

Erasmus University Rotterdam

MSc in Maritime Economics and Logistics

2021/2022

**Is Maritime Industry Purpose Driven? An Analysis on
Implementation of Creating Shared Value Strategy in the
Maritime Sector**

By

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Abstract

In our current capitalist world, a diverse range of societal issues subsist. The people and government existing in this economic framework is fully aware of the societal issues around their ecosystem and point out capitalism as the causation. These reformative policies from governments against capitalism can impede economic growth, thereby businesses are entangled in a vicious circle and stuck with an old business model, and unable to evolve and adapt to their market. In this scenario, Michael Porter and Mark Kramer put forth the concept of creating shared value as a compelling elucidation to rescue capitalism. They explain that resources are generated only in business, and if a company approaches a societal issue with a robust strategic plan, it will create an economic benefit along with a competitive advantage in the market, also societal value is achieved, a win-win situation for both business and society. This concept is intriguing, and a huge knowledge gap is found in terms of the maritime industry and CSV, which forms the crux of this research study. The core purpose of this research study is to answer can maritime trade being the driver of capitalism create shared value. To answer it a conceptual framework, maritime components or categories, and steps to create shared value in a maritime company are formulated with an in-depth literature study. Followed by a detailed research methodology decisions and conclusions are conceived. With the research strategy in place, the container shipping conglomerate Maersk is selected as a case study, and their 118 years of shipping business is encapsulated with the content analysis of their sustainability reports to find the evolving trend of CSV within the organization. With the analysis, it was concluded based on definitive results that Maersk created shared values in two approaches namely responsible recycling and inclusive trade, whereas on decarbonization and food loss it's a progressive attempt to create shared value with forecasted economic and societal benefit. Addressing an immense knowledge gap of CSV in maritime business, this study stands out as a benchmark and one of its kind within the shared value and maritime fraternity.

Keywords: Creating shared value, maritime capitalism, shared value strategy, CSV, Maersk CSV, responsible recycling, inclusive trade, Decarbonization, Food loss reduction, maritime components, capitalism.

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Chapter 1 Introduction

1.1 Background

The common conception of capitalism in an economic system is a framework in which private entities own and control the asset according to their interests, while supply and demand in the system freely determine the market pricing to best benefit society (Jahan & Mahmud, 2015). The core feature of capitalism is to make a profit; as the father of modern economics, Adam Smith, quoted, *“It is not from the benevolence of the butcher, the brewer, or the baker, that we expect our dinner, but from their regard to their interest. We address ourselves, not to their humanity but their self-love, and never talk to them of our own necessities but their advantages”* (Smith, 1776). Thus, in a free market, when two parties engage in a voluntary exchange transaction, each party has a stake in the outcome, but neither party can obtain their goals without considering the purposes of the other party, and this logical self-interest results in economic prosperity in a system of exchange (Jahan & Mahmud, 2015) and this core attribute of capitalism had been evolved in different forms throughout the history. Campling & Colás (2021), classify the forms of capitalism in three eras namely commercial capitalism from the 17th to 19th century, from the late 19th to 20th century as industrial capitalism and at present, it’s neoliberal capitalism and in all these eras of capitalism maritime trade had been the critical factor for global economic prosperity, which makes it the significant driver of capitalism. Also, they proclaim that ocean trade holds a prominent role in the development of capitalism (Campling & Colás, 2018). A diverse school of thought had identified the relationship between maritime trade and capitalism which is a key aspect of this research study which are as follows, French historian Fernand Braudel explains that the foundation of capitalism was conceptualized in an epoch of the 16th century when seaports of Amsterdam, Genoa, London, and Venice proliferated on their economic prosperity through maritime trade (Campling & Colás, 2018), the prominent German philosopher and economist Karl Marx acknowledges link between maritime and capitalism in three forms namely foreign invasion through sea, Atlantic slave trade and commercial battles of Europe's maritime powers (Marx, 1976) (Campling & Colás, 2018), both Wood (2002) and Brenner (2001), concedes that the capitalist connections first evolved in the rural areas of Britain but later incorporated into international trade networks that enabled and fostered the development of capitalism through maritime trade (Campling & Colás, 2018). Thus, throughout the histories maritime trade had been satisfying the derived demand of capitalism and evolved from steam ships to containerization (Campling & Colás, 2018) with adoption of relevant technologies to adapt on growing diverse demand in global trade which leads to economic development of the nations.

But the concept of capitalism has been heavily criticized, and to summarize how it’s been perceived throughout the histories to the current modern digital era, the author presented the below figure 1.1. This image, a 1911 American cartoon caricature criticizing capitalism and originally adapted from a 1901 Russian Flyer, shows the pyramidal organization of the capital system in an economy (Bendix, 1978). The image depicts social class division as well as economic disparity, according to Krieger (2008), and it still holds true today because of the way that capitalism is perceived by society. In her article in Boston review Chua (2021), compares how Suez Canal and containerization exploited nature, people and concludes that grounding of Ever Given as the resultant of global capitalism (Chua, 2021). According to Porter & Kramer (2011), capitalism is entangled in a vicious cycle and under pressure. People and the government generally believe that capitalism is the primary cause of all social, environmental,

and economic issues. Furthermore, there is a perception that firms and conglomerates profit at the expense of society at large. (Porter & Kramer, 2011).



Figure 1-1. The Pyramid of Capitalist System, source (Bendix, 1978)

This pushes the political leaders of the country to lose trust in the business and set policies and guidelines that will compromise the competitiveness of business and impede economic growth (M. E. Porter & Kramer, 2011). Porter and Kramer put forth the concept of Creating Shared Value (CSV) in 2011 in a detailed study to reshape capitalism's relationship with society and legitimize business in an economy. According to CSV strategy, when a business uses a robust business plan to address a societal issue, it not only solves the social problem and adds value to society but also generates economic value for the company and creates a competitive advantage. Also, Porter & Kramer (2011) explains that CSV can be achieved in three ways, namely – (1) by reconceiving needs and products for the customer and capturing the market, (2) by redefining productivity in their respective business value chain, and (3) by improving the local and regional business environment (HBS ISC, 2022; Porter & Kramer, 2011).

After the introduction of creating a shared value strategy, there was much positive feedback as well as criticisms in the business world. In 2013 at TED Talk, Michael porter presented “*why business can be good at solving social problems*”. He emphasized in his presentation that we face various issues, such as inadequate nutrition, climate change, and much more, but the only difference is that people and governments are fully aware of these issues and believe that business is the root of all these serious issues. He also discusses how everyone in an economic system tried to find solutions for societal problems through NGOs, governments, and philanthropy, but the fundamental problem is that there has only been incremental progress made in resolving these related social issues. He also asserts that the current model cannot have a more significant impact because we lack resources and solutions are not scalable (M. E. Porter, 2013). In his talk, he defends capitalism by accepting that bad players in the business world have made the situations worse, but to scale up the impacts, we need resources generated in the business, as shown in figure 1.2.

WHERE ARE THE RESOURCES?

Total revenue by stakeholder,
United States

Corporations
\$20.1 trillion

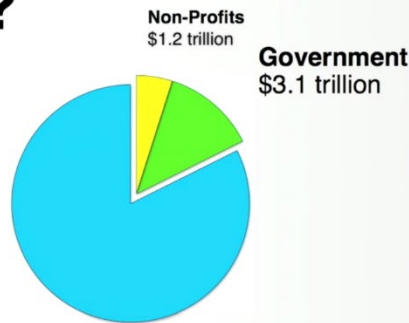


Figure 1-2. Total revenue generated by stakeholders in the USA, source (M. E. Porter, 2013)

Porter & Kramer (2011) presents CSV as a new business strategy for corporations to address societal issues and unlock the value of making a profit by solving them. In a nutshell, solving the social issue with a business model is CSV which is the higher form of capitalism (M. E. Porter & Kramer, 2011). In 11 years of creating shared value, no major studies have been done on how maritime business being the driver of capitalism, can create shared value, which triggered the impetus for this study. Campling & Colás, (2021) refer sea as the protagonist in the evolution of capitalism from its inception. The maritime industry is deep-rooted in the concepts of capitalism. Still, a wide range of studies has been done on energy, pharmaceutical, food, banking, and tourism on concepts that had been done to research the maritime sector, making this research study a benchmarking and one of its kind. Shipping is a derived demand, and in the course of human history, it enabled trade, civilizations to flourish, the economy to evolve, industrializations to revolutionize, and globalization to generate prosperity. Still, shipping had caused societal impacts, too, and thus author believes that shipping companies have a wide range of potential to create shared value, but the question is how it can be done. With this problem statement identified author formulates the research question in section 1.3.

1.2 Purpose of the research

Even though capitalism is criticized as the creator of social imbalance and societal problems, as explained above they generate the resources with which the solutions for the unmet demands of society can be scaled up. As the author relates the fundamental connect between maritime trade as the main driver of capitalism in the background of the research study, it instigated the author to find out if shipping company can create shared value by addressing a social problem with a robust business plan, because the CSV concept changes the preconceived notions about how businesses are performing all over the world, as businesses so far have been known for focusing on the wants of society rather than the needs of humanity, by adopting shared values can a shipping company gain competitive advantage and also with relevant available scholarly articles author found a vast knowledge gap with CSV in maritime industry and these findings serves the core purpose of this research study.

1.3 Research and Sub-Research Question

After identifying the problem statement in the above-discussed backdrop of this research study, the following research question ***What are the benefits of implementing a shared value strategy in maritime business?*** were formulated, and the main research question will be answered through the below framed three sub-research questions,

- *How can a shared value strategy be implemented?*
- *What are the components of Shared values in the maritime industry?*
- *Why is shipping interesting in relation to shared value theory?*

1.4 Relevance of the research

This research aims to provide a benchmark analysis on creating shared value in the maritime business. With the core concepts and three defined pillars of CSV, the author aims to create a conceptual framework with maritime components identified to create shared values. Along with this, the author will explain the process or steps to be followed by a maritime company to implement a shared value strategy. Including shipping, the competitive climate for businesses is changing because of the growing social and environmental challenges. Stakeholder capitalism and adopting a special purpose are becoming increasingly demanded of businesses, but only a few are aware of how to do so in a way that improves a company's performance. Investors are also willing to pay a premium to ESG leaders, but most businesses cannot articulate how their sustainability initiatives benefit shareholders. The above explanation finds the relevance of this study because shipping companies that address societal concerns as part of their core strategy and produce shared value can increase market capitalization and maintain a competitive advantage with a CSV framework for maritime in place.

1.5 Thesis Structure

This thesis comprises six chapters, as shown below in figure 1.3

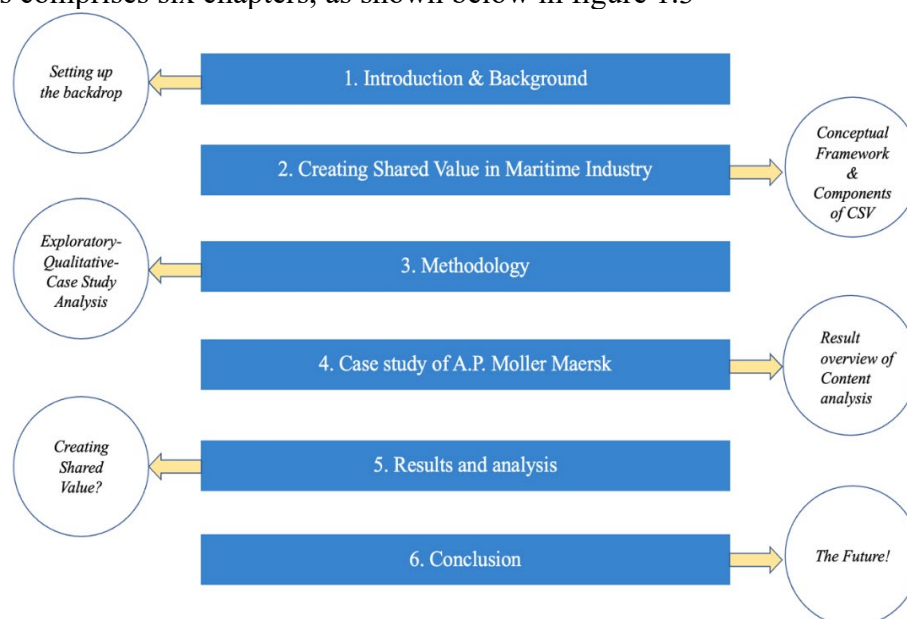


Figure 1-3. Structure of the thesis, source (developed by the author)

1st chapter introduces and sets up the backdrop for this research by identifying the problem statement, are there potential opportunities for shipping companies to create shared value? with which the research and sub-research questions are framed. Also, the purpose and relevance of this research study are discussed.

2nd chapter provides the theoretical foundation for this research study through a two-part in-depth literature review. To begin, author explains the notion of creating shared value (CSV) and its progression over time to its current position in business ecosystem. They were followed by studying the businesses' implemented shared value strategy and identifying their economic benefits. The second part studies and reviews the available literature on the marine industry. The conceptual framework, which is the primary contribution of this dissertation, is developed after defining marine components and outlining the phases required to produce shared value in the shipping industry. This is done after describing the theories indicated above in two sections.

3rd chapter explains the research design of this study with a research paradigm. It begins with identifying the relevant philosophical nature of the research, followed by decisions and conclusions made on approach- deductive, methodological choice – mono qualitative, single case study as a strategy with a longitudinal time horizon to analyze textual data with content analysis as the tool. It concluded with the limitations of the case study and content analysis.

4th chapter presents the case study on A.P. Moller Maersk shipping company and how they create shared values. It begins with the valid reasons why the Maersk group was selected for the analysis, data collection for twelve years, and sustainability report is the textual data analysis—followed by a complete overview of Maersk's 118 years of shipping business. With the assumptions and steps explained in the previous chapter for content analysis, the 12 sustainability reports are analyzed with the coding categories formulated by the author. The results are tabulated and concluded.

With the tabulated outcome from the previous chapter, the inferences and analysis are made in the 5th chapter. Two hierarchical charts are presented to explain the evolution of the potential opportunities to create CSV. From the coded reports, four strategies of CSV for Maersk are identified and analyzed with the conceptual framework and steps explained to CSV in chapter 2; thereby, the author concludes by answering the hypothesis formulated in the previous chapter.

The 6th chapter concludes the research study with an overview of the main findings and how the sub-research questions are answered, followed by the main research question. The assumptions made and limitations involved in the study are explained. Also, suggestions for further research of potential scope on the concept of creating shared value strategy implication on maritime business which have not been studied will be discussed, which could enhance the value of this research.

Chapter 2 Creating Shared Value in Maritime Sector

2.1. Introduction

The previous chapter provided context for the research study on creating shared value in the maritime sector, along with the formulation of research and sub-research questions. This chapter provides a theoretical framework for the research study by reviewing literature articles on the area of interest. The core purpose of conducting a literature review is explained by Bhattacharjee. A (2012), in his book ‘*Social Science Research: Principles, Methods, and Practices*’. He explains that literature review serves three purposes, namely, 1) to research and evaluate the current trajectory of knowledge in the field of interest, 2) to identify the significant scholars, works, concepts, and discoveries in the domain of interest, 3) to determine the knowledge voids in the domain of interest (Bhattacharjee, 2012).

To assess the three purposes of the literature review mentioned above, the author contrived eight keywords to search on research databases, as shown in table 2-1. The three databases were chosen to include a broader range of disciplines in the search.

SEARCH KEYWORDS	ACADEMIC DATABASE		
	Science Direct	Scopus	Web of Science
Shared Value	1094894	33825	3705
Creating Shared Value	566720	1417	3693
Creating Shared Value & Maritime	11646	4	3728
Sustainability & Creating Shared Value	207149	161	3864
CSR & CSV	27323	92	9948
Purpose & Creating Shared Value	328613	370	3717
Corporate culture & Shared Value	26600	24	4297

Table 2-1. Findings of literature from the academic database based on eight keywords

Since the concept of shared value was first mentioned in 2006 by Porter and Kramer, the author selected the range of search years from 2006 to 2023 for both science direct and Scopus. Each keyword mentioned in table 2-1 was searched in the abstracts of science direct and Scopus. Since this option was not available in web of science, a general search was conducted with the keywords. After the introduction of shared value in the business world, much research was done in multiple disciplines, which can be seen in the outcomes of the literature search, but a constrained study has been conducted in maritime. From figures 2-1, it can be acknowledged that the domain of Creating Shared Value (CSV), along with sustainability and Corporate Social Responsibility (CSR), is the most researched area. Even though the results show a considerable number of articles available, relevant articles on creating shared value in the maritime sector are minimal. When compared to the results of science direct and web of science with Scopus, the latter’s outcome was close to relevant search keywords. The notable works on shared value will be discussed in the next section to understand the evolution and notion of creating shared value. Also, the knowledge gap with shared value in the shipping industry will be discussed in this chapter, which will pave the way for future research and studies.

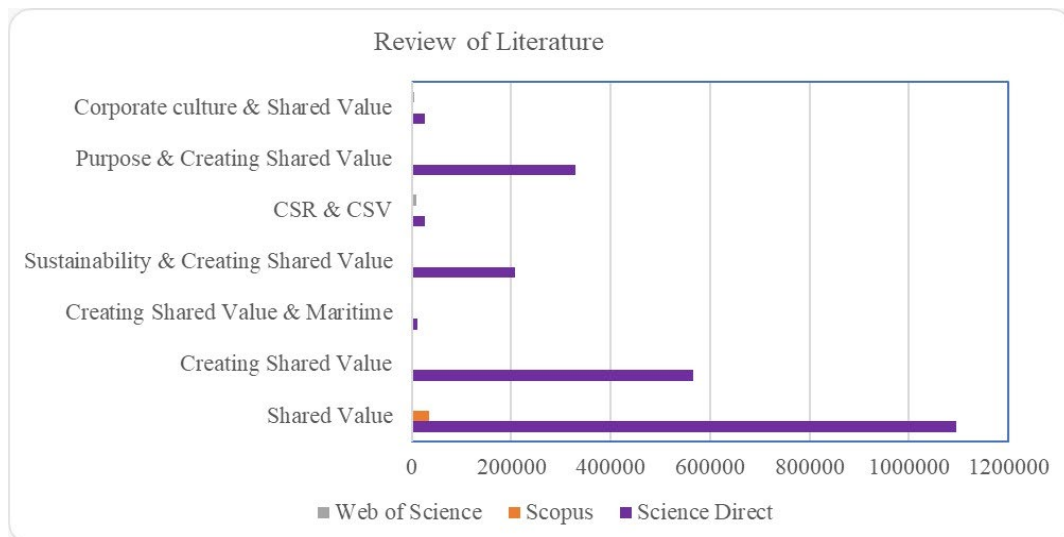


Figure 2-1. Overview of literature review with eight keywords from 2006 to 2023

Based on the available articles, the author creates a conceptual framework and formulates the components of creating shared values in the maritime sector that serves as the foundation of this research study. With the framework developed and the components defined in this chapter, the author assesses how shared value is created in the maritime sector and aims to answer the research question.

2.2. What is Creating Shared Value?

This part presents an in-depth understanding of the genesis and concept of the management buzzword creating shared value.

The business notion, Creating Shared Value (CSV) was coined in the year 2006 in Harvard business review's article "*Strategy and society: The link between competitive advantage and corporate social responsibility*" written by Harvard Professor Michael Porter and Senior Fellow Mark Kramer of the Harvard Kennedy School of Government (Dembek et al., 2016; Epstein-Reeves, 2012) and in the follow-up article "*Creating Shared Value How to reinvent capitalism and unleash a wave of innovation and growth*" penned on 2011, the concept was defined and further explained (Dembek et al., 2016; Epstein-Reeves, 2012). From the available literature, it can be perceived that this concept was coined and developed by Michael Porter and Mark Kramer, but on the contrary, (Camarena-Martinez et al., 2016; Corsaro, 2014) trace back the origin of creating shared value to the term "*co-creation of value*" which was explained in the year 2000 by Prahalad and Ramaswamy in their paper "*Co-opting customer competence*" (Camarena-Martinez et al., 2016; Corsaro, 2014). The creating shared value strategy was built up on the concept of co-creation of value (Camarena-Martinez et al., 2016); according to (Prahalad C.K & Ramaswamy, 2000), value creation was gradually shifting away from the company's research and development (R&D) to the interactions with customers and society, leading to a stream of study that was later termed as "value co-creation" (Prahalad C.K & Ramaswamy, 2000).

So, what does creating shared value mean? Porter and Kramer define shared value as 'policies and operating practices that enhance a company's competitiveness while *advancing the economic and social conditions in the communities in which it operates*' (M. E. Porter & Kramer, 2011). In their paper, creating shared value is portrayed as a new conception of

capitalism, which has the power to spur the next round of global expansion, can act as an efficient driver of economic growth, and an apparent reconciliation between business and society (M. E. Porter & Kramer, 2011) (Dembek et al., 2016). In their paper, they claim that creating shared value is a broader interpretation of Adam Smith's invisible hand and explain how business can generate economic value by creating societal value on three levels, namely: (1) by reconceiving products and markets, (2) by redefining productivity in the value chain and (3) by building supportive industry clusters at a business location (M. E. Porter & Kramer, 2011). The next section will discuss these three ways of creating shared value. Michael Porter & Mark Kramer explains two sides of the business ecosystem in which we reside:

- On one side, everyone is aware of all the societal problems, people blame conglomerates for the existing issues, and governments lose their trust in these corporations. The government is reconsidering and reframing the business policies, which will impede economic growth. Also, Porter identifies the level of scalability achieved as the fundamental problem while addressing these issues (M. E. Porter & Kramer, 2011)

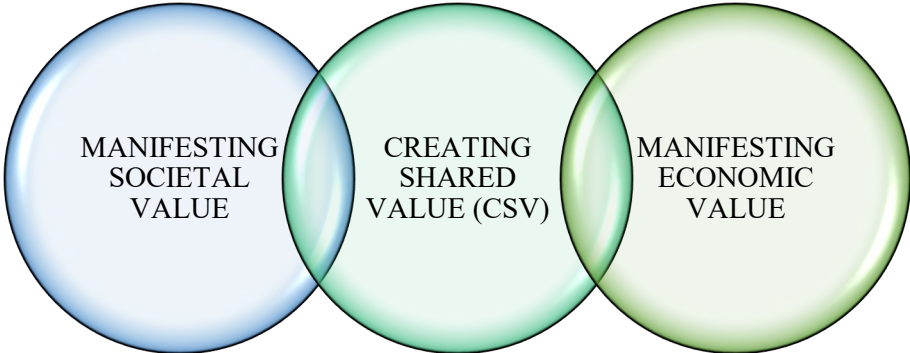


Figure 2-2. Manifesting societal + economic value = creating shared value, source (developed by the author)

- On the other side, where bad business practices and human greed in top positions lead to societal problems, businesses are also caught up in a vicious cycle of old strategies. To break this and re-invent capitalism, he brings in the concept of Creating Shared Value (CSV), figure 2-2, where he explains that businesses can make profits by addressing unmet societal needs and achieving a profound level of scalability (M. E. Porter & Kramer, 2011).

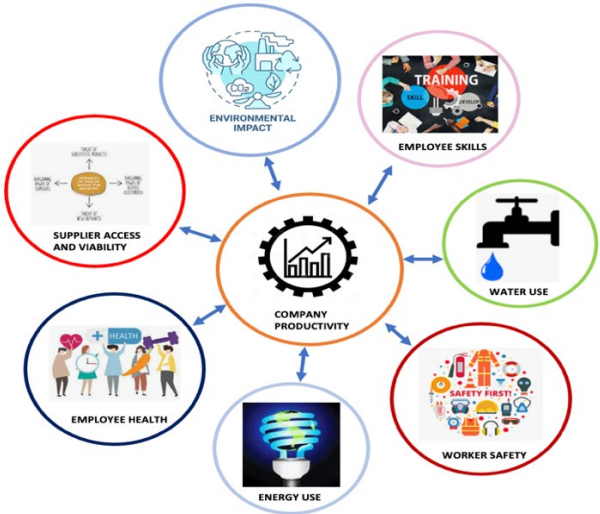


Figure 2-3. Unmet societal needs, source (Porter and Kramer, 2011).

Thus, the concept of CSV provides a three-level business framework to create economic value by addressing societal challenges and issues. The company can improve its revenue growth simultaneously by improving public health, nutrition, environmental impacts, affordable housing, financial stability, and other essential measures of societal well-being by conducting itself as a business rather than as a charitable donor, figure 2.3 (Institute for Strategy and Competitiveness - Harvard Business School, 2022). As discussed earlier, only businesses have resources that can generate indefinitely scalable and self-sustaining solutions, thus satisfying demands and making profits (Institute for Strategy and Competitiveness - Harvard Business School, 2022).

According to Porter and Kramer (2011), creating shared value is the finest opportunity to re-legitimize business, but this concept also developed controversies (Camarena-Martinez et al., 2016; Dembek et al., 2016). Dembek et al. (2015) and Camarena et al. (2016) summarized the other school of thought on CSV, compiled in table 2-2.

Authors	Title	Methodoly	Research outcome
Bosch-Badia et al. (2013)	Corporate social responsibility from Friedman to Porter and Kramer	Empirical Analysis	Powerful concept and Valuable theory
Epstein-Reeves, J. (2012)	What is "Creating Shared Value"?	Case study analysis	
Moon et al. (2011)	An extension of Porter and Kramer's creating shared value (CSV): Reorienting strategies and seeking international cooperation	Literature review and conceptual study	
Baraka (2010)	Corporations and the third sector: Responsible marriages at last?	Literature review and conceptual study	Strongly criticized that shared value is not even a business idea
Denning, S. (2011).	Why "shared value" can't fix capitalism.	Case study analysis	
Aakhus and Bzdak (2012)	Revisiting the role of "Shared Value" in the business-society relationship	Literature review and conceptual study	Shared Value is just a theoretical concept
Crane et al. (2014)	Contesting the value of "Creating Shared Value"	Literature review and conceptual study	The concept of CSV is unoriginal as it overlaps with concepts of CSR

Table 2-2. Other schools of thought on creating shared value adapted from (Camarena-Martinez et al., 2016; Dembek et al., 2016).

From the literature review, the paper by Dembek et al. (2015) provides an in-depth evaluation of shared value with an emphasis on its ontological and epistemological properties. After conducting a two-part content analysis on 392 articles, they concluded that shared value has spread to diverse disciplines. Still, since it lacks empirical results and overlaps with other related concepts, the concept is a vague idea with no proper definition, which makes it more of a buzzword than a substantial concept (Dembek et al., 2016). Their paper provides a detailed overview of CSV perceived in the academic and business world after its inception. As Verganti R. (2016) stated, "Judgment, not ideation, is the key to breakthroughs" (Verganti, 2016). All new ideas are subjected to criticism and CSV too. From table 2-2, it can be established that there were both constructive and contradicting criticisms put forth on CSV.

Bosch-Badia et al. (2013) examined CSR from the perspective of value generated using the shared value concept and concluded that it's a powerful and valuable theory (Camarena-Martinez et al., 2016; Dembek et al., 2016) where CSR can evolve by generating profits to society thereby creating shared value (CSV) with stakeholders to increase company sustainability on an environmental and social level (Bosch-Badia et al., 2013). In his article in Forbes, Epstein-Reeves, J. (2012) stated that CSV is a powerful strategy for businesses to

understand markets, competition, and business management. He claims CSV is a business tool that forces firms to be innovative and think outside the box regarding operations, marketing roles, and product development. In his blog, he concludes that CSV is different from the concepts of CSR, sustainability, and long-term growth; CSV helps to anticipate what is coming our way and how we can make decisions at present that can help strengthen the future of our company, economy, and community (Epstein-Reeves, 2012). The research done on CSV by Moon et al. (2011) is one of the significant studies made. First, Moon et al. (2011) develops a framework to categorize corporations based on various corporate and social benefits levels. Using this framework, they identify four corporations, namely: stupid, selfish, sound, and smart corporations. Secondly, they identify CSV as a new strategy for achieving economic success (Moon et al., 2011) and modify the original levels to create shared value by introducing a new level as follows: 1) defining core competence, 2) redefining productivity in the value chain, 3) reconceiving comprehensive targets, and 4) enabling local or global cluster development (Moon et al., 2011). Finally, through these four levels, they study how a good corporation can implement CSV strategies and evolve as an intelligent corporation. Moon et al. (2011) also identifies the problem with CSV as internationalization since Porter contends that there are more drawbacks to globalization than advantages, but in their paper, they argue by saying that expanding CSV worldwide would provide new economic prospects and advantages for both global and domestic communities, and they opine that doing so in collaboration with partners from other nationalities will make for an interesting research subject in the future. (Moon et al., 2011).

Contrary to the above-mentioned positive reviews, there were also differences of opinion with the CSV Strategy. Baraka, D. (2010), in his paper, critiques CSV is not a business idea for the following reasons: 1) even if all stakeholders in all corporations were convened together, a substantial portion of the population would still have its interests ignored by all of them, 2) corporations might not have the necessary resources to emerge the poorer markets and 3) due to its profit imperative nature there will be a more significant deal of involvement from NGOs and governments (Baraka, 2010). Denning S. (2011) comments in his article that shared value is a pseudo fix to capitalism since there are no significant changes needed in an organization, no need to redefine the managerial role, just with a simple tweak to the value chain and suddenly a new set of opportunities to maximize profits arises. He says that achieving scalable solutions creating shared value is not so capitalism 3.0 (Denning, 2011).

Aakhus and Bzdak (2012) critically assess CSV to define its limitations to define its boundaries and restrictions as a framework for comprehending the function of philanthropy and CSR about the role of business in society. They conclude CSV is just a theoretical concept since limiting what constitutes social value; the shared value approach minimizes conflict between business and society. It renders the approach difficult as a framework for addressing sustainability and serves as an inadequate foundation for philanthropy and CSR decision-making (Aakhus & Bzdak, 2012).

Crane et al. (2014) critiqued that creating shared value concept has some significant flaws, including being unoriginal, ignoring tensions inherent in ethical business practices, being naive on company compliance, is based on a rudimentary comprehension of the social responsibility of corporations and overlaps on CSR concepts (Crane, Palazzo, Spence, & Matten, 2014). Porter and Kramer responded to this criticism by saying that Crane and colleagues are wrong in their assessments, stating that shared value not only builds on prior research on corporate sustainability, CSR, and philanthropy, but also establishes CSV as a unique, potent, and transformative paradigm that is integrated into a company's fundamental strategy. They also

note that shared value has significantly changed corporate behavior globally (Dembek et al., 2016; Porter and Kramer, 2014).

2.3 The Ecosystem of Creating Shared Value

Every actor is entirely aware of societal needs and issues in the existing business ecosystem. Even though governments, NGOs, and corporations address them, achieving scalability is a core problem (M. E. Porter & Kramer, 2011). The genesis and concept of CSV strategy are explained above, but how they can be achieved and what the different levels of CSV exist will be described in this section. To create shared value an ecosystem is to be developed by the companies by collaborating with Non-Governmental Organizations (NGOs), Policy makers, community members, and with competitors to seize the economic benefit of social progress (Kramer & Pfitzer, 2016). Through alignment of all these actors, a collective impact is a possibility that will enhance the business to discover the hidden economic prospects that their rivals don't (Kramer & Pfitzer, 2016), identifies five elements to achieve the collective impact in a business ecosystem namely: 1) a defined agenda that integrates the actor's efforts in an ecosystem and emphasizes their commitment, 2) to monitor the progress a standard measuring system, 3) mutually beneficial actions, 4) comprehensive communication between the players involved which will foster trust and ensures the achievement of shared goals, and 5) committed backbone support for facilitating resources required (Kramer & Pfitzer, 2016). With these five elements, the business can achieve creating shared value strategy on three levels, as explained below.

2.3.1 Reconceiving Products and Markets

Porter and Kramer (2011) argue that in the business world, we have spent decades perfecting the ability to analyze and meet demand while excluding the most crucial demand of all, i.e., the unmet needs of the society, which are immense in an economy. Also, they have long forgotten to answer the most fundamental question, does their product benefits the customer, and is it competitive enough? In developed nations, demand for goods and services that fulfill societal needs is growing substantially (M. E. Porter & Kramer, 2011). Due to this changing ideology, food industries are reorienting their priorities to greater nutrition and ecologically sustainable products from flavor and high quantity consumption. Technology giants like Intel, and IBM partnering up to explore strategies to assist utilities in using digital intelligence to reduce the amount of power used (M. E. Porter & Kramer, 2011), also corporations such as General Electric, Google, Johnson & Johnson, Nestlé, Unilever, and Wal-Mart are creating shared value by rethinking the relationship between corporate performance and society to create shared value (HBS ISC, 2022). To CSV at this level, businesses must innovate and rethink on goods and services they offer to create social benefits for consumers, such as healthy foods, responsible emissions, and sustainable products. Doing this will gain a competitive edge, expand their market share, and boost their profits. Thus, to unlock the shared value potential in level 1, businesses must contemplate the following,

- instead of focusing on conventional products and services offered, redesign them around unresolved customers problems or concerns through innovations,
- identify the customer segments that the sector has overlooked or neglected,
- think on enriching lives rather than satisfying the "needs" of customers, and
- start with no preconceived notions regarding the characteristics of the products, the structure of the networks, or the business's economic model (HBS ISC, 2022).

2.3.2 Redefining Productivity in the Value Chain

The combination of an internal system that a business or organization employs to generate revenue is known as a value chain. In other words, a value chain is made up of different subsystems used to produce goods or services from E2E (Tarver, 2021). Due to the significance of the value chain in a company, Michael Porter developed a strategic tool to examine the same, as shown in figure 2-4, so Porter categorized the subsystems into two activities, namely primary activities that include inbound logistics, operations, outbound logistics, marketing & sales, and after-sales services and to execute these activities he categorized firm infrastructure, HRM, technology development and procurement as supporting activities (Porter, 1985)

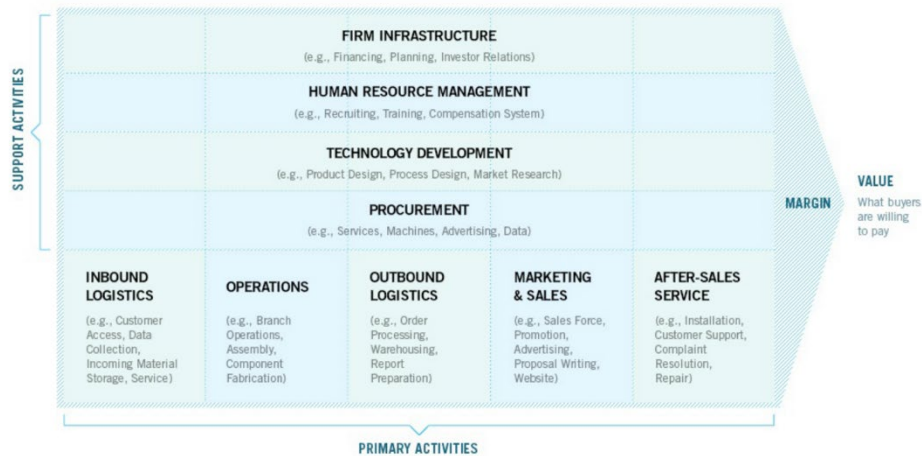


Figure 2-4. Michael Porter's Value Chain model, source (Porter, 1985)

Thus, primary activities aim to deliver the products or services in the market that is greater than the cost of carrying out that activity by utilizing support activities, generating profit, and gaining a competitive advantage (Porter, 1985) (Tarver, 2021). At this level, to create shared value, the companies must redefine productivity in their value chain. Several societal issues, such as natural resources & water utilization, health & safety, working conditions, etc., have an impact and affect the company's value chain by generating economic costs. Thereby opportunities are created for shared value (M. E. Porter & Kramer, 2011). These externalities increase the internal cost for the business even in the absence of policy regulations and taxation. In 2009, Walmart faced the problem of excessive packaging and GHG emissions in their value chain, which inflated their internal cost. They saw an opportunity for CSV, reduced the amount of packaging used, and redirected the vehicles to reduce emissions from its delivery routes, saving \$200 million while shipping more goods. Also, in their shops, plastic disposal innovations have reduced landfill disposal expenses by millions of dollars (M. E. Porter & Kramer, 2011). Thus, a new way of thinking implies that there is far more synergy between societal advancement and value chain productivity. To transform the value chain, the companies must possess the below-mentioned shared value thinking (HBS ISC, 2022).

- procurement that increases the efficiency and capabilities of suppliers,
- optimizing resource, water, and energy efficiency throughout the value chain,
- reducing logistical complexity,
- enhancing worker health and safety,
- strengthening the productivity and remuneration of workers with lower incomes,
- Recruitment reflects the diversity of the customers and the localities in which a business operates (HBS ISC, 2022).

2.3.3 Building Supportive Industry Clusters

A cluster is a spatial grouping of related businesses, institutions, and organizations in a sector that exists in an area, state, or country (HBS ISC, 2022), such as the technology cluster living in Silicon Valley, footwear & fashion cluster in Italy, wine cluster of California, tourism cluster in Cairns, Australia, a diamond cutting bunch in Surat, India (M. E. Porter & Kramer, 2011) (HBS ISC, 2022). Some corporations like Nestle, Cisco, Novo Nordisk, IBM, and Yara create shared value by enabling local cluster development. Since businesses' productivity is impacted by local assets, in level 3 of CSV, companies must improve the local & regional economy through education, workshops, and training of local people with the necessary skill set, which will increase local workforce employability. Thereby reducing the cost of employability, improving productivity & operational efficiency, promoting & stimulates innovation, and enhancing new business opportunities & competitiveness (HBS ISC, 2022) (M. E. Porter & Kramer, 2011).

2.4. Value Creation

2.4.1 Economic value creation

Peteraf & Barney (2003), argues that in the domain of strategic management, it is generally accepted that economic value emerges when there is a discrepancy between a consumer's perceived benefits and a firm's economic cost (Peteraf & Barney, 2003). Although the producer is motivated by price, consumers' willingness to buy is also impacted. The consumer's surplus and the producer's surplus can be separated from the overall value (total surplus).

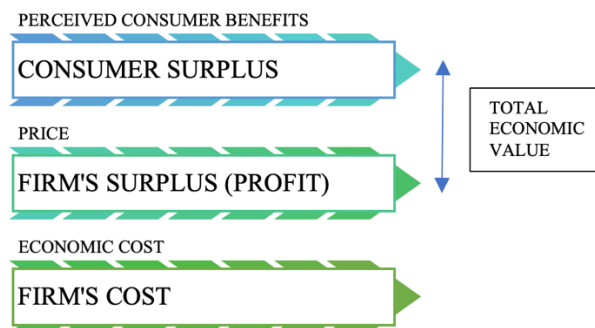


Figure 2.5. Creation of total economic value, Source (Peteraf & Barney, 2003)

According to figure 2.5, a company's economic profit equals a company's surplus and comes from the value produced for the consumer throughout business operations. Economic value creation is a prerequisite for profitability but is not adequate until a company realizes this value in the form of profits (Bowman & Ambrosini, 2000). The goal of maximizing value generation might take one of three forms:

- 1) To better satisfy consumer demands than rivals at comparable or lower costs, and
- 2) To affordably satisfy the consumer needs, as compared to rivals
- 3) To fulfill consumer demands that aren't being met by rivals (M. E. Porter, 1985).

Efficiency could be used to define economic value generation, which could also take the more generic form of altering the relationship between a company's outputs and inputs.

2.4.2 Social value creation

From a Pareto efficiency perspective, welfare economics examines social welfare. It indicates that the most effective distribution of resources raises at least one person's well-being while not lowering that of the others. Investors, non-governmental groups, lawmakers, public institutions, and commercial groups are particularly evident in their desire for metrics since they are concerned with evaluating the social value and corporate social responsibility. There are now many different approaches and measurement techniques because of these efforts.

- Mulgan (2010) summarized nine categories of social value evaluation techniques now in use, including cost-benefit analyses, revealed, and expressed preference approaches, and social return on investment (SROI) assessments. Although they are beneficial for external reporting, the question of how much these strategies are appropriate remains.
- Over 20 strategies for evaluating social effects have been established by the New Economics Foundation, a British think tank that promotes social, economic, and environmental principles (New Economic Foundation, 2015)
- According to the Global Reporting Initiative's 2013 report, social indicators include workplace statistics and supplier evaluations. However, a significant portion of them are primarily descriptive or provide numerical facts on employee turnover, including subjective well-being.
- Four CSR measurement techniques were identified by (Pawłowski & Wąsowska, 2012) literature review: charity donations, sustainability indices, databases, and surveying managers about their views on CSR disclosures and sustainability by non-governmental organizations.
- An appealing alternative to CSR operational validation was provided by external validation utilizing the Respect Index database for the Polish stock market and text analysis of CEO letters to shareholders by Pawowski & Wsowska, (2012).

Social impact measures focus on data on monetary expenditures or views, which seldom represent objective social consequences, even though environmental impact disclosures like the GRI are reliable and objective. It is unknown how spending money on initiatives like providing training to those in need will affect society or how effective these initiatives would be on a social level. Numerous social effect measurement techniques have been utilized in the CSR stream of research. However, none of them is currently widely acknowledged.

By reconceiving markets and products, revamping the value chain, or developing clusters, CSV would be one of many specialized competitive strategies that aim to enhance the quality of life while creating profits (M. E. Porter & Kramer, 2011). CSV entails focusing on issues crucial to the company's core competencies to provide economic benefit by advancing society, i.e., creating social value. Three strategies are used to achieve this: offering profitable services to bottom-of-the-pyramid markets (reconceiving products and markets), implementing a secure product lifecycle consistent with the circular economy concept (revamping the value chain), or combining resources and capabilities via network/collaborative business models (cluster development) (Wójcik, 2015). A starting point for evaluating shared value creation initiatives might be the proposed economic and social value creation analysis framework.

2.5. Companies Creating shared values

Shared value initiatives are distinctive and customized to each organization, just like any other business strategy. As explained in section 2.3, businesses can create shared value on three levels. These opportunities at each level will vary from societal challenges. Figure 2.6 depicts an overall framework for the businesses and relevant stakeholders to create shared value by conducting a thorough materiality analysis to identify the economic, societal, and environmental issues and generate value from them.

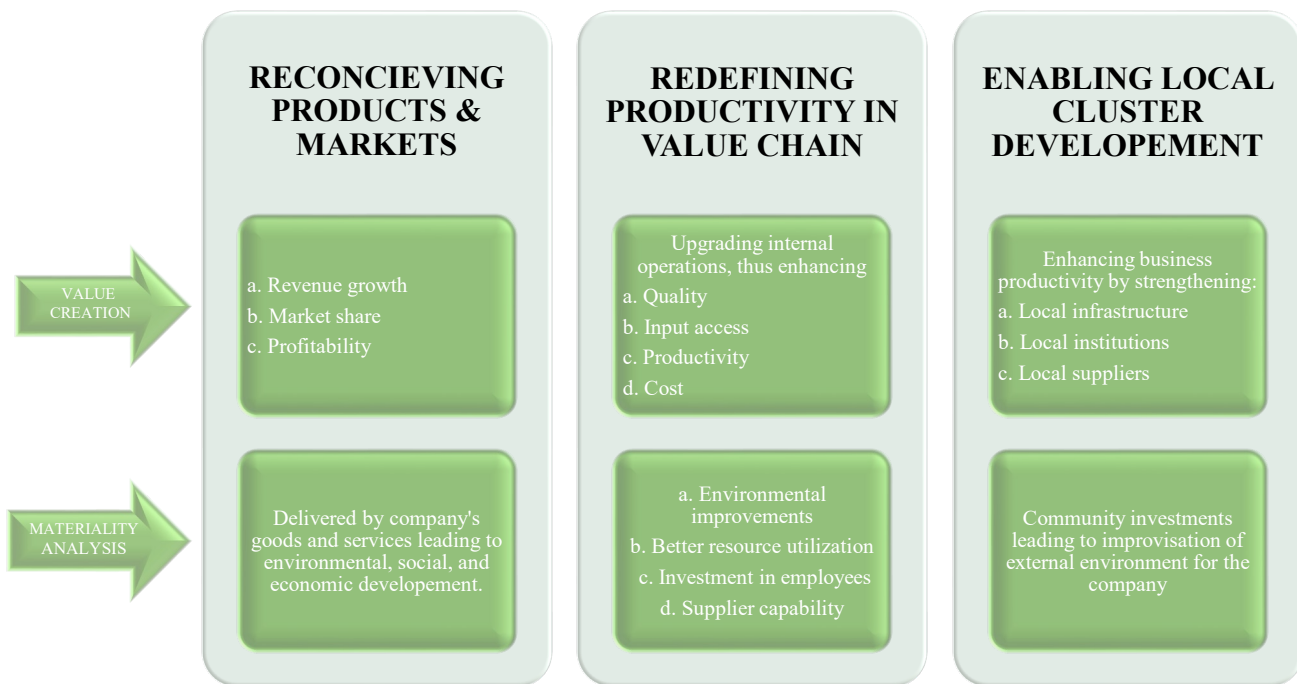


Figure 2.6: Framework for businesses to create shared value, source created by author

In all the cases below, we will see that the intentions of bringing the change were good. The organizations focused on solving a societal issue while keeping the core idea of business in mind, i.e., making a profit.

2.5.1 Nestlé - Enabling Cluster Development & Reconceiving Products

“Improving farmer’s lives is only possible when measuring progress at a farm and rural community level.” - Janet Voûte, Chairman of the Creating Shared Value Council at Nestlé SA.

Nestlé is the world’s most extensive food and beverage corporation, dedicated to harnessing the power of food to improve people’s lives and future generations. Pressure to enhance supply chain sustainability and produce healthier, more natural foods has grown since the 1990s in the packaged food and beverage business. Nestlé had switched its focus to nutrition, health, and wellbeing and made its CSV strategy apparent in the twenty-first century. Paul Bulcke, the CEO of Nestlé, started thinking about ways to completely implement the CSV strategy and convey it to shareholders and other stakeholders in 2014. **Nutrition, Water, and Rural development** were the three focal areas of Nestlé’s creating shared value (CSV) strategy

impacting the planet, the localities where it operates, and those people and families that rely on Nestlé.

As shown in figure 2.5, to find shared value activities, Nestlé carried out a materiality analysis that assisted in identifying the economic, social, and environmental concerns significant to the enterprise and its stakeholders. Based on their investigation, the firm chose as its goal to improve farmer welfare and promote environmentally sustainable coffee growing and consumption to benefit society and the environment. Nestle believes that communities they work with must also prosper in the long run for their business to succeed. With 169 pilot shared value projects, nestle proclaims that they are the *'catalyst for change going beyond its own operations'* (Hoek, 2020). Nestle enables the development of the local clusters by collaborating with coffee farmers to offer training to enhance their procedures on coffee farming which resulted in higher quality, more production, and greater revenue while leaving a lower environmental footprint. These bean producers become more resilient and enhance their farming practices and growing methods, nestle achieves shared value (Hoek, 2020). Nestle reconceived the products through innovation and achieved a 30% sales increase by enhancing productivity, lowering waste, and developing new technologies for ethical production of coffee and consumption(Hoek, 2020). One of the business units of Nestle, Nespresso is creating shared value by enabling cluster development. With the help of a comprehensive agroforestry program and land management training initiatives, Nespresso trained a team of more than 300 highly qualified agronomists who produced shared value for their value chain partners. They are currently training 63,000 farmers across 11 countries, resulting in employment and economic growth. (Hoek, 2020).

Nestlé created and published one of the first methods to measure the social impact and the business value provided by a shared value program in association with independent experts. The impact valuation, which examined the results of Nestlé's Global Youth Initiative, including higher revenue, talent retention, and employment, has stimulated discussion on the most efficient ways to quantify shared value. Nestlé provides farmers with training and support to promote the development of rural areas while supplying a consistent supply of premium raw materials. Nestlé's agronomists have prioritized where and how they should spend their efforts to improve farmer yields, quality, and quantity due to insights and data from shared value measurement. At the same time, they are better equipped to focus their efforts on farmers with the most significant room for growth as they obtain a greater understanding of each farmer's performance, thereby increasing the shared value generated (FSG-Shared Value Initiative, 2020)

2.5.2 ENEL - Redefining the value chain

“Experience shows how important it is for the future to fully review operational processes by reconsidering goals with longer-term prospects. Moreover, this is the only way to create shared value.” Francesco Starace, CEO of Enel.

An Italian-based multinational utility is decommissioning its coal-fired power units and converting its €76 billion business model to renewable energy. Since being a state-owned energy monopoly in Italy, Enel has become a world leader in renewable energy and shared wealth creation. Enel has become more sustainable and profitable because of its commitment to shared value and providing cheap and clean energy even in the most remote areas. As an organization, they intended to address the fundamental issues: delivering affordable,

dependable, and clean energy while reducing fuel poverty, protecting the environment, and safeguarding local communities.

Enel aims to be carbon neutral by 2050 and is generating long-term shared values at all three levels of its value chain: engineering and construction, business development, operation, and maintenance. With partners like Google and Tesla, the firm has leaped to the forefront of electric mobility and distributed power generation because of its open innovation philosophy. As a consolidated internal resource, they created a customized digital management platform to track the incorporation of shared value and sustainability into projects along the whole value chain of the organization. The technology enables the organization to exchange best practices, assess project effects, gain a global perspective on local initiatives, and communicate key milestones to funders and other stakeholders.

Enel's CEO, Mr. Francesco Starace, guided the company through significant organizational culture and structural reforms, committed to using only renewable energy sources, focused on growth in middle-income countries and developing new revenue streams from energy management services. Simultaneously Starace has had to reconcile stockholder demand for short-term profitability with a heritage of coal and gas-fired power facilities against its long-term goal (FSG-Shared Value Initiative, 2020).

2.5.3 Novo Nordisk – CSV in all three levels

Novo Nordisk is a leading provider of diabetes therapy with a global presence and its headquarters in Denmark. Novo Nordisk has successfully installed renewable energy systems across its eight manufacturing nations after researching and testing solar, wind, and waterpower technologies within five years. As part of its global environmental strategy Circular for Zero and RE100, a worldwide network of businesses committed to this shared objective, the company became the first pharmaceutical company to use 100% renewable power in January 2020. The corporation is expanding its plan to provide renewable energy to all 80 member nations and five R&D countries by 2030. Novo Nordisk adheres to the Triple Bottom Line approach, which requires it to manage and account for three performance dimensions: financial, social, and environmental, as below in figure 2.7.

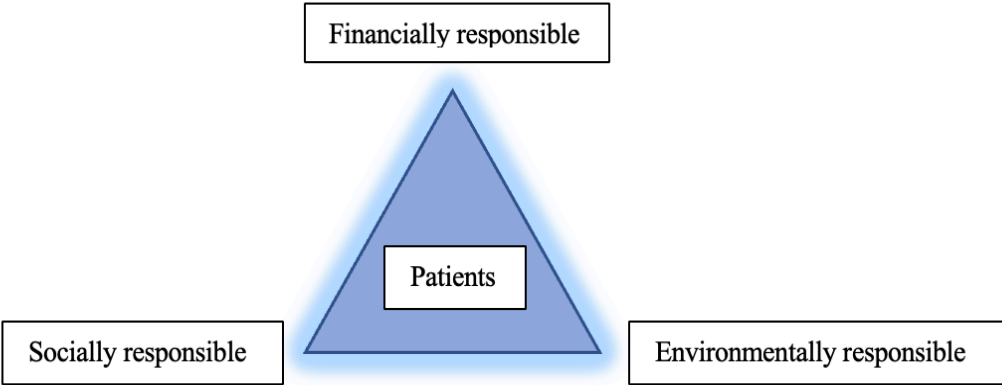


Figure 2.7: Triple Bottom Line principle

Novo Nordisk, a global healthcare company with 88 years of experience leading the field in diabetes treatment, has demonstrated the possibility of quantifying shared value through its long-term growth strategy in the Chinese insulin market. As the estimated number of people

with type-2 diabetes is expected to double over the next 15 years and millions of Chinese residents' lives will be improved by aiding in the advancement of diabetes diagnosis, care, and treatment; Novo Nordisk additionally recognized the Chinese health system and diabetes care as the social concerns to concentrate on for its business. But it would raise the bottom line for the business. For the Chinese market, they created a long-term business strategy centered on diabetes treatment. Its shared value strategy was straightforward: by funding local manufacturers, patient education, and physician training, the company aimed to increase demand for its insulin by improving diabetes diagnosis, a condition routinely misdiagnosed. The number of physicians taught, and the number of patients informed are only two examples of the crucial information that Novo Nordisk monitors. Through these programs, more than 55,000 clinicians who visit 230 patients a year get access to more than 220,000 medical training sessions. Novo Nordisk's "Blueprint for China" shared value strategy is expected to have grown the company's market share in the second-largest insulin market from under 40% to 63% while extending average patient life by 80% as a result of better treatments and services. According to studies, diabetes control rates have sharply increased, reducing overall healthcare costs. Additionally, the entire insulin sales increased, providing Novo Nordisk with definite commercial advantages. Additionally, Novo Nordisk has discovered ways to improve its physician training approach through a rigorous assessment to create more shared value. The corporation moved a more significant proportion of its medical training to second and third-tier facilities to release further shared value.

For the American Insulin market as well, Novo Nordisk created shared value in all three levels viz., by creating an American research and development facility and utilizing the expertise of local scientists, the corporation customized insulin products for American patients thereby reconceiving their product for the US market (Hills,2012) (Porter,2014). To redefine productivity in their value chain, Novo Nordisk established a production facility in Tianjin to increase production efficiency and react to market demands more swiftly (Hills,2012). Finally, they enabled local cluster development by providing workshops on diabetes awareness to the patients and training the local doctors (Hills,2012).

2.5.4 InterContinental Hotels Group - Redefining Productivity in the Value Chain

“When the measurement is done right, you can develop theories around how these targets impact your business. Measurement leads to real refinements not only of the things you measure but even how you run your business.”- David Jerome, Senior Vice President, Corporate Responsibility InterContinental Hotels Group

The world's largest hotel chain, InterContinental Hotels Group (IHG), started the Green Engage initiative after assessing its environmental effect and learning that power was its second-highest expense. IHG has highlighted water and trash as crucial ecological and social issues with the potential for significant shared values.

To reduce energy use, water use, and waste generation, Green Engage started exploring various methods in pilot hotels in 2009. To reduce its environmental effect and lower hotel running costs, InterContinental Hotels Group looked at multiple solutions for cutting back on electricity, water, and waste. New cooling and heating systems, solar panels, and applications for automated computer shutdown were a few. The purpose was to thoroughly assess all potential shared value possibilities for IHG and its franchises (Porter et al., 2012).

Sectors with a strong environmental effect and return, like solar energy, might be distinguished from those that were well-liked by the general population, having a lower economic value or

reduced the number of emissions. Hundreds of hotels have benefited from resource efficiency and cost savings initiatives driven by Green Engage using shared value measurement. IHG used height to gain a thorough understanding of the potential for proportionately shared value across various strategies. Using an online platform that regularly updates shared value returns depending on the program's steadily expanding user base, Green Engage was distributed to over 1,900 hotels. The strategy has helped hotels significantly cut operational costs, saving up to 25% on energy at some locations. (FSG-Shared Value Initiative, 2020).

2.6. Corporate Social Responsibility (CSR) is not Creating Shared Value

The idea of corporate social responsibility initially emerged in the middle of the 20th century as a response from businesses to the public's desire for them to accept the moral duty they have towards their employees and local communities (Bansal & Song, 2017). Initially, corporate social responsibility was only concerned with social issues, whereas sustainability was only concerned with environmental issues. CSR is "a concept whereby corporations integrate social and environmental issues in their business operations and in their engagement with their stakeholders on a voluntary basis," according to the European Commission's Green Paper (European Commission, 2001).

CSR has consistently been included in company strategy since it is usually seen to be a value driver (Bosch-Badia et al., 2013). CSR itself is differentiated between responsive corporate sustainability and strategic corporate sustainability. After harming the environment or communities, responsive corporate sustainability focuses on giving back earnings to society. These activities, which may involve corporate philanthropy, do not necessarily have to be in accordance with the company's goal. However, strategic corporate sustainability identifies societal and environmental issues that businesses can help with as a major component of their business plan, thereby adding value to both society and the company (M. Porter, 2002; M. E. & K. M. R. Porter, 2006; M. E. Porter & van der Linde, 1995). Businesses and academia have both been searching for fresh ways to guarantee a good correlation between business financial, social, and environmental success. The Shared Value concept, developed by Porter and Kramer, is an integrated strategy for corporate sustainability that encourages businesses to include societal and economic demands into their basic business goals.

Using the phrase "the responsibility of corporations for their consequences on society" as a definition of business responsibility (European Commission, 2001). The European Commission recommended a new concept in response to the apparent contradiction between business and social aims, which comprises integrating social issues into enterprises' business operations and core strategy "to increase the generation of shared value" (European Commission, 2001). As a result, the new CSR strategy for the European Union made note of the significance of the issue of the challenge of balancing commercial and social aims and makes an indirect reference to the CSV concept (Wójcik, 2016). As it treats a firm's performance and social problems from the perspective of value creation, a notion essential to economics and management, CSV offers a substantial development in corporate responsibility.

CSR and CSV are not the same notions but are interrelated in a way that both leverage the triple bottom line strategy. These two notions are not mutually conflicting but two distinct approaches to attaining the same aim of leveraging business as a power for positive change in the world thus both concepts are beneficial to organizations and frequently function in tandem. The combination of CSR and CSV produces an ideal equilibrium in which companies accept

responsibility for their impact on the world and society, both through outward-facing acts of charity and through inward-facing adjustments to the company's business model.

In contrast to CSV, which focuses on generating economic value while also generating social value, CSR essentially involves sharing the economic value generated. As remarked, CSV provides "a comprehensive framework to integrate frequently disconnected arguments on CSR, social entrepreneurship, social innovation, and the bottom of the pyramid"(Crane, Palazzo, Spence, Matten, et al., 2014). CSV is an example of a paradigm shift away from corporate social responsibility and the outdated idea that a business may either perform well or make money. Remembering that a CSR program will cost the organization money is critical and is generally done to project a helpful image to society. Because of the money that will be lost, this restricts the number of CSR initiatives that a firm may have. If any of these initiatives are implemented, a firm will lose money since it cannot maintain itself.

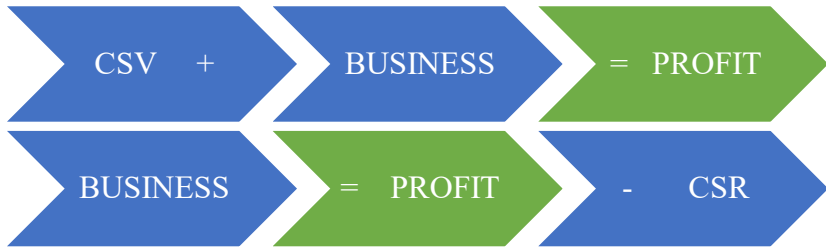


Figure 2-8. Difference between CSR and CSV, source (adapted by author)

The foundation of CSR is that the business is a part of the community. Hence it owes it to be a good citizen of and within it. A CSV program, on the other hand, can have an endless number because it still makes money for the firm. The fundamental contrast is that CSV is focused on value, whereas CSR is engaged with responsibility. Using capitalism, a company that practices CSV will increase its profits while also raising the value of the community. CSV is regarded as the advancement of capitalism. The world's successful individuals are teaching others how to achieve success in a similar manner to their own. Such businesses strive to advance society so that others will do the same as shown in below figure 2.9.

Businesses with the same values and interests as the community are likely to wield the most power because they can enhance society. When capitalism works in society rather than for profit, it has lifted more people out of poverty than any other economic system in history. Most people believe that it is critical for successful firms to work to better society. After all, life is about more than money and many businesses recognize this principle and desire to develop or continue programs to assist individuals in need.

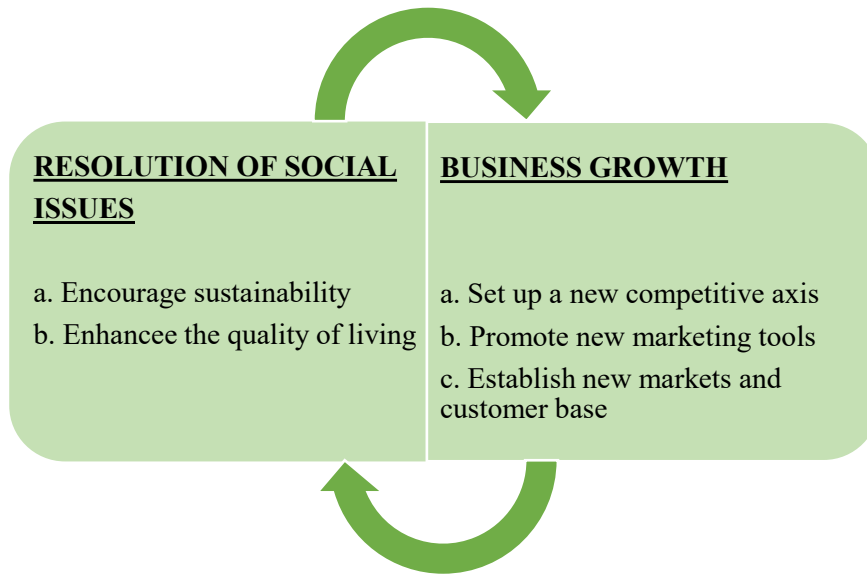


Figure 2.9 Business growth by resolving the social issue, Source: Author

Those who can incorporate such initiatives into their business models may provide even more value to their whole communities. Table 2.3 summarizes the core differences between CSR and CSV.

CORPORATE SOCIAL RESPONSIBILITY (CSR)	CREATING SHARED VALUE (CSV)
The bare minimum to be done because of mandatory policy regulations	Manifesting profit by addressing societal unmet need
Independent of maximizing profits	For maximizing the profit it's an integral strategy
It generates value in terms of sustainability, charity, and citizenship	Generation of value for the business and the community together through sustainability
Corporate footprint and CSR budget restrict the impact	Redefine the overall running budget of the company
The CSR agenda is driven by personal choices and external reporting.	The CSV agenda is developed internally and is exclusive to the company.
No competitive advantage is achieved	Promotes competitive advantage
No scalability is achieved	With the profit generation scalability is achieved
Addressing societal needs and issues by contributing to society and causing no harm or minimal harm	Using a business model to address societal needs generates social and economic benefits.
It doesn't instigate innovation in company	CSV stimulated innovations in greater scale
To execute CSR no strategy framework needed	To create shared value companies utilizes strategic tools and frameworks

Table 2-3. Summary on CSR is not CSV, source (by author)

2.7. SDGs – The link between Sustainability and CSV

The United Nations adopted the Sustainable Development Goals (SDGs) in 2015 as a global call to action to end poverty, protect the environment, and guarantee that by 2030, everyone will live in peace and prosperity. The Sustainable Progress Agenda, which consists of 17 goals divided into three categories and was agreed upon by 193 UN member states in 2015, acknowledges that development must strike a balance between social, economic, and environmental sustainability. (*What Are the Sustainable Development Goals? | Policy and Advocacy | Sightsavers, n.d.*)

- I (Goals 1-7): The extension of the Millennium Development Goals (MDGs)
- II (Goals 8-10): Inclusiveness
- III (Goals 11-17): Sustainability and Urbanization



Figure 2-10. The 17 Sustainable Development Goals, source (SDG,2022)

One of the difficulties of earlier theories of sustainable development has long been acknowledged to be integration between sectors. The SDGs agenda is thought to be more cohesive than the MDGs, which might quicken and strengthen the integration of policies across sectors (le Blanc, 2015). One of the MDGs' flaws was a top-down strategy with limited support from the business (or local) community (United Nations Development Program, 2015). The second group, which focuses primarily on industry-related goals, advocates for full employment of jobs, infrastructure, industrialization, and distribution, all of which are intrinsically linked and have as their overarching objective the revelation of socially inclusive sustainable development. Urbanization appears to be among the most challenging concerns, particularly in developing nations. We can also presume that many aims will clash due to different sectors' interests (United Nations Development Program, 2015).

The UN SDGs highlight the absence of sectoral integration and fragmented efforts in terms of strategies, policies, and implementation, and offer goals in which each sector, including business, should be actively involved (Kumar et al., 2016; le Blanc, 2015). Because the SDGs are also about money, the UN and member states acknowledge that if industry actively participates, there may be a higher possibility of attaining them. The private sector can be essential in advancing the global development agenda (Responsible Business Trends report, 2018; United Nations Development Program, 2015) (Tedd, 2017; The Economist, 2018).

Corporate engagement in this goal through social responsibility has become an essential topic on government agendas. Following the ratification of the SDGs, many leading businesses like Nestle, Allianz (Allianz Nederland Groep N.V., 2018), and major business journals such as the Financial Times, The Economist, and Forbes emphasized that the SDGs are excellent for business and that corporations have tremendous opportunities to contribute to the SDGs' achievement The Economist, (2018) (Betti et al., 2018).

Many doubters have expressed reservations about the SDGs' effective implementation and the actual commitment of businesses. First and foremost, the SDGs are a worldwide strategy for addressing complex socioeconomic and environmental concerns. SDG terms are global aims with little regard for national definitions and reporting (Kumar et al., 2016). Only 10% of firms, according to an Ethical Corporation (2018) research, have quantitative goals for their contribution to the SDGs, even though the majority profess their support for them in their reporting. CSV may contribute to the SDGs by improving regional business and social knowledge, explaining how firms' societal contributions make economic sense, and incorporating global principles into local business practices. By providing clear aims and targets, the SDGs may aid businesses in giving social context to their financial success and incorporating locally specific values and requirements into the global agenda. They may also assist CSV in adapting to local practices and institutional frameworks.

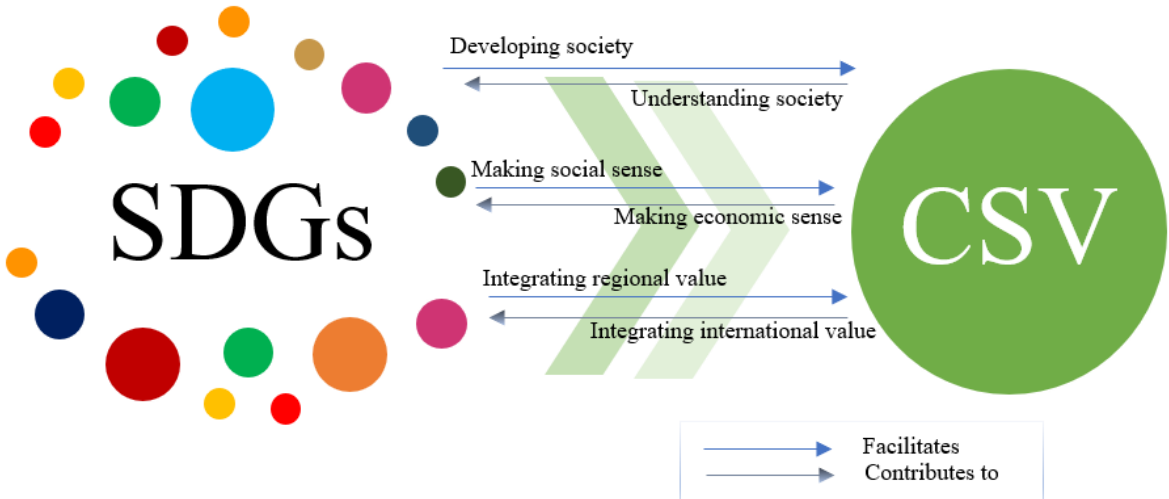


Figure 2-11. Creating Shared Value–Sustainable Development Goals (CSV–SDGs) Collaborative Model – source, (Kim, 2018).

CSV and SDGs may be linked to achieving global sustainable development. According to Kramer (Hoek, 2018), the combination of CSV and SDGs might be a new income model for businesses. As organizations struggle to articulate an explanation for their values and ambitions, the timely introduction of CSV has prompted top firms to include it in their primary sustainable strategy. Nestlé presents its CSV ambition as a tool for shaping the SDGs (Nestle, 2018). When combined with business strategy and competitive concepts, CSV can help a firm contribute to global and national sustainable development.

The inter-governmental objective of the SDGs might assist in translating the academic language of CSV to boost practical significance as a strategic signpost for firms since the SDGs specify the actual routes and sources for producing social value through the 17 sustainable development goals. On the other hand, CSV ignores the interaction of social and commercial purposes and is blind to the genuine concerns of corporate compliance (Crane, Palazzo, Spence, Matten, et

al., 2014). The SDGs do not directly represent the economic components of business participation in societal development (le Blanc, 2015). The primary concept of CSV lacks local acceptability and justification (Wójcik, 2016). Because nations' attitudes regarding CSV and SDGs differ. How a corporation approaches CSV and SDGs must closely align with each country's general economic, cultural, and institutional condition. CSVs and SDGs appear complex; they correspond to a wide variety of subjects that differ by country. Therefore, it's crucial to comprehend how institutional influences like government policy and other factors affect how new business goals and problems originate.

CSV illustrates that financial, social, and environmental benefits may all be obtained concurrently. Indeed, societal, and environmental concerns are central to the notion, functioning as catalysts for profitable shared-value business proposals across various organizations and industries. In this aspect, CSV is the appropriate business model to aid in achieving the United Nations' Sustainable Development Goals (SDGs). CSV is the economic paradigm that will accelerate the achievement of the SDGs. It represents a paradigm shift from Corporate Social Responsibility and the old belief that a firm may either do good or make money to a business model with the ability to change the world.

2.8. Maritime Industry

The global economy is a complex system made up of many interconnected but different networks, which are distinguished by their continual mobility. However, under capitalism, this mobility becomes a requirement for expansion, a need for the stability of capitalist social relations. Thus, businesses are stuck in the virtual cycle of capitalism (M. E. Porter, 2013) which includes the maritime industry too. For decades, the seas have served as a commercial route, strategic space, fish bank, and supply network for the modern capitalist economy and at present marine transportation moves billions of dollars daily in products, accounting for more than 90% (by weight) of world trade (Walker et al., 2018a). Due to the unforeseen environmental effects of marine transportation and port operations (Walker et al., 2018a), the International Maritime Organization (IMO) established a number of safeguards to protect the maritime environment from shipping activity. To understand how shipping is connected to CSV, it is imperative to understand the general perspective on shipping and their progress towards the transition that has been discussed in the upcoming sections.

2.8.1 Perspective about Shipping

“While seabeds are drilled for their fossil fuels and minerals, and coastlines developed for real estate and leisure, the oceans continue to absorb the toxic discharges of our carbon civilization—warming, expanding, and acidifying the blue water part of the planet in ways that will bring unpredictable but irreversible consequences for the rest of the biosphere” (Campling, 2021)

In the article, “Shipping Chaos Is the Latest Sign that Capitalism Is Eating Itself” by Grace Blakeley, the author described how the breakdown of globalization is an example of an internal crisis—a brake on capitalist accumulation driven by the dynamics created by the system itself, which will be discussed further in the next chapter below (Blakeley, 2022).

2.8.2 From Globalization to De-Globalization

The black swan event, the Covid-19 epidemic, presented a clear example of a stagnant global economy. The world economy shrank by 3.3 percent in 2020, the worst recorded reduction in GDP since World War II. Falling trade volumes contributed most to this downturn, which dropped further and quicker than at any point before 1945.

While Covid-19 did connect the globe in specific ways, it had a significantly deglobalizing or regionalizing effect on the economy. International trade will be affected similarly to how international money flows were affected by the financial crisis of the Covid-19 pandemic and the accompanying geopolitical unrest: a profound breach and nowhere does this appear to be more evident than in the case of global shipping. Covid-19 wreaked havoc on this system. First, factories in China shut down, leaving fewer goods to be loaded onto ships waiting at ports. It was challenging to load and unload the available goods simultaneously since there weren't enough port personnel in China and the United States. As worries about the future of the global economy affected spending and investment, new orders also declined. Furthermore, numerous ships were unable to dock because of Covid rules. This was tragic for the exploited seafarers who worked on these cargo ships. Many people discovered themselves stuck, unable to reach their family, and frequently going months without receiving money.

However, when the virus spread, traffic started to increase once more. Governments all around the world took large initiatives to promote demand, which exacerbated this trend. Suddenly, everyone wanted to move everything as quickly as possible, but the infrastructure was damaged by the shock of the abrupt pause. Backlogs developed because of thousands of containers being transported by hundreds of ships that became stuck at sea for months before being unloaded in order to make room for future ships. Since shipping is a derived need, shipping businesses received an overwhelming volume of requests, yet the system was under capacity. Shipping oligopolies like Maersk, Cosco, and MSC increased their prices due to the strong demand and tight supply. The Great Lockdown saw higher transportation costs, which led to an inflation rate of 1.5%, according to the United Nations Conference on Trade and Development (UNCTAD, 2022).

After the Russia- Ukraine war, according to UNCTAD, this interruption will almost certainly lead to increased shipping charges. Since the cost of shipping today affects the prices of goods on the shelves tomorrow, the effects of the battle on the supply chain will be seen for several months. One of the primary reasons that globalization has been so unfair over the last few decades is that it has depended on infrastructures held by private parties (Blakeley, 2022).

On contrary, a survey was conducted by Atradius, an insurance company in Amsterdam to learn how firms perceive the risk of deglobalization and if they intend to reorganize their supply chains. From the figure below, it can be understood that half of the industries can see a gradual growth in the trend of deglobalization and are considering it at present and in the future for their businesses.

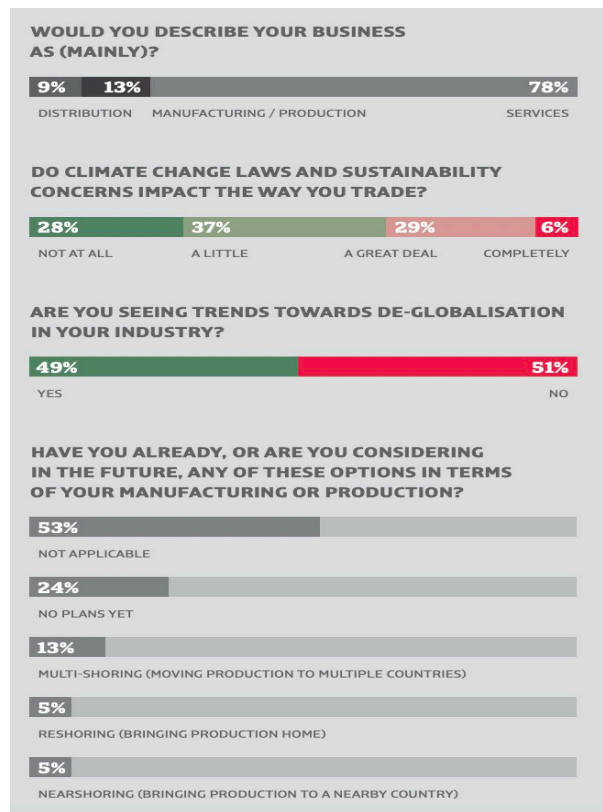


Figure 2.12 – Survey results on deglobalization trend, source (whitepaper - from crisis to opportunity: what’s the future of trade? de-globalization - a new way to trade, but will it stick? 2021)

Numerous external obstacles face capitalism, from escalating worker militancy to the degradation of the environment. On the other hand, the breakdown of globalization illustrates an internal crisis—a suppression of capitalist accumulation brought on by system dynamics. One example is developing a highly calibrated, efficient worldwide shipping system that was both highly lucrative and extremely sensitive to shocks. The emergence and fall of the financial networks that caused the financial crisis of 2008 is another illustration. As it has been known to us in recent decades, globalization is gradually disintegrating; regrettably, for socialists, its replacement is unlikely to be much better (Blakeley, 2022). If deglobalization or regionalization becomes a reality, then to mitigate this risk, businesses strategically will focus on local cluster development, which will generate profit, creating shared value.

“This is both a time of uncertainty, but also opportunity. How we redefine trade is the answer to the ‘trillion-dollar’ question.” Dr. Linda Yueh (Atradius, 2021)

2.8.3 Societal Impact of Shipping

Shipping's capacity to provide economical and efficient long-distance transportation places it at the global economy's heart. The capacity of shipping to transfer goods and resources from their origin to their point of consumption ultimately underpins modern existence. To support global economies, shipping has developed intricate logistics systems that deliver just-in-time components and commodities to producers and consumers (ICS, 2022).

PREDICTED INCREASES IN WORLD SEABORNE TRADE, GDP AND POPULATION

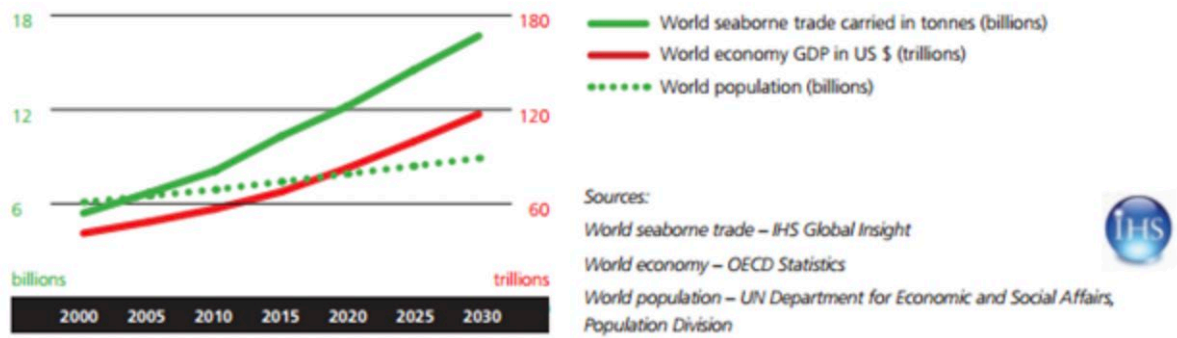


Figure 2-13. Forecasted Increase in World Seaborne Trade in comparison with GDP & Population, source(ICS, 2022)

As per the above figure, there is a predicted increase in the world seaborne trade. Even though globalization via shipping has enormously impacted positively our modern lives, it has negative societal impacts too as discussed below.

- **Air Pollution**

Marine transportation is responsible for 33% of all trade-related emissions from fossil fuel consumption, including 3.3% of global CO₂ emissions (Cristea et al., 2013). Emissions are affected by the fuel used, the engine, and the engine's efficiency (Oan et al., 2015). According to (Lindstad & Eskeland, 2016), maritime traffic contributes 10%-15% of anthropogenic SO_x and NO_x emissions worldwide.

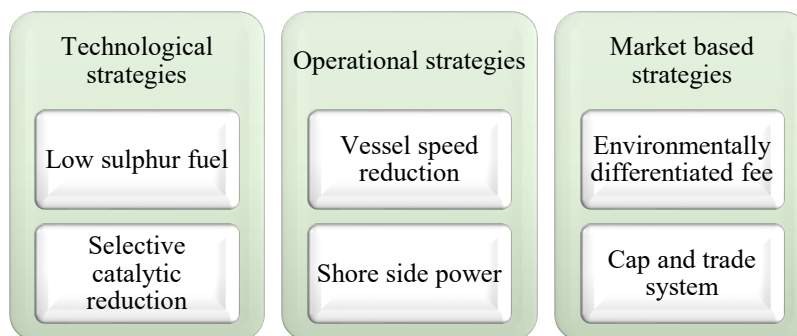


Figure 2-14. Strategies to mitigate air pollution in the maritime industry, source (adapted by the author from (Walker et al., 2018b))

Emission controls, voluntary agreements, environmental indexing, taxes, and tradable licenses are some of the policy tools used to reduce GHG emissions, with varying degrees of success. However, studies demonstrate that supplemental measures, such as carbon pricing systems, and specific emissions targets, can aid in the reduction of GHG emissions (Bode et al., 2002). Air pollution may be reduced by integrating new technologies, operational controls, and market-based efforts, figure 2.14. The replacement of old engine systems, low-sulfur fuel consumption, and the application of the exhaust cleaning technique selective catalytic reduction (SCR) have all been shown to improve marine vessel environmental performance, with NO_x emissions reduced by 95% (Han, 2010).

- **Oil Spills**

While oil transport accounts for approximately 12% of all oil spills globally, maritime vessels account for almost two-thirds of those (Burgherr, 2007). Accidental discharges are caused by human mistakes and technology failure. Operational discharges are deliberate discharges generated by negligence or malicious violation of international treaties. Since the first "major supertanker incident," when the SS Torrey Canyon grounded, the most progress has been made in understanding the effects of oil spills on human health (Wells, 2017)

The application of technology to analyze and forecast potential spill impacts. Several data-driven models have been created to calculate spills' environmental and financial effects (Kontovas et al., 2010). Although there are many models, they all use the information on the location of the spill, its physical and chemical features, and report the weather, the atmosphere, and the ocean to predict how far the spill will travel. (Marta-Almeida et al., 2013). Oil spill models are also used to estimate risk and plan for contingencies (Marta-Almeida et al., 2013).

The use of double-hulled ships, which has been the most critical factor in minimizing oil leaks, is evidence that regulations and technology have proven to be good tools for reducing spills (Burgherr, 2007). Overall, the most successful methods to alleviate the environmental consequences of oil spills are proactive worldwide preventative measures such as rules and policies, which negate the need for cleanups (Wells, 2017)(Burgherr, 2007).

- **Aquatic invasive species (AIS)**

Ships move 3-5 billion tons of ballast water yearly as maritime transportation expands, with 51,400 commercial ships operating globally(the Maritime Executive, 2015). This raises the danger of introducing invasive species (AIS) due to the discharge of untreated ship bilge water, posing severe hazards to world biodiversity (Asariotis et al., 2016). The development of AIS may have detrimental effects on the economy, the environment, and human health (Chan et al., 2015).

Ballast water management in the Arctic demands special care as it grows increasingly vulnerable to invading species. The Worldwide Maritime Organization (IMO) enacted the International Convention for the Control and Management of Ships' Ballast Water and Sediments (BWM Convention) in 2004(IMO, 2004), which established international laws for ballast water operations (IMO, 2017a)

- **Ship-Based Garbage Management**

Environmental deterioration is affecting oceans all around the world because of garbage pollution caused by ships. MARPOL 73/78, its Annex III-Hazardous waste and V-Rubbish, and the International Safety Management System manage ships' garbage (Butt, 2007).

For the marine environment to be preserved, trash-receiving facilities created by ships must be built and operated correctly (Encheva, 2015). These food waste discharge limitations, including restrictions on disposal along the shore and legal prohibitions, are outlined in MARPOL 73/78. For ports and shipowners, the lack of adequate facilities for processing ship-generated trash is a top problem (Walker et al., 2019).

Garbage management plans generally contain all types of ship-generated waste and help decrease the environmental implications of ship-generated waste (Encheva, 2015). To achieve integrated waste management, it is necessary to provide suitable receiving facilities that encourage rubbish disposal at ports and terminals, put recycling or reuse programs in place, and remove any incentives for unauthorized dumps at sea (Zuin et al., 2009).

- **End-of-life ship disposal**

Ship Sinkings: While unintentional shipwrecks have unintended environmental effects, artificial reefs are constructed by sinking derelict ships to generate local economic advantages (Choi et al., 2016). Sunken vessel colonization is gradual initially, but it can have up to four successional waves in the first decade (Hiscock et al., 2010).

Shipbreaking: When a ship is disposed of it is broken down into salvageable parts (Kaiser, 2008). The release of oil, lubricants, or harmful chemicals used in shipbuilding can severely impact the environment and human health, even though shipbreaking is favorable for waste disposal (Sarraf et al., 2010). Fish, seabirds, and seals are at risk when solid waste and construction debris leach plastics and minute scrap metal particles into the water.

The environmental issues raised by shipbreaking vary according to local regulations and legislation. Bangladesh, India, and Pakistan account for up to 80% of worldwide shipbreaking, with smaller amounts occurring in China and Turkey (Sarraf et al., 2010). In Bangladesh, the IMO, the Government of the People's Republic of Bangladesh, and the Secretariat of the Basel, Rotterdam, and Stockholm Conventions (BRS) have recently adopted coordinated initiatives to establish safe and ecologically sound ship recycling in Bangladesh (the SENSREC project) (IMO, 2017b). The environmental issues raised by shipbreaking vary. Strategies such as the SENSREC program will help to mitigate detrimental marine ecological repercussions while spurring advances in shipbreaking ecological rules and practices in other nations.

2.8.4 Ongoing Transition in Maritime Industry

Regulations and enforcement have been implemented at the national, regional, and worldwide levels as a key management solution to prevent marine transportation's environmental consequences and drive the maritime industry toward sustainability. Regional and international efforts aid in the development of the marine industry. Incentives and rewards for the highest environmental performance of ships, ports, seaports, and shipyards, in addition to legislation, enforcement, regional, and worldwide efforts, can be successful ways to drive the shipping sector toward sustainable shipping (Walker et al., 2018)

Regulations and enforcement procedures may be ineffective in forcing the shipping sector to conform to legislation, rules, and standards without technical alternatives and even though the maritime sector is considered as not so quick to adapt to changes, the Paris agreement is envisaged to be a steppingstone for this ongoing transition in the industry. The Paris Agreement is the first-ever universal, legally enforceable global climate change agreement, and it was adopted in December 2015 during the Paris Climate Conference (Sustainable innovation forum, 2015). It establishes a worldwide framework for avoiding severe climate change by keeping global warming well below 2°C and aiming to keep it below 1.5°C (European Commission, 2022).

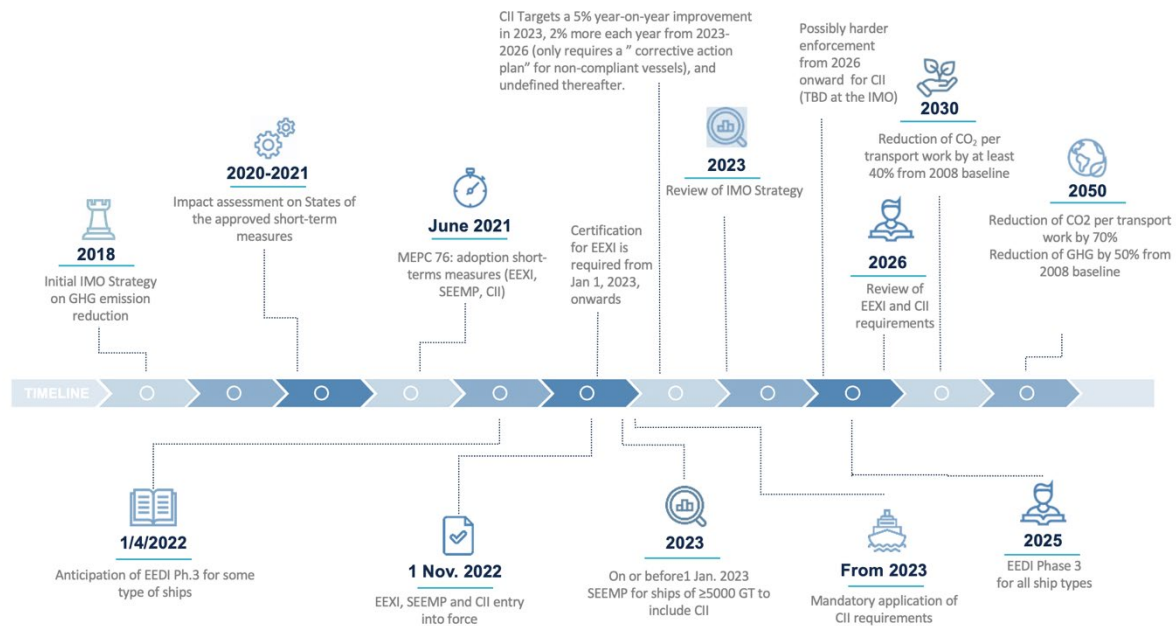


Figure 2.15 - IMO GHG strategy regulatory framework, source (developed by the author)

The IMO GHG strategy envisions a reduction in the carbon intensity of international shipping (to reduce CO₂ emissions per transport work, as an average across international shipping, by at least 40% by 2030, to reach 70% by 2050, compared to 2008); and that total annual GHG emissions from international shipping should be reduced by at least 50% by 2050, compared to 2008. The strategy mentions “a roadmap of CO₂ emissions reduction commensurate with the Paris Agreement temperature targets.” IMO continues to contribute to the worldwide battle against climate change in support of UN Sustainable Development Goal 13, which calls for immediate action to mitigate climate change and its consequences (IMO, 2022). The major ongoing transitions in the industry are explained below.

- **Decarbonization**

After the adoption of the IMO strategy, many of the industry's leading players acknowledge the importance of quick action. Energy innovations, regulatory and financial measures, and integrative solutions have emerged as decarbonization enablers. Achieving their full decarbonization potential requires substantial system-wide thinking and digital technologies. The marine industry is a diverse ecosystem of three core value chains critical to driving the sector's decarbonization efforts, and there is a need to synchronize actions across these key essential value chains to guarantee that they focus on the critical enablers concurrently as shown in figure 2.16.

⇒ **Shipbuilding chain:** Ship design, procurement of construction materials, ship assembly, post-production maintenance, refitting, and end-of-life recycling where all steps must address decarbonization. Vessels must be constructed to emit as few greenhouse gases as possible preferably using steel sourced from low carbon production methods and circularity concepts should be used for design and construction to optimize reuse after decommissioning a ship. Some techniques include but are not limited to, enhanced hydrodynamic hull design, wind assistance when sailing, high-efficiency dual-fuel and multi-fuel engines, and computerized technologies to optimize route and port arrival. Carbon pricing, for instance, can stimulate a new era of shipbuilding, hastening the transition to a low-carbon, zero-emission maritime sector (UNCTAD, 2022).

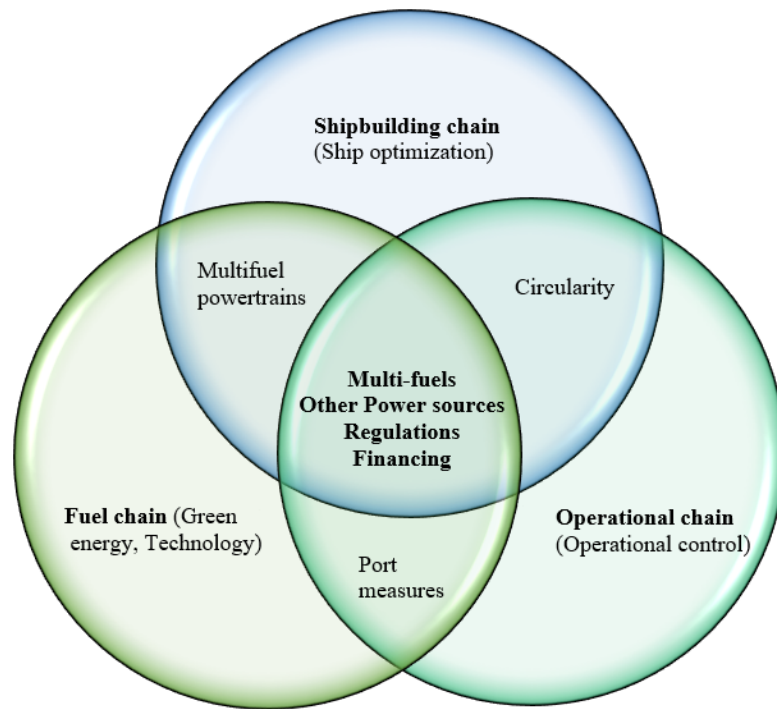


Figure 2-16. Value chains and selected decarbonization enablers, Source: Mikael Lind and Wolfgang Lehmacher et al (2022)

- ⇒ The **Fuel chain** includes exploration, transportation, processing, fuel delivery to fueling stations, and consumption by the ship operator. There are insufficient cost-equivalent low-carbon / zero-emissions alternative fuel sources for marine operators to commit to charter agreements that contain a premium for next-generation dual-fuel engines. A broad range of low-carbon / zero-emission fuels, such as green LNG, green methanol, green ammonia, and green hydrogen, is being developed with varying schedules for commercial availability. Engines that can operate on methanol and LNG are out in the market (UNCTAD, 2022).
- ⇒ **The Operational value chain** includes fueling/provisioning, loading/boarding, sailing, unloading / disembarking, and refueling. On the one hand, ship operators have several levers to reduce CO2 emissions, including leveraging the size and speed of ships and fleets; on the other hand, seaports must support decarbonization in shipping by providing infrastructure for storing and bunkering alternative fuels, as well as onshore power supplies. The availability of alternative fuel at market-competitive pricing is a crucial enabler that cuts across all three marine value chains. Alternative fuels influence ship design, engines and tanks, and ship operations due to the marine fuel value chain (UNCTAD, 2022).

3 steps to catalyze collaborative innovation to decarbonize the global marine ecosystem:

- **Initiating collaborative innovation:** As we can see with the Blue Skye Maritime Coalition, the Global Centre for Maritime Decarbonization (GCMD), the Global Maritime Forum with the Getting to Zero Coalition, the Maersk Mc-Kinney Moller Center for Zero Carbon Shipping, and the Zero-Emission Shipping Mission, collaborative innovation alliances or even the ecosystem can drive the formation of partnerships (UNCTAD, 2022).
- **Establish regulatory alignment:** Regulators and corporate leaders should collaborate to develop new international policies for global regulatory harmonization. Mutual knowledge, consultation, and rules and regulations are required for collaborative worldwide innovation and implementation of the green shipping sector (UNCTAD, 2022).

- **Leverage technology:** Collaborative innovation enabled by digital innovations may bring individuals and organizations from across the ecosystem together to share knowledge. GHG emission calculators, digital twins of engines, ships, and port infrastructure are other enablers (UNCTAD, 2022).

- **Digitalization**

⇒ **Autonomous ships:** The International Maritime Organization (IMO) has initiated researching how Maritime Autonomous Surface Ships (MASS) operations could be addressed in IMO instruments. As a work in progress, the Maritime Safety Committee (MSC) approved a framework for a regulatory scoping exercise, which includes basic definitions of Maritime Autonomous Surface Ships (MASS) and degrees of autonomy methodology for conducting the training and a work schedule (IMO, 2018). Developing autonomous vessels aims to contribute to all significant characteristics of sustainability.

- Economic sustainability: by minimizing operating costs, particularly crew-related costs
- Ecological sustainability: by enabling innovative ways to reduce overall fuel consumption
- Social sustainability: by increasing safety from trivial operational tasks of fatigue crew

Aside from increased automation on board, it also addresses numerous elements of the intelligent ship, such as optimal (weather) routing and onboard energy efficiency management. Finally, the success of autonomous vessels is determined by their influence on shipping businesses' profits (Kretschmann et al., 2017).

⇒ **Digital revolution in logistics:** This Fourth Industrial Revolution is expected to transform Logistics and Supply Chain Management, with automated delivery systems, intelligent networks being built everywhere, and data being gathered and analyzed globally to enhance trade from the complexity of the supply chain. Smarter supply chains can help:

- Drive resiliency, agility, and predictability: Reduce operational silos, adapt to market changes, limit risk, and preserve company continuity through evolving supply chain planning and practices.
- Enable intelligent, end-to-end supply chain visibility and transparency: Get real-time analytics and actionable recommendations to cut the time it takes to mitigate disruptions from days to hours.
- Minimize the complexity of supplier onboarding and collaboration: Reduce the time, expense, and risk involved with qualifying, validating, and managing new vendors, and respond to supplier concerns as soon as possible- even during a crisis.
- Deliver more customer promises (IBM, 2022).

⇒ **JIT (Just In Time)** arrival is an intriguing idea put out by the IMO as one of the workable solutions to lower the GHG emissions from the maritime industry. Ships may better schedule their arrival at the berth and avoid waiting for hours or even days at anchor outside of ports by using "just-in-time" delivery. Ships may slow down, reduce their carbon impact, and save money on fuel. (Parihar & Mishra, 2022)(McLean, 2021).

⇒ **Smart contracts** are programs that run on top of blockchain technology. They represent a type of automation in which intermediary layers can be eliminated or replaced entirely. As a result, innovative blockchain contracting solutions reduce transaction and enforcement

costs and process time, promoting cross-organizational cooperation and underlying business operations. Blockchain smart contracting can help deploy collaborative logistics structures and how SMEs (small and medium-sized enterprises) can be integrated into sustainable marine supply chains (Philipp et al., 2019).

⇒ **Predictive maintenance:** Because of the digital transformation, information techniques, computerized control, and communication networks, it is now possible to collect massive amounts of operational and process conditions data generated from various pieces of equipment and harvest data for automated fault detection and diagnosis to minimize downtime and increasing component utilization rate and remaining useful lives. To control the health of industrial equipment, intelligent systems, machine learning inside artificial intelligence, and predictive maintenance approaches have been widely deployed in industries. For sustainable smart manufacturing, predictive maintenance techniques are necessary, and machine learning techniques have become an effective tool in cutting-edge manufacturing predictive maintenance applications (Çinar et al., 2020).

- **Environmental Hiring Trend**

The proportion of ship equipment supply, product and services companies hiring for environment-related positions rose significantly in December 2021 compared with the equivalent month last year. (Ship Technology, 2022)

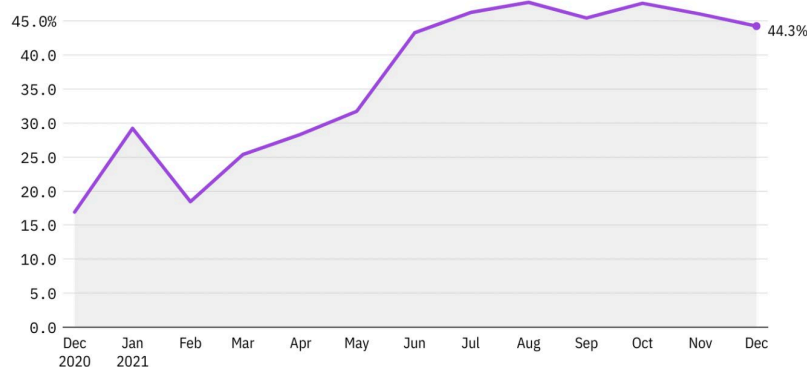


Figure 2-17. Trends of environmental hiring levels in maritime sector, Source (Ship Technology, 2022)

One of the themes recognized as a critical disruptive force affecting organizations in the following years is the environment. Companies that excel in these areas and invest in them are regarded as ready for the future business landscape and better positioned to deal with unanticipated obstacles (Ship Technology, 2022). When the upcoming generation is selected for these jobs, they feel pride and responsibility. It is simply restitution for the harm done by our predecessors.

- **Collaboration between shipping and energy companies**

⇒ *Orsted and Maersk* have signed a letter of intent to build a 675MW power-to-X facility on the US Gulf coast that would create around 300,000 tonnes of e-methanol per year from green hydrogen that Maersk will use to power its newly ordered fleet of 12 methanol-powered boats. According to them, this might lead to the largest-ever offtake arrangement for green fuels in the marine industry. The power-to-X project is Orsted and Maersk's

second green fuels partnership, following the possibly 1.3GW Green Fuels for Denmark project in Copenhagen (Radowitz, 2022).

- ⇒ *MSC Mediterranean Shipping Company (MSC) and Shell International Petroleum Company* have inked a long-term memorandum of understanding (MoU) to advance global shipping sector decarbonization. Both firms' technical and commercial teams will collaborate to develop and deploy net-zero solutions, emphasizing contributing to a zero-carbon Flexi-fuel concept ship. They will also collaborate on energy-saving technology, such as digital services and platforms. Both firms have been researching the potential benefits of transitioning from fossil-based LNG to bio-LNG or synthetic variations. Together, the partners will look at ways for MSC to employ LNG in its fleet, which is the cleanest fuel available today (Ship Technology, 2021).
- ⇒ *A.P. Moller-Maersk* and its Danish counterpart, *Vestas*, have signed a long-term strategic collaboration for all containerized transport. The collaboration comprises door-to-door shipping from suppliers to the firms' factories, service warehouses, containerized site parts, and transport equipment (Offshore energy, 2021).
- ⇒ *British oil and gas company BP and Japanese shipping major NYK Line* have signed a memorandum of understanding (MOU) to work on future fuels and transportation solutions to help industrial sectors, including shipping, decarbonize. In the shipping industry, the firms will work together to explore possibilities to transition from existing marine fuels to alternatives, including LNG, biofuels, and methanol, and to develop future fuels like ammonia and hydrogen. To help other hard-to-abate industrial sectors decarbonize, the two partners will also study possible maritime transportation and additional carbon dioxide solutions, as well as involvement in supply chains for ammonia and hydrogen used in heavy industries and power production (Prevljak, 2021).

2.9. Conceptual Framework and Components of CSV in Maritime

A conceptual framework and components for creating shared value in the maritime sector were developed by the author presented below in figure 2.18, and it forms the core of this research study which benchmarks CSV in maritime and answers the research question. The shipping companies exist in a business ecosystem where all coexisting actors are fully aware of existing social unmet needs. In this capitalist economic system, the core strategy of the shipping company to create shared value is represented as the epicenter, which can be perceived from the framework. As (M. E. Porter & Kramer, 2011) explained the three levels for creating shared value, the author positions them around the central strategy representing that a shipping company can create shared value in one or all three levels. Since shipping is a derived demand and service-based sector, the author rephrases all three levels, namely: Reconceiving the maritime services offered and market capture, Redefining productivity in the maritime value chain, and enabling the local cluster of maritime business. If a shipping company wants to create shared value in level 1, it should reconceive the maritime services offered by addressing the societal need for climate change. The social dimension of climate change is that it is *deeply intertwined with global inequality trends* (World Bank, 2022). It's the most significant societal issue to be considered by the shipping conglomerates because, as per the fourth IMO GHG study conducted in 2020, the share of maritime emissions increased from 2.76% in 2012 to 2.89% in 2018 (IMO, 2020). Also, as explained in section 2.8.3, the sector is in a transition phase of decarbonization, such as finding alternatives in terms of fuels, which opens the door to innovative opportunities to address climate change by the maritime fraternity.

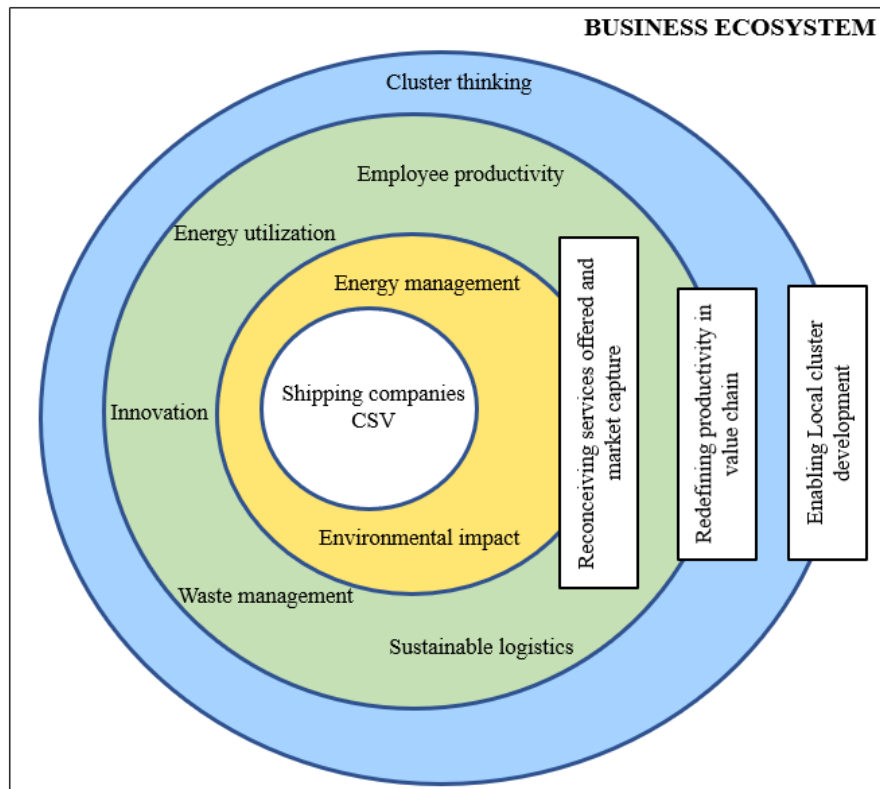


Figure 2-18. Conceptual Framework and Components of Creating Shared Value in Maritime Sector, source: developed by the author

Under this phase, the company should consider the components such as the vessels' environmental impact and energy management. The shipping companies cannot decarbonize entire seaborne trade instantaneously, but they employ new innovative methods to reduce emissions such as alternative fuels through collaborations with energy companies, voyage optimization, energy efficiency technology optimization, modification of engine power limitation, installation of energy-saving devices, etc. through which the shipping company can unlock the shared value opportunities in level 1.

As explained in 2.3.2, the value chain of a maritime company has primary and supporting activities; the purpose of primary activities is to fulfill the marine services for their customers that should be greater than the cost of carrying out those services utilizing support activities, to generate profit and gain competitive advantage (Porter, 1985). But the value chain is impacted by numerous societal issues, as discussed in 2.3.2, so the author deduced the following components for CSV in level 2, namely: Innovation, waste management, sustainable logistics, employee productivity, and energy utilization. Through these components, the shipping companies can create shared value in level 2. Under this level, the shipping companies must focus on onshore operations, as the previous level focused on sea operations. Each component mentioned above has a social dimension to it by shipping companies can address them and create shared value. For example, in sustainability logistics, the company should address societal issues such as emissions from land transport and waste generation from procurements. Through innovation, the company must approach these societal issues. Thereby internal expense of the company is reduced, and societal benefit is achieved by shipping companies creating shared value.

Another example is unmet societal health and safety needs; shipping companies should cherish the health and safety of their employees; if we consider seafarers, they employ 1.6 million seafarers to drive the global trade (ICS, 2022) and are exposed to the most dangerous working conditions onboard out at sea. Through monitoring the progress of occupational safety & health performance and embracing sustainable business operation, the shipping company creates shared value for the human capital. The waste generated from ships and logistical activities on shore is not only the waste produced from the maritime world, one of the prime topics in waste management is disposing of a ship after its economic life, and there is much creating shared value potential in the ship recycling, and shipping companies can create shared value by adopting the principles of the circular economy.

Maritime trade is a global business; the companies exist and operate in all parts of the world. To CSV in level 3, the shipping companies must possess the component of cluster thinking. The maritime company existing in a business ecosystem is surrounded and impacted by local assets, as discussed in 2.3.3, such as availability of suppliers, institutions, infrastructure, regional governance framework, skilled labor workforce, etc. (ISC, 2020). If the local workforce is not skillful, the company has to employ people from other parts of the world, which increases the internal cost of the company. Instead, with a cluster thinking approach, the shipping company can invest in training, education, and workshops for the workforce available in the local region of business activities. As a result, the company can hire a trained, skillful workforce through which the cost of employing is constrained, the employability level in the local region rises, the local economy is triggered, and it creates value for local people and communities. As a result, shipping company increases productivity and growth while strengthening regional competitiveness by building a robust local cluster (ISC, 2020).

In a nutshell, CSV is a business strategy to achieve competitive advantage by solving unmet societal needs with a business case (M. E. Porter & Kramer, 2011) (Awale & Rolinson, 2014) (Juscus & Jonikas, 2014)). Hence with the above conceptual framework presented by the author, the shipping company must consider the below-mentioned process of creating shared value developed by the author in figure 2.19. In a business ecosystem, a lot of societal needs and issues prevail, shipping companies cannot solve everything, so they need to identify and select a societal problem that can gain the most leverage and should consider their available resources to impact a larger scale (Awale & Rolinson, 2014). So as shown below in step one of the process, the shipping company must conduct a strategic analysis of the external and internal environment to narrow it down to one unmet societal need. The second step after identifying the social issue is to develop a business case out of it.

In this step of strategic formulation, under which level or pillars of CSV can be achieved is decided. It can be a single level or multiple too. After determining, shipping companies must lay down the desired outcomes and estimated costs, and then potential business and social developments in relation to cost structures are modeled (Awale & Rolinson, 2014). In the third step, the decision is taken based on the model from step 2; if the shipping company cannot achieve the desired economic and social result, they must drop the plan and return to step 1 to identify a different societal issue and repeat steps 2 and 3 until they can forecast the desired outcome of social and economic benefit on a larger scale to create shared value. In step 3, if they find that the business case is solid and can generate shared value, it's given the go-ahead decision and executed. In the final step, performance assessment, monitoring, and control are the focal areas (Awale & Rolinson, 2014). In the last step, the societal inputs, business operation output, and financial performance related to the desired social and economic benefit are tracked

and monitored. The shipping company's economic and social value is measured through transformation metrics.

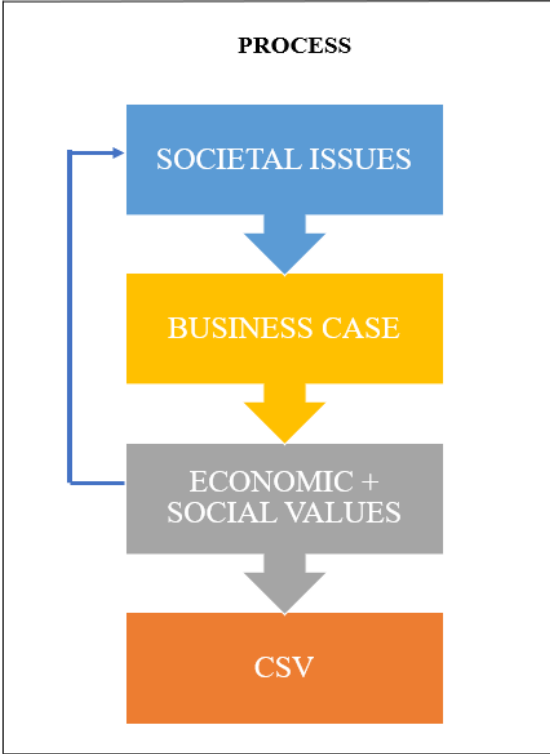


Figure 2-19. The process of Creating Shared value by a shipping company, source: developed by the author

2.10. Conclusion

The literature review forms the core of creating shared value in the maritime sector. The author structures this chapter into two parts to establish a clear theoretical framework. The first part identifies the importance of conducting a literature study on creating shared value. Through which the genesis, concepts, how CSV is achieved in three levels, and what is economic and social value creation is explained in detail. Once ideas and ways of implementing CSV are established, the author explores the real cases by presenting how Nestle – Food Industry, Enel – Energy Sector, Novo Nordisk – Pharmaceutical business, and IHG – Hotel & Tourism sector created shared value. These real cases create a rough framework for the author to understand the practical implications of CSV. Also, it’s imperative to differentiate between CSR and CSV as many in the business world believe both are the same, so the author provides a detailed explanation of their differences. Through SDGs author finds the link between shared value and sustainability, with which the first part is concluded. The second part focuses on four topics in the maritime Industry, detailing our general perspective on maritime trade, the global trade journey from globalization to de-globalization, societal impacts of shipping, and concluding the second part with ongoing transition in shipping. With the literature study on creating shared value and maritime business, the author develops a conceptual framework and identifies the components of shared value in shipping, along with the steps involved to create shared value for a maritime company, which are the objectives to answer the sub-research questions of this thesis. This will be a benchmark study for the maritime fraternity on creating shared value. The limited number of academic research studies, business cases, and journals about CSV and the maritime industry are also noted in this chapter as a study limitation.

Chapter 3 Methodology

3.1 Introduction

This chapter elaborates on the approach and method applied in this study's analysis to address the research question. Selecting a research technique that successfully answers the research question while adding value in terms of reliability and validity is critical. As explained and concluded in chapter 2, Creating shared value in the maritime sector is a topic where a negligible amount of research has been done. According to Bhattacharjee (2012), an explorative research strategy is required to determine the scope of a particular occurrence, generate new ideas about the phenomenon, and assess the viability of that phenomenon through a more extensive evaluation. The author decides on an explorative research approach to study the concept of creating shared value in the backdrop of the maritime sector. Before explaining the process of narrowing down research methodology, a clarification on two terms, 'methodology' and 'method,' was required.

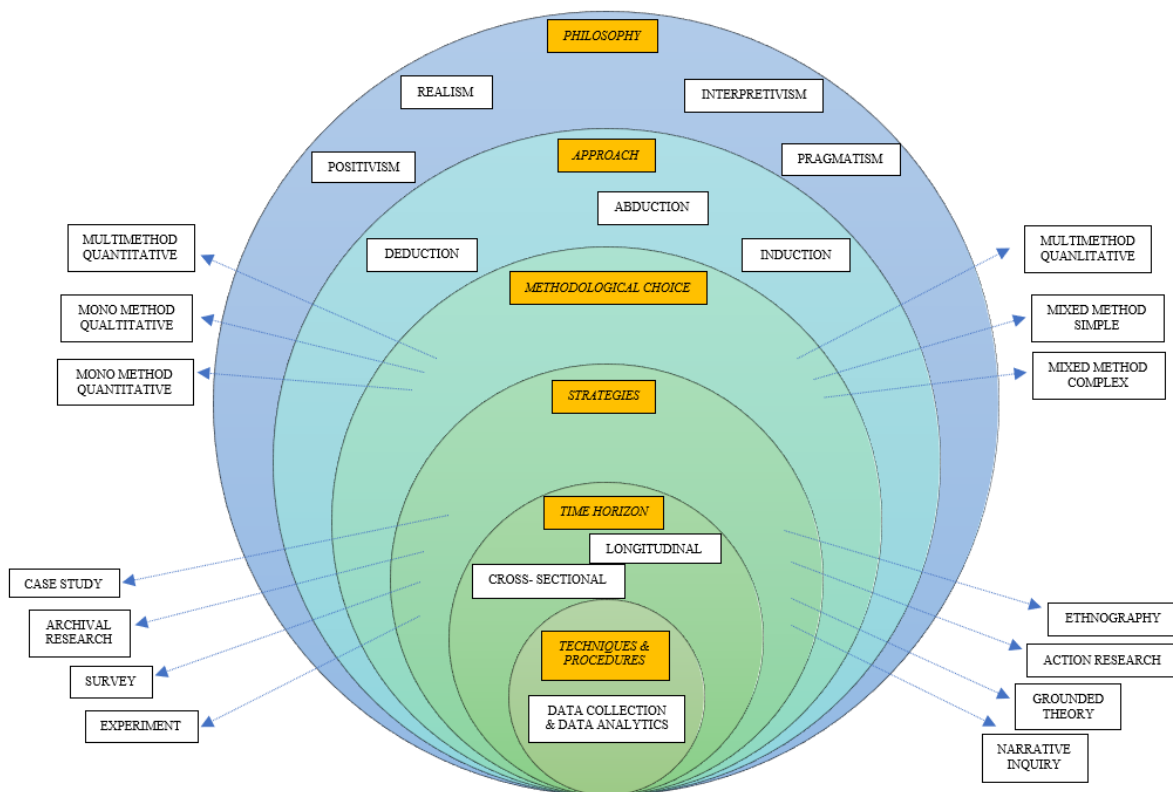


Figure 3-1: Research paradigm, source: Author's version adapted from (Saunders et al., 2012)

According to Mackenzie & Knipe (2006), "methodology is the general approach to the intended research that pertains to the paradigm or theoretical framework to be applied, whereas the technique refers to the systematic modes, methods, or instruments used for data collecting and analysis." In a research study, the word methodology reflects how the research should be conducted, and the term method describes the techniques involved in collecting and analyzing data (Saunders et al., 2012). With the explanation of the underlying meanings of methodology and method, the author adopted a research paradigm, as shown in figure 3.1, to decide on the research framework of this dissertation. This chapter is divided into five sections as per the above figure. In each section, the author explains on choices and conclusions made to formulate

the general approach to the research study and presents a broad overview of techniques and procedures for data collection, type of data selected, and analysis process involved to conclude the research question and ends with limitations involved.

3.2 The Philosophy, Approach, and Methodological choice of the research study

The term philosophy in research relates to the creation of knowledge and synthesis. When a researcher initiates the study, it is about expanding the knowledge in a specific field (Saunders et al., 2012). In research, many assumptions to be made during the study, and according to (Crotty, 1998) and Saunders et al. (2012), the researcher's presumptions about how the core ideology of the study is perceived can be viewed as research philosophy and these presumptions will serve as the foundation for the researcher's strategy to be implemented in the survey (Crotty, 1998; Saunders et al., 2012). Also, Johnson & Clark (2006) stress that the researcher must be mindful of the intelligent choices made in a management and business research study since it will substantially impact what and how the researcher interprets the subject matter. Saunders et al. (2012) assess research philosophies in four ways in terms of ontology, epistemology, axiology, and comparative data collection methods, as tabulated in table 3.1. Both Saunders et al. (2012) and Johnson & Clark (2006) argues on the crucial question; it's not about to what extent the study should be philosophically oriented but rather how effectively the researcher can contemplate and explain the philosophical decisions in comparison to another philosophical options researcher may have chosen. Based on these explanations and table 3.1 put forth, the author decided on interpretivism as the practical research philosophy for this study as it interprets the various elements in the study, and it involves in-depth research on concepts by integrating the researcher's interest. Also, data includes qualitative data such as interviews, reports, documents, observations, etc. In this study, the author interprets and studies the core elements of creating shared value in the domain of the shipping business. Thus, the research philosophy of interpretivism fits this research study.

The second decision to be made is on the research approach, and Saunders et al. (2012) explain that there are three ways to approach: deduction, induction, and abduction, as shown in figure 3.1. The deductive approach is selected when a research strategy is framed to test the hypotheses developed from the study's literature review to test the phenomenon under study. On the contrary, the researcher will choose an inductive approach to investigate a phenomenon by gathering data and then developing or creating a theory. Lastly, with the abductive process, the researcher collects data to explore a topic, discover themes, and explain patterns to build a new or change an existing theory that is then tested through the acquisition of further data (Saunders et al., 2012). Based on table 3.2 and the above explanation, the author decided on a deductive approach for this research study.

Selecting the appropriate methodological choice is crucial to a research study. There are three primary methodologies: quantitative, qualitative, and mixed, depending on the type of data to be analyzed. The author opted for non-statistical data and hence its qualitative research with an exploratory nature. As can be seen from figure 3.1, there are six choices, and the terms mono, multi and mixed defines the data collection techniques. In this case, the author selects the mono method since the data is available from a single source from the company to be studied, which is explained in the next chapter. From the above explanations and conclusions, the author decided on Interpretivism as the research philosophy with a deductive approach and mono-method qualitative as a research methodology. The other three decisions are explained in upcoming sub-sections.

4 Research philosophies	Ontology	Epistemology	Axiology	Data collection
Pragmatism	Multiple external viewpoints were chosen to best support solving the study topic	Depending on the research question, either observable occurrences or subjective meanings can offer sufficient knowledge	When evaluating results, values play a significant role. The researcher adopts both objective and subjective points of view	Mixed-method designs, including both quantitative and qualitative
Positivism	External, impartial, and unrelated to social actors	Only visible events can offer reliable information and facts	The researcher maintains objectivity, is independent of the data, and conducts the research in a value-free manner	Large samples, measurement, quantitative, but can utilize qualitative, highly structured
Realism	Its impartial & understood through social conditioning yet exists regardless of human thoughts, beliefs, or knowledge of their existence (realist)	Observable phenomena offer reliable information and facts. Sensations (direct realism) are inaccurate when there is insufficient data. As an alternative, phenomena produce sensations that are susceptible to misunderstanding (critical realism). Put your attention on providing context while describing	Research is prejudiced by the researcher's worldview, cultural experiences, and upbringing; it is also value laden. These will have an effect on the study	The methods used, whether quantitative or qualitative, must be appropriate for the topic.
Interpretivism	Socially created, subjective, potentially flexible, multiple	Social phenomena and subjective meanings. Concentrate on the situation's specifics, the reality concealed by those specifics, and the subjective meanings driving those acts.	Research will always be subjective because it is value-bound, the researcher is a part of the subject being studied, and they cannot be separated.	Small sample sizes, in-depth research, and qualitative

Table 3-1. Classification of 4 Research Philosophies, source (Saunders et al., 2012).

Characteristics	Deduction	Induction	Abduction
Logic	When the premises of a deductive inference are true, the conclusion must likewise be confirmed.	An inductive inference draws conclusions that have not been verified from known premises.	An abductive inference draws conclusions that may be tested based on known premises.
Generalisability	Generalizing from the general to the specific	Generalizing from the specific to the general	Generalizing from the interactions between the specific and the general
Use of data	Data collection is utilized to assess propositions or hypotheses connected to existing ideas.	Data collecting is employed to investigate a phenomenon, spot themes, and patterns, and develop a conceptual framework.	Data collecting is used to investigate phenomena, pinpoint themes, and patterns, place them in a conceptual framework, evaluate that framework through more data collection, and so on.
Theory	Theory falsification or verification	Theory generation and building	Creation of new theories or revisions of existing theories; where appropriate, combining existing theory into new theories or revisions of existing theories

Table 3-2. Classification of research approach, source (Saunders et al., 2012)

3.3 The Case study strategy & Time horizon

After finalizing the methodological choice of mono-method qualitative in the previous section, the next key step is to decide on the research strategy to be employed in the study. As outlined in the research paradigm figure, there are diverse strategies. As the decision is made on the qualitative methodological choice the key strategies used are as follows: case study, ethnography, action research, narrative research, and grounded theory (Saunders et al., 2012). These five mentioned strategies have similar ontological and epistemological foundations, as well as common traits but each approach has a particular emphasis, scope, and set of processes (Saunders et al., 2012). Out of these five, the author distinctly decided on a case study as a research strategy. As Yin (2018), explains there is no specific formula, however the decision on selecting a case study is greatly influenced by the research question of the study and when that question attempts to explain a contemporary phenomenon, the case study strategy will be more pertinent (Yin, 2018). According to Eisenhardt & Graebner (2007) to have a comprehensive knowledge of the context being studied, a case study is appropriate and as per Saunders et al., (2012), the case study approach is very efficient when a research question tries to provide explanations for questions like why? what? and how? Based on this school of thought and considering the research question of this thesis, the author selected a case study but the dilemma of a single or multi-case study followed the decision.

Yin, (2018) explains that there are five logics for a single case study and any one of them can be a reasonable decision as per the below table 3.1, authors research question - *What are the benefits of implementing shared values strategy in a maritime company?* satisfies four rationales. The first logic is that selecting a case should be critical to the researcher’s theory, which is true in this study. The author’s theory is that CSV stimulates economic and social benefit and to test this maritime sector had been selected, thus it satisfies the first rationale.

Decision on Single Case Study Analysis		Author's RQ
Robert Yin's 5 Rationales	<i>Critical to theory</i>	☑
	<i>Extreme or Unusual case</i>	☑
	<i>Common case</i>	☒
	<i>revelatory case</i>	☑
	<i>longitudinal case</i>	☑

Table 3-3. Decision table for single case study analysis, source (developed by the author)

It doesn’t satisfy the third rationale of the common case since this research is one of its kind as no previous studies on this topic have been done, which explains that it’s an unusual case – the second logic. Yin (2019) explains that revelatory logic is fulfilled for a single case study when the researcher finds a chance to witness and examine a phenomenon that was previously not studied, which is also true in this research. Finally, as the author would like to study the evolution of the CSV concept over a time frame in the company to be selected for a case study, the fifth logic is also satisfied, as seen in table 3.1. With the decision made on the single case study, the author adopts figure 3.2, which shows the dual characteristics of the case study, i.e., linear, and iterative. As many definitions float around in the world of research for a case study, Yin (2018) provides a two-fold definition of case study, which seems to be acknowledged as a relevant one.

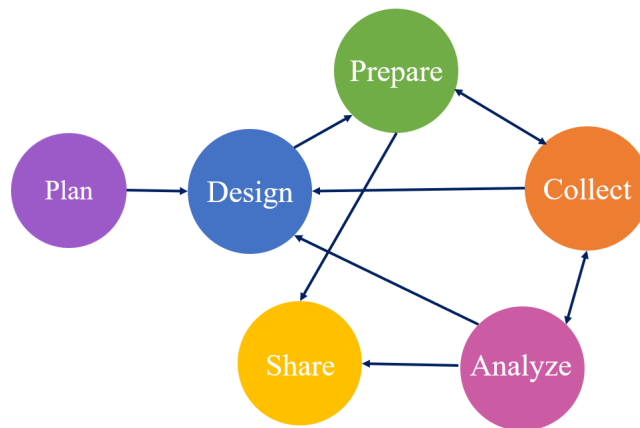


Figure 3-2. Dual nature of case study, source (Yin, 2018)

The first part of the definition explains the scope and the second part details the features of case study as a research strategy as can be seen in figure 3.3 below.

The Scope	A case study is an empirical technique that delves deeply into a current phenomenon and examines it in the context of real-world events, particularly when the distinctions between phenomenon and context may not be immediately obvious.
The Feature	<ul style="list-style-type: none"> ➤ Handles the technically unusual case where there will be many more interesting variables than data points, leading to one result. ➤ makes use of previously developed theoretical ideas to direct design, data collecting, and analysis, as well as another outcome. ➤ relies on a variety of sources of evidence, and the facts must come together in a triangulating way.

Figure 3-3. Two-fold definition of a case study, source (Yin, 2018)

To conclude the above two-fold definition explains the purpose and characteristics of a case study on how it's a comprehensive mode of inquiry with unique design principles, methods for gathering data, and strategies for data analysis (Yin, 2018). There are six key steps or processes involved as shown in figure 3.2 and they might look like a linear approach, but they are iterative as well since the process requires frequent evaluation and analyses to enhance the research strategy. The initial step is the planning phase where the researcher determines the pertinent situation for doing a case study in comparison to other research techniques and based on the research question the decision is made to conduct a case study analysis. As creating shared value strategy is relatively new to the maritime fraternity a lot of research is to be done in this domain and this poses a situation for author with a problem statement through which a research question was formulated and to answer this case study analysis fits the profile as a research strategy. The next step involves the design phase, since there are four different types of case studies, the author selects the single case study design as explained earlier in this section, also the design must be examined against four criteria namely construct validity, internal validity, external validity, and reliability to maintain the quality of case study (Yin, 2018). In step three the researcher develops a case study protocol and prepares to conduct the study, authors explore the external business environment with relevant sources and examine which maritime company will fit the profile as a case study to answer the research question and narrows it down to one shipping company and the reason is explained in next chapter. After an intensive selection

process of a company to be studied, the fourth step follows in the collection of required data. As claimed by Yin (2018), documents, archival data, interviews, firsthand observations, participant observation, and physical artifacts are at least six possible sources of case study data evidence (Yin, 2018). With the time restriction as a factor author didn't choose the interview instead the sustainability report of the company was selected and the reasoning for the same is explained in chapter 4. The data is collected for a time frame, and they are tabulated to show if all necessary documents were available and if any practical implications were faced in step 4 to collect the data. The author begins to develop a general strategy to analyze the recurring trends, ideas, and theories (Yin, 2018). In the 5th step, with collected data, any combination of strategies, such as reviewing, classifying, tabulating, testing, or otherwise recombining evidence, can be used to examine and adopt any one of five techniques from pattern matching, explanation building, time-series analysis, logic models, and cross-case synthesis to analyze the data (Yin, 2018). Once the acquired data is analyzed the final step or process of the case study is sharing the results or outcome and the revealing process includes steps like determining your audience, deciding on the structure for your case study, and having versions reviewed by others. The researcher might take into consideration of six different compositional structures for sharing the outcome of the case study namely, linear-analytic, comparative, chronological, theory-building, suspense, and un-sequenced structures, thus the entire substantive content can be shaped by each structure as mentioned in table 3.2 (Yin, 2018).

<i>Types of compositional structure</i>	<i>Case Study Purpose</i>		
	<i>Explanatory</i>	<i>Descriptive</i>	<i>Exploratory</i>
Linear Analytic	✓	✓	✓
Comparative	✓	✓	✓
Chronological	✓	✓	✓
Theory Building	✓	✗	✓
Suspense	✓	✗	✗
Unsequenced	✗	✓	✗

Table 3-4. composition structure and their application based on 3 purposes of case studies, source (Yin, 2018)

Since this research adapts to an exploratory approach to answering the research question, four types of compositional structures can be used to present the outcome, and the author decided on liner analytic which is a standard approach. The default structure of the linear analysis is that an issue or problem under study is covered first, followed by a review of pertinent previous literature. The techniques employed, data gathered, findings of the research, and finally, the conclusions and their implications for the initial issue or problem that had been examined are covered in the subtopics, which is the most relevant structure for this research study. Once the research strategy is finalized, the author should now choose on time horizon of research to be conducted. Saunders et al., (2012) explain two types involved in time horizon namely cross-sectional and longitudinal study. The former study means that it involves an exploration of a specific event or phenomena in a specific period, the cross-sectional study is an advantage in time-constrained research. On the other hand, the ability to research and examine the change and development of a particular phenomenon over time is known as a longitudinal study and it gives the researcher some degree of control over certain of the study's factors (Saunders et al., 2012). One of the main core aspects of this research study is that the author will be examining the evolution of CSV strategy in the company to be selected as a case study. This provides a complete understanding of the concept and its level of influence over the company's growth and hence author selects the longitudinal as the time horizon.

3.4 Data Collection & Analysis – The process involved

All the above decisions made on philosophy, approach, methodological choice, and strategy of research design eventually influence and decide on what type of data to be used and it's the secondary data, which is already collected by the company to be selected as a case study. Saunders et al., (2012), listed three subgroups of secondary data namely: documentary, survey, and multiple sources. With time as a limitation author didn't choose surveys, questionnaires, or interviews, instead, it was mentioned that the documented textual data of the sustainability report of a company provides a valid standpoint for analysis. Also, the data is to be collected for a time frame as the author assesses the evolution of CSV within the company's strategy. The data collection method and the total time frame it was collected and why it was collected for those number of years are explained in the next chapter under sub-section 4.1.2. The main advantage of secondary data is that it saves a lot of time for the researcher as its already collected, longitudinal studies are conceivable, and possibilities of unpredicted discoveries during analysis and the permanence nature of data (Saunders et al., 2012). The potential drawbacks of secondary data in research are, it might be not relevant to the research question to be answered and in that case, the researcher must find another source to collect data, in some cases accessing the secondary data might be costly, since its already a collected data, there is no control over the quality of data (Saunders et al., 2012). Both the advantages and disadvantages were considered when the author collected the secondary data for the analysis. As the decision is made on textual data of a company's sustainability report, the author must evaluate and select an appropriate technique to examine the qualitative data. This is where our philosophical choice impacts the decision to be made. The author chose the interpretive philosophy (Saunders et al., 2012) since the subjective and socially constructed meanings of creating shared value to be studied and to be interpreted with the maritime business ecosystem as the backdrop and social construct mean the human's cognition i.e., how people perceive the events unfolding around them (Saunders et al., 2012). Due to this Saunders et al., (2012) claim that qualitative data is enigmatic, versatile, and complex when compared with quantitative data. The decision on the relevant analysis technique to be used depends on the approach decided on the early stage of the research methodology which is a deduction in this study. According to Yin (2018), if an existing theory was used to frame the research question and its objectives, then those theoretical ideas are to be used to create a framework that will enhance the data analysis in a deductive approach. Which is the exact scenario of this research study, a conceptual framework, and components of maritime CSV were developed in the previous chapter with concepts of shared value and the present maritime business ecosystem studied. The selected secondary data will be studied and examined respectively to conceptual framework and components formulated by the author to answer the research question. Saunders et al., (2012) mention 3 types of qualitative data analysis – content, thematic and narrative analysis, out of which content analysis was selected as the preferred technique for data analysis of this research study.

According to Krippendorff (2004), a diverse set of definitions of content analysis exists since its principle can be traced back to the 1600s and after the second world war several disciplines started to utilize content analysis. The author finds relevance for this study in the following definitions - It is possible to infer contexts from texts or other significant material using a research technique called content analysis (Krippendorff, 2004), It's a methodical, repeatable method for grouping numerous text categories based on clear coding principles (Berelson, 1952; GAO, 1996; Krippendorff, 2004; Stemler, 2000; Weber, 1990b), any empirical analysis carried out on a text or other symbolic substance (Duriiau et al., 2007; Palanivelu, 2019; Shapiro & Markoff, 1997). As a research method, the content analysis offers fresh perspectives, deepens

a researcher's comprehension of certain occurrences, or inspires useful action and Krippendorff (2004), claims it as a scientific tool. To assess the underlying trends and patterns in textual data, content analysis is the most relevant technique (Stemler, 2000). The fundamental pillar of this technique is understanding the importance of social cognition on the relevant textual data to be analyzed (Duriau et al., 2007; Krippendorff, 2004; Whorf, 1959). The dual outcome of this tool is that it enables the researcher to recognize the human's cognitive schemata (Duriau et al., 2007; Ginsberg & Huff, 1992; Krippendorff, 2004; Palanivelu, 2019; Schilling, 2006) and set of words would reveal the underlying themes and that the researcher's selected keywords co-occurrence could be interrupted as an indication of a relationship between the underlying notions (Duriau et al., 2007; Ginsberg & Huff, 1992; Krippendorff, 2004; Palanivelu, 2019; Stemler, 2000; Weber, 1990b). To perform content analysis, the researcher should contemplate the following questions, (1) what data is examined and their definitions? (2) from what population they are selected? (3) what is the core context to which data are assessed (4) what are the assumptions and limitations? and (5) what is the inferences' intended conclusions? (Krippendorff, 2004; Stemler, 2000). Once these questions are answered, the researcher can proceed with a six-step procedure as shown in figure 3.4 for the content analysis (Krippendorff, 1989).

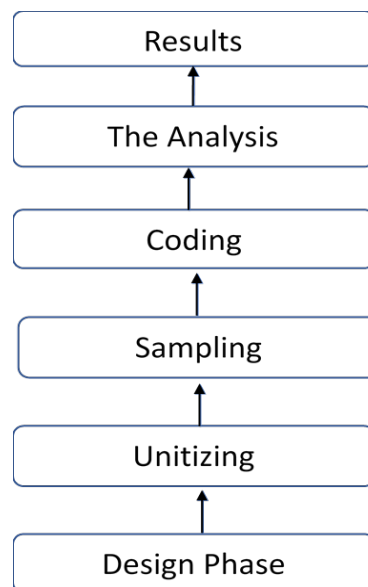


Figure 3-4. Six step procedure for content analysis, source adapted from (Krippendorff, 1989)

The first step is the design phase or the planning phase. This phase is a theoretical transition where researcher define their context to infer what they want to know but cannot observe effectively, and three key features establish the framework for analysis which are as follows: investigate the source of pertinent data that is or may become available, adopt an analytical construct that formalizes the knowledge about the data-context relationship that is currently known, and thereby justifying the inferential step required to move from one to the other (Krippendorff, 1989). In design phase, researcher specify the observational circumstances under which the conclusions drawn could be regarded as valid in addition to outlining the research methodologies to be used. The second step unitizing involves the process of defining and locating the analytical units or recording units within the available data set, it might be a word, sentence, paragraphs, pictures, etc. from the textual content to be analyzed. According to Elo et al., (2014), the sampling strategy is rarely discussed step in content analysis and respective research methodology, research question influence in selecting the preferred sampling strategy (Higginbottom, 2004). Creswell (2013); Higginbottom (2004); Polit & Beck

(2012), lists the types of samplings namely purposive, theoretical, convenience, selective, within-case, and snowball sampling and the frequently used strategy is the purposive sampling in content analysis (Kyngäs et al., 2011). Purposive sampling is appropriate for qualitative content analysis since the researcher is seeking sources with the most expertise in the focal issue of the study (Elo et al., 2014).

Once the design, unitizing, and sampling strategy is done the analysis proceeds on with the coding categories as the fourth step. To understand and track the patterns, and theories of textual data it's important for the researcher to define the recoding units mentioned in step 2 under coding categories (Krippendorff, 1989). Once the coding categories have been established, a sample of the text is cross-checked to see if there is any ambiguity (Palanivelu, 2019; Weber, 1990b). With the coded sample the reliability of the codes is checked to make sure the textual data is coded promptly using the software. If reliability or accuracy achieved in coding the sample data is not satisfactory or low according to a researcher, the established coding categories to be reviewed and the coding process to be repeated until an appropriate outcome is reached, after which the entire sourced textual data is coded using relevant software (Palanivelu, 2019; Weber, 1990b). The most crucial stage of content analysis is making inferences from the coded material, in step 5 which is the analysis phase. It employs the established understanding of how the variable accounts of coded data relate to phenomena of the researcher's interest in the domain (Krippendorff, 1989). From the coded data researcher understands the underlying meaning or theme of the text (Palanivelu, 2019). The final step is the results, as Bhattacharjee (2012) explained researchers assign the coded texts to appropriate categories for qualitative or quantitative analysis to determine which subject appeared more frequently, in what context, and how they connect to the phenomenon under study. The results are interpreted in the following ways word frequency lists, keyword in context lists (KWCL), concordances retrievals from the coded text, and category count according to Weber (1990) and Palanivelu (2019). All these interpretations clarify the coded text's central idea or its profound significance, which is what the researcher is looking for. The researcher can choose how he wants to analyze the data to fulfill his study objectives based on the research question (Palanivelu, 2019). In the next sub-section, the limitation of content analysis and case study strategy is discussed.

3.5 Highlights and Challenges

In his paper, Krippendorff (1989), mentions two limitations of content analysis. Firstly, it contains some built-in restrictions. Its adherence to making scientific decisions and a commitment to being quantitative is implied while looking for statistically significant discoveries, which necessitate several units of analysis. Hence content analysis is discouraged to analyze communications or interconnected discourses that are typical of literary, historical, or psychoanalytic investigations (Krippendorff, 1989), and the need for replication leads to a second limitation, where it emphasizes the textual data when the context is clear, consistent and provide a minimal opportunity to the texts where the context evolves in the exchange of communication (Krippendorff, 1989). Stemler (2000), identifies flawed definitions of coding categories and conflicting comprehensive coding categories. Weber (1990), acknowledged the same limitations discussed by Stemler and identifies another one, that due to word's ambiguous interpretations the validity and reliability of categorization of texts (Palanivelu, 2019). Also, one of the most important highlights and challenges of conducting a content analysis is that there is no set of pre-defined steps or procedures involved, which makes it complex and time-consuming to explore and develop a procedural framework for analyzing the texts.

Yin (2018), extensively addresses the limitations of the case study strategy. He identifies five concerns put forth in the case study even though it's a unique method in the domain of social science research. The foremost concern is whether the method is rigorous enough. (Yin, 2018), which had been raised due to careless case study research conducted over a period. The second one is its extensive use in non-research case studies such as literature, media, etc. where they don't define the methodologies which is not the case when conducting social science research (Yin, 2018). The third challenge is that how to draw a conclusion from a single case study analysis. This entirely depends on the research question, and if it provides the necessary data to infer and conclude the research study then it's the apt choice for research. The fourth limitation is that its time consuming since it's not had a defined process and it involves a wide range of data to be analyzed. The final concern is that a researcher's ability and skills to conduct a valid case study (Yin, 2018).

3.6 Conclusion

The chapter lists the step-by-step process author went through on concluding a suitable research methodology. To overcome difficulties and dilemmas, a research paradigm was adopted which structures the chapter in five parts, under which each decision is made starting from the underlying philosophical nature and approach of this research study, followed by the methodological choice as qualitative with a single case study as a research strategy and content analysis as the preferred method to analyze the secondary data. The chapter is concluded with limitations involved with the selected methodology and method.

Chapter 4 Case Study on Maersk

4.1 Introduction

With the explanation of the research design and preferred method of analysis in the previous chapter, the author applies and executes them in this chapter to answer the research question of the study. As detailed in the last chapter, the steps involved in content analysis, the author explains in the following section how they were implemented for thematic analysis of the textual data of the company selected to conclude this dissertation.

4.1.1 Planning Phase – Why Maersk?

To answer the main research question, *what are the benefits of implementing a shared values strategy?* the author decided on a case study analysis of a shipping company in a transition phase on creating shared value as the core of their business strategy. There were earlier mentions about different sectors and respective companies creating shared value in the literature review, but in the shipping sector, the concept of CSV is relatively new, and a couple of companies are implementing it. After presenting the idea of CSV in 2011, to drive the change Shared value initiative was launched under an advisory committee, including Porter and Kramer, in 2012 as a global knowledge-sharing platform to facilitate the companies in implementing CSV (Shared Value Initiative, 2022). The shared value initiative platform also presents an overview and evaluation criteria on *Change the world list* published by Fortune every year (Shared Value Initiative, 2022). Fortune beginning in 2015, ranked the companies that employ capitalism's innovative instruments, including profit motive, to meet society's unmet requirements (Fortune, 2022). In seven years of their ranking, last year, 2021, was the first time Fortune ranked a shipping company, i.e., Maersk, in 46th position (Fortune, 2022). Change the world is an open forum where any company can submit their applications detailing on their CSV, but it is assessed by both shared value initiative and fortune based on four factors, namely, 1) Measurable social impact, 2) Business results, 3) Degree of innovation and 4) Corporate Integration (Shared Value Initiative, 2022). So based on this assessment, Maersk is the only shipping company that made it to the list, so this provides the author to significantly consider Maersk as the case study for the analysis, thereby answering the research question. The conceptual framework and components of creating shared value in the maritime industry formulated based on literature study form the crux of our analysis.

After selecting Maersk as the case study for content analysis, the decisions are to be made on the collection of data and the unit of analysis (Bengtsson, 2016; Janssen, 2019; Weber, 1990a). There was a dilemma in selecting between annual and sustainability reports, but since the companies are perceived as creating shared value in the context of sustainability and making profits, the author decided on sustainability reports as the data for this analysis. The next decision is to be made on a unit of analysis and it's very crucial, to avoid missing the contextual information both on the micro and macro level, the unit was decided to be “paragraphs” and “sentences” (Roller & Lavrakas, 2015). To perform qualitative data analysis, there is quite a lot of software program available for the following reasons: time effectiveness, ease of research, ability to cope with enormous amounts of data, and ability to deliver quick results (Isnandar Sanusi, 2019) NVivo version 14 was selected.

In chapter 3, the author concluded that this research study was exploratory, and the methodological choice was qualitative with a deductive approach, i.e., to derive a logical conclusion through an analysis of data (Miller & Brewer, 2013). Hence a hypothesis was formulated. The literature study on CSV shows that a company can create economic value by creating societal value (HBS ISC, 2022). Therefore, the author formed the hypothesis to be tested as *“the company will create shared value only when making a profit by addressing societal impact.”*

4.1.2 Data Collection

In the planning phase, it was discussed why the sustainability report was selected as data for analysis. The next question was to decide on the data's time range, for this author decided on a time frame of 12 years, from 2010 to 2021, for two reasons. Firstly, even though the term CSV was mentioned in 2006, it was defined and introduced only in 2011 by Porter and Kramer (Dembek et al., 2016; Epstein-Reeves, 2012). Secondly, Maersk released its first sustainability report in 2010 and issued a new one every year. Hence to perform an exclusive analysis on how Maersk is creating shared value, the time range of 12 years was decided. Since Maersk is a publicly traded company, there were no practical implications to collect the reports, all sustainability reports were available and obtained from their official website.

4.1.3 The Codes

This section presents the coding categories and their subcodes to analyze the textual data to infer the contextual meaning of a paragraph and a sentence which are our unit of analysis. The outcome of the literature review in this study is the conceptual framework and components to create shared value in the maritime business. This lays the foundation for designing the codes; the author designed primary codes, secondary codes, and their subcodes, as shown in figure 4-1.

The three phases in which a company can create shared value, as explained by (M. E. Porter & Kramer, 2011), are formed as primary coding categories – reconceiving services provided and markets, redefining the value chain, and enabling local cluster development. Under primary codes, the secondary codes and their subcodes are designed. The first level of CSV is through reconceiving services and capturing the market, to achieve this in maritime business, the company should focus on the societal problem - environmental impact, which is categorized as secondary code. Under these sub-codes - climate change, decarbonization, and marine biodiversity are listed, and the former two sub-codes are the need of the hour in shipping. The second level and primary code is redefining productivity in the value chain under which five secondary codes are formed: Innovation, Sustainable logistics, Waste Management, Energy utilization, and Employee productivity.

To analyze the specific themes in the sustainability report for each secondary code, subcodes were categorized as listed above in figure 4-1. The final level for CSV is enabling the local cluster development where the company is operating. To capture the contextual meaning of this level, secondary code cluster thinking, and the sub-code local economy were listed. The textual data is examined and discussed later in this chapter with the defined coding categories.

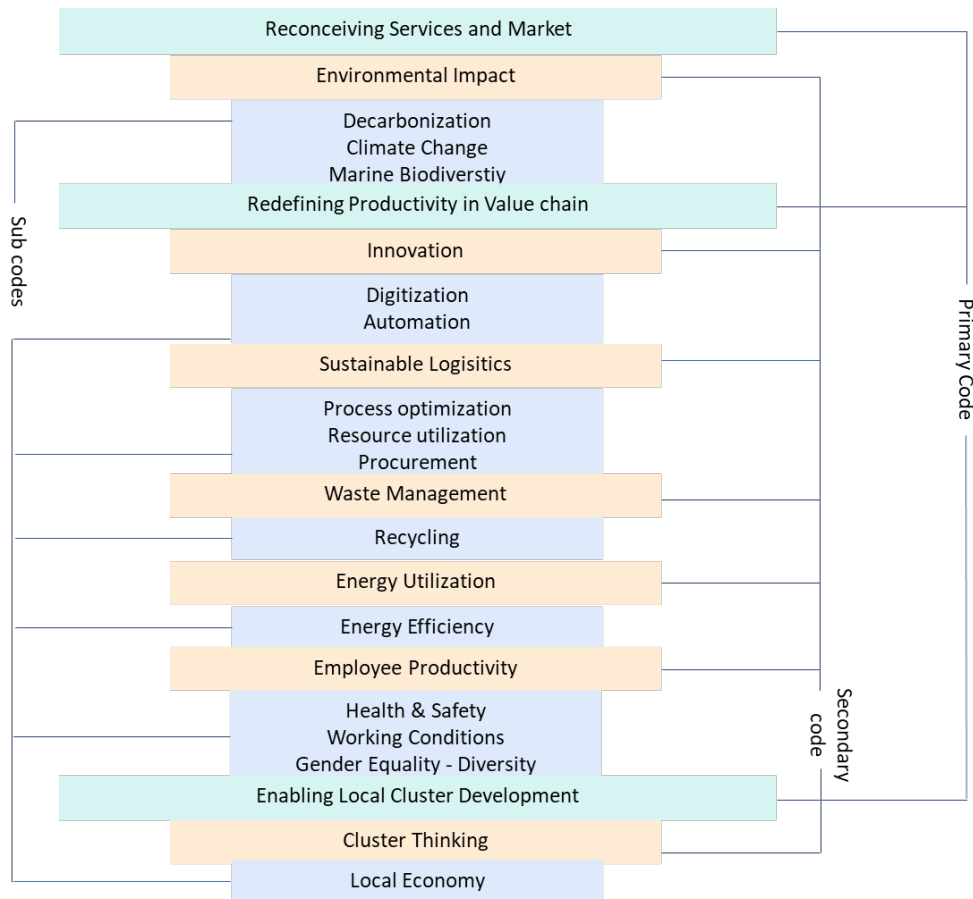


Figure 4-1. Coding Categories developed by the author based on conceptual framework and components of CSV in Maritime Sector (one secondary code missing)

4.2 The A.P. Moller – Maersk Group

The A.P. Moller – Maersk Group is a Danish conglomerate, publicly traded, with its headquarters in Copenhagen, Denmark. As per the annual report 2021, Maersk operates 738 container vessels, out of which 311 are owned and 427 are chartered, generating a revenue of \$ 61.7 billion (Annual Report Møller -Maersk, 2021) with a market share of 16.5% (alphaliner, 2022). To achieve this enormous growth today, they began with a second-hand steamer Svendborg in 1904 (Maersk, 2022). In 118 years, the company had gone through 2 world wars and four global recessions (Kose et al., 2020), but still, they were able to mitigate the risks and grow significantly with its business strategies over time. The company was established in 1904 by Arnold Peter Moller and his father, Peter Maersk Moller; through proactive growth and expansion into the USA market, they provided the first regular liner service between the USA and Far east Asia, carrying Ford Motor's car parts in 1928 (Maersk, 2022). After the first world war, oil demand was growing.

To realize this opportunity, A.P. Moller started a subsidiary company, Maersk Tankers, with five crude oil tankers and the concession for 50 years to explore the natural resources from the Danish government in 1962, making the company venture into oil and gas explorations (Maersk, 2022). After 19 years of the first commercial container vessel Ideal – X from the brainchild of Malcolm Mclean sailed (*The History of Container Ships - Techhistorian*, n.d.), Maersk entered the container shipping business in 1975 with an order book of nine vessels. As containerization revolutionized global trade, the demand escalated, and the company captured the rising opportunity and expanded globally in the container market. (Haralambides et al.,

2019) identifies that when Maersk entered the container trade, there were no forerunners; the container market was controlled by consortia groups and operated in a cartel-like structure. But Maersk evolved as a transnational company and was able to achieve leadership in liner trade through its core three networks, namely the physical network of vessels and routes offered to their customers, the digital network of information and communication systems used, and lastly, the human network of their employees (Haralambides et al., 2019).

After entering the container shipping, Maersk started acquiring other shipping businesses, EACBen Container Line, The P&O Nedlloyd, Svitzer, Sealand, and Hamburg Sud, and ventured into the container terminal business through a separate business entity, APM Terminals (Maersk, 2022). As the demand for container shipping was significantly growing, the size of ships was also growing to match this demand. In 2006, Maersk received Emma Maersk, their first 15,000 TEU vessel. In seven years, the capacity increased to 18,000 TEU vessels grouped as triple E ultra-large container vessels due to their specific design, ensuring energy efficiency, economies of scale, and reduction of CO₂ emission per container (Maersk, 2022). One of the achievements of the Maersk group was the APM terminal Maasvlakte II at Rotterdam, The Netherlands, which is technologically advanced as it is automated and most sustainable with zero carbon emission as the terminal runs entirely on power generated by wind turbines (Maersk, 2022). Over the years, Maersk had significant economic growth with leadership changes the current CEO, Soren Skou was appointed in 2016, and under his watch, the company decided on a strategic decision to transform Maersk into a global integrated transport and container logistics company, therefore after 89 years, they sold total shares on Maersk tankers and, they sold Maersk oil, Maersk drilling exiting oil-related business activities (Maersk, 2022).

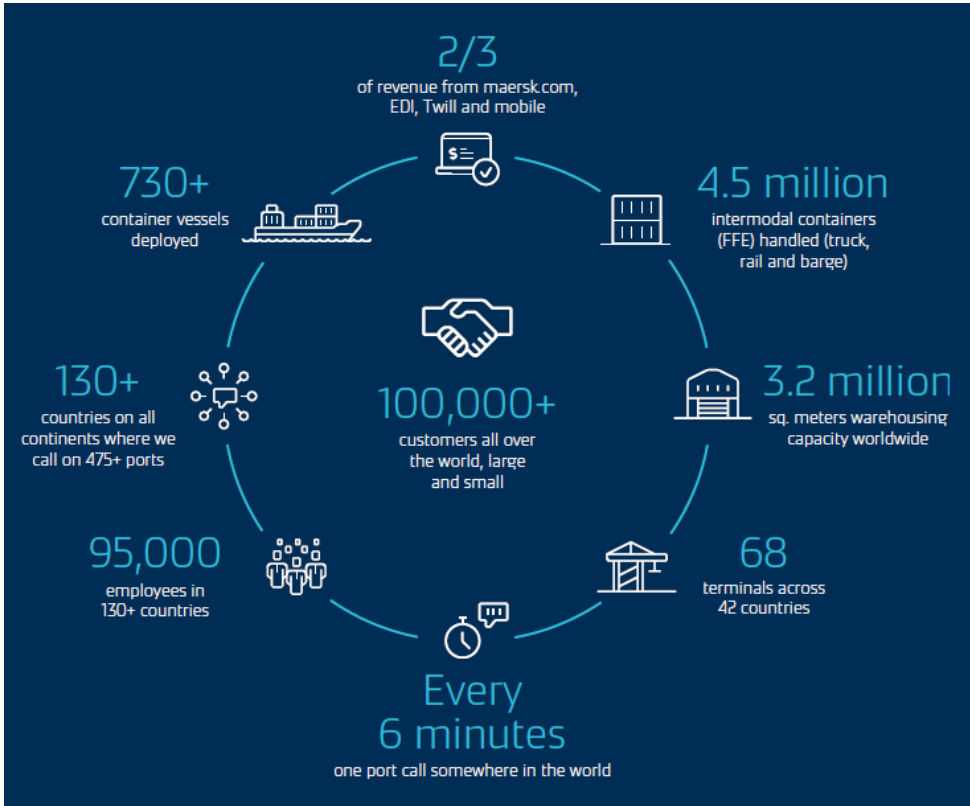


Figure 4-2. Maersk connecting global trade, source (Sustainability report Møller -Maersk, 2021)

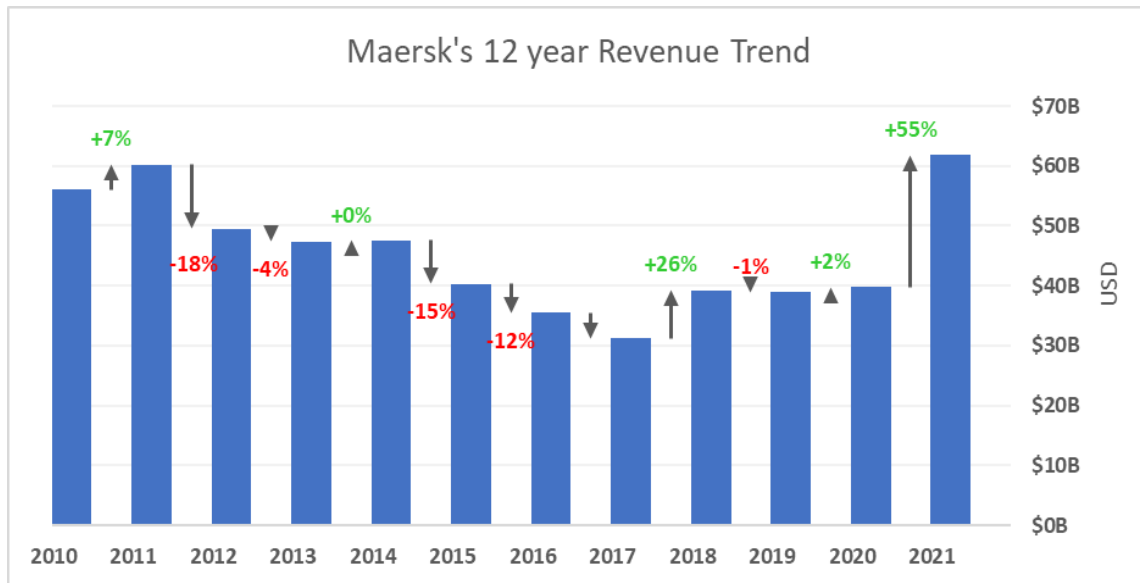


Figure 4-3. Maersk's 12 years revenue trend, source (developed by the author)

As per their annual report 2021, after 118 years of growth, Maersk had evolved into an integrated container logistics company with a presence in 130+ countries employing 95,000 people, 730+ container vessels calling 475+ ports to serve 100,000+ customers around the world, which can be perceived from figure 4-2. The level of growth is enormous that it all started with one steamer; today, every 6 minutes, a Maersk container vessel is calling a port. As we selected a range of 12 years for analysis, the author developed a revenue trend graph from the data available in the annual reports, which can be seen below in figure 4-3.

In 2016, after the strategic decision was made to sell the oil business and to streamline the container logistics services to provide integrated supply chain solutions from end to end for their customers, the revenue had a downward trend of 12% decline, with structural reorganization in place but Maersk came back strong with their financials generating a revenue of \$ 39.25 Billion in 2018, 26% increase on revenue when compared with the previous year. The revenue of 2019 was on par with 2018. This was due to low volumes moved even though the average freight rates were higher (Annual Report Møller -Maersk, 2019). With their strategic transformation on track, the year 2020 had the COVID effect on all businesses as the countries entered lockdowns and the world economy took a halt. However, still, the company made an incremental revenue growth of \$ 39.74 Billion with a 2% upward trend. The negative impact of COVID-19 affected the terminal and tug business of the group, but the ocean business offset it as the volume carried was increasing with higher spot rates (Annual Report Møller - Maersk, 2020). The year 2021 had the repercussions and knock-on effects of COVID-19, but Maersk delivered benefitted. They generate a revenue of \$ 61.78 billion with exceptional container logistics and supply chain services to their customer base, which 55% increase is shown in figure 4-3.

The prime reason for this revenue growth is the ocean businesses were the average higher freight rates and the tremendous increase of volumes as the lockdown measures by the governments were eased to kick off the economy, secondly the terminal business with a strategic focus on efficiency and quality with the investments on digitalization, automation added their part to revenue growth and lastly from the logistics and services business with the increasing demand for contract logistics 85 new warehouses were opened which increased storage incomes, and e-commerce arm was enhanced with acquisitions of three supply chain

solution providing companies (Annual Report Møller -Maersk, 2021). As the group benefitted from the demand side, the supply side of logistics was still suffering the disruption effect of COVID19 and also the Suez Canal blockage, which resulted in capacity shortages of containers, increased wait time for Maersk vessels due to the landside transportation, and storage bottlenecks in USA, UK, and China and to mitigate this Maersk increased their capacity by adding 6.4% on trade lanes of Transpacific, Asia - Europe, Oceania, and South America (Annual Report Møller -Maersk, 2021). One of Maersk's integrator strategies is to expand into air freight, and in 2022, they announced the acquisition of Senator International, which has an organized FCL and LCL network operating with their own and chartered flights along with specialization in logistics activities with a presence in 5 continents (Maersk, 2022). The domino effect of COVID19 over the past two years caused significant congestion and manufacturing problems, and the customers were checking for alternatives to ship their cargo; this derived demand led Maersk to acquire senator international, which will enable them to offer a flexible and integrated logistics solutions based on their customer needs (Maersk, 2022).

Over the past two years, the surging demand has validated Maersk's strategy of evolving as the global integrator of container Logistics, which connects and streamlines the supply chains for customers, apparently seen with 2021 revenue generated. Maersk achieved this by controlling the capacities of physical assets, a decade of optimization to bring down the inventory costs to a bare minimum, because of which their end-to-end services become resilient to supply chain shocks due to economic shocks and black swan events. This provides Maersk with a substantial competitive advantage over its competitors. As this session encapsulated Maersk's 118 years of business evolution, it is also imperative to discuss their value creation model to infer on creating shared value which will be addressed in the next session.

4.3 How Maersk creates Value?

Before explaining how Maersk as a business entity is creating value, the author interprets the term "value creation". (Bowman & Ambrosini, 2000) and argues that the term value possesses a "definitional" problem since it refers to several phenomena; they clarify it by defining the terms 'use value' and 'exchange value' at the organizational level of analysis (Lepak et al., 2007) (Bowman & Ambrosini, 2000). The term use value describes the characteristics of the product or service that buyers perceive regarding their needs, and exchange value is money paid when the purchase of the perceived use value is made; it's the price (Bowman & Ambrosini,2000) and to create value the organization utilizing their resources must deliver the use value to its customers to achieve the exchange value in return. In the context of use value and exchange value, (Lepak et al., 2007) state two economic conditions for value creation to continue over a more extended period, namely 1) monetary value exchanged for the product or service must be greater than the manufacturer or service provider's expense to deliver it and 2) The exchanged quantity of money is determined by the perceived disparity between the newly generated value and the target user's closest substitute for the product and services (Lepak et al., 2007). Based on the contingency perspective,(Lepak et al., 2007) explain how value is created from the viewpoint of three sources of analysis, viz. individual, organization, and society as a source of value creation (Lepak et al., 2007). As our case study analysis involves a business conglomerate, we assess the value creation of Maersk from an organizational perspective.

Maersk enhances the growth of its customer by facilitating trade across oceans, air, and land by combining its supply chain infrastructure with human capital and technology to drive end-to-end innovation (Annual Report Møller -Maersk, 2021). To create value, Maersk depends on

two R's – Relationship and Resources and in the synergy of two R's, value is created for the customers, planet, people, society, and shareholders. Relationships and Resources form two sides of the value chain.

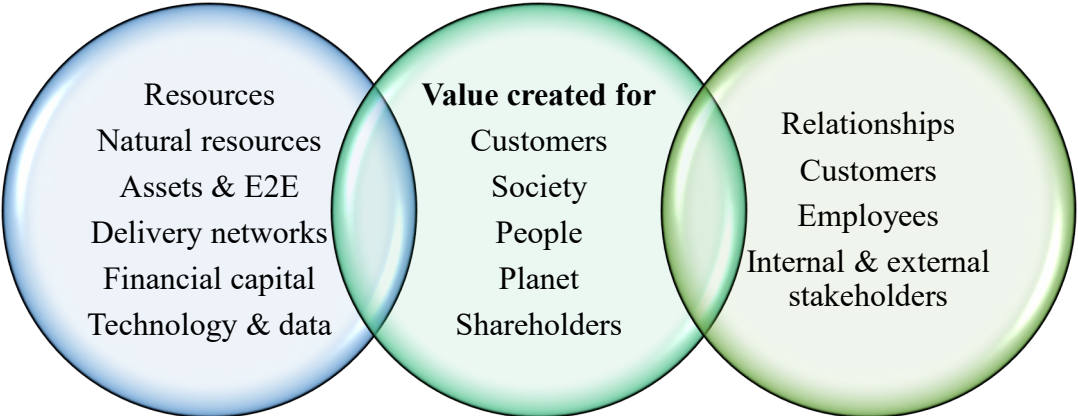


Figure 4-4. Synergies of two R's for Value creation, source adapted from Maersk Annual report 2021

Maersk depends on its relationship with 95,000+ employees who deliver the company's core value, with their customer base for whom the group facilitates trade under their brand, and with internal & external stakeholders to maintain supportive framework conditions (Annual Report Møller -Maersk, 2021). On the other side, Maersk depends on resources to deliver exceptional services to its customers. That includes natural resources used to build and run their container vessels, their assets & E2E delivery network to provide a resilient supply chain, financial capital with solid balance sheets making Maersk grade rated company for investments, and lastly, to enhance the operational performance they need technology and data optimization (Annual Report Møller -Maersk, 2021). From figure 4-4, combining two R's, Maersk creates value for the planet we live in by decarbonizing their supply chain through partnerships & investments, for their people by providing a safe working environment and career development path, and for the society by creating shared value, for their 100,000+ customer base by delivering an integrated container logistics solutions through which trade is enabled and for their shareholders through profits (Annual Report Møller -Maersk, 2021).

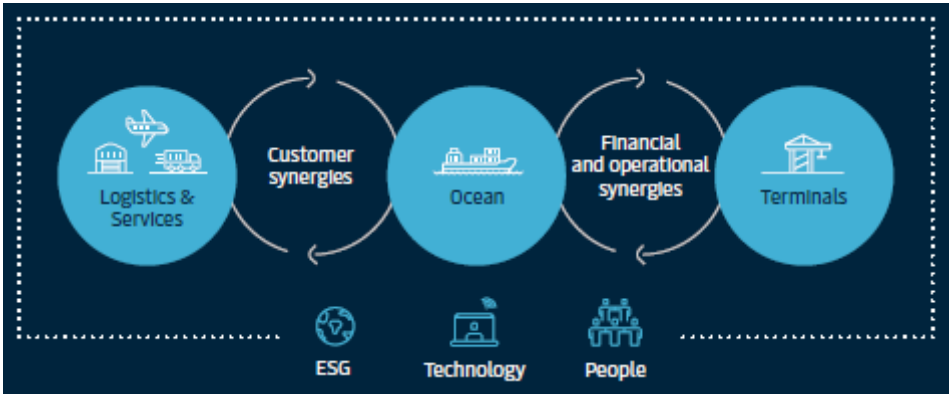


Figure 4-5. Maersk's global integrator Value creation model, source (Annual Report Møller - Maersk, 2021)

The strategy adopted by Maersk to achieve value creation as discussed above is presented in figures 4-5, as per which their model has six components viz., 1) a more effective, reliable, and lucrative ocean business, 2) a robust and productive growth engine in Logistics & Services, 3)

A world-class terminal operator offering superior operational performance, 4) Technology enabling competitive advantage, 5) leading the way on decarbonization and ESG and 6) a customer-centric enterprise with skilled professionals capable of reliably executing at scale (Annual Report Møller -Maersk, 2021).

Through the components mentioned above of the value creation model, Maersk delivers an extraordinary service fulfillment to their customers and create value for the planet, people, society, customers, and shareholders, as shown in figure 4-4, also their year-on-year transformation metrics provide a review on their value creation from below figure 4-6.

Transformation Metrics	Year	
	2021	2020
Value Creation - Return on Invested Capital	45.3%	9.4%
Growth - Organic revenue in Logistics & Services and terminal business	\$ 13.31 Billion	\$ 9.62 Billion
Profitability - EBITA in Logistics & Services	\$ 678 Million	\$ 289 Million
Commercial synergies - Logistics & Services revenue with top 200 Ocean customers	\$ 4.12 Billion	\$ 2.64 Billion
Commercial digitalisation and product offering in Ocean - Maersk SPOT Volume shares	47.2%	36.1%




Figure 4-6. Year over Year Maersk Transformation metrics comparison, source (Maersk Annual report,2021)

Maersk tracks its value creation progress through five metrics. The primary measurement of value creation is the Return on Invested Capital (ROIC) which increased tremendously from 9.4% in 2020 to 45.3% in 2021 due to higher earnings in the fiscal year. The growth metric provides insights on organic revenue development in gateway terminals and logistics and services, which increased by 38%, to assess the profitability of logistics and services. EBITA is used, which rose from USD 289 million to USD 678 million due to significant revenue growth, progress in commercial synergies between Maersk and its top 200 customers almost doubled, and the final measure of value creation progress is the retail digitalization & product offering in the ocean which also increased. With their integrator strategy in place, Maersk offered E2E container logistics solutions with their value creation business model implementing six components as their strategy to achieve sustainable growth, which is distinctly implied from their transformation metrics. To conclude how Maersk creates shared value in the next chapter, it was necessary to acknowledge the value creation model of their business.

4.4 Content Analysis on Maersk’s Sustainability Report (2010-2021)

As explained above in data collection, Maersk's sustainability reports were sourced for 12 years from 2010-2021. With defined primary, secondary, and sub-codes, all the reports were analyzed and coded with sentences and paragraphs as the unit of analysis using the NVivo software program. The outcome of the content analysis is tabulated and presented below in table 4-1.

The business can create shared values on three levels, categorized as primary codes. From the outcome, it can be inferred that in Maersk’s sustainability reports, the themes of all three levels are discussed on par with each other. The reason for this can be realized from Maersk’s strategic decision to transform into an integrated container logistics company to provide end-to-end supply chain solutions to their customers. In level 1 of CSV, under secondary code environmental impact and subcodes, decarbonization is highly discussed. The themes of Innovation, employee productivity, sustainable logistics, and waste management are highly coded for Redefining productivity in the value chain. In sub-coding categories for level 2 of CSV health & safety, gender equality – diversity, recycling, and procurement are highly referenced. At the same time, the minor counts were automation, process optimization, and

resource utilization. Lastly, in level 3, secondary code cluster thinking counts as more referenced. Before analyzing the reports, a generic word search on ‘‘shared value’’ was conducted, and the results are shown in figure 4-4. The first mention of the concept of CSV was in 2011 when porter and Kramer introduced CSV to the business world. From 2010 to 2015, creating shared values was merely a topic of discussion in the sustainability report. Still, it became the core concept of Maersk materiality analysis in 2016, the same year the organization decided on a strategic transformation from a conglomerate to an integrated container logistics company.

Creating Shared Value	Coding Categories	Codes	Sustainability reports	References
Level 1	Primary Code	Reconceiving Services offered & Market capture	9	32
	Secondary Code	Energy Management	8	12
		Environmental Impact	11	72
	Sub Code	Climate Change	12	40
		Decarbonization	12	93
		Marine Biodiversity	12	35
Level 2	Primary Code	Redefining Productivity in Value Chain	10	47
	Secondary Code	Employee Productivity	10	32
	Sub Code	Gender Equality - Diversity	12	67
		Health & Safety	12	97
		Working Conditions	10	36
	Secondary Code	Energy Utilization	2	3
	Sub Code	Energy Efficiency	2	5
	Secondary Code	Innovation	11	30
	Sub Code	Automation	1	2
		Digitization	8	25
	Secondary Code	Sustainable Logistics	8	29
	Sub Code	Process Optimisation	1	1
		Procurement	12	32
		Resource Utilization	4	5
	Secondary Code	Waste Management	9	19
Sub Code	Recycling	10	41	
Level 3	Primary Code	Enabling Local Cluster Development	12	46
	Secondary Code	Cluster Thinking	10	23
	Sub Code	Local Economy	9	16

Table 4-1. Result overview of content analysis on Maersk’s sustainability report from 2010 to 2021, source (Author)

As the company was recovering from the financial crisis of 2008, Maersk group was exploring for alternative strategies to design their long-term sustainable growth. From Porter and Kramer’s paper in 2011, they realized CSV's potential for long-term economic growth and societal benefits. Thus, CSV ended as Maersk’s discussion for ongoing development comparative to short-term capital gains (Sustainability report Møller -Maersk, 2011).

In 2012, Maersk’s business units drilling and supply service operating in Angola faced critical challenges due to local government regulations, as per which they need to employ 70% local workforce. Still, sufficient local skills posed criticality in recruiting them, and through CSV, Maersk saw this as an opportunity. Thus, through investments in their education and long-term career planning, they provided the necessary skillset for Angolans to work on oil rigs and supply service vessels operating in Angolan waters. Maersk created shared value by addressing the societal issue of employment in Angola; in turn, the company benefitted economically by operating in local waters (Sustainability report Møller -Maersk, 2012). Since the group was expanding in developing economies to unlock trade growth and economic development

opportunities, they decided to invest in pilot projects to see if they could create shared value. Each company performs materiality analysis to identify and evaluate a broad scope of potential environmental, social, and governance issues that might have an impact on their business and stakeholders and then breaks it down into a short list of topics that will progress the company's strategy, targets and reporting (International, 2014).

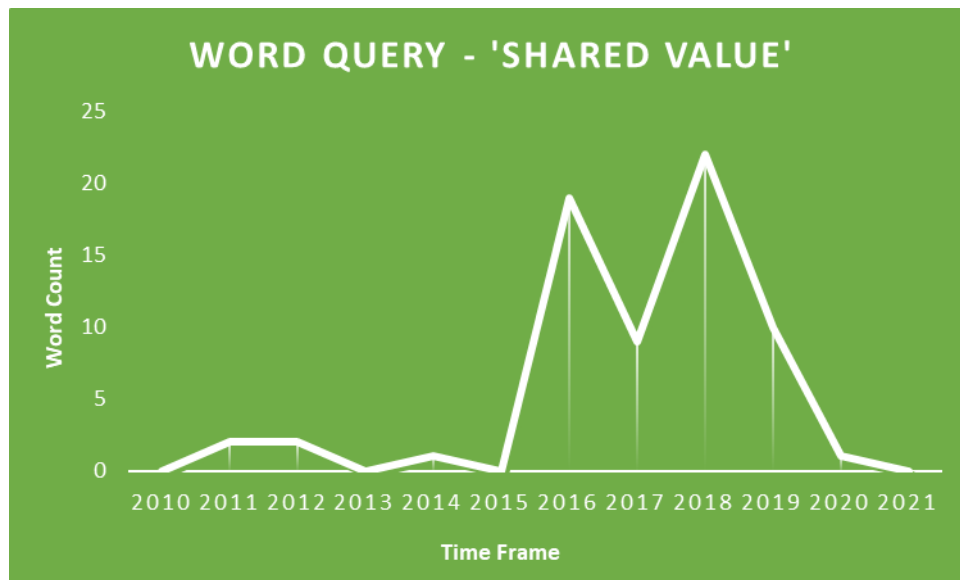


Figure 4-7: Word Query on Shared Value on Maersk Sustainability report from 2010-2021

Till 2015, to assess the material sustainability topics, Maersk used a materiality matrix. Still, in 2016, they incorporated a three-dimension materiality assessment in alignment with UN SDGs, and those dimensions were Shared value, Responsibility, and Risk. This new method was adopted to comprehend each problem better and take appropriate action to address existing difficulties (Sustainability report Møller -Maersk, 2016). In 2017, Maersk identified four shared value themes, namely decarbonizing logistics, Inclusive trade, pioneering in ship recycling, and food loss reduction (Sustainability report Møller -Maersk, 2017, 2018), which will be assessed exclusively in our next chapter, along with our content analysis results of the reports to conclude our research hypothesis.

4.4 Conclusion

This chapter begins by explaining the steps in content analysis outlined in the previous chapter. The A.P. Moller Maersk Group was selected for the case study analysis, and the reason for opting for the company is explained in the planning phase. From the company's publications, their sustainability report was selected for 12 years from 2010-2021, for analysis. Then a detailed overview of the coding categories is explained. Followed by a detailed overview of the 118 years of Maersk's business is summarized with their revenue trends for the last 12 years and strategy for becoming an integrated container logistics company. To infer how Maersk created shared value, it was critical to study the value creation business model, which was also detailed. In the analysis part, with primary, secondary, and subcodes, the textual data were coded using computer software NVivo. This chapter concludes with the outcome of coding categories tabulated and presented, and the next chapter explains the results and analysis how Maersk creates shared value.

Chapter 5 Maersk Creating Shared Value

5.1 Introduction

The outcome of content analysis on Maersk sustainability reports was depicted in the previous chapter and analysis of the results is deduced in this chapter to answer the research question of this dissertation. From the tabulated outcome, the author creates a hierarchy chart to analyze if Maersk is creating shared value, and if so, how they are doing it. The author uses a hierarchy chart to visualize and understand the evolution of prominent themes of CSV discussed in the sustainability reports from 2010-2021. This will enable the recognition of patterns developed over the period of 12 years of the formulated coding categories which in turn will allow the author to infer the hypothesis developed in the previous chapter. Under Hierarchy charts, the author selects “Treemap” to present the theme nodes in color categorization. For the results and analysis, two charts are created by the author for 2010 and 2021, to infer the potential opportunities for Maersk to CSV. If they are creating shared values, it is assessed by the conceptual framework and steps developed by the author in chapter 2.

5.2 2010 – 2021 Maersk Sustainability report - Hierarchy chart

In the year 2010, Maersk issued its first sustainability report. Below figure 5-1 is the hierarchy chart displaying theme nodes as per the coding categories results present in previous chapter section 4.4. Level 2 redefining productivity in the value chain of Maersk to create shared value is the recurring contextual data in the report.

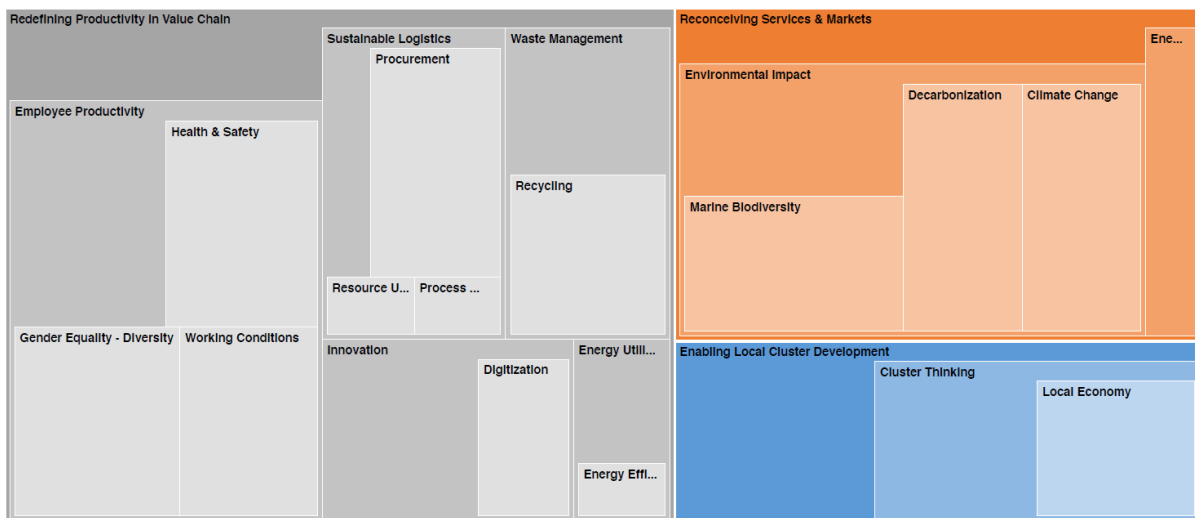


Figure 5-1. Maersk’s 12 years (2010-2021) Sustainability report Hierarchy chart of Theme nodes.

The second discussed topic was level 1 reconceiving maritime services provided by Maersk and market capture and lastly less important considered theme was enabling the local cluster where their business is existing. In the below chart, the themes are arranged from highly coded to least coded CSV nodes. The most coded CSV components were the environmental impact, sustainability logistics, and employee productivity and the least coded components are innovation, energy utilization, waste management, and cluster thinking which can be seen in figure 5-1. In the year 2010, the concept of creating shared value was unknown as it was defined and explained only in 2011 by porter and Kramer. The above results don’t mean that Maersk

was creating shared value in 2010, they are recurring themes of CSV components in the maritime sector constructed by the author in a conceptual framework which gives an understanding that Maersk has a probable opportunity to create shared value in one of the three levels or in all levels of CSV by addressing the societal problem in a robust market ecosystem (Kramer & Pfitzer, 2016). As Michael Porter quoted Health of employees is something to be treasured by companies to be more productive (M. E. Porter, 2013), in the sustainability report 2010 one of the most recurring topics was health and safety since people of Maersk are exposed to some of the potentially dangerous work environment across their business units. Hence, health and safety are one of the prime components of CSV for Maersk, also sustainable logistics are equally discussed themes under which focal areas include procurement, process utilization, and resource utilization, which can impact the value chain of Maersk.

From the above chart, Maersk had potential opportunities to create shared values in all three levels. In 2016, three shared value approaches were conceived which posed an economic benefit for the company as well as creation of societal benefits on a significant scale. Following year 2017, the societal concern of food loss was also considered, which made Maersk's CSV approach in total of four. These shared value initiatives are analyzed in-depth below.

5.3 Four shared value opportunities for Maersk

As mentioned in the case study of Maersk in previous chapter 4.2 after the strategic decision to evolve as an integrated container logistics company, the group implemented the concept of shared value in the year 2016 to address sustainability issues in their business environment. From the above section inferences made is that Maersk had been researching potential opportunities to create shared values since 2011. As Michael Porter explained business generates resources through which scalable solutions can be achieved, Maersk pursued shared values through their business competencies to scale up the impacts created in addressing the societal issues as well as create economic benefit for business and achieve the attributes of competitive advantage. By assessing three dimensions of shared value prospects namely, (1) is there a widespread need to address to stated societal issue, (2) does A.P. Moller-Maersk has the necessary resources to scale up the impacts on addressing the selected social challenge, and 3) can our group lead the collaborative initiative at a structural level across businesses with the larger alliance of stakeholders (Sustainability report Møller -Maersk, 2016), Maersk zeroed up on four potential social issues as shared value opportunities which will be analyzed with the conceptual framework for CSV in a shipping company, maritime components, and steps framed by author in section 2.8. with the below analysis, the author answers the hypothesis formulated in the previous chapter, thereby concluding the research question of this research study.

5.4.1 Responsible Recycling

Waste management in the value chain is one of the components of creating shared value through redefining productivity in the maritime value chain. It's an unmet social need, since we as humans evolved with the linear economy frame of mind we manufacture products, utilize them, and discard them. This resulted in the accumulation of waste and landfills all around the world. In the maritime business world, the vessels enabling physical trade after their end of economic life are discarded as waste and scrapped. These ships are auctioned, sold, and sent to scrap yards in India, Bangladesh, Pakistan, Turkey, and China. As per the UNCTAD report – Review of maritime transport 2021 these four countries account for 94.5% scrap market and the key driver for this market segment is the global demand for recycled steel. The main concern of this ship recycling market is that the local region of scrapyards has been exploited for more than 30 years

with poor working & living conditions leading to life loss and spread of diseases, cheap labor, poverty in the local community, and environmental challenges (Sustainability report Møller - Maersk, 2016). To address these existing problems, governments, shipping companies, and shipyards took no initiatives, or it was not scalable to create an impact. The regulatory body of maritime industry, International Maritime Organization (IMO), in the year 2009 adopted the Hong Kong International Convention for safe and environmentally sound recycling of Ships (IMO, 2022), to set minimum standards for working conditions and to ensure do not significantly damage human health and safety or the environment (IMO, 2022). But after 13 years still, this convention is yet to be ratified and effective.

In 2016, Maersk saw a potential opportunity to create shared value by addressing the societal issues existing in the ship scrapping market for years, through a robust business plan. As explained by the author in section 2.9, Maersk conducted a strategic analysis of the external environment of the recycling market and the internal environment of resources available within the group and narrowed it down to India’s shipbreaking town Alang in the state of Gujarat on the west coast of the subcontinent. Maersk decided to break the stalemate on the lack of advancement of ship’s recycling procedures, policies, and standards (Sustainability report Møller -Maersk, 2016) by developing A.P. Møller - Maersk’s Responsible Ship Recycling Standard (RSRS) as shown in figure 5.2. The RSRS standard integrates the Hong Kong convention along with an ultimatum on labor, human rights, anti-corruption, and conditions of the sub-contractors (Sustainability report Møller -Maersk, 2016). So, for a yard to acquire business from Maersk it must be certified on its compliance followed by an extensive audit with a gap analysis to narrow down on improvements to be made and to draw out a defined timeline.

After solving identified gaps, the yard enters a contractual obligation with Maersk and the ship arrives at the respective scrap yard. With this stringent policy and regulation in place, Maersk began its responsible recycling in 2016, by sending Maersk Wyoming, and Maersk Georgia for scrap to the Shree ram recycling yard at Alang (Sustainability report Møller -Maersk, 2016).

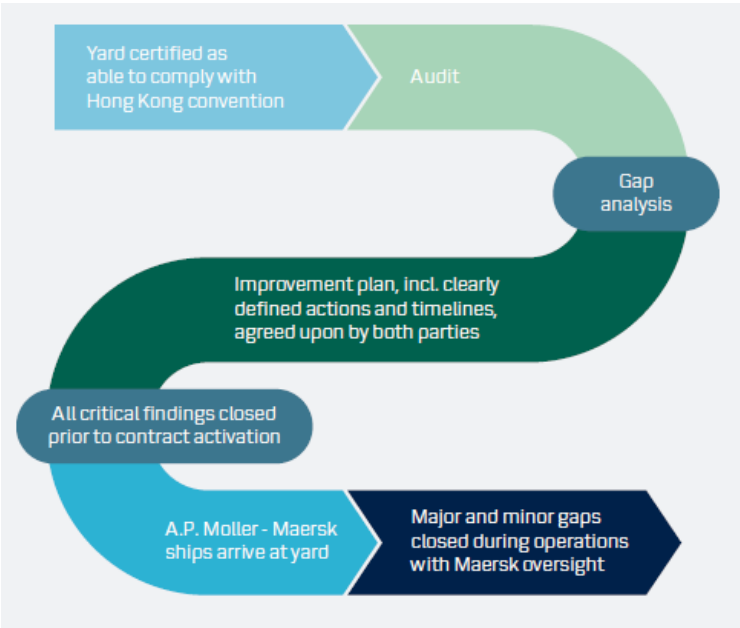


Figure 5-2. Maersk’s standard for responsible recycling of ships, source (Sustainability report Møller -Maersk, 2016)

As per Sustainable Shipping Initiative - Exploring shipping's transition to a circular industry report, there is an urgent need to make sure that providers with ethical business methods can meet the growing demand for ship recycling services, which is expected to nearly double by 2028 and quadruple by 2033 (SSI, 2021) (Sustainability report Møller -Maersk, 2021), Maersk through shared value strategy realized the potential to scale up impacts by addressing the societal unmet needs in significantly growing ship recycling industry. As a result, in the last six years, 16 of their vessels were responsibly recycled in 7 yards in Alang under RSRS (Sustainability report Møller -Maersk, 2021). It was in 2016, Maersk initiated the CSV strategy through a responsible recycling theme with a robust business plan and when this plan is assessed by the conceptual framework created by the author in section 2.9, their focal area to create a scalable impact is waste management, sustainable logistics, responsible procurement, employee productivity in level 2 and cluster thinking in level 3. Table 5.1 developed by the author based on their sustainability report (2021), depicts Maersk’s CSV engagements in Health & safety, environment, labor & human rights, and wider Alang development also with respective scalable impacts achieved for the last five years (2017-2021). Through exclusive supervision, workshops, and third-party audits for RSRS compliance they recorded zero loss of life and injuries. With the financial resources available they made investments in infrastructures, and requisite equipment, and conducted more than 35 environmental tests to track their progress and minimize negative environmental impacts. The measured impact was that they recorded zero spills in five years of operations.

The scrapyards were subjected to poor working conditions to the appalling livelihood of workers. Maersk specifically addressed these issues, through their investments renewed their houses as per ILO compliant for more than 1300 scrap yard employees, stern audits to achieve responsible procurements, and impacted positively by improving their working conditions and living standards.

<i>Author's CSV</i>	<i>Maersk Creating Shared Value by Redefining productivity in maritime value chain & Enabling local cluster</i>			
<i>Maritime components</i>	<i>Health & Safety</i>	<i>Environment</i>	<i>Labor and human rights</i>	<i>Wider Alang development</i>
Maersk's CSV Engagement	> 2,950 man-days of supervision in scrap yard	Investments made to pave > 82,000 m2 impermeable floor at yards	> 1,300 yard workers homes renewed as per ILO compliant	> 62,200 consultations in mobile health unit
	> 4,350 trainings for workers involved	Investments made for installations of 20 heavy-duty cranes	higher criteria for social security and employment	> 5,800 laboratory tests conducted for people in locality
	> 40 Lloyd's Register audits to comply on RSRS	> 35 environmental tests conducted	> 35 Maersk responsible procurement audits conducted	> 5,000 workers participated in health awareness programme
Scalable Impacts	Recorded zero fatalities in seven yards	Recorded zero spills and hazardous materials	Improved living standards of workers	Improved access to healthcare to local community
	Recorded zero lost time injuries in seven yards	minimal impact on the environment	Enhanced criteria for social security & labor management	Improved health awareness in locality

Table 5-1. Maersk’s Creating shared value through responsible recycling, source (developed by author from sustainability report,2021)

With the cluster thinking approach, Maersk developed the locality of the Alang scrapyards region. Through their collaboration with Red-cross India, a mobile health unit was placed in the area and recorded 62,200 consultations and provided health awareness camps through which Maersk impacted positively by enhancing the healthcare of people living in the cluster.

In the theme of responsible recycling, it is evident that Maersk is progressing on CSV strategy by positive scalable impacts, also the economic benefit out of this is reducing their internal cost in their maritime value chain on waste generation (scrapping Maersk vessels), pioneering by setting up standards and policies in recycling market and tapping into the global demand for recycled steels. with pragmatic impacts achieved, the future targets set by Maersk under this theme are 1) establish global prospects for ethical ship recycling of post-panamax ships, 2)

through collaboration with stakeholders facilitate yards worldwide, particularly in non-OECD economies, to attain EUSRR compliance and thereby increasing capacity on EU list, 3) development of broader Alang region, 4) continue support for Ship Recycling Transparency Initiative (SRTI), scale up and increase awareness of transparency in the maritime fraternity, and 5) identify Maersk’s contribution to decarbonizing global steel value chain through responsible recycling (Sustainability report Møller -Maersk, 2021). With the above explanations and analyzing figure 5.1, the hierarchical chart 2010-2021, it is evident that Maersk was searching for opportunities to create shared value and with the results, the author concludes that with responsible recycling Maersk created shared value through redefining productivity in the maritime value chain and enabling a local cluster of maritime business.

5.4.2 Reduction of CO₂ emissions

The onset of the industrial revolution exploited the earth’s nature for centuries to fulfill humankind’s material and monetary needs (ICS, 2015). This fueled global warming and affected the earth’s atmosphere where all living beings exist. After the damages been done to earth’s habitable climate, leaders around the world came together in 2015 and established a global framework to prevent significant climate change by keeping global warming well below 2°C and advancing initiatives to keep it below 1.5°C, known as Paris agreement (European Commission, 2022). The Paris agreement triggered the topic of decarbonization in every sector to address societal unmet needs of the hour i.e., climate change because CO₂ accounts for 76% of GHG ((C2ES, 2022), and a significant reduction in greenhouse gas emissions, including CO₂ will prevent a significant rise in world temperatures (Deloitte, 2022). On contrary, there was no explicit discussion on the shipping industry in the Paris agreement (ICS, 2015) but the regulatory body of maritime, IMO is committed to lowering the emissions of greenhouse gases caused by international shipping (IMO, 2022).

As per IMO’s target, shipping companies should focus to reduce CO₂ emissions per transport work, on average by at least 40% by 2030, 70% by 2050, and total annual GHG emissions from international shipping should be reduced by at least 50% by 2050 compared to 2008 (IMO, 2020). In the scope of decarbonization, Maersk envisaged creating shared values.

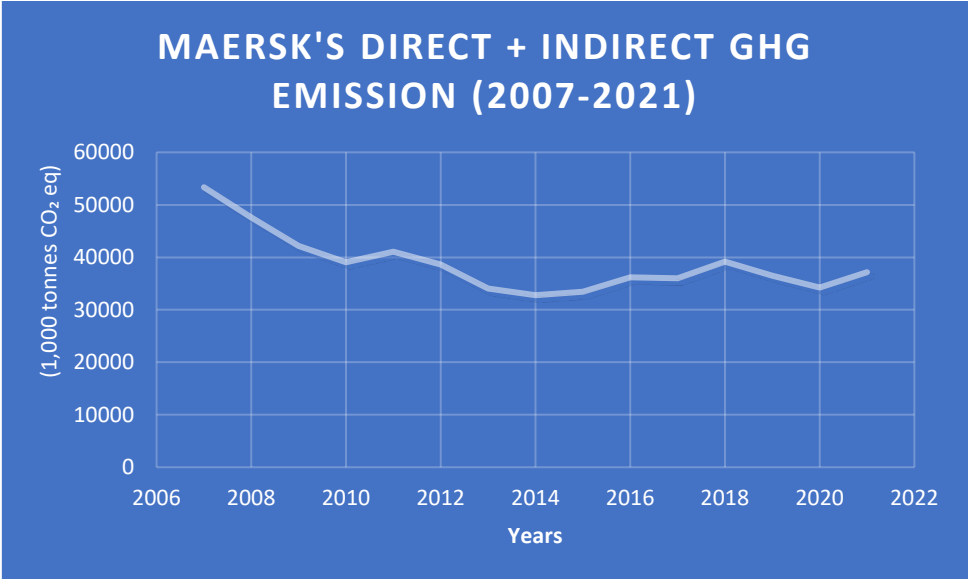


Figure 5-3. Maersk’s Total GHG emissions from 2007 to 2021

Since shipping is a service-based industry and demand is not direct but instead derived, the author formulated decarbonization as a component of CSV in level 1. To create shared value in level 1, the shipping company must reconceive the maritime services provided i.e., they can create shared value through providing a decarbonized maritime service. Maersk being the market leader had published on their GHG emissions and their progress in reducing them, as per below figure 5.3. The GHG emitted per year from the transport and logistics industry is 3.5 billion tons (Ritchie & Roser, 2020) and with a 16.5% market share (alphaliner, 2022) Maersk's present emission accounts for about 1% of all transport & logistics sector emissions and close to 0.1% of total global emissions (IEA, 2022) (Sustainability report Møller -Maersk, 2021). In 2021, to accelerate their scalable impact on climate change, Maersk presented an ambitious decarbonization commitment in which by 2040 they want to achieve net zero emissions of GHG in all domains and businesses as presented in figure 5.4.

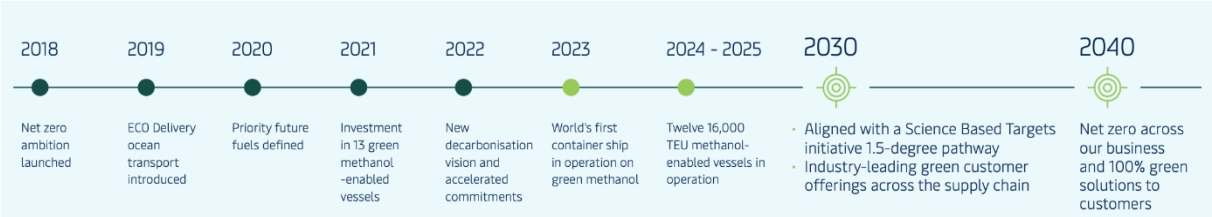


Figure 5-4. Maersk roadmap to deliver Net zero by 2040, source (Sustainability report Møller -Maersk, 2021)

When the competitors in container shipping announced their plan and decisions towards decarbonizing their trade, compliant with IMO 2050 regulation, Maersk decided on a pioneering decision to decarbonize their entire E2E logistics with net zero emissions. The below-mentioned three scenarios led to Maersk's commitment to decarbonizing its entire business value chain by 2040.

- The sixth status report of the UN Intergovernmental Panel on Climate Change emphasized the significance of both reducing GHG emissions and moving quickly to prevent climate change's irreversible effects,
- Maersk's maritime shipping emissions increased due to supply chain congestions caused by the COVID-19 outbreak, affecting vessel efficiency, and
- Customer demand for green logistics solutions continues to rise. This expectation was strengthened when the coZEV alliance (Cargo Owners for Zero Emission Vessels) was established by nine of the largest cargo owners in the world. By publicly pledging to expect their shipping partners to operate at net zero emissions by 2040 and to decarbonize their logistics supply chain, they gave further credence to their commitment.

To drive the determined plan to achieve net zero by 2040, Maersk concluded 8 strategic decisions as presented in table 5.2 below.

<i>Maersk's Strategic Decisions to achieve net zero by 2040</i>
New Fuels for Ocean Transport
13 New Vessels
Securing supply of future fuels

Maersk Growth
No offsets
Net zero terminals
Ecotow

Table 5-2. Seven strategic decisions to achieve net zero by 2040, source – (by author adapted from sustainability report,2021)

1. Securing New Fuels for Ocean Transport – By evolving as an integrated container logistics company, Maersk had expanded its business scope in all three modes – land, air, and sea transportation and out of which emission from ocean leg accounts for the most. Thus, Maersk invested in alternative fuels. The possible options for Maersk vessels are biodiesel, green methanol, and green ammonia. By securing the supply of potential alternatives for fuel oil, the Maersk group is very much determined to decarbonize their ocean transportation.
2. 13 New Vessels – As mentioned above, the vessels constitute more emissions on Maersk’s transportation modes, and when shipping companies are facing the dilemma to order new vessels which can run on alternative fuels, Maersk being the market leader ordered in a total of 13 vessels which can sail on green methanol, and the first delivery is expected to be in 2023 (Sustainability report Møller -Maersk, 2021). This accelerates Maersk’s ambition toward net zero emission.
3. Securing future green fuel supplies – the order of 13 vessels to run on green methanol will initiate the demand for methanol in the fuel market. This growing demand will make fuel manufacturers scale up their productions through innovative technologies. But still, the challenge of securing the supply of alternative fuels lies ahead, and Maersk is looking into potential opportunities to collaborate with the fuel manufacturers to secure the global supply. As a result, Maersk signed an agreement with a renewable energy company Reintegrate in Denmark to produce e-methanol for Maersk’s first line of methanol vessels (Sustainability report Møller -Maersk, 2021)
4. Maersk Growth – Through their venture capital arm Maersk growth, has made investments in startups namely Prometheus Fuels, Waste Fuels, and Vertoro (Sustainability report Møller -Maersk, 2021). Also, they investigate potential startups which can deliver scalable solutions to decarbonize their land logistics as well.
5. No offsets – to decarbonize their logistics business, Maersk committed to saying no to offsets as a potential solution, thus the group implemented tight guidelines for using Natural Climate Solutions (NCS) as follows: (1) except for the use of carbon removal to neutralize leftover emissions in the 2040 net zero years in compliance with the Net Zero requirements of the Science Based Targets project, NCS will not be used to achieve science-based targets, (2) NCS will only be utilized at the corporate level, not for each individual business unit or product, and (3) the sustainable logistic services offered to their customers will not be derived from NCS (Sustainability report Møller -Maersk, 2021).
6. Net Zero terminals – to decarbonize land logistics and terminal operations, the group is looking into potential options and solutions. They have drawn out a strategic plan to achieve a 70% reduction by 2030 (Sustainability report Møller -Maersk, 2021).

7. Ecotow – The Maersk group also owns and operates the tug business and Svitzer is the subsidiary through which they provide tug services in 30 countries (Sustainability report Møller -Maersk, 2021). Through a pilot project, they powered 10 tugs on marine biodiesel and were employed in service as Ecotow at Thames River, London (Sustainability report Møller -Maersk, 2021). All these above discussed show the determination of the group to achieve net zero by 2040.

Shipping is a derived demand, providing the service of transporting the products. The demand for all kinds of products and materials in every sector creates a need for transportation, out of which the derived demand for transporting goods from supplier to consumer is created. In transportation, the shared value is created through offering a decarbonized service because it addresses a prominent societal issue of climate change. Thus, the author framed the environmental impact as a component under level 1, with decarbonization, climate change, and marine biodiversity as societal dimensions. As per the analysis made, the author concluded that Maersk is in the initial process of achieving shared value by providing decarbonized E2E logistic services and is still a long way ahead of achieving net zero by 2040.

5.4.3 Inclusive trade

As author explained in section 2.8.2, global trade can sense the trend toward de-globalization which will impede economic growth as per Maersk's perspective, and with the existing trade barriers, and complexities in logistics globalization is being challenged (Sustainability report Møller -Maersk, 2016). The societal problem, quality of life around the world communities is addressed by Maersk under this theme and what is significant for society is that by eliminating trade obstacles it is expected to have USD 1 trillion growth potential thereby developing opportunities for nations and people to prosper (Hufbauer & Schott, 2013) (Sustainability report Møller -Maersk, 2016). Being the market leader, addressing the integration process of the global economy through trade Maersk has required knowledge and capital resources to solve the barriers and complexities faced by developing economies.

After identifying the CSV opportunity, Maersk formulated its strategic approach by conceiving innovative business solutions to achieve inclusive growth through trade, it can be identified that innovation is one of the components in level 2 from the author's conceptual framework. By removing the obstacles through innovation Maersk will enhance global trade in developing countries which will trigger economic growth and local employment opportunities as a positive consequence people surviving in that region can improve their living standards (Sustainability report Møller -Maersk, 2016), as a result, they launched four pilot projects as shown in below figure 5.5 which was analyzed by the author using conceptual framework and steps explained in the process to CSV. In 2014, realizing the trading potential of tuna and coconut in the Bitung region, Maersk explored the opportunities of creating shared value through levels 2 and 3. They began by evaluating possibilities of enhancing local exports of coconuts and tuna by pooling resources and expertise. Maersk aimed to promote inclusive growth through trade while promoting local community development, by moving non-certified goods from the Bitung region as premium goods with access to the EU and worldwide markets. Also, the Indonesian government selected the region for the development plan, so in 2015 Maersk and relevant ministries formed an alliance for economic development of the Bitung region (Sustainability report Møller -Maersk, 2015). The group explored all possible bottlenecks to export tuna & coconut, and by solving they intend to strengthen the port, boost regional manufacturing, generate employment, and fund infrastructural investments using this pilot project as a model

the alliance group wants to implement the same model in another underdeveloped region of the country once results are proven and documented.

<p style="text-align: center;">Transport & Logistics Information Pipeline</p> <p>In cooperation with TradeMark East Africa, the creation of a digital transport and logistics information platform that minimizes the obstacles in shipping-related documentation and communication.</p>	<p style="text-align: center;">Bitung – From out port to model port</p> <p>Collaborating with the Indonesian government to realize Bitung's economic potential and transform the region into a model port that may be replicated. Concentrate on removing supply chain bottlenecks by employing test commodities like tuna and coconut</p>
<p style="text-align: center;">Connect - Americas</p> <p>Enabling trade among small- and medium-sized businesses (SMEs) in the Americas by providing a digital platform for knowledge sharing and instruction on trade laws, procedures, and possibilities. The Inter-American Development Bank, which also collaborated with Google, Alibaba, DHL, and Visa, owns the platform.</p>	<p style="text-align: center;">Fromtu – One stop shop to make trade simple</p> <p>Create the digital B2B trading platform Fromtu to enable easy and transparent trade between African sellers and international and intra-African customers. Leading and serving as the project's primary investor, A.P. Moller-Maersk collaborates with US Aid and the Inter-American Development Bank, which funded the project's preliminary study.</p>

Figure 5-5. Four Pilot Projects of Maersk for enabling inclusive growth through trade, source – (adapted by author from sustainability report, 2016)

In 2016, the local economy saw a 30% increase in trade, but eventually, in 2017 the initiative did not produce a scalable model, so the pilot project didn't materialize further. This provides validity for the author's steps explained in section 2.9 to create shared value, as per which Maersk couldn't create a scalable impact with Bitung Project, so they dropped it. Maersk's startup Fromtu initiated in 2016 aimed to remove trade barriers in Africa. Its goal was to facilitate trade by connecting buyers and sellers who are exporting and importing into Africa. Fromtu assists them in reaching an agreement, entering a contract, and making the transaction secure by verifying both parties (Cage, 2018). But analyzing their sustainability reports no scalable impacts were documented from Fromtu. Along with the Bitung project, Maersk launched two more pilot projects namely transport & logistics information pipeline and connect – Americas.

To remove trade barriers and complexity in the supply chain for small and medium-sized enterprises in underdeveloped economies of east Africa, Maersk collaborated with Trademark East Africa an NGO to develop a digital platform with the objective to assist East African businesses in gaining easier access to the global market while also expanding their business. Maersk tracked containers carrying flowers and avocados from Kenya to the Netherlands to comprehend the complexity and challenges involved. They discovered 200 different, primarily paper-based documentation exchanges between 30 people and organizations, which doubled the shipping costs and adversely impacted small and medium-sized businesses (Sustainability report Møller -Maersk, 2014, 2015, 2016, 2017, 2018). To solve this Maersk collaborated with IBM, scaled up a pilot project, and in 2018 TradeLens was launched, an open and impartial industry solution that uses blockchain technology to promote global trade (Sustainability report Møller -Maersk, 2018). The scalable impacts achieved were reducing trade barriers thereby enhancing the business growth of SMEs through inclusive trade and economic benefit in developing countries. On the other hand, the economic benefit of TradeLens is that it has

integrated with 220 organizations, 10 ocean carriers, and 600 ports and terminals which accounts for close to half of the global container trade (Sustainability report Møller -Maersk, 2020). Maersk created shared value through digitization and by 2025 they have committed to achieving 50% world container trade through their digital solutions which will abate supply chain barriers, connect 100,000 SMEs including women entrepreneurs and contribute to trade facilitation policies in 30 developing countries (Sustainability report Møller -Maersk, 2020). Another initiative to support SMEs in Latin America and the Caribbean region, Maersk partnered with connecting Americas, a social network for companies in the above-mentioned regions where small – medium-sized firms can connect with clients, partners, investors, learn about global trade & business, and access funding options (Sustainability report Møller -Maersk, 2018).

Under the theme of inclusive trade, the Maersk group attempted to create shared value through four pilot projects out of which Tradelens created a scalable impact on removing trade barriers and enhancing the growth of businesses in developing economies. From the outcome of content analysis in the previous chapter and figure 5.3 hierarchical chart, it can be interpreted that innovation is one of the prime strategies for Maersk's transformation into an integrated container logistics company in global trade. This is also one of the maritime components to create CSV, thereby it adds value to the conceptual framework of this study and concludes that Maersk created shared value by redefining productivity in their value chain and enabled local cluster development through inclusive trade.

5.4.4 Food loss

Food loss is a global social concern. In chapter 2, the author discussed how Nestle a food processing conglomerate created shared value, and, in this section, the author analyses how Maersk who are transporting foods and related products in containers investigates the opportunities for creating shared value by addressing the social issue of food loss. Globally, 800 million people face food scarcity and around 350 million tons of food are lost annually due to inadequate storage and transit delays (Esben Hegnsholt et al., 2018). By 2050 consumption is forecasted to be a significant rise of 50% (van Dijk et al., 2018). the food and its related products are transported all around the world in modes with a significant proportion being wasted due to a lack of adequate technology for storing, transporting, and processing perishable goods, as well as inadequate infrastructure and transportation (Sustainability report Møller -Maersk, 2021). According to their sustainability report 2021, Maersk group owns a market share of 27% transporting foods in reefer containers (Sustainability report Møller -Maersk, 2021), this significant market share drives Maersk to address societal concern through their investments, expertise, and knowledge by which they aim to CSV to achieve economic benefit of expansion into cold logistics business and creating a scalable impact on the reduction of food loss in their logistics chain.

With steps explained in section 2.9, Maersk approached the food loss concern to create shared value. They developed a strategic business plan with their available technological and financial resources to approaching the issue. Below are the inferred initiatives by Maersk to CSV through the social issue of food loss.

1. Realizing an increasing trend of food loss during the harvest stage, Maersk initiated the collaboration with farmers to develop solutions that target produce at source and transport to consumers minimizing food loss. One such pilot project in 2019, was with citrus farmers in Morocco. It was difficult to maintain the edible quality of citrus fruit during

transportation, so Maersk collaborated with the growers to ensure rapid processing, which results in less waste, and was cost-effective for farmers, and Maersk provided packing, handling, and temperature management in the cold chain. With the potential positive results achieved it was scaled up in 2020 for more citrus market penetration (Sustainability report Møller -Maersk, 2020).

2. To scale up the impact, Maersk also aims to minimize food loss during shipping as well as at the consumer level. To achieve these investments were made through Maersk Growth – venture capital on start-ups and scale-ups namely a Fliit – digital freight forwarder with a special focus on E2E food logistics, Ripe.io – powered by blockchain and AI to provide advanced analytics in food supply chain and spoiler alert – a start-up creating a marketplace for discounted perishables (Sustainability report Møller -Maersk, 2020)
3. Through their strategic planning, building capacities along the supply chain in nations with high rates of food loss during production and transportation was one of the agendas to scale up the impact (Sustainability report Møller -Maersk, 2018). By enhancing harvesting methods, material handling, and strategic framework for agriculture, infrastructure, and trading, governments will be better able to meet their national food loss targets (Sustainability report Møller -Maersk, 2018).
4. To achieve the above strategy thereby creating a scalable impact, Maersk partnered with the Rockefeller Foundation and an NGO Technoserve to establish pilot projects in Kenya and Nigeria for minimizing food loss in the value chain of the east Africa trade corridor (sustainability, 2018). This will enhance the business expansion of Maersk and develop a competitive advantage in the reefer sector. Also signed an MoU with an International finance corporation to discuss prospects in food loss programs at the national level (Sustainability report Møller -Maersk, 2018)
5. To track and document the progress of CSV and measure the impact, in association with World Resource Initiative (WRI), Maersk initiated three pilot projects in South Africa for Citrus farming, Kenya for avocados, and Peru for grapes (Sustainability report Møller -Maersk, 2019). The aim of these projects was to quantify the value and causation of food loss from source to carrier, including storage (Sustainability report Møller -Maersk, 2019).

One of the specialized services offered in the container shipping business is the reefer containers, which carry perishable foods around the world. With the above-mentioned reefer trade market share, Maersk is responsible for carrying 25% of global food commodities (sustainability report, 2019). With the forecasted world population, the demand for perishables to feed is expected at an annual growth rate of 20% (Sustainability report Møller -Maersk, 2018). Realizing the food supply chain inefficiencies and societal issues of food loss, Maersk developed a business case to create economic and social value as explained by the author in section 2.9. The economic value for Maersk is gaining more market capture on reefer trade as the demand can be clearly seen to be increasing in the upcoming years to feed the world population. To achieve this, they initiated above discussed five efforts through investments, partnering with NGOs, and collaborating with farmers, through which Maersk can potentially create shared through level 2 – redefining productivity in their reefer trade value chain and level 3 – enabling local development through generating employment in farming cluster. From the analysis, it's evident that it's a work in progress as no measurable impacts were recorded under the theme of food loss.

5.4 Conclusion

With identified four shared value opportunities Maersk pursued to achieve economic benefit by generating scalable social impacts. The Hierarchy chart is presented to interpret and identify recurring themes of defined maritime components to CSV and how they have evolved in twelve years. Maersk’s four different approaches were critically analyzed in section 5.4 by three core factors of this study namely the conceptual framework, maritime components, and define steps to create shared value. From the analysis, author developed a result matrix to summarize the outcome.

<i>Maersk ‘s shared value approach</i>	<i>Results</i>	<i>CSV in what level</i>
Responsible Recycling	Created Shared Value	Redefining productivity in maritime value chain & enable local cluster
Decarbonization	In Progress	Reconceiving the maritime services provided and capturing the market
Inclusive Trade	Created Shared Value	Redefining productivity in maritime value chain & enable local cluster
Food loss	In Progress	At all three levels

Table 5.3. Result Matrix of Maersk’s CSV approach, source (developed by author)

From the above table, the result is not unanimous for each shared value approach. Thus, author concludes that Maersk created shared value with their two strategic approaches to responsible recycling and inclusive trade, on the other hand, decarbonization and food loss it’s a work in progress and a long way to go. By redefining the productivity in their maritime value chain and enabling the local cluster, Maersk generated economic value for their recycling business and found trade lens. The societal value created in these two approaches is the employment, working conditions, and living standards of people in the Alang region were developed significantly and through inclusive trade, small and medium-sized businesses in developing economies benefitted through minimizing the trade barriers through digitization. In decarbonization the forecasted economic benefit is achieving net zero emission by 2040, which will give Maersk a huge competitive advantage if they were able to achieve these 10 years in advance when compared with their peers and competitors, societal benefit is that level of negative impact on environment generated in their E2E container logistics will be zero. In the last approach, CSV is a work in progress and the economic benefit for the company is an expansion of market share in the reefer trade as there is an evident indication of demand for perishables going up annually by a huge margin, societal benefit forecasted is that the clusters of farmers in underdeveloped economies will benefit, and local employment will flourish.

The above explanation proves the hypothesis formulated in the previous chapter that Maersk creates shared values only when there is an economic benefit either definitive in two cases or forecasted in the other two by addressing societal impacts. Also, it adds validity to the author’s conceptual framework, maritime components, and steps developed for a shipping company to create shared value.

Chapter 6 Conclusion

6.1 Concluding remarks on the research questions

In the first chapter, after identification of the problem statement, the author formulated the main research question accordingly along with three sub-research questions as explained below which serve the purpose of answering the underlying components of the main research question. In this final chapter, the research and sub questions are concluded as below.

Main Research Question → What are the benefits of implementing a shared value strategy in maritime business?

To answer the main research question, author developed three sub research questions which are concluded and explained below, in what part of this research study they are answered. Once the conceptual framework, maritime components, and 4-step process to create shared value were formulated in 2nd chapter, author decided on the research strategy in chapter 3 which was concluded on five major decisions made to answer main research question namely: interpretivism as the philosophical nature, deductive as research approach, qualitative as the methodological choice, single case study with longitudinal time horizon and content analysis to examine the textual data. With the robust research strategy, to answer the main research question, author selected container conglomerate Maersk as the case study in following chapter, formulates hypothesis as - ***“the company will create shared value only when making a profit by addressing societal impact”***, and applies the research decisions made. To perform content analysis, the sustainability reports for 12 years are selected and theme nodes for coding the textual data are defined based on the maritime components identified with sub research question 2 in sub section 2.9. The outcome of the content analysis is tabulated in table 4.1. In chapter 5 the analysis outcome is inferred to answers the main research question. The author presents the results in a hierarchical chart to understand how the concept of CSV had been evolved within Maersk as their sustainable strategy and identifies four shared value approach of Maersk. The author critically examines these approaches with conceptual framework, maritime components, steps to CSV by which three major conclusions are made viz, Maersk is creating shared value in levels 2 & 3 with responsible recycling and an inclusive trade approach, however their CSV with decarbonization and food loss is in progress since no definitive results are obtained yet. This concludes the hypothesis that Maersk benefits economically when they address societal unmet need with a strong business plan, which in turn answers the main research question of the study that through the implementation of CSV strategy Maersk develops societal value in their two approaches, gain economical value with competitive advantage in container business and other two shared values approaches are work in progress with a forecasted positive win-win scenario for both Maersk and society.

Sub research questions 1 & 2 → How can a shared value strategy be implemented & What are the components of shared values in the maritime industry?

The sub research questions 1 & 2 are answered in the subsection 2.9 of second chapter. The literature review on creating shared value in the maritime sector has laid the foundation for this thesis and it is structured in two parts in order to answer these two questions. In the first part, the author begins the chapter by introducing the origin, evolution, concepts of creating shared value, and three levels or pillars under which the companies can create shared values which explains the ecosystem of CSV. Also, this chapter discuss other school of thought on CSV since it stirred arguments and debates in the business world relating to reliability and validity of the

strategy, the reason for this to address is to have a holistic view on CSV in order to answer the sub research question 1. In a nutshell, creating shared value is a business strategy where the companies can achieve economic benefit and gain competitive advantage through resolving societal unmet needs with a business plan. Once the theory of CSV is explained it was imperative to understand how CSV is implemented, its challenges and its benefits to answer the sub research question 1, so author selected four real-world cases which represent different business ecosystems, namely, nestle in food sector business, in the pharmaceutical industry Novo Nordisk, in energy sector, ENEL was selected and finally for hotel and tourism industry International Hotel Group (IHG) was selected. These multiple case studies provided the author with an in-depth practical knowledge of CSV concepts, strategy formulation, implementation, and monitoring of its progress. Also, author explains the difference between corporate social responsibility and creating shared value because, as per the reviewed studies, a lot consider CSV as a new form of CSR, which is not the case, and the link between sustainability and CSV through SDGs. The first part provides the necessary understanding to answer the 1st sub research question on ***How can a shared value strategy be implemented?***

The second part is structured in order to identify the maritime components of shared value. The author begins with an explanation on how the driver of global trade – the shipping sector, is perceived by society. The connection between capitalism and maritime commerce is revealed, which makes maritime business ecosystem more interesting to study in backdrop of CSV. This is followed by a journey of the trade from the point of globalization toward de-globalization, which provides an insightful perspective of people on the concepts of de-globalization, and detailed overview on societal impacts of shipping, their ongoing transition, is studied which provides more relevance to this study and to answer the 2nd sub question ***What are the components of shared values in the maritime industry?***

The two parts form the theoretical backdrop of this dissertation and are put together in *sub section 2.9 conceptual framework and components of CSV in maritime* which answers the sub research question 1 & 2. This part answers how a company can implement shared value, also author rephrases the three pillars of CSV studied in the first part and identifies maritime components in each pillars of CSV which is having a underlying social dimension which are as follows: For level 1, reconceiving the maritime services and capturing the market – environmental impact and energy management is identified, for level 2 redefining productivity in maritime value chain – employee productivity, sustainable logistics, innovation, waste management, and energy utilization are framed as maritime components and finally for level 3 enabling local cluster development author identifies cluster thinking, the conceptual framework and maritime components are presented in figure 2.18. With the above been explained, author describes the 4-step process of CSV in maritime company with figure 2.19, thus the two sub research questions are concluded.

Sub research question 3 → Why is shipping interesting in relation to shared value theory?

The third sub research question is answered in parts in sub sections of 2.8.1 perspective about shipping, 2.8.2 from globalization to de-globalization and 2.8.3 societal impacts of shipping. In the introduction part, author simplifies what capitalism mean since a wide array of definition have been conceived throughout centuries, also identifies the connect through different schools of thought that shipping trade enabled capitalism from colonialism era to present day. By serving the derived demand of capitalism, maritime trade fostered the economic prosperity and evolved the under developing nations into global powers over time. But also, capitalism suffers the preconceived notion of the causation of social problems and the enabler maritime companies

operating with an outdated business model suffers the same. Also, after 11 years of CSV's existence a very little scholarly articles related to maritime, and CSV had been studied and put forth which creates a huge knowledge gap as well. With these reasons, the 3rd sub research question *Why is shipping interesting in relation to shared value theory?* is concluded.

6.2 Limitations of research study

It is of prime importance to present the limitations because it forms an intrinsic part of the research study. This dissertation concludes on the benefits of implementing a shared value strategy through a case study analysis on Maersk, to answer this author made assumptions in developing the conceptual framework and identifying the components of shared value in the maritime industry, which are subject to limitations. The first limitation faced by the author was the number of academic research articles, journals, white papers, working papers, or any other kind of literature available on creating shared value in the maritime sector, which can be perceived from the literature review search conducted by the author in chapter 2. The result clearly shows that a vast number of studies have been done on the standalone topic of shared value, also CSV in the context of sustainability and CSR. But no relevant articles on the author's domain of interest were found even though the maritime sector is one of the drivers of capitalism. This limitation of non-availability on this research topic presents this study as one of its kind.

The author faced the second limitation in the selection of a shipping company. From the search conducted on selecting a maritime business for the case study analysis, creating shared value is a new strategy in the shipping business. Only Maersk embraced shared value instantly after its introduction by Porter and Kramer, which is mentioned in their sustainability report 2011. Besides Maersk, one interview article about carnival cruises was not significant for this study. The author searched other sectors of the shipping business, such as bulk, tankers, and cruise but no notable initiatives or activities on shared values were found. The author narrowed it down to Maersk in the container shipping sector since it was the only shipping giant focusing on CSV. This provided the limitation on multi-case study analysis, and the author opted for a single case study to answer the research question.

Since no prior studies were made on creating shared value in the maritime industry, the author developed the conceptual framework based on three pillars of CSV as explained by Porter and Kramer (2011) and re-phrased those levels specifically for maritime business. Each component of CSV for the marine sector own's a social dimension to it, and it's the result of the author's in-depth analysis of available literature on the domain of interest. The final limitation of this study is the secondary textual data used for content analysis. Since Maersk is a public company, there were no practical implications to acquiring both sustainability and annual reports, as mentioned in chapter 4. Still, the author chose the latter since it served more purpose in analyzing than the company's annual report.

6.3 Recommendation for future research

This study is a pioneering attempt to research creating shared value in the maritime sector. As mentioned earlier, no studies of CSV were made in the shipping business, which provides a massive opportunity for future research, and this thesis represents a benchmark study. The structure of the cruise sector business is complex and always seen as a leisure service for the opulent crowd, a survey of how to cruise shipping companies create shared value will be an exciting topic. As more companies embrace CSV, it still lacks no relevant framework or a

universally approved pragmatic measure system for computing economic and social benefits created by adopting CSV strategy. The measuring system will be a dominant driver for shipping companies and other businesses to adopt CSV, and a related study will be a significant one. In the container shipping industry, selecting other companies such as Mediterranean Shipping Company (MSC), CMA CGM Group, COSCO, and Hapag-Lloyd and studying their CSV approaches would be relevant to the container sector of the shipping business has a more favorable business ecosystem to create shared values.

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