analysis from the ground up (Charmaz, 1996) and break the answers into categories that consist of participants expressing the same ideas and perceptions. Subsequently, this allows for recognizing similarities and differences among the answers of the participants. An example of the initial coding process can be found in table 3. Throughout the initial coding phase, the constant comparative analysis with previous interviews and current literature continued. The coded data created the possibility to confirm or deny previous literature or contextualize the theory through the perception of the interviewee.

Initial Coding	Interview Statement
Description of how the organisation was started	So the organization started here in Hong Kong, by several people who share the concern for the ocean's health. They came together and decided to do something about it and started an NGO. A Plastic Ocean Foundation started in 2012, I believe. And to have a good impact, we made a movie.
Description of creating awareness through launching a movie	The first movie failed unfortunately, so the organisation crowdfunded more money. Through connections, we were able to produce and make the movie that is now available on Netflix 'A Plastic Ocean'. This was done on a low budget as well. So only a few places could be selected based on the funding. That's how it started.
Describing three pillars to tackle the plastic pollution	So right now, the NGO basically has three different pillars that we focus on. Education is a big pillar. Science is a big pillar and then advocacy.
Why the organisation has chosen to use education to tackle the plastic pollution issue	Let's look at education. We believe that educating the next generation on how to do things better, making them aware of the issues we face right now and integrating that in their daily lives will help make more impactful decisions when they have to. So we're trying to reach as many kids in school as possible. That goes from primary school to university. We collaborate with schools here in Hong Kong, local schools, international schools and universities, by providing them curriculums on plastic pollution specifically and we fit that into the mandatory curriculum that the teachers have to teach their kids.
The organisation helps other social enterprises to gain momentum	We also have collaborations with companies that are sustainable, such as companies that create biodegradable bags. We help them gain more momentum and Hong Kong collaborate with them on outreach, education, beach cleanups, etc.
Description of a waste management service that the organisation offers to corporations	We also have a small business initiative that is called #RightBin. This is a subscription-based program for businesses where we provide plastic waste recycling services. They pay certain amounts every six months. We place recycling bins on every floor of their office and share educational videos with their employees, do monthly waste audits, and provide workshops for the employees.

Table 3: Sample of Initial Coding (A Plastic Ocean Foundation)

As a result of the initiated coding, several themes were recognized within the memo-making process (Charmaz, 1996). Rather than descriptive coding, the answers of participants were now divided through more conceptual coding (Glaser, 1978).

Selective Coding	Interview Statement
Educational services	So the organization started basically here in Hong Kong, by several people who share the concern for the ocean's health. They came together and they decided to do something about it and started an NGO. A Plastic Ocean Foundation started in 2012, I believe. And to have a good impact, we made a movie.
Educational Services	The first movie failed unfortunately, so the organisation crowdfunded more money. Through connections, we were able to produce and make the movie that is now available on Netflix 'A Plastic Ocean'. This was done on a very low budget as well. So only a few places could be selected based on the funding. That's how it started.
Educational Services	So right now, the NGO basically has three different pillars that we focus on. Education is a big pillar. Science is a big pillar and then advocacy.
Educational Partnerships	Let's look at education. We believe that educating the next generation on how to do things better, making them aware of the issues we face right now and integrating that in their daily lives will help make more impactful decisions when they have to. So we're trying to reach as many kids in school as possible. That goes from primary school to university. We collaborate with schools here in Hong Kong, local schools, international schools and universities, by providing them curriculums on plastic pollution specifically and we fit that into the curriculum that the teachers have to teach their kids, which is a mandatory curriculum.
Corporate Partnerships	We also have collaborations with companies that are sustainable, such as companies that create biodegradable bags. We help them gain more momentum and Hong Kong collaborate with them on outreach, education, beach cleanups, etc.
Corporate Partnerships Selection of Financial Mechanisms	We also have a small business initiative that is called #RightBin. This is a subscription-based program for businesses where we provide plastic waste recycling services. They pay certain amounts every six months. We place recycling bins on every floor of their office and share educational videos with their employees, do monthly waste audits, and provide workshops for the employees.

Table 4: Sample of Conceptual Coding

Table 5 illustrates a structured sample overview of our data and displays the transformation from raw data to conceptual themes. These relate back to the aforementioned three categories.

First order categories	Second order categories	Conceptual categories
Increased funding for education services	Governmental Funding of different operations	Organisations Operations
Limited funding for research		
Collecting Plastic from rivers	Data Collection	
Collecting plastic from beaches		
Collecting Plastic from sea and ocean		
Focus on one country	International Expansion	
Feasibility reports		
Teaching the next generation	Educational Services	
Education the Public		
Limitations of NGO Partnerships	NGO Partnerships	Partnerships
Advantages of NGO Partnerships		
Hesitance towards corporate partnerships	Corporate Partnerships	
Limited willingness by corporations		
Offering services for corporations		
Limited Governmental Support	Governmental Partnerships	
Influencing governments		
Collaborated research	Education Partnerships	
Educational Curriculums		
Yearly budgets	Financial Planning	Finances
Financial Committees		
Monthly meetings		
Donations	Selection of Financial Mechanisms	
Funds		
Governmental Funding		
Corporate Service	Self -Generated Income	
Corporate Consulting		
Different income stream preferences	Income Division	
Divide financial risk		

Table 5: Data Structure

As previously mentioned, to improve the financial sustainability and maintain environmental impact, it seemed that the decisions and factors to do so were divided in three categories: Operations, Partnerships and Finances. Therefore, the findings of the interviews were assigned into one of the three categories (table 5).

Additionally, by comparing the six selected organisations, one could divide the organisations into three types, based on revenue, size, number of employees and several other criteria (table 6). The reason to do so is based on the sequential decisions that some of the organisations took, which allowed them to expand their operations and move to the next type. For example, in order to reach the size of type two, the organisations explain that corporate partnerships allow for such expansion. However, to be able to set these partnerships, one should gain a certain number of followers and reputation: *“We do find that companies believe we do not have a big enough following to sponsor us. So that's been our main issue: social following.”* (Clear Blue Sea). Figure 4 illustrates a visual overview of the sequential decisions. The model has combined the three categories of decisions and factors (Operations, Partnerships and Finances) with the three types of Marine Conservation Organisations. The model displays the decisions that could assist the organisations to reach the next type of organisations. This will be further clarified as each of the decisions is explained in the results.

	Organisation type 1	Organisation type 2	Organisation type 3
Revenue (\$ million)	0 - 1	1 - 10	10+
No. of employees	0 - 10	10 - 100	100+
No. of NGO Partnerships	0 - 20	20 - 50	50+
No. of Corporate Partnerships	0 - 10	10 - 50	50+
International Operations	Limited to none	Through Partnerships	Global Operations
Governmental Support	Limited to none	Local support	Global support
Financial Planning	Limited to none	Long term planning	Long term planning

Table 6: Three organisation types

The research was limited to six interviews due to time limitation and theoretical saturation. As the complete research has a duration of six months, only a set amount of interviews can take place. The interviews require thorough research beforehand, and transcript coding afterwards, which implies a limited number of organisations to analyse. In addition, as the number of interviews increased, new findings reduced, which can indicate theoretical saturation. Suddaby (2006) advocates that: “The signals of saturation, which include repetition of information and confirmation of existing conceptual categories, are inherently pragmatic and depend upon both the empirical context and the researcher’s experience and expertise” (p. 639).

According to the grounded theory approach, this research aims to conceptualize the interpretive reality of the interviewed organisations (Suddaby, 2006). As patterns are found within and between cases, the research allows for a comparison between a priori knowledge from the literature research to the perception and conceptualization of these theories by the interviewees. While the research describes a rather structured approach to convert the raw data into a conceptual contribution to the existing literature, it is important to note that the process of grounded theory is not linear or sequential, but an iteration of literature and data collection over time that leads to fuzzy categories, which are reduced to clear conceptual structures (Suddaby, 2006). However, the approach is described in a more orderly way to create more clarity.

3.4 Organisations

A Plastic Ocean Foundation

The NGO Plastic Ocean Foundation, located in Hong Kong, consists of scientists, educators, social entrepreneurs, scholars and journalists that aim to solve the plastic pollution problem through science, education and policy advocacy. The organisation is known for its award-winning Netflix documentary “A Plastic Ocean”, which explains the pollution of plastic debris into our oceans. The organisation offers workshops, lectures and curriculum courses to schools and universities, and assists corporations in their waste management through the #RightBin program. Lastly, the NGO also performs research on the topic of plastic.

Organisation N

Organisation N is focused on educating the public about global plastic pollution. The organisation was started as the founder witnessed the lack of research on plastic pollution. The research has allowed them to educate the next generation about a world without plastic and connect young people with scientists, experts, politicians and businesses to discuss plastic consumption and pollution. The NGO further offers science-based education and workshops for schools to offer to their students. Other examples are the webinar ‘The Story of Plastic’, the online platform ‘Wayfinder Society’ and professional development workshops.

Clear Blue Sea

This NGO was started to design the Floating Robot for Eliminating Debris (FRED). The device captures and collects plastic debris that is spread across rivers, seas and oceans. The NGO is mainly focused on designing FRED and creating awareness of the plastic pollution issue through community outreach. Examples of the latter are the Beach Cleanups, local school visits and advising universities on their curriculum offer. To design and develop FRED, the organisation recruits student interns to collaborate through an internship. Lastly, the organisation also shares the bill of materials and instructions of a smaller FRED(DY) for schools and communities.

Marine Conservation Society

The NGO Marine Conservation Society was started in 1983 by a group of SCUBA divers that believed the marine territories of the UK waters deserved more attention. Plastic pollution prevention has been part of the operations of the organisation since 1994. Its activities include beach cleanups and advocacy. The cleanups deliver large amounts of data that are used to track the plastic pollution and serves as a base for research collaborations with universities. Research is later on used to advocate for policy changes by governments and companies to reduce production or usage of plastic and establish more sustainable operations. This is further encouraged by the public campaigns that the organisation launches.

Oceana

As the largest Marine Conservation Organisation, Oceana plays an important role in tackling plastic pollution. The American NGO operates on a global level with eighteen offices and more than 250 employees. The organisation has plastic pollution as a sub-focus of its operations. To tackle this issue, it launched several campaigns, research studies and expeditions to educate individuals on the issue and to advocate on governmental policy changes. While the research and expeditions support the NGO in convincing individuals and governments, it also assists Oceana in approaching corporations to reduce their plastic consumption through ‘plastic-free zones’.

OceanCare

The Swiss NGO OceanCare, founded in 1989, aims to improve the situation for oceanic wildlife in collaboration with similar organisations on a global level. While initially focused on the protection of marine mammals, dolphins in specific, the operational focus expanded towards other marine-related topics over the years. Throughout the last ten years, the organisation has tackled plastic pollution through campaigns, research expeditions, advocacy initiatives and educational events. The research on plastic pollution offers support in creating public and governmental awareness and further encourages changing their behaviour and regulations.

The Ocean Cleanup

The Ocean Cleanup has set its goal to reduce the global debris of plastic on a large scale. In 2013, sixteen-year-old Boyan Slat designed a large device that “extracts, prevents and intercepts plastic debris from coastal and ecological environments by using floating booms, [...] it can concentrate plastic debris to a point where it can be extracted, shipped and processed” (Brambini, Dommergues, Maral, Saint-Rose, 2017, p1). After years of testing and developing their technology, the organisation has managed to drop their first prototypes to initiate the “cleaning process”. By doing so, it is the first ocean-cleaning organisation to operate at this scale.

3.5 Overview Financial Income

To better explain the financial income of each organisation, a graphical overview can be found in figure 3*. It should be noted that not all organisations follow the same accounting standards, which complicates the comparison between organisations. To simplify the comparison, this study has categorized the different income streams into six different types: Individual Donations, Non-Governmental Support, Governmental support, Corporate Support, Self-Generated Income and Other. Organisational income streams can be compared per category.

RED	Individual Donations
YELLOW	Non-Governmental Support
ORANGE	Governmental Support
GREEN	Corporate Partnerships/donations
BLUE	Self-generated income
PURPLE	Other

Table 7: Financial Categories

When comparing income streams, individual donations form a relatively large part of the organisational income, regardless of the size. The second major income stream is the non-governmental support like funds and grants. An exception to this observation is the organisation OceanCare. This can be explained by the fact that the NGO has hired an external organisation that contacts individual donors to support OceanCare. This investment has led to a large sum of individual support through donations, memberships and sponsorships, decreasing demand for further income streams. The majority of the overview confirms earlier claims by some of the organisations that governmental support is limited and that self-generated is only restricted to 10%-15% for the organisations.

*The research was unable to gain a financial insight of the Ocean Cleanup through either an annual report or an interview. Therefore, the organisation is excluded from figure 3.

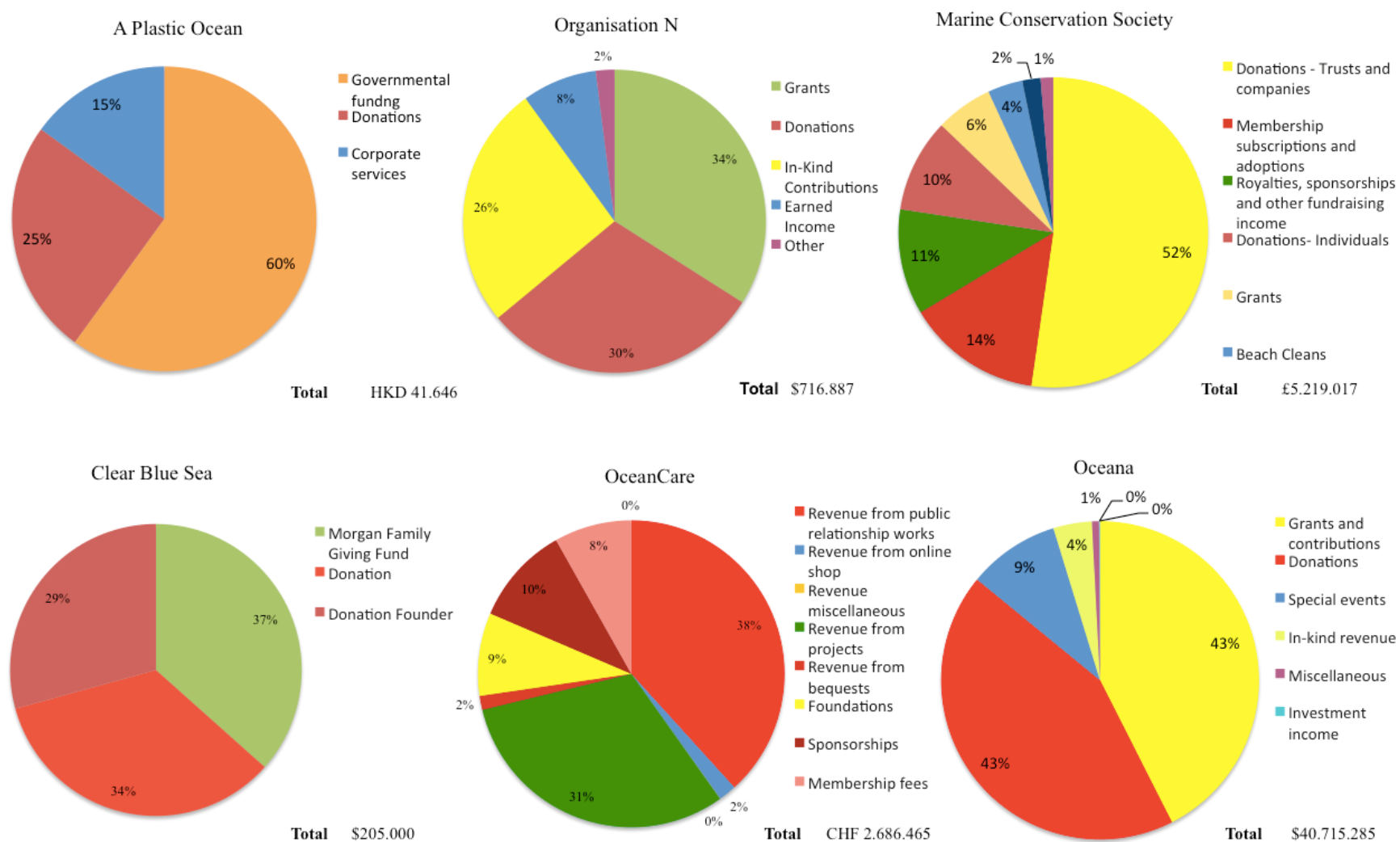


Figure 3: Financial Overview Organisations

4. Results

As mentioned before, this study aims to contribute to the growing body of marine conservation literature, mainly focused on suggestions for Marine Conservation Organisations to stay financially sustainable while maintaining environmental impact. This qualitative research will further display the application of these suggestions and how these are perceived by the organizations that rid the oceans of plastic. The findings are divided into two sections; the perception of current financial mechanisms by the selected organisations, followed by a further explanation of the research model in figure 4.

4.1 Perception of the Revenue Streams

Once the overview of the revenue streams was established, the in-depth interviews allowed for a deeper understanding of the organisational perception of the income streams. The organisations explained how the financial income streams were established and perceived.

Donations

Donations form an essential income for the selected organisations. While donations are not restricted, they are volatile as explained by Clear Blue Sea: *“Our donations this year are 10 percent of what they were last year”*. A Plastic Ocean also acknowledged that maintaining a stable level of donations requires constant attention: *“Securing this kind of unrestricted funding demands a lot of effort like donor engagement and relationship building. We need to spend a lot of time so that we can secure only a small portion”*. OceanCare managed to solve such issues by hiring an external organisation: *“They work for us and are specialized in getting donations from people. This is our biggest annual income.”* The Marine Conservation Society also aims to create stability in donations by the implementation of a membership model, rather than one-time donations. These findings are aligned with previous research stating the importance of donor relationships (Ebenzer, 2020; Wachira, 2016).

Restricted Funding

One of the most common financial income streams seems to be the restricted funding, usually grants and funds. For most organisations, this is non-governmental funding, except A Plastic Ocean Foundation that receives funding through the local government. Organisations like Clear Blue Sea and A Plastic Ocean responded similarly by acknowledging that the restricted funding creates more stability for the organisations, as the financial income is determined beforehand for a longer duration. As A Plastic Ocean Foundation explains: *“The restricted funding usually consists of large amounts of financial support and has a duration of around 5 to 8 years. This gave us a lot of confidence in our long term operations”*. However, the duration of the funds is also dependent on location: *“six months is not enough time to extrapolate data that would influence policy; We are working with Plastic Pollution Coalition to contribute to brand audits but [...] our scientists require a year of research for funding and statistical analysis”* (Clear Blue Sea). It seems that the duration of restricted funding differentiates among countries. This confirms earlier literature (Bos et al., 2011) that states the duration of the funding is essential to display results. While restricted funding offers stability, it also leads to limited flexibility for the organisations: *“We cannot always allocate the money the way we wish to. For example, during the COVID-19 pandemic, we were unable to apply the restricted funding as a response to the pandemic. This is a major disadvantage.”* (A Plastic Ocean).

Self-generated income

Self-generated revenue has shown to improve financial sustainability. However, this income stream operates as a limited financial resource for the organisations (figure 3). Three out of six organisations have established a shop that sells marine-related products, which deliver a small percentage of the total revenue: *“The revenue of this shop has been very minimal. I would say it's not a lot.”* (Clear Blue Sea). The NGO that has managed to generate the highest percentage of self-generated income (≈ 15%), A Plastic Ocean Foundation, has done so through the #RightBin program. The program is supported through two partnerships, which confirms the importance of partnerships to increase financial income. This financial income stream offers stable income payments compared to donations. For this specific service by A Plastic Ocean, the organisation even manages to increase its environmental impact as it assists corporate organisations in reducing their plastic waste. Thus, while the current self-generated income is limited, the income stream does show potential for future Marine Conservation Organisation. One should also take

into account that the NGOs are not able to outcompete businesses that offer a similar service, as A Plastic Ocean foundation explains: *“If we are providing these services, our costs are actually higher than the private sector [...] We can never compete with the private sectors.”* This could be partially explained by the regulations that restrict NGOs in their self-generated revenue. That is why organisations like Oceana, Marine Conservation Society and the Ocean Cleanup have started subsidiary companies that allow the organisations to increase the potential of self-generated income through the construction of a business unit.

Selecting Financial Resources

When faced with the questions of how and why a particular financial income stream was selected, the most common response was *“This happened over time”* or *“These were the ones available to us”*. Rather than selecting their income purposefully, all six organisations set their organisational income based on what is available or at hand. As an example, organisation N stated the following: *“I don't think there was a discussion around what financial resource to select. It is really just looking at what are the opportunities coming our way.”* Larger organisations like the Marine Conservation Society confirm this: *“You see what is available to the charity at the time and determine what works well. You work with what you get”*. As financial sustainability is not a priority goal of the organisation, they minimize the effort and time spent on financial activities and accept what is at hand.

4.2 Financial Sustainability while maintaining Environmental Impact

Before further explaining the research model, it is important to mention that the model displays several similarities to the theory of Smith & Besharov (2017). The reason for such is that interview findings seemed to contain a resemblance with this model. First, both the model and the interview outcomes state that organisations set so-called ‘guardrails’ to ensure that both the financial and environmental goals are reached. Examples of these are financial planning or selection criteria for corporate partnerships. Next, both the Marine Conservation Organisations and the model explain how the organisations are able to improve financial sustainability and environmental impact simultaneously. These are measured at the bottom and the top of the model. Lastly, interviewees also mentioned internal struggles to balance these two as the focus on financial sustainability can decrease the attention to environmental impact, and likewise.

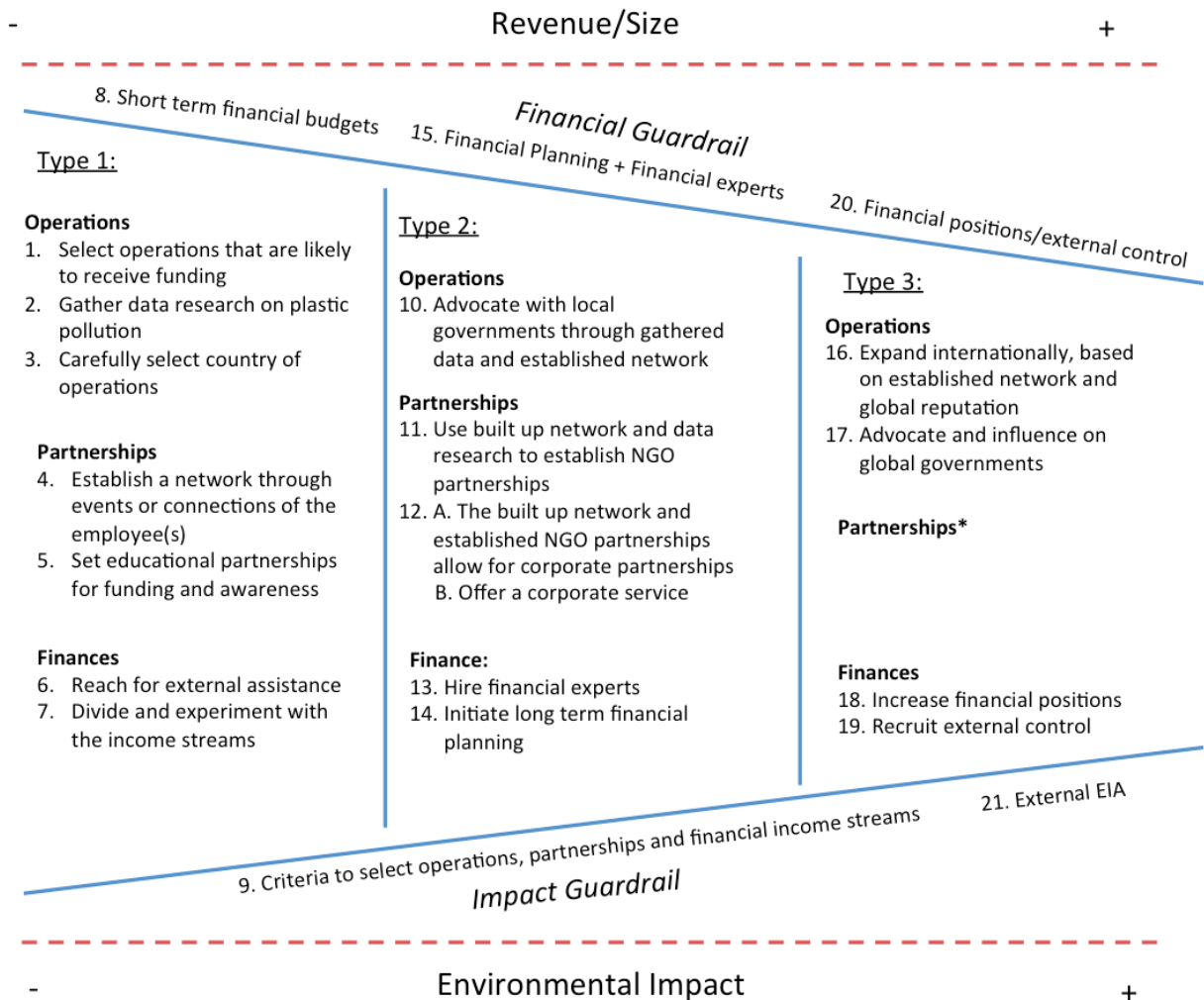


Figure 4: Creating Financial Sustainability and Environmental Impact

**No additional findings*

Throughout the research, several conditions determined the financial sustainability of the six selected organisations. The conditions either increased or limited the organisations to become financially sustainable and can be divided into the three aforementioned themes: operations, partnerships and financial mechanisms. The first two categories refer to the essence of the operational choice of organisations to tackle the plastic pollution issue and selecting partners to determine financial sustainability. The third category establishes decisions that can influence the financial health of the Marine Conservation Organisations.

4.2.1 TYPE 1

The type 1 organisation is the first and smallest type of Marine Conservation Organisations. The organisation usually displays little influence on governmental bodies, mostly operates within a single country and has a restricted number of partnerships. The organisations that can be allocated to this organisation type are Clear Blue Sea and Organisation N (and partially A Plastic Ocean Foundation). With regards to finances, the organisation operates with limited financial planning and depends on non-governmental funding and donations. Despite its size, the Plastic Ocean Foundation seems to be an exception to some of these characteristics. The organisation has managed to create self-generated income and is partially supported by the government. Part of the differences can be explained by the location of the organisation. While Clear Blue Sea and Organisation N mostly operate in the United States, A Plastic Foundation operates in Hong Kong. As governmental support is perceived as limited by the American organisations, this impacts the financial income of the organisations.

In the following paragraphs, the paper will discuss the steps that the organisations can take to expand their operations and the factors that should be taken into account. Some of these steps are sequential and thus offer essential support to successfully execute future steps. The steps and factors are discussed according to three previously discussed categories.

Operations

How to tackle plastic pollution (1)

To become financially sustainable, the first choice of the Marine Conservation Organization is how to tackle global plastic pollution. The selected organisations have chosen different ways to tackle the plastic pollution issue: scientific research, education, advocacy among governments, advocacy among corporates and collecting the plastic. This is important as it can influence the selected and available partnerships of the organisations. A Plastic Ocean Foundation explains the essence of partnerships for its #RightBin program: *“So right now, Hong Kong lacks the machinery to create melted pallets and plastic fibre and recreate the initial item, so that is exported to China, where they do have the machines.”* The choice of operations also impacts the financial income of the organisation. For example, organization N stated that a move from scientific research to educational services allowed it to increase their chances of receiving funding: *“When it comes to funding and organization, at least in the United States, it's much*

harder to receive funding for monitoring of data every day [...] It's just so much easier to receive money for educational purposes.” This could further explain why organisations like Clear Blue Sea and Oceana have chosen to offer educational services on the topic of plastic pollution. In contrast, only two organisations tackle plastic pollution by collecting plastic from the ocean. A possible explanation to this are the high costs, as A Plastic Ocean Foundation explained: *“We do not have the funding and human capital to retrieve the plastic from the oceans.”*

The essence of research data (2)

Although the process of plastic and data collection can complicate the funding possibilities for the organisation, it has shown to be of essential support to expand its operations. First, the collected data offers the organisation factual support, which allows them to convince individuals, governments or corporates to change their behaviour and policies (Bos et al., 2015). As an example, OceanCare positions its data as a support pillar for their political advocacy: *“It's actually all connected. You have researchers who are collecting the data. [...] We use this data to convince governments to change their policies.”* A Plastic Ocean Foundation demonstrated a similar approach by performing research that established how to change citizen's behaviour when it comes to plastic pollution: *“We submitted a funding proposal to perform a large scale social study on people's behaviour towards waste and how we can change that. [...] These results can then be brought up to the Legislative Council. By doing so, we can prove to them that we can change the behaviour of citizens and how to do so. ”*

Moreover, the data acts as a valuable asset for organisations to establish partnerships. For example, by gathering materials, the Marine Conservation Society managed to connect with a local university for research purposes: *“Our data is also used for scientific papers. We've partnered with institutions and universities over the years who have had the expertise to analyse our data and answer several research questions.”* The gathered data further allows the organisation to join networks or collaborations. Another example is Oceana: *“You explain to the networks and partners what you can offer, which in our case is mostly images and information of the deep sea, which are quite rare.”* Thus, the collection of data on plastic pollution is essential for governmental support and the establishment for partnerships in the future, which help to increase the financial sustainability and expansion of the organisations.

Governmental Impact (3)

The interview results also state the importance of the organisation's location, as well as its impact on its financial sustainability. For example, American Marine Conservation Organisations perceive limited support by governmental organs and thus receive large parts of their income through grants, foundations and donations. *"The US does not prioritize environmental conservation. So that is one of our biggest hurdles when applying for grants. There is only so much money that they have allocated to donate to these organizations for cleanup."* (Clear Blue Sea). Such influence of governmental support, or the lack of it, aligns with the aforementioned literature (Spergel & Moye, 2004; Bos et al., 2015).

The difference between governmental support in Europe and the United States is further confirmed by Oceana: *"Within Europe, we focus on gaining financial support through public funding. However, within the United States, this kind of funding is limited, which makes it inefficient for us to focus on."* Hence, this implies that in the early stages of the Marine Conservation Organisation, one should take into account the location it chooses to operate in. Governmental regulations, funding opportunities and potential governmental partnerships can impact the financial sustainability and environmental impact of the organisations (Landon-Lane, 2018; Parry, 1995; Arguedas, 2013; Serafy 1997; Cairns, 2000).

Partnerships

Next, several Marine Conservation Organisations improve their financial sustainability by establishing partnerships with other NGOs, governmental bodies or corporations. Partnerships can improve the financial sustainability of the organisations and are necessary for Marine Conservation Organisations to reach their full potential (Hudson et al., 2013). Examples of these partnerships are consulting corporations on plastic waste reduction or educating politicians on plastic pollution (Bos et al., 2015). Partnerships can reduce plastic pollution and thus contribute to the organisational goals of Marine Conservation Organisations. Corporate partnerships could improve financial sustainability as organisations may receive monetary compensation for their consulting efforts.

Each of the six organisations confirmed that their operations are dependent on partnerships. This confirms the aforementioned importance of partnerships for financial sustainability (Bos et al., 2015). For example, A Plastic Ocean Foundation is dependent on its partnerships to continue the recycling operations: *“You wouldn't be able to do this without partnerships, because setting up a recycling business yourself is a difficult thing.”* The organisation does not have the financial or human resources to recycle the collected plastic. The partnership allows the organisation to limit the fixed costs of the investment and increase its positive environmental impact. By partnering with other NGOs, organisations like the Marine Conservation Society or Organisation N expand the impact of their campaign and online education platforms, while sharing the costs.

However, organisations seem to have difficulty establishing corporate, NGO and governmental partnerships. First, the willingness of corporations to partner is dependent on the size of the organisations. Especially Clear Blue Sea seems to struggle with this: *“We do find that companies believe we do not possess enough “social following” to sponsor our operations. That has been our main issue”*. To set up corporate partnerships, the reputation and numbers of followers of the Marine Conservation Organisation are essential. The more well known the organisation, the easier it is to find corporate support. As Clear Blue Sea is the only participant that states this limitation, the generalizability of the claim is rather limited. However, one should take into account that, compared to the other selected organizations, this NGO is small. As larger selected organisations do not encounter this limitation, this could potentially confirm the claim.

Secondly, several organisations confirm that governmental partnerships are rather limited and difficult to achieve. Two potential reasons for this are mentioned by the NGO Oceana. First, politicians might not be willing to link themselves to a specific organisation: *“It's more difficult to collaborate with politicians because they don't want to link themselves with one organization.”* The reason for this may be that politicians are expected to represent the interests of all NGOs: *“Politicians have to cope with many requests and different interests among NGOs and also the sector that they are working with. They cannot focus solely on one organization.”* As previous literature suggested, (Bos et al., 2015; Spergel & Moye, 2004) governmental bodies play an important role in the operational success of the organisation, which confirms the potential impact of this on the financial sustainability and expansion of the organisation.

Last, although NGO partnerships are more likely to be established due to similar missions and shared beliefs, these are also dependent on what each organisation can bring to the partnership, as was previously explained in the importance of data collection.

As corporate, NGO, and government support are important to establish financial sustainability and expand the operations (Bos et al., 2015), these limitations form a potential risk for the Marine Conservation Organisations to expand or continue their operations. Fortunately, several organisations have discovered solutions to tackle these limitations.

Establishing a network (4)

As a first step, the selected organisations state the importance of creating a network around the organisation to expand its operations. This can be achieved in two ways. First, a network can be created through previous work experience, as A Plastic Ocean Foundation states: *“Our Director knows a lot of people, and a lot of people know him. We are able to connect our organisation easily to others. Networking is tremendously important”*. In several cases, the selected organisations mention that the connections of their employees allowed the organization to gain more financial support and set up partnerships. Another example is ‘Clear Blue Sea’ where the network of the Executive Director allowed the organisation to obtain financial and operational support. As a professor at a local university she was able to directly contact students to intern at her organisations and gain support from fellow teachers: *“So not only did that help her recruit new students, she also knew people at the career offices that wanted to help out.”*

OceanCare explains that attending conferences and events also helps to build a network: *“If you go to conferences, you get to know people. [...] If the person has the same moral and spirit as we do, we can cooperate and profit from each other.”* By establishing the network, the NGOs can increase financial sustainability, but also set the basis for further partnerships as the organisations expand their reputation. The establishment of networks can be further supported by the collected research data as it allows you to contribute to these events.

Educational partnerships (5)

While partnership possibilities with NGOs and corporations might be limited at the early stages of the organisations, all of the selected organisations have established partnerships with educational institutions like primary schools, high schools and universities. The advantages of

these collaborations are diverse. Most organisations offer curriculums on plastic pollution to inform students about the issue and possible solutions. While the organisation is able to expand its impact and increase awareness, the educational institutions receive knowledge and expertise on the topic. *“So when we look at education, we believe that educating the next generation into how to do things better, making them aware of the issues we face right now. And integrating that in their daily lives will hopefully help make more impactful decisions when they have to make an impact.”* (A Plastic Ocean Foundation). The organisations also collaborate with educational institutions through joined research collaborations, like A Plastic Ocean Foundation: *“So we submitted a funding proposal. [...] This is in collaboration with a sociology professor here in Hong Kong.”* Another example is the Clear Blue Sea organisation that recruits interns from the university to work with them. While the students gain an internship experience, the organisation receives extra man-and brainpower to work on their projects: *“We leverage student interns who want to learn and engage in meaningful internships”*. Last, universities and schools can stand in for the organisation and confirm the legitimacy of the organisation towards governmental bodies to improve their position and increase the chances of receiving funding. Furthermore, these collaborations will support the aforementioned network. Thus, for both financial sustainability and environmental impact, these partnerships can be essential.

Finances

With regard to finances, the type 1 organisations contribute a relatively limited amount of time to their financial income and planning. Rather than selecting their income streams, the organisations explained that these are picked as the only streams within reach. Moreover, while previous research states that including a financial strategy into the early stages of the organisation could improve the financial sustainability and the confidence of investors (Bos et al., 2015), a clear struggle can be seen to maintain the strategy. Especially the smaller organisations seem to restrict their focus on financial planning. For example, A Plastic Ocean Foundation has attempted to establish financial planning, but was unfortunately forced to change direction: *“So we do have a five-year financial plan, but eventually we abandon the plan because a lot of unpredicted incidents like the COVID pandemic or social unrest.”*

Several explanations for the limited planning of the organisations can be named. First, as A Plastic Ocean foundation explains, the organisations are exposed and dependent on external factors to establish their financial income. During the current COVID-19 pandemic, donations have dropped drastically and thus endangered financial sustainability. While the income stream of funds and grants are more stable over time, these cannot be categorized as certain income as the decision to receive funding does not lie in the hands of the organization. Rather than planning ahead, the organisation is only able to plan up to a few months: *“We have been focusing on a timeline of 8 months to 12 months instead of a long term master plan.”* (A Plastic Ocean). Secondly, one has to take into account that profitability is not the main focus and expertise of the organisations. This implies that most employees of the organisations are not specialized in finance, and aim to limit their time spent on this issue to maximize their environmental impact. Due to limited human capacity and time, the organisations are barely involved in financial planning. As an example, organisation N explained: *“We run the organisation with a small team and a tight budget. There is not a lot of extra time to spend. We work with what we have.”*

External Assistance (6)

Although some organisations may struggle to balance their focus on financial sustainability and environmental impact, some have found solutions to improve their financial stability while maintaining a focus on environmental impact. First, organisations like Organisation N and A Plastic Ocean Foundation have managed to recruit external assistance in establishing financial planning or to find the essential financial resources. Organisation N managed to partner with an organisation that assists NGOs in establishing financial income: *“We have worked with another non-profit called the Non-profit Partnership, and they help non-profits financing their operations”*. Furthermore, A Plastic Ocean has managed to gain pro-bono support from a bank for financial advice: *“We seek pro-bono support from companies like Bank of America and HSBC to support our finances”*. The essence of these partnerships is the recruitment of financial expertise, as Bos et al., (2015) suggested, while maintaining a focus on maximizing environmental impact. Once again, this also confirms the importance of partnerships for Marine Conservation Organisations to maintain financial sustainability.

Divide and Experiment with financial mechanisms (7)

When determining the preferred financial income, organisations seem to aim for a divided income stream to reduce the risk of depending on one income stream. As an example, A Plastic Ocean Foundation described their ideal financial scenario as follows: *“So the perfect scenario to be achieved is to increase the portion of the Social Business part, the fifteen percent. We want to raise it up to around forty to forty-five percent and reduce the amount of the restricted funding”*. Furthermore, the Marine Conservation Society explains how *“It’s good to diversify the income of the organization, this can help in case of bad weather”*. To find the right income streams and balance financial sustainability and environmental impact, the model of Smith and Besharov (2017) recommends experimenting with different practices.

Guardrails (8&9)

To ensure financial sustainability, the type 1 organisations usually set monthly or yearly budgets for each of its operations as a financial guardrail. The organisation is limited in size and may not have the resources to implement long term financial planning or potentially hire financial experts. To ensure the environmental impact, most of the organisations maintain selection criteria for the ecological and social impact of the established partnerships or financial income streams. Both the short-term financial planning and selection criteria for partners can be seen as ‘guardrails’ that ensure financial health and environmental impact (Smith & Besharov, 2017).

4.2.2 TYPE 2

Throughout its expansion organisation type 2 has managed to increase its revenue, number of employees, and both NGO and corporate partnerships. Furthermore, the governmental support for the organisations has grown and the first international operations have taken place. Lastly, as the organization has expanded, investors and other stakeholders expect a minimal level of financial planning. The selected organisations that can be allocated to this organisation type are the Marine Conservation Society and OceanCare (and partially A Plastic Ocean Foundation). Again, the organisation can undertake several (sequential) steps that could expand its operations, according to the three discussed categories, while maintaining a positive environmental impact.

Operations

Advocate with local governments (10)

As mentioned before, Marine Conservation Organisations may struggle to gain governmental support for their operations. However, some of the selected organisations have established several steps to increase the governmental support to their mission. These steps are also sequential to some of the earlier mentioned suggestions.

First, the research data is essential for governmental support. As OceanCare explains: *“Lobbying is based on scientific facts. [...] You have to prove before they change their policies”*. As the type 2 organisations have gathered data, they are more likely to influence governmental policies and gain support for campaigns (Sperge & Moye, 2004). OceanCare also uses its expertise to assist politicians during conferences that regard this topic: *“When a conference on marine conservation takes place, we advise politicians about the problem and possible solutions. [...] By doing so, you try to get the politicians on your side and vote for your policy changes”*. The Marine Conservation Society applies the same method where *“We use our collected data for governmental advocacy work, like policy changes of taxes for example.”*

The established network can also assist in improving the governmental contribution to your operations. To illustrate, the Marine Conservation Society explains how they combine forces with other NGOs to influence governmental decisions: *“There are loads of groups where NGOs come together as one green link that can help with legislations and policies”*. These joint forces launch campaigns together that increase the pressure on governmental bodies to address plastic pollution issues. To summarize, once the Marine Conservation Organisation has established its network and gathered sufficient data, this can allow for an increase in governmental support.

Partnerships

Next, the gathered data, established network and expanded operations allow for the organisation to increase its NGO and corporate partnerships. Additionally, the interviews outcomes displayed limitations to the corporate partnerships, but also include potential solutions.

NGO Partnerships (11)

The majority of the Marine Conservation Organisations collaborate with other NGOs, mostly with similar missions. This decision is mostly justified by the fact that an NGO does not have to worry about the interests of another NGO, as both have the same final goal: *“As we obviously have a lot of common ground, we come together for joint campaigns”* (Marine Conservation Society). As previously mentioned, advantages of the partnerships are expanded impact, reduced costs and risks, and operational expansion. While data can be used as a valuable asset to join networks and NGO partnerships, the network increases the chances of meeting similar minded people to set up partnerships. This also reconfirms earlier theory, which stated the importance of NGO partnerships and the sharing of best practices (Huwley et al., 2014).

Corporate partnerships (12)

(A.) Corporate partnerships were limited for organisation type 1 as the social following and local awareness of the organisations were restricted. However, as the organisation has grown its network, and established educational and NGO partnerships, this increases the attractiveness for corporations to establish partnerships with the NGO. An advantage of corporate partnering is that the organisation can increase its target groups and engage a new audience that would normally not be engaged: *“A corporatation could be a really great way to engage a wide audience that may not be as familiar with the issues”* (Marine Conservation Society). However, not all Marine Conservation Organisations are equally motivated to establish these partnerships.

All six organisations have been cautious with setting up corporate partnerships. By establishing a corporate partnership you match a corporate brand to your organisation, which could potentially damage the credibility of the NGO. For example, OceanCare explains that *“The name of our organization can be stained very fast and tension can rise with the people you are working with”*. This statement seems to align with the theory of Smith & Besharov (2017). As the authors explain, internal strategic tension may arise when social organisations tend to focus on creating financial health rather than maximizing environmental impact. Compared to other organisations, Organisation N has selected quite strict criteria for the selection of corporate partnerships: *“We’ve been extremely hesitant in partnering with corporations because it often comes with an influence on the narrative and the work that we do. So we’ve really kept away from this. [...]”*

Either we do not want to be associated with the organisation or we do not agree with what they are doing". However, all organisations do see potential in the future of corporate partnerships.

While Organisation N declines most collaboration proposals with corporations, others have implemented selection criteria to accept or decline a corporate partnership. When establishing the partnerships, the organisations take into account the environmental impact of the collaboration: *"Before we work together, it is important that the ethos of the corporate aligns with the charity, which is why we check this before this."* (Marine Conservation Society)

(B.) Secondly, the organisations can initiate corporate partnerships by establishing a service that benefits both the corporations and the NGO. For example, A Plastic Ocean Foundation offers a waste management service that assists corporate organisations in collecting, dividing and recycling their waste in offices. This service improves the environmental impact of corporations and thus reduces the flow of plastic into the ocean. It also allows the corporations to improve its corporate social responsibility. Next, Oceana convinces hotels and restaurants to participate in the campaign of 'plastic-free zones' and limit plastic waste. To convince companies, the organisation explains the competitive advantage that the initiative offers as consumers are more and more aware of plastic waste globally and expect companies to contribute to solving these issues. Both initiatives align with the Sustainability Value Framework (Hart & Millstein, 2003) as the suggestions create customer value by reducing waste.

To summarize, the gathered data, established network and educational partnerships allow the organisation to grow the number of NGO partnerships. Consequently, this also increases the attractiveness for corporates to join hands. Earlier research confirms the value for both corporations and NGOs of the partnerships between the two organisations (Austin, 2007).

Finances

Hire financial experts (13+15)

As the organisation increases in size, and financial income, the type 2 organisation hires several financial experts that solely focus on the financial side of the organisation. Not only does this allow for further support of the financial guardrail (Smith & Berbashov, 2017), it also aligns with earlier literature that stated the advantage of hiring financial experts to the financial sustainability of the organisation (Spergel & Moye, 2004). As the organisation has now

increased its revenue, it will be able to afford such experts. One can also assume that financial expertise is demanded by potential investors of the organisation (Nunnenkamp, Ohler & Schworer, 2013)

Implement long term Financial Planning (14)

As the larger organisations commonly have more financial obligations to publish their financial reports to inform the involved stakeholders, financial planning is expected to be an important part of its operations (Nunnenkamp et al., 2013). That is why organisations like Oceana, OceanCare and Marine Conservation Society are more involved in financial planning, budgeting and work with several employees that are specialized and focused on the financial sustainability of the organisation. For example OceanCare “*Carefully budgets its operations for each year, choosing what we can do and what we can't do.*” Financial planning also facilitates the governmental policy advocacy (Bines et al., 2015). When coupling financial planning with specific environmental objectives (as well as demonstrated benefits from past activities), these can be powerful advocacy tools (Binet et al., 2015).

Guardrails (9&15)

Lastly, to limit the sole focus on either financial sustainability or environmental impact, organization type 2 can implement ‘guardrails’ (Smith & Berbashov, 2017), similar to organisation type 1. The screening of potential operations, partnerships and financial mechanisms maintains important to ensure a positive environmental impact. Furthermore, the long term financial planning and recruitment of financial experts allows the organisations to also retain focus on the financial health of the organisation. The organisation has gained experience, which lowers the need to experiment less and thus narrows the guardrails.

4.2.3 TYPE 3

Finally, organisation type 3 characterises the largest type of Marine Conservation Organization, The organisation has managed to locate its operations globally and also collaborates with global governments. As the organisation has grown, financial planning becomes more important to the organisation. The organisations that can be allocated to this organisation type are Oceana and the Ocean Cleanup. The following paragraphs will discuss the (sequential) steps that the organisations have undertaken to reach this type.

Operations

International Locations (16)

First, the built-up network of NGOs and corporations further supports the organisation to expand its operations to a global scale with several locations worldwide. The selected countries are carefully analysed before expansion: *“The organisation tries to cover the countries that have the biggest impact on marine issues” (Oceana)*. Furthermore, it is important to determine governmental conditions and the presence of other Marine Conservation Organisations. These conditions are explored through a feasibility study: *“We perform a feasibility study before expanding to this country. [...] We have declined potential countries based on these studies”*. The organization assembles a team that visits the country, meets politicians and possible donors.

For organisations like OceanCare and Oceana, partnerships allow the organisations to expand to other countries. OceanCare confirms the required knowledge and expertise to expand to their country of choice and approaches individuals to collaborate. While the approached individual has the required expertise, OceanCare offers financial assistance and its established network. This allows the organisations to operate on international territory without the fixed costs: *“We approach individuals that are experts within the field that we would like to expand in, like scientists. So we contact and financially support the individual to set up the operations, and then this relationship grows over the years as it continues.”* The Ocean Cleanup further confirms the importance of involving stakeholders: *“The Ocean Cleanup’s governmental and associated network in the United States was maintained during the year through a combination of meetings and regular updates [...] Public affairs will be crucial to the future success of cleaning up the legacy problem and preventing more waste from entering the ocean.” (Ocean Cleanup, 2018)* Thus, if a Marine Conservation Organisation wishes to operate internationally, it is essential to establish the support of important stakeholders and partners.

International Governments (17)

Next, as the organisation has reached a global size, this also allows for advocacy towards global governmental bodies like the European Union. For example, Oceana aims to impact the European directive for the ban of certain plastic products: *“We believe the directive of the ban of certain plastic products is based on products that wash out to the beach. [...] We aim to show them you should ban the products that lay on the bottom of the sea.”* Again, the interview

outcomes display that to convince governmental bodies, the use of research is essential: “*We gather the essential information and resources that support our argument and create documents that explain the problem and the possible solutions.*” (Oceana). The Ocean Cleanup managed to sign a tailored agreement with the Dutch government, allowing them to operate on international waters. The extension to global governmental advocacy should be perceived as an addition towards previous advocacy operations, not as a replacement. This implies that the organisation will also continue its focus on national governments.

Partnerships

With regard to partnerships, the interviews do not display novel outcomes that differentiate from organisation type 1 and 2. Therefore, no additional suggestions are stated in the model. However, certain findings can be stated, based on information from annual reports. For example, as the operational reach and global awareness increases, one can assume that the number of NGO and corporate partnerships also increase. Due to its global reputation, more organisations might be willing to collaborate with the Marine Conservation Organization.

Finances

Financial Positions (18)

As the operations expand globally, this demonstrates further financial requirements from the Marine Conservation Organisations, due to varying regulations in the country of operations. Consequently, the organisation is expected to fulfil more financial positions within the organisations. This concerns both the Ocean Cleanup and Oceana as seen in annual reports.

External Control (19)

Next, local regulations also demand external control on the managing organ of the organisation, as the Ocean Cleanup explains: “*Following the rules and regulations for non-profit organizations in the Netherlands, The Ocean Cleanup works in a two-tier governance structure: the CEO [...] and an independent Supervisory Board [...] Major decisions and resolutions of the Management Team are subject to the approval of the Supervisory Board.*” (Ocean Cleanup, 2020). Among others, the Supervisory Board evaluates the financial decisions of the NGO. The type 3 organisation might also receive external auditing services to analyse the financial health of the organisation.

Guardrails (9, 20& 21)

Similar to the previous organisation types, organisations like Oceana still apply strict criteria for the selection of partners. *“We are always very careful whom we partner with. Every company might have something that can negatively impact the environment”*. Therefore, the selection criteria maintain value to ensure positive environmental impact. The Ocean Cleanup also limited the negative environmental impact of its operations through the external environmental impact assessment (EIA) of a third party. This ensures that the collection of plastic does not leave a negative impact on marine life. The aforementioned financial positions (18) and external control (19) of the organisation also function as guardrails to ensure the financial health of the type 3 organisation. As before, the guardrails become narrow as the organisations gain experience.

5. Discussion

To summarize, previous research displays concerns regarding the increasing amount of plastic floating within the oceanic waters (Geyer et al., 2017). Not only does this endanger marine life, but also impacts human health (Boerger et al., 2010) and economic wellbeing (Viool et al., 2019). As the number of organisations that tackle this issue is growing, financial sustainability seems to form an issue. Research on improving financial health is limited and does not take into account the varying context among the different NGOs. Therefore, our research question stated: To what extent can a Marine Conservation Organisation of plastic debris become financially sustainable while maintaining its environmental impact? This research aimed to contextualise current financial income streams and suggestions to improve the financial sustainability of Marine Conservation Organisations, focused on the issue of plastic marine debris.

The results established that the selected organisations can be categorized into three types of organisation, based on factors as size, revenue, number of partners and international operations. Guided by literature research, annual organisational reports, other external sources and six in-depth interviews, the findings displayed several suggestions and factors that allow the Marine Conservation Organisations to increase financial sustainability and environmental impact simultaneously. Rather than separate, some of the suggestions are best to execute sequentially and could potentially allow the Marine Conservation Organisation to reposition itself from one type to the next. The suggestions can be grouped into three categories: operations, partnerships and finances. To prevent the organisation from limiting focus to either financial sustainability or

environmental impact, it can set several guardrails over time (Smith & Besharov, 2019). Last, the research shows how some of the current financial income streams are perceived by the selected organisations.

5.1 Contributions and implications

The findings of this paper offer several theoretical and practical contributions to previous literature. The majority of contributions originate from the research model (figure 4). The model was focused on organisations that collect plastic, or prevent it from reaching the ocean, but do not exclusively apply to these organisations. Although the suggestions might not form the exclusive way to improve financial sustainability for Marine Conservation Organisations, they have demonstrated improved financial health for several of the selected organisations while maintaining a positive environmental impact. To the knowledge of this paper, no previous research has delivered a model similar to this.

While earlier research has delivered a number of suggestions to improve financial sustainability of Marine Conservation Organisations (Bos et al., 2015; Spergel & Moye, 2004; Binet et al., 2015), the applicability and conditional nature of the proposed solutions were still largely undiscovered. This research found a number of conditions under which the suggestions succeed and demonstrated the perception of the organisations that rid the oceans of plastic. To illustrate, previous literature stated how self-generated income (Davis, 2013; Griffith, 2016; Ebenezer et al., 2020) good donor relationships (Ebenezer, 2020; Wachira, 2016), financial planning (TNC, 2013) and diversified funding (Davis, 2013; Griffith, 2016; Ebenezer et al., 2020) could increase the financial sustainability of the Marine Conservation Organisations. The in-depth interviews displayed that although some organisations understand the advantages of these suggestions, they experience that restricted human and financial capital, governmental influence and the fast-changing environment influence the effectiveness of the suggestions. Besides the perception of current suggestions that may improve financial sustainability, the paper also confirms additional suggestions like the choice of operations and the use of research data that can impact financial sustainability and environmental impact. Both the contextualization of previous suggestions and inclusion of new suggestions have remained unknown until this research and thus offer a valuable addition to current literature.

An important addition to current literature is the sequential order of previous suggestions to improve financial sustainability. For example, to ensure corporate partnerships, the research model suggests to first establish a network, gather research and set up NGO partnerships. This theoretical advance answers the call by Bos et al. (2015) to further develop and discover the suggestions to improve the financial sustainability of Marine Conservation Organisations. As far as the research found, the sequential conditionalization to reach financial sustainability and maintain a positive environmental impact have not been mentioned by previous literature.

Additionally, the paper applies the models of Smith & Besharov (2017) and Hart & Millstein (2003) to a new context, adding more complexity to them. While both focused on organisations that maintain an equal or higher importance to financial sustainability, instead of environmental impact, this research demonstrates that the models are also applicable to the operations of Marine Conservation Organisations. Similar to the model of Smith & Besharov (2017), our results show that the selected organisations perceive internal conflict between financial sustainability and environmental impact, but apply guardrails to ensure both are given sufficient attention. Secondly, some of the organisations offer services to corporate partners that deliver shareholder value through pollution prevention and product stewardship (Hart & Millstein, 2003). Both findings expand the applicability of the models to the terrain of Marine Conservation Organisations.

Besides the theoretical implications, the research also allows for a number of practical implications to be named. First, some Marine Conservation Organizations perceive difficulties to establish financial sustainability. This study could be consulted by organisations that are (partially) focused on plastic pollution. It is important to note that this guide is specifically oriented to these organisations, but this does not imply that the recommended steps are only effective for Marine Conservation Organisations. In addition, the paper uniquely takes into account the environmental impact of these suggestions. While the organisations are still dependent on external factors, this framework may assist them in expanding their operations while maintaining a balance between financial sustainability and environmental impact.

Last, the results of this paper also allow other stakeholders to gain an insight into the perception of Marine Conservation Organisations with regards to the finances, partnerships and their operations. To illustrate, corporations are able to better understand the conditions and limitations

that the selected NGOs perceive of the potential corporate partnerships. Naturally, this also concerns the advantages that the organisations identify. This implies that if corporate organisations wish to, this allows them to increase the potential of these partnerships. This also concerns partnerships with governments, research institutes or fellow NGOs.

5.2 Limitations

First, the global generalizability of the findings may be limited to the selected countries of the research. While the organisations operate within different regions and on different scales, the results also display an important role of government bodies on the financial sustainability and environmental impact of the organisations (Bos et al., 2015). As the governmental influence might differ per country, one could argue that the implications of the results may vary globally. As stated in the literature research, a supporting government can increase the financial sustainability and environmental impact of the Marine Conservation Organisations, while the lack of support could limit this (Spergel & Moye, 2004; Bos et al., 2015).

Furthermore, the findings are limited by the restrictions inherent to a case study. While the organisations are selected on a theoretical basis, the statistical representation is constrained and the risk of selection bias cannot be fully rejected. The research cannot confirm that the selected cases are representative for the global group of Marine Conservation Organisations. However, the organisations still vary on the basis of revenue, size, location and operations, which increases the generalizability of the findings within the limitations of qualitative research. Consequently, this also implies that the established (sequential) steps within the research model cannot be seen as the sole method to establish financial sustainability or a positive environmental impact. The model can be recognized as an addition to current literature, rather than a replacement.

Finally, time limitation restricted the methodological possibilities of this research. Due to the limited duration of six months, only one individual per organisation was interviewed. A second interview with another member of each organisation would allow for confirmation of claims by the first interviewee and would have strengthened the results. Preferably, the second interviewee would be experienced within the financial department of the organisation as some participants were unable to answer finance related questions. However, the confirmation was partially accepted due to annual reports and other external resources.

5.3 Future research

This paper forms a potential starting point for future research on the financial sustainability of Marine Conservation Organisations, focused on marine plastic debris. The first suggestions for future research originate within the earlier mentioned limitation of the Case Study method. As the qualitative insights of the research deliver a model that could potentially improve the financial sustainability and environmental impact of the organisation simultaneously, future research could further quantify the findings of this model among a larger sample of organisations. This could increase the generalizability of the model. Future research can also collect data from these organisations at various times in the long term.

In addition, both the literature research and the interview outcomes state that maintaining partnerships demands time and money, but also delivers cost decrease and risk diversion. However, the optimal number of partnerships remains unclear. At a large number of partnerships, one could wonder how much the benefits increase for the organisation when selecting another partnership. Therefore, future research can potentially focus on the optimal number of partnerships for each of the three types of Marine Conservation Organisations.

Last, the literature review briefly stated the potential of impact investment as future support for Marine Conservation Organisations (Bugg-Levine & Emerson, 2011; Huwyler et al., 2014). Unfortunately, due to time restrictions, the research was unable to fully develop the perceived potential of this financial mechanism. Future research could inquire a deeper understanding on the possibilities of this financial mechanism. The same potential can be stated for self-generated revenue streams, as this would decrease the dependence on traditional sources like donations and funding. Potential research could focus on the different available self-generating streams, besides recycling, or further qualify the limitations of this revenue stream.

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Last, I am truly grateful for the support of my family, friends and girlfriend throughout the full duration of this research.

Appendix

By signing this statement, I hereby acknowledge the submitted MSc Thesis titled “Financial Sustainability while maintaining Environmental Impact: A Multiple Case Study on Marine Conservation Organisations for Plastic Debris” to be produced independently by me, without external help.

Wherever I paraphrase or cite literally, a reference to the original source (journal, book, report, internet, etc.) is provided.

By signing this statement, I explicitly declare that I am aware of the fraud sanctions as stated in the Education and Examination Regulations (EERs) of SBE, Maastricht University.

Zeewolde

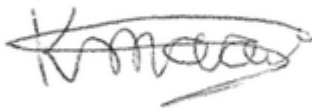
03/01/2021

Koen Maarse

International Business – Strategy & Innovation

2976102

Signature:

A handwritten signature in dark ink, appearing to read 'K Maarse', with a horizontal line drawn through the middle of the letters.

Appendix 1: Statement of Originality

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