BUSINESS SCHOOL

Sustainability in the Cruise Industry: The case of listed companies

Ana Lígia Vilela Mateus

Master's in Hospitality and Tourism Management

Supervisor:

PhD Ana Margarida Mendes Camelo Oliveira Brochado, Associate Professor (with Habilitation),

ISCTE Business School

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Dedication and acknowledgements

And here I present you the culmination of this two, unique, past years of education, learning and knowledge. Many people were involved, and without whom this paper would not be possible and for that I have a lot of gratitude to allocate to them.

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Resumo

A indústria de cruzeiros foi das mais afetadas pela pandemia Covid-19, mesmo assim, e como já se se caminha para um cenário 'pós-pandemia', os objetivos de sustentabilidade com termo em 2030 continuam uma das prioridades do mercado. Este estudo tem como objetivo compreender os efeitos e a relação que possa existir entre as companhias de cruzeiros adotarem uma nova gestão de operações mais amiga do ambiente e sustentável e a performance financeira das empresas.

Três metodologias complementares foram utilizadas, com a utilização de dados secundários extraído dos relatórios de sustentabilidade, relatórios anuais e a plataforma de dados Bloomberg. Os cinco estádios de sustentabilidade de Landrum são utilizados, assim como uma análise de conteúdo dos relatórios de sustentabilidade é realizada. Por fim, uma análise descritiva dos valores extraídos é realizada com a finalidade de entender a relação entre os valores ESG e os valores financeiros das companhias de cruzeiros.

As companhias de cruzeiros que publicam relatórios de sustentabilidade GRI publicam menos valores ESG assim como menos atividades ESG. Empresas de cruzeiros maiores embora publiquem mais informação nos relatórios, acabam por não ter tanto conteúdo de qualidade para análise. Os valores ESG têm uma relação positiva com o tamanho da empresa, mas nenhuma outra relação foi encontrada entres os indexes financeiros e ESG das empresas.

O 'turismo verde' e o ESG são conceitos que continuam a crescer na mente dos consumidores e turistas tornando-se necessidades de mercado que têm que ser reconhecidas pelas entidades. Ainda assim nenhuma conclusão é ainda aceite relativamente ao impacto que a implementação de operações e utilização de recursos mais sustentável tem na performance das empresas.

Palavras-chave: Relatórios de Sustentabilidade, Sustentabilidade Forte, Sustentabilidade Fraca, Estágios de Sustentabilidade, Análise de Conteúdo, GRI, índices de ESG, indicadores económico-financeiros

Sistema de Classificação JEL:

Q01-Desenvolvimento Sustentável

Q56-Ambiente e Desenvolvimento; Sustentabilidade; Equidade Ambiental; Crescimento da População

P52-Comparative Studies of Particular Economies

Abstract

The cruise industry, as any other hospitality and tourism market has been greatly affected by the COVID 19 pandemic, even so, and as we lean towards a 'post pandemic' scenario the 2030 Sustainability Objectives are still a priority. This study aims to understand the effects and the relationship that cruise companies adopting new environmentally friendly operations have on their financial net returns, and if this trend has been successfully adopted by listed cruise companies.

Three different methodologies, will be implemented, using secondary data from the cruise companies Sustainability Reports, Annual Reports and Bloomberg platform. The Landrum's five stages of Sustainability scale will be used, as well as an intensive report content analysis will be performed, and last descriptive analysis of values will be performed in order to provide a personalized view of each company ESG performance.

GRI reporting companies publish less information on ESG values and activities. Bigger companies do publish more extensive information on CSR and ESG, rather than quality in content. ESG values are influenced by the company size, but company ROA or ROE showed no relationship with company ESG scores.

The green tourism and ESG have been growing as important concepts in a tourist and traveller's mind. Some studies have more recently started to investigate the steps companies are taking to follow the markets needs although a general conclusion has not been taken in the impact that ESG practices have on companies. With no other article or study found on the subject this study gives a tailored view on the subject as a pioneer investigation on the matter, using five important case studies on the industry.

Key words: Sustainability Reports, Sustainability, Strong Sustainability, Weak Sustainability, Sustainability Stages, Content Analysis, GRI, Sustainability Indexes, Economic and Financial Indicators

JEL classification:

Q01-Sustainable Development

Q56-Environment and Development; Environment and Trade; Sustainability; Environmental Accounts and Accounting; Environmental Equity; Population Growth

P52-Comparative Studies of Particular Economies

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1. Introduction

The subject of environment and climate change has been around for some time, and it is ever more spread and focused on. However, only recently some noticeable measures are being taken to counterbalance the negative impact that human activities are having on the planet. The cruise industry sustainability has received increasing attention by the media. For instance, "The Real cost of Cruise | Patriot Act with Hasan Minhaj | Netflix" [1]review on the subject highlights a lot of very bad and worsening environmental impact. Since the cruise industry as significant expectations in the future and constant size growth it is primordial to understand and take conclusions regarding the prospective of a sustainable tourism in the sector of cruise tourism.

"A cruise ship represents all four faces of the tourism industry: transportation, accommodation (including food and beverages), attractions and tour operators" (Paiano et al., 2020:9).

How are measures towards a sustainable growth of the cruise industry being approached by the cruise companies? This question is an important subject to address that can lead to substantial and primary information about the mindset of the cruise industry regarding such an important topic that is the wellness of our planet and the species that habit on it.

In addition to the multiple debates that arise from the subject of a sustainable tourism being the fulcra competitive advantage that will determine the long-term success of companies and service providers, according to Landrum & Ohsowski (2018) an equal ample debate exists around the actual implementation of sustainable operations. From the analysis performed by UNTWO and CLIA (Cruise Lines International Organization) we can retain that most people prefer uncontaminated and healthy/untouched environments, even so, Carlsson-Kanyama (1998) concluded that there is still the temptation for most individuals to act in 'ecologically unfriendly' ways (e.g., littering, excessive water use and energy wasting).

For the past years, not considering the year of 2020, there has been accessed an ongoing growth in international tourism even overcoming the United Nations World Tourism Organization forecast (UNWTO, 2021). On similar notice is the cruise sector that has increase in demand by 30% in five years, 2015-2019 being that the year of 2019 there were a total of 30 million cruise passengers worldwide (The Florida-Caribbean Cruise Association, 2019). With such growth in the cruise tourism, it has become primordial to adhere to environmentally

[1] Available at: https://www.youtube.com/watch?v=0nCT8h8gO1g&t=243s

sustainable practices, not only the travelers but also the tourism services providers. Now, whether an "incremental improvement" or a "major paradigm shift" that will cause change from day to night in companies' operations and resources exploration (Landrum & Ohsowski, 2018) remains unanswered.

One of the trends identified in the tourism cruise sector is the rising of consumer awareness on sustainability (zero plastic, climate change, preserve heritage, environmental footprint), described as a trend for the next years (CLIA, 2020; OECD, 2020; The Florida-Caribbean Cruise Association, 2019; UNWTO, 2019). Not only in the cruise industry but in the hospitality and tourism sector in general sustainability is referred as a "key part of tourism" (UNWTO, 2019:5), and identified by the members of the UNWTO as an objective to achieve:

"Sustainability and competitiveness go hand in hand as destinations and businesses can become more competitive through the efficient use of resources, the promotion of biodiversity conservation and actions to tackle climate change." (UNWTO, 2019:5).

Despite Covid-19 pandemic, that affected greatly the tourism sector and hospitality results of the year of 2020, and the focus on tourism safety measures, with countries starting to lift traveling restrictions, health must be a priority in the years to come for tourism to get back to what it was before the worldwide pandemic. At this moment, tourism is at a crossroads and the measures put in place by the companies today will shape the tourism of tomorrow (OECD, 2020). Even so, sustainability will continue to be an arising subject and objective to achieve in the long term, becoming the second priority in the eyes of UNWTO (2021) to tourism providers.

As so, and, looking though the cruise tourism existing literature, Paiano et al. (2020) identified that despite the sector's development, the scientific literature about the industry is still quite limited with only a small percentage of the studies on the tourism industry being focused on cruise tourism and particularly with its, environmental burden. With this and because most environmental related cruise industry news point out that, like Santana-Jiménez & Hernández (2011), a large number of tourism destinations do face devastating and severe problems relating to seasonal overcrowding and demanding tourism leading to an exponential increase in the air and water pollution, to the exhaustion of local natural resources, the disproportional amount of waste disposal compared with the destinations waste capacity and in many cases leading to even bigger consequences as climate change and loss of diversity, five main reasons for emphasizing the importance of every scientific study on the topic were identified: first, the significant increase on tourism, shipping and port industry over the years,

not taking into account the year of 2020 that have been abnormal in terms of tourism flow due to the Covid-19 pandemic; second the impact that cruise facilities and activities have on the planets' natural habitats; third, the impact that managing operations can have in terms of consumption of natural resources; fourth, the increasing and seasonal passenger flow that requires appropriate environmental and sustainable approach and finally; the fifth reason to be the emergence of the concept of circular economy as a competitive factor in the cruise industry.

Hospitality and tourism sector continues to be one of the sectors most affected by the SARS-coV-2 pandemic and the outlook remains greatly uncertain, nevertheless the crisis is being identified as an opportunity to rethink tourism for the future. And as OECD (2020) empathises in its' report, governments and enterprises do "need to consider the longer-term implications of the crisis, while capitalizing on digitalization, supporting the low carbon transition, and promoting the structural transformation needed to build a stronger, more sustainable and resilient tourism economy". In the same view, UNWTO (2021) also believes that this pos-Covid-19 crisis is an opportunity for tourism market to rethink the sector and take the opportunity to work towards a more "sustainable, inclusive and resilient tourism".

"Managing tourism in a sustainable manner for the benefit of all is more critical than ever." (UNWTO, 2019:2)

To have a better notion of the steps that cruise companies are taking, and of how much sustainable focused the industry is trying to become, this study first objective will be to measure the accuracy of cruise companies Sustainability Reports and position them in a Sustainability Spectrum according to the quality and quantity of themes discussed along the reports. According to Zhao et al. (2018:3), "(…) For investors, the impact of information disclosure depends on the value of the information disclosure.", in this way the next objective will be to demystify to the stakeholder interest the actual efforts that cruise companies are making in order to downsize their impact on climate change and resources scarcity. Apart from the analysis on the Sustainability Reports content and because in some studies (de Oliveira et al., 2020; Vinodkumar & Alarifi, 2020; Zhang et al., 2019; Zhao et al., 2018) we can find a positive relationship between the companies ESG performance and financial and economic performance as well as stakeholder value, the next objective of this paper will be to verify if this relationship also applies to the cruise tourism listed companies.

The purpose of this dissertation is to help understand the cruise companies prospective on a sustainable and environmentally friendly cruise tourism by studying the ways of

sustainability management in the cruise industry. Companies listed in the stock market are the target for this study. Accordingly, this study aims at answering the following research questions.

1. In what sustainability stage are listed cruise companies positioned based on the Landrum's classification?

2. What kind of data, qualitative or quantitative, listed companies disclose in their sustainability reports?

3. Are ESG cruise companies more profitable than other cruise companies?

This paper is structured as follows: first, an introduction to some cruise industry trends and reflections done by international cruise organizations in the past years and where the study's objectives and research questions are revealed; second, a literature review approaching some important notions on the cruise market and also some concepts that will be important for the understanding of the discussion of this paper; thirdly the research questions introduced will be explained and contextualized ; next, a founded explanation on the methodologies used to solve the research questions will be performed, followed by the exposure of the findings and a discussion of results, to finish, the limitations of the paper will be tackled and suggestions for future research will be proposed.

2. Literature Review

2.1. The Cruise Industry

In the last 15 years, the cruise sector has had a particularly high growth and has been one of the most attractive sectors of the tourism industry (Paiano et al., 2020). Alone, for the past 5 years before 2018, demanding for cruising increased over 20.5% (The Florida-Caribbean Cruise Association, 2018). For example, in 2017, the cruise sector had a global economic impact of €134 billion, serving 26.7 million passengers and from a capacity standpoint, each boat accounts to over 100% rate of ships utilization (The Floridan-Caribbean Cruise Association, 2018). More recently, in 2019, the number of total passengers rose to almost 30 million representing a total economic impact of around $150 billion(CLIA, 2020). Most passengers coming from North America (14 million) followed by Western Europe passengers (6 million), with Asian passengers coming next (4 million) lion) and the rest 6 million distributed throughout different parts of the world such as Australia, New Zealand, South America, Scandinavia, Eastern Europe, Africa, among many others (CLIA, 2020). In Europe, the cruise sector revenues were about €50 billion, Italy being the most popular Mediterranean destination gather alone over €13 billion, followed by Spain, Greece, and France (Paiano et al., 2020). However, among the Mediterranean Sea destinations, Barcelona had the most passengers, at almost 3 million, followed by Civitavecchia, with 2.4 million passengers (Paiano et al., 2020). Companies in this sector have made it their life's goal to invest in differentiation as a strategy with their offerings, setting very high standards to the service sector. As a result, multiple cruises have been launched every year, each with their own new forms, themes, and capacity, further contributing to the growing pressures on ecosystems and to climate change (MacNeill & Wozniak, 2018). In 2020 alone, 19 new supersized ships debuted and other 278 vessels are continuing their construction process (CLIA, 2020).

Looking at the cruise tourism service market there are three main fleet companies that currently dominate the industry in terms of revenue and carried passengers: Carnival Cruises, The Royal Caribbean Cruises and Norwegian Cruise Lines, and between them they control over 75% of the market as published in Market Share.(n.d.). The Caribbean is the leading area in the market with 35% of deployed capacity share, and Europe is the second (15% of deployed capacity share) with the Mediterranean Sea having the European tourists' favorite paths (The Florida-Caribbean Cruise Association, 2018). The number of passengers that went through Mediterranean ports grew by over 216% between 2000 (8.6 million) and 2018 (27.2 million) (Paiano et al., 2020). With such a rapid growth in passengers and fleet capacity no wonder the

problem of tourism destinations overcrowding, and resources overexploitation has been growing and worrying the local communities.

Researchers, practitioners, social media and environmentalists are, every time, paying more attention and trying to identify all the negative environmental impacts of multiple industries, and the tourism industry is no exception with the cruise and air travel industries operations as it's central focus. Some systems of environmental regulation, rules for compliance and inspection have been implemented by international organizations in order to compensate for the extreme consequences, such as climate change and global warming (di Vaio et al., 2019). Like so, the cruise industry has been changing its regulations and systems to achieve good levels of environmental performance, meet social expectations and consequently have the publics support in becoming a sustainable industry (di Vaio et al., 2019). Nevertheless, the environmental issues that drive from this industry are extremely challenging in terms of logistics, minimizing emissions, control, and regulations (U.S. Environmental Protection Agency, 2008). Because of their mobility, it is very hard to attribute the pollution a cruise generates to its source, especially in locations like the Mediterranean Sea, the Caribbean Sea and many other cruise abundant waters, where multiple countries stand, and jurisdictions are located in a very close proximity (Carić & Mackelworth, 2014). The most common violation over the years stated by the U.S. Environmental Protection Agency (2008) report consist of the manufacture of false statements in a ship's Oil Record Books (a log in which all overboard discharges are required to be recorded) in order to conceal intentional discharges made in violation of MARPOL (the international convention for the prevention of pollution from ships). Paiano et al. (2020) identified that the most significant waste streams produced by cruise ships are composed of water waste, for example grey water (that from kitchens, showers, and cleaning) and black water (sewage), solid waste and atmospheric emissions. Many studies and practitioners have also confirmed that the lack of transparency in the industry makes it much more difficult to accurately estimate the environmental burden it places on the different regions of the world (Carić & Mackelworth, 2014).

Cruise ship tourism embodies a range of problems not only associated with the pollution derived from the transport itself, but also a new pollution phenomenon associated to the tourism destinations (Carić & Mackelworth, 2014; di Vaio et al., 2019). This new phenomenon happens when a very large number of tourists concentrate through a short period of time in a port city resulting in a concentration of negative impacts on local economies and environments, most times, threatening natural and cultural heritages (Carić & Mackelworth, 2014). These impacts on

the host community cannot be adequately absorbed because of the lack of infrastructures and ports designed to process the magnitude and intensity of the pollution (Carić & Mackelworth, 2014). And so far, the damage to the destinations' ecosystems and social frameworks has not cause direct problems to the cruise businesses directly, but in the future it is expected to since overcrowded and overexploited destinations will stop being exclusive and stop being of interest to cruise passengers and by doing so would cause cruise companies to select other destinations has ports (Paiano et al., 2020) and consequently drastically downsize the tourism market in the areas where commonly the main income to businesses are tourists. One example is the consumptive level of each cruise passenger is recorded to be much higher than that of local hosting communities, unfortunately an analysis performed by the environmental cost in a local community in Croatia concluded that the environmental cost relating to the tourists coming from big ships account to seven times more than the financial benefits that they bring to the local community (Carić & Mackelworth, 2014), leading to an unbalanced relationship between the two cruise companies and tourism destinations.

The report from U.S. Environmental Protection Agency (2008) estimated that waste from cruise ships vary from 2.6 to 3.5 kg per person a day in accordance with MARPOL. While there are multiple regulations set by MARPOL regarding waste disposal, for example, that organic waste can only be legally disposed of beyond 12 NM (nautical miles) from the Mediterranean coast, there is no effective way of controlling the ships' waste disposal practices, consequently countless categories of waste are discarded to the sea illegally (Carić & Mackelworth, 2014).

Nevertheless, it is possible to state some examples of cruise ships and cruise lines being fined for illegal practices relating to waste disposals and fuel discharges that did not follow the indicated regulations and were caught, although this is thought to only be a small sample of these actions. In 2017, Princess Cruises was sentenced to a $40 million penalty for illegally dumping oily water overboard and for falsifying official logs to hide its' damage (U.S. Department of Justice, 2017). Another example in 2019 where the Carnival Corporation was fined another $20 million for violating its probation for environmental offenses (discharging plastics, leading to even worse offenses than the original one) breaking its probation period from a $40 million fine in 2017 (Lou, 2019). Now looking at another company, the Global Cruise Lines was fined a total of $80,000 for using 0.17 percent sulfur fuel in a 0.10 percent sulfur ECA zone by the Norwegian Maritime Authority (The Maritime Executive, 2019). And bigger punishment like the one in 2015 to the MSC cruises company a fine of R$ 2.505 million

for dumping garbage bags during a cruise between Madeira Island and the Port of Recife (Walker, 2015).

Another problem that accessed, related with waste management, is the limited space allocated to the storage of waste on-board, this is because even though cruise capacity as been rising exponentially UNWTO (2019), space has a premium value on-board of ships. Regardless of existing regulations, the difficulty associated with cruise ships' waste disposal control, and onboard waste storage aggravated due to port facilities lacking adequate disposal systems aggravating waste management conditions (Paiano et al., 2020).

A rising problem with plastics reaching the staggering number of approximately 5.25 trillion pieces in the ocean, translating to 269,000, 000 kg of plastic floating the sea's surface, while some 4 billion plastic microfibers per square kilometer litter the deep sea (Eriksen et al., 2014). These changes in the marine habitat and the marine biodiversity have been greatly linked to the cruise ships operations for being responsible for most of the solid waste dumped at the sea, particularly due to packaging, consisting of about 25% of the waste produced by the total merchant fleet, despite the cruise tourism fleets only accounting for 1% of all ships (Paiano et al., 2020).

Other statistics relevant for the cruise industry are for example the ones from Barcelona's port in the year 2017 that was considered the European port with most Sulfur Oxides (SOx) emissions reaching 32,838 kg of SOx emissions from cruise ships which comparing with the total amount from all cars in the city only added up to 6,812 kg (McCarthy, 2019). Other cases more prominent like the port of Palma that when looking at the ships Sox emission reaches a total of 28,000 kg compared to the 2,986 kg from the city's cars (McCarthy, 2019).

Likewise, other estimates put the average fuel usage of these ships at 150 tons of fuel a day per ship, which translating into air pollution is equivalent to about 1 million automobiles which decoding these statistics into environmental expenses it corresponds to 50,000 premature deaths and costs over €58 billion (McMaster, 2017). When it comes to sewage the entire industry is estimated to dump over 3.7 billion liters of sewage yearly (McMaster, 2017).

Shocking statistics like these have led local governments and other big organizations to act in protecting the environment from the harmful effects of cruise ship pollution. Regularly, tourism comprises a set of social and economic activities that use large amounts of natural capital that generate significant environmental impacts and for this reason, international

organizations, such as the United Nations World Tourism Organization, the United Nations Environment Program, and the Organization for Economic Cooperation and Development, are analyzing and trying to regulate tourism contributions to greenhouse gas (GHG) emissions in order to identify a suitable approach that can minimize such effects (Paiano et al., 2020). A constricted pollution-control framework is in need, codes and guidelines on the environmental impact to stimulate the adoption of sustainable models in cruise companies are very necessary not only for companies to adopt more efficient managerial tools reducing the negative external costs to the environment but also to force the management to report environmental related information, like the use of energy and water resources, greenhouse gas and pollutant emissions (di Vaio et al., 2019; Paiano et al., 2020).

Although it is already noticeable that in more recent years, some cruise companies have voluntarily adopted various measures and started to make some technology investments form self-initiative, since technical characteristics of ships are thought to be the main causes of environmental pollution (di Vaio et al., 2019), leading to a reduction on the impact that their vessels operations have, by minimizing waste, both on the ship and on land (Paiano et al., 2020). Not only cruises but the ports industry is similarly trying to set new aspirational emission targets (di Vaio et al., 2019).

Not only actions are starting to be engaged by these organizations, but we must keep in mind that the passenger, the final consumer, is as an important stakeholder as any other who must share the environmental responsibility and has a very important part role, in creating an environmental worried demand, in order to near the quality of the cruise industry to a more sustainable one (Paiano et al., 2020).

An analysis performed by The Floridan-Caribbean Cruise Association, in 2018, concluded that people who cruise are loyal to cruising, with about 92 percent of cruisers saying they will probably or definitively book a cruise as a next vacation, and 65 percent of cruisers rating cruises as the best type of vacation, over land-based vacations, all-inclusive resorts, tours, vacation house rentals or camping. The typical passenger's profile are families with children under 18 years old, making it that children are involved with the decision process for cruises more than they are for land-based vacations; it was observed that younger generations (Millennials and Generation X) are embracing cruise travel every time more:

> People who take cruises are younger and more diverse than non-cruisers, and different cruisers often have different priorities: the Baby Boomers are influenced more by trips,

> ports, and destinations, along with itineraries and sight-seeing options; the Traditionalists are interested in programs for children and families; Gen Y and Millennials are more concerned with cost, convenience, and onboard entertainment.(The Florida-Caribbean Cruise Association, 2018:6)

In this sense Memon (2012) proposed a system of reducing and reusing waste in all areas making it a key factor for a successful waste management for all ages, through the 3Rs (reduce, reuse, and recycle). Indeed, successfully reducing and managing waste can carry about financial profits as well as non-financial profits (Han et al., 2018). Consuming more efficiently can lower both the cost of raw materials and the treatment cost as the amount of waste decreases (Han et al., 2018), and since waste management as turn out to be such an impactful objective to achieve in a cruise, measure such as the 3R's can become a critical green management tactic in the industry.

A big realization behind most studies is that it is essential to trigger travelers' participation in waste reduction practices on-board and at destinations as a waste reduction management practice undeniably culminating in a sustainable tourism development (Lee et al., 2010). Aspects such as "reduction", "reuse", and "recycling" along with the conservation of water/energy/natural resources regulations can result in a successful and exciting pro-environmental management (Han et al., 2018). Carić & Mackelworth (2014) also advocate that pro-environmental management is particularly crucial when it comes to the cruise tourism, not only because is being promoted as an important factor to the company's operations and future as they advocate throughout all the reports and analysis but also in helping cities and countries to improve their economic stability considering these hidden environment costs.

2.2. A Sustainable Development of Tourism

The concept of sustainable tourism demands for some important and essential assessments. According to Asmelash & Kumar (2019), the current fragile ecological setting and resources sensitiveness requires consistent monitoring and evaluations form the point of view of tourism and its impacts on earth. Because of all the instability and unpredictability connected with the tourism industry, progress towards a sustainable development of tourism is desirable and a common goal in most tourism related industries.

Already in 2015, year of many important happenings in the cruise industry, a conference, mentioned in the paper of Paiano et al. (2020), entitled "Pan-European Dialogue between Cruise Operators, Ports and Coastal Tourism Stakeholders" promoted collaboration

and negotiations between cruise tourism entities on what should be the best practices for the sector. Accordingly, many participants were gathered from the multiple segments of the cruise industry in order to agree on a Europe 2020 Strategy, regarding sustainability in cruises, coastal, and maritime tourism (Paiano et al., 2020). Ko (2005) also proposes sustainable development being one of tourism contemporary objectives and, as so the industry needs to try and measure its performance and impacts.

The author Paiano et al. (2020:3) highlighted in his paper that during the conference the common objectives between the participants were:

> The need to involve all the tourism chain in the benefits and deliveries for cruise tourism and recognized the contribution of cruise, coastal and maritime tourism to the social and economic development of coastal and insular destinations, the importance of coastal and insular destinations as touristic attractions and the need to preserve their authenticity and heritage. (AAVV, 2015)

It is widely agreed by all the segments of tourism industry the need to be sustainable and to follow a sustainable development. Nevertheless, it is has become in the minds of many authors an open-ended area with unattainable objectives because of the discordance among models about its' application as an attainable and applied concept (Asmelash & Kumar, 2019). The same authors also claim that *tourism may never be utterly sustainable*. However, in areas like the cruise industry, there has been consistent evaluation on tourism operations performance and impact in terms of sustainability (The Florida-Caribbean Cruise Association, 2018; UNWTO, 2019).

As already mentioned, the concept of "sustainable development" lacks a mutual accepted definition even though it has been agreed to be an objective to attain in the tourism industry. In (Bell & Morse, 2008) book it is described that the source of the concept sustainability is closely associated with the maintenance of environmental quality. Also distinguished in the work of (Vehbi, 2012:104): "the policy of sustainable tourism development refers to tourism as being ecologically acceptable in the long term and financially viable and fair from a social and ethical viewpoint for local communities".

Sustainability indicators and assessment tools have been mentioned in the literature as relatively reliable, clear, and simple and combining both qualitative and quantitative data, even though they are still in an immature stage of research (Asmelash & Kumar, 2019). Even so, Ko (2005) found that most studies dealing with the sustainability issue have been merely

descriptive, subjective, and most applied on qualitative data, concluding that the application of sustainability in tourism context consists only of very scarce cases.

Bell & Morse (2008:5) argue then that sustainable development refers to "whatever is done now that does not harm future generations". While in Vehbi (2012:103) work, sustainability is mentions focus areas: "long term economic, environmental and community health". Butowski (2019) for his studies considered a broad and interesting view of the definition of sustainable tourism, based on Butler's paper in 1999. This is an author very skeptical on the hope that the concept sustainable tourism can bring to the tourism industry. He saw the concept through two channels, the semantic-dictionary side, and another side, treating sustainable tourism as a tool for the development of tourist areas. From the latter point view the term "sustainable tourism" is claimed to derive from the interrelations between tourism, environment, and development (Butowski, 2019). Through time the term sustainable tourism has also been used to distinguish legal regulations and methods of management that determine development of tourism in areas of high natural or cultural appraisal in order to protect them and similarly, used as a distinguishable term for the tourism industries to not cause harm to the natural and cultural environments (Butowski, 2019). Currently one of the most conformal definition for sustainable tourism was proposed by the UNWTO in 2005 as: "Tourism that takes full account of its current and future economic, social and environmental impacts, addressing the needs of visitors, the industry, the environment and host communities". Certainly, there is a possibility of a sustainable tourism being possible, if a well performed monitoring of the tourism sector impacts and the familiarization with preventive and corrective measures is performed (Asmelash & Kumar, 2019).

This is where the cruise sector can find the opportunity to adopt an advanced model for tourism management leading to a sustainable development of its operations (e.g., reducing the intensive pollution) and tackle the sustainability issues lessening its' negative externalities (Carić & Mackelworth, 2014). The *prospective of a sustainable tourism* has also been supported and spread by organizations like the United Nation World Tourism Organization, with multiple directives released by the United Nations Environment Program, by the Cruise Lines International Organization among other organizations creating awareness, spread and stimulating the cruise companies to address the burden that the business can cause on the environment and on its' destinations. Awareness like this comes to satisfy greatly the need of the rising number of consumers who are aware of these environmental issues (Paiano et al., 2020). The concept of sustainable tourism provides then an opportunity of implementing

services, products, and business models that will attract and induce eco-focused tourists (Paiano et al., 2020). Even though to identify issues and the areas that are most urgently affected by the cruise companies can be very hard, using developed and validated sustainability indicators to help detect sustainability problems can greatly help policy makers and destination managers to prioritize their action areas and eventually develop a robust and statically validated effort to guarantee a sustainable tourism avoiding duplication of efforts and depletion of environments (Asmelash & Kumar, 2019).

2.2.1. Weak and Strong Sustainability

The Landrum's sustainability spectrum that will be used in the methodology of this paper was based on two very important concepts weak sustainability (Hartwick, 1977, 1978; Sollow, 1974, 1991) and strong sustainability (Daly, 1973, 1991). And both concepts, not only but mostly, vary according to the view that take on the collaboration between ´natural capital' and 'human capital'. Following there is a very short but simple way o distinguishing these two extreme concepts.

The weak sustainability is the concept that allows managers to rely on a traditional economic growth where 'capitalist management' controls and constraints businesses, since it looks at 'human capital' as a possible substitute to 'natural capital' and vice-versa. This purposes that 'natural capital' can decline if 'human capital' increases for example, forest may decline, and the ozone layer may diminish if profits and human capital increase.

On the other hand, there is the strong sustainability concept where the concepts of 'human capital' and 'natural capital' are viewed as complementary factors and not substitutes. Because of this, strong sustainability is considered to see ecological gains ahead of financial profits. For example, the overexploitation of natural resources, according to this view, is not justifiable as means of better financial profit, on the other hand it emphasizes the importance of renovation of resources as an objective to maintain a balance between the amount of natural resources over the years. This point of view originated solutions that we know nowadays as reuse, recycle, and reduce.

2.3.GRI (Global Reporting Initiative)

The Global Reporting Initiative (GRI) is a private organization founded in Boston in 1997, whose mission is to:

> (…) envision a sustainable future enabled by transparency and open dialogue about impacts. This is a future in which reporting on impacts is common practice by all organizations around the world. As provider of world's most widely used sustainability disclosure standards, we are a catalyst for that change. (GRI, 2021)

The GRI standards of sustainability reporting were thought as meanings to a transparent and standardized way of reporting. The GRI standards of reporting are divided in Universal Standards and Topic-specific Standards (economic, environmental, and social) and all of them are published and explained in a 575 page "Consolidated Set of GRI Sustainability Reporting Standards 2020" manual, available in the GRI official website, to everyone.

There is also the GRI Sustainability Disclosure Database available at: https://database.globalreporting.org/, where one can find over 38 484 GRI reports. Even though there are other sustainability reports standards such as, the Triple Bottom Line (Dagiliene et al., 2020), the International Integrated Reporting Council Framework (IR) (Landrum & Ohsowski, 2018), The Sustainability Accounting Standards Board (SASB) (Landrum & Ohsowski, 2018) and The United Nations Principles of Responsible Investment (UNPRI) (Vinodkumar & Alarifi, 2020). To date, the GRI reporting database is the most comprehensive and used internationally when it comes to Sustainability Reporting (Dagiliene et al., 2020; Haller et al., 2018), being the only one that focuses on a multi-stakeholder approach (Landrum & Ohsowski, 2018).

It is conceived that GRI responsibility reporting is an important way of communicating and explaining a firms' sustainable operations and activities and, in this way, adding to a company's market value (Fifka, 2013). Nowadays, more than ever, a company's communication of its environmentally and socially responsible activities not only improves its image, but it can lead to future economic benefits (Landrum & Ohsowski, 2018).

On one hand, Companies CSR (corporate social responsibility) reports do transmit the approach that the company has decided to take on the subject, therefore reflecting 'the unique way in which a company defines and implements sustainability' (Landrum & Ohsowski, 2018). On the other hand, it is agreed throughout most literature (Conca et al., 2021; Escrig-Olmedo et al., 2019; Fifka, 2013; Landrum & Ohsowski, 2018) that the concept of sustainability and its implementation and communication are still ambiguous. Therefore, GRI standards represent a standardization framework on how to report and communicate a company's' environmental, social and governance subjects allowing a better understanding to its' stakeholders and better means of comparation between the firms (Dagiliene et al., 2020).

2.4.ESG indexes

For this paper the ESG (Environmental, Social and Governance) indexes, were chosen as the quantitative representatives of the cruise companies' sustainability and environmental performance in the trading system.

In most papers, Fifka, 2013; Kuo et al., 2021; López-Toro et al., 2021; Rahi et al., 2021; Zhao et al., 2018 among others, CSR (corporate social responsibility) and ESG (environment social governance) are used to represent the same business characteristic dealing with the overall company assessment and action on sustainability and its operations consequences to their surrounding environment, both to their shareholders as to their stakeholders. Although it is possible to distinguish both concepts, being that ESG is considered a "younger sibling"[2] of CSR. In the same view we can also consider ESG as a measurable index of CSR activities within the company.

'Good CSR initiatives might help drive high ESG ratings.' (Millie, 2021)

When comparing ESG scores to financial performance, it is common that when referring to this relationship authors take on one of the following three theories: stakeholder theory (López-Toro et al., 2021; Rahi et al., 2021), agency theory (Rahi et al., 2021) or institutional theory (Escrig-Olmedo et al., 2019; Kuo et al., 2021). As López-Toro (2021) did, this paper will focus on the impact that ESG practices have on a cruise company financial performance, having into account all the different interests from the multiple stakeholders' groups, shareholders, employees, customers, and the surrounding society.

The growing interest on ESG performance by the stakeholders' groups has encouraged the release of studies on the impact of ESG rankings in the company's financial performance over the years (Kuo et al., 2021). Although there was found no consensus on the existence of a relationship between the two variables, ESG scores and FP scores (Conca et al., 2021; de Castro Sobrosa Neto et al., 2020; de Oliveira et al., 2020; Do & Kim, 2020; Kuo et al., 2021; López-Toro et al., 2021; Rahi et al., 2021; Zhang et al., 2019). The study performed by Rahi et al. (2021) where the impact of ESG practices on the Nordic financial industry financial performance (ROIC, ROE and ROA) is tackled, concluded that both positive and negative relationships can be found throughout the ESG dimensions and Nordic financial institutions financial indicators, more specifically an overall negative relationship between ESG and FP except between G

[2] socialgoodconnect.org/what-is-esg/

(governance) and ROA. Another study performed by López-Toro et al. (2021) on the impact of ESG indicators and listed pharmaceutical companies' financial performance (ROA, ROE, and Tobin's Q), determined that there is a positive relation between ESG scores and pharmaceutical companies' financial performance. Another industry study on airline companies, performed by Kuo et al. (2021), proved that there was a downward trend on ROA when implementing ESG actions, based on Thomson Reuters ESG database. Either way it is widely believed by scholars that companies employing ESG procedures do increase their long-term efficiency, customer loyalty, corporate reputation, access to capital, cost savings and innovation (López-Toro et al., 2021). Apart from that, nowadays, ESG practices are fulcra point when there is high a consumer awareness (López-Toro et al., 2021), as it is in the cruise industry where all the attention is turned on ocean and destination pollution.

Now, Bloomberg does offer a very complete and important ESG ratio database and indicators for its users, and it was successfully used before in other ESG studies (Conca et al., 2021; Vinodkumar & Alarifi, 2020).

Bloomberg is a data driven platform that provides financial, political, technological, market, sustainability among other information very useful for helping stakeholders with disclosure, corporate strategy, and risk management in a rapidly evolving world economy. It is a privately held financial, software, data, and media company headquartered in Midtown Manhattan, New York City. It was founded by Michael Bloomberg in 1981, and in 2021 has more than 11 800 companies ESG data coverage, in more than 100 countries, representing a total of 88% of the global cap covered by Bloomberg data (Bloomberg, 2020).

When it comes to ESG, like most studies do (Conca et al., 2021; Iturrioz del Campo et al., 2019; Rahi et al., 2021) we will use the one ESG index and its' three individual dimensions that resume and will serve as a proxy to the cruise companies' sustainability and environmental performance:

Table 1 Table distinguishing the four ESG indexes used and their description on Bloomberg. Source: self-elaboration

Bloomberg ESG Disclosure		
Environmental	Social	Governance
GHG emissions	Women employment rate	% Independent Directors
Energy consumption	% Women employees	% Board Members
Water pollution	% Employee turnover	Director Average Age
Waste	% Employees Unionized	% Director Meting attendance
Water recycled	Lost time Incident Rate	Board Size

To ensure accuracy and consistency, Bloomberg admits only capturing data only from direct sources, such as corporate responsibility (CSR) reports, annual reports, proxy statements and corporate governance reports (governance data only), company websites and CDP (Carbon Disclosure Project) data.

2.5.Conceptual Proposition Board

Table 2 General conceptual proposition board on cruise tourism trends. Source: Self-elaborated.

'The cruise market is a growing market in the tourism industry.'	(CLIA, 2019, 2020; UNWTO, 2019, 2021)
'ESG is becoming a very important competitive factor for tourism service companies.'	(Do & Kim, 2020; López-Toro et al., 2021; Vinodkumar & Alarifi, 2020; Zhao et al., 2018)
'Management biggest concern are financial returns.'	(Conca et al., 2021; de Castro Sobrosa Neto et al., 2020; Kuo et al., 2021; Landrum & Ohsowski, 2018)

Importance and Relevance of Topic

3. Conceptual Model

3.1. Five stages of Sustainability Model

From the development of the weak and strong sustainability concepts, Landrum built the following five stages of sustainability:

1st Stage: Compliance - this stage is positioned in the very weak sustainability point, where organizations are business-oriented, and their priority is to meet compliance requirements externally enforced through an anthropocentric, defensive and consumption focused growth

2nd Stage: Business-Centered - this stage is positioned in the weak sustainability point, where organizations are also business-oriented, the priority is also to meet requirements but, in this case, not only externally enforced but also internally enforced, where the motivation is on the 'business-as-usual' and the pursuit for a production and consumption growth may focus on one or two realms of sustainability but mostly a managed and controlled anthropocentric environment persists

3rd Stage: Systemic - this is positioned in an intermediate point between weak and strong sustainability, also a business-oriented stage where the pursuit of production, consumption and growth is done with a 'do more good' motto with external influences in defining sustainability and integrating the three realms of sustainability (economic, environmental and social)

4th Stage: Regenerative – positioned in a strong sustainability point, where for the first time an ecology-oriented qualitative development and not quantitative growth, being part of the natural world operating within the planetary boundaries repairing the damage to natural systems that traditional/weak sustainability organizations have been causing

5th Stage: Coevolutionary – this stage is now positioned in the last and not covered yet point of the sustainability spectrum, the very strong sustainability, obviously ecology-centered, where a symbiotic relationship between the firm and the natural systems is built, without growth in consumption or production and only qualitative improvements, not only self-managing but also contributing to flourishing of other systems.

4. Contextualization

This case study will focus on listed cruise companies for the purpose of studying their sustainability environmental and corporate practices.

One big barrier of this study was the small quantity and quality of information that is publicly traded and published by the cruise companies. As Fifka (2013) stated, publicly owned companies tend to, over the years publish more environmental and social information than privately owned companies. Having publicly traded shares, apart from ensuring the underlying financial viability of the company, in most cases also encourages companies to publish important information that will influence their investors, such as environmental, social and governance information. This fact is agreed by many authors (Landrum, 2010; Crane and Glozer, 2016; Ernest and Young, 2016) indicating that organizations purposely communicate corporate sustainability reports to increase financial returns, as so it is expected that the information publish is only the small part of information that companies want to publish and make public, leaving behind important information that companies chose not to publish in their reports. As so, the initial selection of the companies was based on the aspect of having publicly traded shares which information can be accessed by Bloomberg. A list of 10 listed cruise companies (Annex A) was withdrawn from Bloomberg containing the following companies: Carnival Corp, Carnival Plc[3], Genting Hong Kong Ltd[4], Lindblad Expeditions Holding[5], New Century Group Hong Kong[6], Norwegian Cruise Line Holdin[7], Passenger Port – BRD, Royal Caribbean Cruises Ltd[8], Sealink Travel Group Ltd [9]and Tallink Grupp AS[10].

Even though Carnival Corp and Carnival Plc are traded in different stock exchange respectively, the New York Stock Exchange (NYSE) and the London Stock Exchange, they do publish the same sustainability report, in this way they will account for the same company for the purpose of this study. For the Lindblad Expeditions Holding only the reports from 2017 and 2018 were available for download, and even so, after a throughout look through the reports no measurements of water use, gas emissions, waste management or human resources management was published. As so, this company was excluded from this study, for not having comparable

[3] https://www.carnivalcorp.com/
[4] https://gentingcruiselines.com/
[5] https://www.lindbladcruises.com/
[6] http://www.ncgrp.com.hk/html/index.php
[7] https://www.ncl.com/es/es/
[8] https://www.royalcaribbean.com/
[9] https://www.sealink.com.au/
[10] https://www.tallink.com/

information for the study year of 2019. For the New Century Group Hong Kong Limited, the company is mainly positioned to focus on money lending, property investments and other securities lending services. Although cruise ship charter services are included in the range of New Century Group Hong Kong Limited' business activities, it does not fit the role as a tourism cruise company and consequently, it was excluded from this study.

Regarding the Passenger Port – BRD, it is a vessels port in The Netherlands, not fitting the role as a tourism cruise company and consequently excluded from this study.

The Sealink Travel Group is a cruise company with headquarters in Australia, that after a search done on the existence of published sustainability and environmental reports, none was found. The closest report found was the company's governance report, that only discussed the board and directors' assets. Due to the lack of an environmental information in the company's report this company was also excluded for the fact of not having enough published information fit for this study.

Finally, regarding the Tallink Grupp AS, the latest sustainability or environmental report found was the 2015 Sustainability Report. When looking at the Tallink Grupp 2019 Yearbook only a three-page reference of small details is published under the theme of environmental management, not enough to formulate a comparable analysis with the other cruise companies. Because of this the Tallink Grupp report was not considered in this study.

Although MSC Cruises company, is a privately held company and privately traded company, it was included in the study for the purpose of being mainly an industry study, and MSC Cruise is the third cruise company with the biggest market cap. It is a company that does present a stock value, but the shares of the company are very closely traded among the "family members" and not publicly traded. For enlightening purposes on the industry ESG measures and because according to Kuo et al. (2021) ownership type does have a significant moderating effect on the impact of ESG performance indicators on financial performance this company was included into the current paper.

The final sample group of companies that will be featured in the study are: The Royal Caribbean International, Carnival Cruise Lines, Norwegian Cruise Lines, MSC Cruises and Genting Hong Kong.

5. Methodology

5.1.Research Design

The first research question for this study is: In what sustainability stage are listed cruise companies positioned based on the Landrum's classification?

For the first research question a content analysis is being performed to the cruise companies Sustainability and Environmental Reports of the year of 2019. The Landrum & Ohsowski (2018) developmental model of the different stages of corporate sustainability, was chosen to be the most accurate to tackle the first research question since it introduces these stages through a strong sustainability theoretical lens which this paper also intends to do. This model will enable us to position the companies in accordance to the environmental, social and governance information that they do publish to their stakeholders, and determine which company has the better quantity and quality ration in accordance to first objective of this study.

Because the essence of this study is mainly focused on the environmental impact that these 5 cruise companies have, and since the sample of companies is limited to five it is possible to propose the second research question: What kind of data, qualitative or quantitative, listed companies disclose in their sustainability reports? And deriving from the quality and quantity of the information exposed by the companies a sub-question derived from the elaboration of the second research question proposed will be explored: Which cruise company was the 2019 leader in sustainability according to the published information on the sustainability reports? This research question will be answered using the analysis of a conceptual board comparing qualitative information, quantitative information (GHG (greenhouse gases) values, energy, bilge water disposal and waste values between the companies in comparison to the number of passengers and the size of the company), as well as on, extra operational activities that the companies perform to compensate their operations bad impact on environment.

This mixed methodology will be used to provide us with a deep and detailed view of the Sustainability Reports content. This tables (Annex E), resuming all the environmental, social and governance activities that cruise companies admit accomplishing during the business year will also provide stakeholders with a clear and realistic view on the cruise companies effort to reduce their impact on climate change and resources scarcity and exploration, helping to achieve the second research objective. Qualitative and quantitative information, sustainable operational actions, sustainable non-operational activities, and sustainability awarding information will be extracted to a conceptual and descriptive board so that is possible to

compare and take conclusions about the reports' content and the quality of the information provided by the companies. The year of the reports analyzed is 2019, so all the information provided will only refer to 2019s' company deeds and results.

The quantitative environmental information extracted from the companies, sustainability and annual reports was chosen according to the only available and common information between the five companies reports as well as based on Dagiliene et al. (2020) KPIs' (Key Performance Indicators). Dagiliene et al. (2020) sustainability KPI's were chosen as reference since their objective is to let us understand environmental issues that companies willingly give numerical and graphical information about in their reports (Mäkelä, 2017), even thought they were used in the original paper to study manufacture companies, we can also apply them in this paper since they do resume the the cruise firms' operations annual outcome. Following, there is a small description of the quantitative concepts to give a consolidated meaning to each of the KPI's in analysis.

- GHG (greenhouse gases) emissions: any of the gases produce during the cruise companies operations that are thought to cause the greenhouse effect, especially carbon dioxide. Most company reports represented these emissions through tonnes, although for a better understanding and comparation process all the results were turned into MKG (million kilograms)
- Energy Consumption: a source of power, such as fuel, used for working engines, providing heat and cold, cruise lighting, cooking, among any other essential activity for providing cruise tourism services. Some energy consumption values extracted from the reports were in gigajoules, therefore all were turned into the energy measurement of MkWh (million-kilowatt hour)
- Waste: materials and matter that were no longer needed or used and were thrown away, not necessarily off-board but instead discharged when arriving to port, most companies published only their recycled waste numbers, which means that when waste is left at ports it is already recycled, and others both, recycled and total waste. Most waste numbers were published in metric tonnes, as so they were all put into a common comparation measure MKg (million kilograms)
- Bilge Water Discharged: dirty water that collects in a vessel's bilge, it can be distinguished in two kinds, greywater or blackwater, both armful for the wildlife and marine habitats. The reports measurement used was the metric tonne, although for a better comparison all values were turned into MKg (million kilograms)

For the final research question the relationship between the ESG data published on Bloomberg about the cruise companies and their financial and economic performance was seen as an important subject to study and to be discussed. Being the third research question formulated as follows: Are ESG cruise companies more profitable than other cruise companies?

For the third research question to be analysed in this paper financial concepts used by Iturrioz del Campo et al. (2019), Kuo et al. (2021), López-Toro et al. (2021), Rahi et al. (2021) to study the relationship, if any, between financial and economic indicators and ESG data extracted from Bloomberg and comparing this relationship between companies who belong to the ESG index and the ones who do not, will be used. These economic and financial indicators will resume a company's financial performance to compare the level of influence that ESG published data have on companies that follow the GRI standards and the ones who do not. It will also allow to verify or not the existence of a positive relationship or negative relationship between both ESG and financial performance, already discussed in literature review. With a small sample, and very little information published about ESG indexes the relationships will mainly be analysed through a descriptive and simple way in order to help validate or not some kind of relationship between ESG performance and financial performance in the tourist cruise industry.

The variables for this study will be the ESG indexes already mention prior, such as ESG global index, ESG environmental index, ESC social index, ESG governance index, and RobecoSAM environmental index, published on Bloomberg's platform as well as the quantitative economic and financial ratios:

- ROA (return on assets), is a profitability ratio represents how much profit a company generates from its assets, measuring how efficient a company's management is in creating revenues from their economic resources or assets on their annual balance sheet:

ROA= Net Income/Total Assets (5.1.1.)

- ROE (return on equity) is a ratio of financial performance measuring the company's profitability in relation to shareholders' equity. It can also mean the relation between the company's' net profit and its' net assets, since Shareholders Equity=Total Assets-Total Liabilities and:

ROE=Net Income/Shareholder Equity (5.1.2.)

- Size, like Del Campo (2019), the criteria used to measure the company size will be amount of total assets that will appear as MEUR (millions of euros).

Along the paper three different methodologies were used to study the five companies 2019 Sustainability Reports and ESG Bloomberg information. All three methodologies with three different study objectives, regarding three different research questions, and multiple bibliographic input from different authors.

5.2. Data Collection

5.2.1. Sustainability Reports Content Analysis

The Landrum's five stages of corporate sustainability proposed in 2015 and deepen in 2017, helps to categorize written content, such as the sustainability reports, in this specific paper published by the cruise companies, and allocate the companies considering their stage of maturity in corporate sustainability. This paper uses the same data collection method, by scanning the secondary data collected from the companies' 2019 Sustainability Reports available on their webpages under the category 'Investors'. Because we have GRI and non-GRI reports a small comparison between them will also be performed, besides the comparison between the company's sustainability stages.

This model has into account the ranges from weak sustainability and strong sustainability already approached in the literature review. Being the firstling of it the sustainability spectrum proposed by Pearce in 1993. It is part of the qualitative methods of study and proposes a content analysis of textual messages. By identifying the frequency of concepts described on table () among the five reports it will enable us to categorize the reports among the five stages of sustainability proposed by Landrum.

By positioning the cruise companies throughout the five stages, it is expected that the results can provide us with an insight to the company's understanding of sustainability and its' implementation in the company's' operations and activities, ultimately showing us the stage of maturity of corporate sustainability of each company.

For the performing of the content analysis the R program was used to text mine the company's sustainability report according to the words in table on Annex C. Both the table of the Landrum stages and the reports were turned into ".txt" files, for R to be able to download the texts and manipulate them following commands.

The text from the reports was collapsed into one line and text mined by extracting every punctuation, every 'stopword' (useless words for the analysis such as "the", "and", "with" among others), every single letter word, every Caps lock letter turned into smaller case letter and every extra 'space' was eliminated. During the text mining process, although many tutorials suggested using the *scan()* function to read the concepts of the table in Annex C, when dealing with corpus of texts, this study used the *readlines()* function to scan for the concepts in table IN Annex C to prevent repetition when counting the matching the reports to the concept table since for e.g. multiple concepts used the word 'market' and the function *scan()* separates the concepts in characters leading to the word 'market' being counted repeatedly.

Now that the wordcount gave a general view of each of the sustainability reports content, the real question would be if this classification of the reports does match a more deepen and detailed content analysis regarding the type and number of real sustainable actions that the companies took regarding their operational daily tourism services providers activities in 2019. The reflection of the sustainable gradual operational changes on the firms' output results as well as, the importance and scale they attribute to their non-operational operations impact are very important since they do affect the companies' stakeholders and surrounding society, and ultimately lead to the company's environmental footprint reduction.

For this analysis, a reading of the five 2019 sustainability reports was performed and along the reading a word document resuming each company quantitative operational data, qualitative operational data, sustainable KPI data, extra-operational data and awards mentioned in the sustainability reports was obtained.

After the document was complete, the information was organized into two conceptual tables (table 4 and Annex E), in the excel program, filtrated by the year of the values, only 2019 results and, through specificity of the information, being that general information, e.g., 'invest in fuel-technology' (Carnival Corporation & PLC, 2019) or 'reduced waste through reusing and recycling' (Norwegian Cruise Line Holdings LTD., 2019) were left out from lack of the details regarding the actual measures taken by the organization to achieve the goal of a more sustainable or efficient way.

Table 4 Sustainability reports quantitative conceptual table Source: Self-elaboration.

2019	Quantitative Objectives	Comparable Environmental Values	Size and Number of Passengers
Royal Caribbean International	Achieved a 35% CO2 emissions reduction relative to de 2005 baseline Produced 90% ofonboard freshwater versus desalinationand reverse osmosis 100% of the fleet islanfill free Reduced 85% ahead of its waste-to-lanfill from the 2007 baseline 60% of ship equipped with emissions purification systems 85% of fleet capacity equipped with Advanced Wastewater Purification systems	Recycled Waste: 21,27 MKg GHG Emissions: 4.834,768 MKg	Size: $30 320 million Passengers: 6 554 thousand
Carnival Cruise Line	Achieved a 24.8% CO2 emissions reduction relative to de 2008 baseline 70% of the fleet with Advanced Air Quality Systems Achieved 10,3% of fleet capacity with Advanced Waste Water Treatement Reduction of 5,6% of the waste rate compared to 2016 baseline	Total Waste: 357,767 MKg Recycled Waste: 100,175 MKg GHG Emissions: 10.895 MKg Energy Consumption: 381.983 MkWh Bilge Water: 149,88 MKg	Size: $45 058 million Passengers: 12 866 thousand
MSC Cruises	Achieved a 28% reduction in carbon intensity since 2008 Achieved 98% in sulphur dioxide from a ship with a new exhaust gas cleaning system 80% of freshwater onboard comes from seawater 80% food and beverage locally sourced The first ship to have a SCR (selective catalytic reduction) system Substituted 426739.7KG of cod with sustainable seafood sources Removed 97 million signle use plastic items	Recycled Waste: 22,455 MKg GHG Emissions: 2.064,20MKg Bilge Water: 1.192,398 MKg	Size: $11 193 million Passengers: 2 700 thousand
Genting Hong Kong	Achieved a 1MkWh saving throughtthe year	Total Waste: 70,724 MKg Recycled Waste: 66,895 MKg GHG Emissions: 775,924 MKg Energy Consumption: 3.703 MkWh	Size: $8 018 million Passengers: no mention
Norwegian Cruise Line	71% reduction on chemicals used in sanitation 80% of warehouses forkliftshace changed to eletric 96% of the fleet with low-friction hull coating to increase propulsion efficiency All ships equipped with EGCS (Exhaust Gas Cleaning System) that reduce SOx emissions up to 99% 35% of ships equipped with cold-ironing capabilities 30% of ships with onboard food digesters 96% of ships with AWP (Advaned Wastewater Purification) 86% of freshwater was produced onboard	No values in the report	Size: $16 684 million Passengers: 2 696 thousand

Table 4. was divided into three categories: quantitative objectives, all the operational quantitative set of objectives that the companies established to achieve in order to follow with the market environmental standards and environmental regulations; data regarding comparable environmental values, which were based on Dagiliene et al. (2020) key performance indicators (KPI), waste, energy, water and emissions values that were extracted from the annual value tables that are part, normally at the end, of most sustainability reports (for the exception of Norwegian Cruise Lines, that did not publish any detailed countable KPI information in its

sustainable report nor annual report for the year of 2019); and finally the size of the company and/or the number of passengers, this values were incorporated in order for the environmental KPIs' to be comparable in the sense that even though two companies are expected to present much higher values than the other companies it does not mean they are less sustainable but because their operations are in a much larger scale, as so, they present higher values.

The second table, Annex E, with qualitative information, meaning non-numerical and non-countable data was organized according to the type of information in the sustainability reports, divided into three categories: qualitative objectives, composed by operational changes and measures that were adopted throughout the fleets and implemented by the companies as part of the gradual and consistent path to a more sustainable cruise tourism, with close to zero environmental impact; ESG activities, meaning extra-operational activities that firms do in order to help and support their stakeholders, foundations, associations, studies and other organizations, leading to a compensation for the company's operations bad outputs and helping to transmit not only a better image to the companies investors but also the companies' target public and; sustainability awards, all the awards stated in the firms' sustainability reports regarding environmental, social and governance prizes and references that magazines and international institutions assigned the cruise companies.

Notice that in the ESG activities category, there is data that we can attribute a value to, being countable information, but it was included into the qualitative board since it is data that does not concern the quantitative objectives of the companies' operations and daily business. Being the main business of these five companies to provide cruise tourism services, the countable donations and financial contributions to the multiple causes through the year were left out of the operational values and so introduced in the qualitative activities since these numbers do not affect the companies' business or assets, being external events that do not affect the company's direct environmental and social impact but that can weigh on the general image and stakeholder relationships of the cruise firm.

The first three companies on the previous tables 4 and Annex E correspond to the three GRI following standards company reports and the latter two companies correspond to the non-GRI reports. The further content analysis developed to answer the second research question will take only into consideration the information in the Annex E.

5.2.2. ESG data vs. Financial data

To study the relationship between ESG data and financial data from the five cruise companies, secondary data was collected both from Bloomberg platform and the cruise company annual reports. Data from five years was gathered to try and understand the evolution that the companies had during this period. A five-year time gap was chosen, since only very recently companies have been adhering to the ESG operational standard, not only resulting from a legal standpoint but also from a clients' demand.

Firstly, data from Bloomberg was collected using the companies' tickers. In what regards to the Msc Cruises financial information, the calculations were done through the annual financial reports, since no information was found on Bloomberg regarding Msc Cruises. In the same way, no information was found on Msc Cruises ESG performance. Also, the 'SIZE' data was extracted from the corresponding company annual report.

Also, the ESG boards available on Bloomberg were downloaded to an excel sheet, although only three companies had information about the three components of ESG, environment, social and governance. Being the three companies: Carnival Cruises, Royal Caribbean Cruises, Norwegian Cruises. The information was compiled in one table alone (table 6), where the values are divided into 'current' and 'change', where 'change' translates the difference of values in a 5-year history.

Table 6 ESG 5-year value tables Source: Bloomberg

Metrics	CARNIVAL CRUISES		ROYAL CARIBBEAN CRUISES		NORWEGIAN CRUISE LINES	
	Current	Change	Current	Change	Current	Change
Environmental						
GHG/Revenue	517.2	-125.9	441.5	-85.3	517.2	-125.9
Energy/Revenue	3812.6	-767.1	595.8	-171.2	3812.6	-767.1
Water/Revenue	1302.4	-318.6	--	--	1302.4	-318.6
Waste/Revenue	17.8	-3.8	--	--	17.8	-3.8
Social						
Women Employees %	22.9	1.1	23.7	0.5	22.9	1.1
Employee Turnover %	16	-4.5	--	--	16	-4.5
Employees Unionized %	58	7	89	3	58	7
Governance						
Independent Directors %	83.3	3.3	91.7	0	83.3	3.3
Percent of Board Members t	25	-5	25	8.3	25	-5
Director Avg Age	67	3	67	3	67	3
Director Meeting Attd %	75	0	75	0	75	0
Board Size	12	2	12	0	12	2

5.3. Data Analysis

5.3.1. Sustainability Reports Data Analysis

A content analysis methodology was seen the fittest to solve the first case study question. Landrum & Ohsowski (2018), suggests that a companies' view on sustainability can be determined through its' reports content analysis. Right now, among the five companies we are before three GRI reports, Carnival, MSC and Royal Caribbean and, two non-GRI reports, Genting and Norwegian. GRI (Global Reporting Initiative) creates a common language for organizations and is the most used format for sustainability reporting, enabling comparability and transparency between companies reports.

Apart from extracting the results from the word count to an excel file also word clouds were obtained using the R program and the R function *wordcloud()*.

Figure 1 Wordcloud built in R program with the most used words in the company's Sustainability repots Source: Self-elaborated

Starting with Carnival, the Landrum Sustainability stage that has the highest number of words matching in the 2019 Sustainability report is the Systemic stage. Has previously mentioned, Carnival's sustainability report follows GRI standards of reporting and so, it makes sense the stage it was classified in. This means that is positioned in an intermediate level of sustainability, where companies start to look externally to balance the negative effect that their operations have and try not only to compensate it but also to diminish it comparing to the benefits that the company can bring to the ones around it.

After going through the report not only with the R program but also after examining individually the objectives and the activities accomplished by the company that are referred to in the 2019 report, we can understand better the systemic classification of Carnival. For example, the fact that Carnival mentions collaborating and donating to bigger causes like the Hurricane Dorian relief efforts in The Bahamas, partnering with Ferrero/Kinder Joy of Moving to promote motoric skills and the cognitive, emotional, and relational development of children, participating in the third consecutive year from the Human Rights Campaign (HRC), the leading LGBTQ in the U.S. among other systems. Among these deeds, we can already see the presence of an environmental and social realms of Carnival's sustainability efforts, along them come also the operational objectives, with not only a sustainable view but also an economic one, common to most companies, with a new strategy goal to reduce the intensity of CO2e (carbon dioxide equivalent) emissions from operations by 40% by 2030 relative to our 2008 baseline, and

achieving 47 ships equipped with the ability to utilize cold ironing/shore power technology and releasing the second game changing cruise ship in the world powered by liquified natural gas both at sea and in port among many other operational objectives.

Royal Caribbean is also classified in the Systemic Stage on Landrum's Sustainability spectrum. Similar to Carnival, Royal Caribbean cruises shows a lot of focus in trying to transmit all the partners and collaborations that they value in terms of trying to compensate for the bad consequences that cruise tourism has on environmental with positive environmental and social activities that balance the bad consequences with supporting the prototype development of a new tracking for polar bears and by partnering with WWF conservation projects by raising 2.8 million dollars and closely cooperating with and supporting the Caribbeans with an $8M in relief funds, 600K meals served, 10 000 Evacuees and 1M+ cases of relief supplies during hurricane season among many other activities. Not only 'doing more good' externally but also practicing systemic change, operations wise, trying to reach aal parts of the companies' fleet and trying to affect the general behavior of the company by equipping 60% of their ships with emissions purification systems that remove 98% of sulfur dioxides, producing 90% of all freshwater on board via desalination and reverse osmosis and transforming salt water in drinking water and many other changes that we can read in the 2019 Royal Caribbean Sustainability Report.

Figure 2 Genting Hong Kong Wordcloud. Source: Self-elaborated

Now looking at Genting Hong Kong, one out of the two non-GRI reports, and the only company that did not fit into the Systemic Stage of the spectrum but into the Business-Centered Stage one. Curiously, this company not only was the only one that was classified with the weakest stage of sustainability among the five but is also the only company that has one of the two strong stages of sustainability, the Regenerative Stage (0,36%), that represents half of the Business-Centered percentage of Genting (0,73%) and while being the highest percentage on one of the strong stages compared to the other four companies. For Genting we can see the internal firm-centric view by the simple fact that very few external activities by favoring the community around it or taking part in bigger environmental or social activities is mentioned along the 2019 Sustainability report. In fact, the sustainable measures

that are referred to in the report are mainly about internal reinforcement and incremental improvements to daily business activities. For example, the Ship Energy Efficiency Management Plan (SEEMP) that Genting has been putting in place to address the overall energy efficiency usage onboard, the introducing of and Environmental Officer on ocean-going ships to aid green initiatives implementation in one of the ships and by upgrading the existing ships with better emission control technologies in response to the increasingly stringent emission control standards both regionally and globally among others. Even so, a significant amount of 'regenerative terms' are approached and used when talking about sustainable actions that Genting has implemented in 2019 and wants to implement in 2020, some of them being the participation in the ORCA's Ocean Watch program, which is an inspiring initiative that engages seafarers in collecting scientific data on whales, dolphins and tortoises for wildlife preservation and conservation purposes and enable the crew to be trained on how to collect scientific data on cetacean behavior and the risks of ship strike and the supplier selection process that will undergo assessments including performance background checks, capacity and due diligence to ensure that the potential suppliers are of reputable standing.

Another non-GRI sustainability report is the one from Norwegian Cruise Lines but this one classified among the other 3 GRI reports under the Systemic stage of sustainability. And although classified as Systemic the second company with the best percentage in one of the strong sustainability stages, the Regenerative, with 0,25% of words belonging to this stage. From this it can be concluded that from the five reports the non-GRI reports are the ones with higher percentages of words being part of stronger sustainability stages comparing with the other three GRI reports. Now, also looking closely to the Norwegian cruise lines 2019 sustainability report we can identify activities and objectives that do fit with the Systemic stage the most, for example, in 2019, Norwegian Cruise Line partnered with JUST Goods, with the goal to eliminate all single-use plastic water bottles across its fleet by January 1, 2020,along many other partnerships such as, the 'All Hands and Hearts', the world's leading disaster relief organization, the Perry Institute of Marine Science and Dr. David Gilliam with the Coral Reef Restoration on the island of Great Stirrup Cay (GSC), partnered with the Guy Harvey Ocean Foundation (GHOF) and NSU's Guy Harvey Research Institute to host the third annual ocean conservation-themed Cruising for Conservation with Dr. Guy Harvey, and with The Alaska Raptor Center (ARC), located in Sitka, Alaska, which is an avian hospital and rehabilitation. Aside from all the partnerships in the coming years, is expected to replace the current garbage bags used on board our ships to a more efficient sizing that will result in the elimination of over

600,000 pounds of plastic and 30,000 boxes consumed annually, the implementing of The SEEMP plan which is a ship-specific plan that focuses on improving energy efficiency and in 2018, signed the Cruise Lines International Association (CLIA) historic commitment to reduce the carbon emissions rate industry-wide by 40% by 2030 and another mention by operating all of their ships to meet and exceed the requirements of Safety of Life at Sea (SOLAS) and International Safety Management (ISM) Code for the Safe Operation of Ships, the international safety standards that govern the cruise industry.

Lastly, MSC cruises also positioned in the Systemic stage and at the same with the highest Coevolutionary percentage of words among the five companies. Like the other companies most of MSC sustainable activities are about to compensate the bad effects that cruises have on the environmental and on the port communities, and so, they do give importance to partner and to collaborate in activities that help to balance that impact like the MSC Foundation facilitating a collaborative relief effort after Hurricane Dorian devastated many Bahamian islands, and continuing to support and partner with the ABF's (Andrea Bocelli Foundation) health project in Haiti, integrating access to basic health services. Aside from the partnerships in these sustainability report we can already find some evolution and transition to a stronger sustainability stage for example, MSC Cruises claim taking on the challenge to transform Ocean Cay industrial wasteland into a flourishing marine reserve by restoring the island's original ecosystem and re-establish its pristine state in which the ecosystem receives maximum protection and where people and nature can live in harmony and in June 2019, the MSC Foundation staged a large musical event in Genoa to raise funds for a project to regenerate the Val Polcevera area, which was badly affected by the collapse of the Morandi Bridge in 2018, the concert raised €520,000 to aid the development of a community park.

When analyzing the qualitative table in Annex E it is feasible to see common themes that cruise companies do in general see appropriate to include in their reports, such as the elimination of single-use plastic items, mentioned by all five cruise companies; helping with the relief of the Dorian Hurricane impacts, stated by every company except Genting Hong Kong; the implementation of water treatment, waste management, emissions reducing and energy saving technology throughout the fleets, revealed by every company one way or another; and the collaboration with oceanographic study entities mentioned by every company except Carnival cruises. So, one could say that these measures have been agreed by all the firms as important actions to take in order to help the environment and sail towards a more sustainable tourism. Apart from these common topics between the companies reports, each company does

mention multiple collaborations with foundations, with Ambiental and Habitat conservation organizations and governmental institutions and other more singular measure like 'Environmental Officers' onboard of cruise ships. This last was only described by two companies, MSC cruises and Genting Hong Kong, both with non-American based quarters, as an action that promotes sustainability and green practices.

Apart from all these procedures some environmental, social and governance awards are mentioned by the winning companies of the year of 2019, being that Carnival cruise lines is the company that mentions winning the most awards on the matter. This conclusion was solely based on report information, being that it is the choice of the companies to issue or not the award-winning achievements.

For the quantitative information provided by the organizations in the sustainability reports of the year of 2019 the KPIs values are the more intuitive to compare between the firms. Right from the start table 4 reveals that Norwegian Cruise Lines reports did not have any information regarding the environmental KPIs leading to an already not so clear and open way of exposing the companies' operational environmental outputs. It does not mean the company is with owling information from stakeholders or that the company itself does not measure or take interest in knowing the true values of emissions and waste that the cruises produce, but that it was the group's decision not to publish the numbers from the year of 2019. Even though in the table there are only exposed the selected KPI's for this papers study, it can be revealed that in fact, no real number was published on the Norwegian Cruise Lines 2019 Sustainability Report, nor their Annual Report of 2019 or any public report, not enabling its' analysis. Either way it transmits carelessness regarding its' stakeholders when comparing to the other companies and it makes it more difficult to take track of the company' evolution towards a greener future of cruise tourism services. Concerning the other four companies, to compare the values we do have to consider the market size of the company, and for that also the total assets value and the total number of passengers in 2019 are mentioned in table 4. In what concerns the quantitative information in table in Annex E, the densest amount of information is exposed in the values tables that companies publish, resuming all the essential data that enable us to follow the company evolution along the years and to compare it to others. Then along the sustainability reports it is common for these five cruise companies to expose statistical values such as percentages of accomplishment of quantitative objectives commonly compared to each company time baseline, which are described under the quantitative objectives in table 4.

Because we are comparing different size companies with different scale objectives that do not yet follow any publish rigid standards on environmental data publishing it is hard to get a loyal comparison between the companies' achievements even so some not so bounding conclusions can be withdrawn. For example, looking at the percentages achieved in the quantitative objectives in table 4, in what regards emissions reduction in the year of 2019, the company that admits achieving the highest reduction since its' time baseline was the Royal Caribbean cruises with a 35% cut since 2005. And, that Royal Caribbean Cruises are the most advanced in installing Advance water treatment throughout the fleet with already 80% of vessels already upgraded, among other not to general conclusions, due to the few consistent information.

For this reason and to support the answer to the second part of the research question, the following bubble graph was obtained for a more straightforward comparison between the KPI's portrayed in table 4. For comparison purposes, the GHG emissions value and recycled waste value where the only ones possible for comparison common to the four companies with publish environmental value tables. Because the cruise market cap is mainly distributed between two main companies, Carnival cruises and The Royal Caribbean cruises, the size of the company, reflected through their total assets value is also represented in the graph as the bubbles' size. So, the bigger the bubble the bigger the companies' size in assets

Figure 3 Bubble graph GHG emissions and Recycled Waste according to company size. Source: Self-elaborated.

5.3.2. Analysis of ESG and Financial variables in time

From the data collected, the information was organized in excel tables (figure 4). Only the comparable information between the companies was extracted to excel tables: 'ROBECOSAM_ENV_DIMENSION_RANK'; 'RETURN_ON_ASSET'; 'RETURN_COM_EQY'; 'SIZE'.

	ESG 2016	ESG 2017	ESG 2018	ESG 2019	ESG 2020
CCL	75	77	80	80	76
RCL	56	54	73	73	71
NCLH	31	31	33	27	33
678 HK	NO VALUES	NO VALUES	NO VALUES	NO VALUES	NO VALUES
MSC*	NO VALUES	NO VALUES	NO VALUES	NO VALUES	NO VALUES

	ROA 2016	ROA 2017	ROA 2018	ROA 2019	ROA 2020
CCL	5.742316667	7.01105	7.114325	7.082692857	-5.58177857
RCL	4.380666667	6.715916667	7.2574	7.134285714	1.180207143
NCLH	5.218433333	5.7751	6.387758333	-4.14183571	-20.51374
678 HK	-9.0722	-3.15340833	-2.58675	-5.6432	-19.2042333
MSC*	6.1037*	4.5574*	4.4089*	3.6222*	-1.1953

	ROE 2016	ROE 2017	ROE 2018	ROE 2019	ROE 2020
CCL	9.628658333	12.01164167	12.19519167	12.42739286	-12.5242143
RCL	11.321	16.47649167	16.52266667	16.63105714	1.590471429
NCLH	14.67746667	15.39633333	16.465875	-14.9153071	-78.33877
678 HK	-11.8267667	-4.68239167	-4.22421667	-10.8179	-41.2673333
MSC*	24.3975*	17.9615*	17.4464*	8.921*	-3.5732311

	SIZE 2016	SIZE 2017	SIZE 2018	SIZE 2019	SIZE 2020
CCL	38,900	40,800	42,400	45,058	53,593
RCL	22,310	22,361	27,698	30,320	32,465
NCLH	12,974	14,095	15,206	16,685	18,394
678 HK	6,547	7,145	6,771	7,978	7,792
MSC*	5538*	6824*	7893*	11194*	11135*

Figure 4 ESG and financial data organized in tables Source: Self-elaborated.

The analysis that is described below, is a descriptive analysis that cannot be generalized since the sample is very small, 5 companies. The analysis will consist of specific conclusions about the company case studies explored until now by this report, that even though represent more than 80% of the tourism cruise market cannot represent all cruise companies.

In figure 4, where all the information gathered from financial criteria and the ESG environmental score from Bloomberg is represented in time, by company, we can see three different behaviors from ESG score. First off, no values were found on Bloomberg on Genting HK and Msc Cruises regarding ESG value, leading to this company's function overlapping with the axis x where y=0.Then the first behavior shown is a crescent tendency where Royal Caribbean ESG score loops up in 2017-2018, and from then on keeps a more stable behavior in values just above 70. Then there is Carnival that overall does not show much variance in ESG scores along the five years, except in 2018 where values grew a little bit but decreased to the previous values in 2020 around 75. And the third behavior from Norwegian Cruise Lines, that apart from being the company that shows the lowest values from the three companies, kept its' values very similar throughout the years, from the exception of 2019 where a small decrease in the values occurred, going below 30 but where the next year a recovery to the values from previous years is noticeable.

Concerning the financial variables, between ROE and ROA a pattern can be identified being that in 2020, a general fall on both values from all companies happened, and that two companies show lower values compared to the other, Genting HK and Msc Cruises, being that values from Genting HK are always negative, negative return on assets and negative return on equity. From the downfall in 2020, the company who showed the hardest loss was Norwegian Cruise Lines, which started dropping sooner than any other of the four companies and lower also.

The variable size demonstrates a common growth between the companies, with Carnival cruises displaying the largest increase among the companies, and Genting the one who had the least difference in size from 2016 until 2020.

6. Obtained results, findings, and discussion

Q1: In what sustainability stage are listed cruise companies positioned based on the Landrum's classification?

Across all reports was detected a group of stages that the cruise company's sustainability reports flow through, being these stages the following: Compliance, Business-Centered and Systemic. (Figure 6)

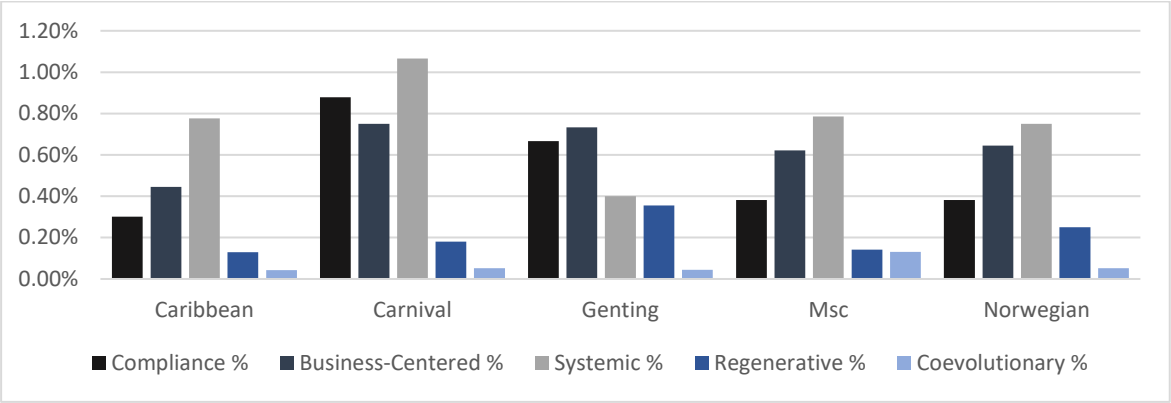

Figure 1 Percentage of words found in each company reports throughout the five Landrum's Sustainability Stages Source: Self-elaborated

From this bar chart alone, we can conclude that the sustainability reports of the five cruise companies are positioned in the Systemic Stage of Landrum's Sustainability spectrum except Genting who is positioned in the Business-Centered Stage. This result has proven itself very eye-opening, and a point of compromise between the cruise industry image of being an ultimate climate and social damaging industry in the tourism sector and what cruise companies advertise and try to convey to their climate aware and worried public.

GRI and Non-GRI Comparison

Apart from being a small sample and already a pattern could be identified, a small comparison between the GRI sample reports and the non-GRI reports can still be performed. According to the reports itself a categorization between GRI and non-GRI reports can be extracted according to if they announce following GRI or non-GRI standards.

Both Genting and Norwegian Cruise Lines do not mention following the GRI Sustainability Report structure as so, they are classified in the non-GRI reports and the other three companies, Carnival, MSC and Royal Caribbean are classified as GRI reports because they do take mention following the GRI Sustainability report structure.

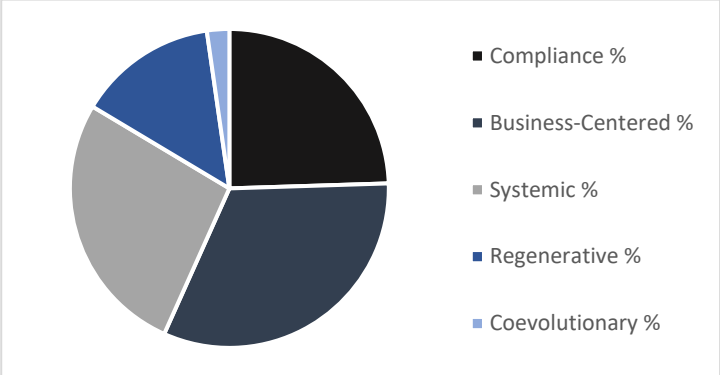

Figure 7 Pie Chart of average percentages of words from non-GRI reports throughout the five Landrum's Source: Self-elaborated.

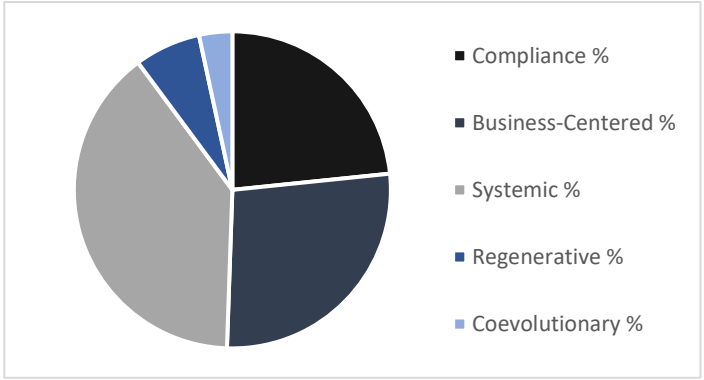

Figure 8 Pie Chart of average percentages of words from GRI reports throughout the five Landrum's Source: Self-elaborated.

Comparing both pie charts, we can conclude that both Regenerative and Coevolutionary stages are minorities in GRI and non-GRI reports, even though the Regenerative stage in non-GRI reports is already taking a better approach than in GRI reports. On the other hand, the Systemic stage is the heaviest stage in GRI reports and the Business-Centered is the heaviest in the non-GRI reports.

This is an interesting result since the objective of GRI reporting is to disclose a set of information, economic, environmental, and social, in a standard way so that it can be easily compared, creating an overall systematic approach to reporting. In this way the results on the pie chart follow through with this belief of GRI-standards being the Systemic stage the predominant stage on GRI-reports.

About the non-GRI reports, an also interesting conclusion can be taken. Here we can see that although the Business-Centered stage in the biggest one, the Regenerative stage is already taking a bigger notice than the Systemic one, on the contrary to the GRI-reports. Is the "freedom of speech" causing a quicker evolution to reporting than standardized reporting?

Q2: What kind of data, qualitative or quantitative, listed companies disclose in their sustainability reports?

To discuss the second research question, an analysis of the conceptual boards represented in table 4 and Annex E was performed. When comparing both tables it is intuitive to conclude that the qualitative information is much more abundant than quantitative information. And indeed, after performing not only a full examination on each report individually and organizing them in conceptual tables' it is relatively easy to determine that companies do publish much more non-quantifiable data than quantifiable data, where every

extra-operational and operational activity is mentioned and recurring throughout the Sustainability Reports. When comparing this to the quantitative board, where a small group of environmental performance indicators were chosen to extract comparable information and even so, it was only possible to extract all the values from one company Carnival, making them hard to compare and conclude about, it is perceivable the difference between the amount of qualitative and quantitative data available.

In figure 3 displayed above we have Norwegian Cruise Lines in the origin of the graph since both values in comparison are '0' zero, being non-existent in any 2019 report. Then we can distinguish Carnival cruises has been the one organization with most GHG emissions and with the most recycled waste in the year of 2019, this is an expected result being that Carnival cruises is the bigger sized company and the one that transports the most passengers during 2019 and so more operational outputs are likely. Surprisingly, instead of The Royal Caribbean cruises the second furthest company from the origin (0,0), Genting Hong Kong is the company that circulates the second biggest amount of recycled waste. This can have two interpretations, since it is expected that because of the big difference between the company's number of passengers and size, The Royal Caribbean cruises produces more waste, or Genting Hong Kong is effectively recycling all its' waste and the recycled waste represents the almost full extent of the company's waste, or The Royal Caribbean is not effectively recycling its waste.

Because of the firms' discrepancy in sizes the next graph in figure 9 was elaborated were, the GHG emission and recycled waste was divided by the company size to be possible and weigh the company's GHG values and waste values to each organization's size.

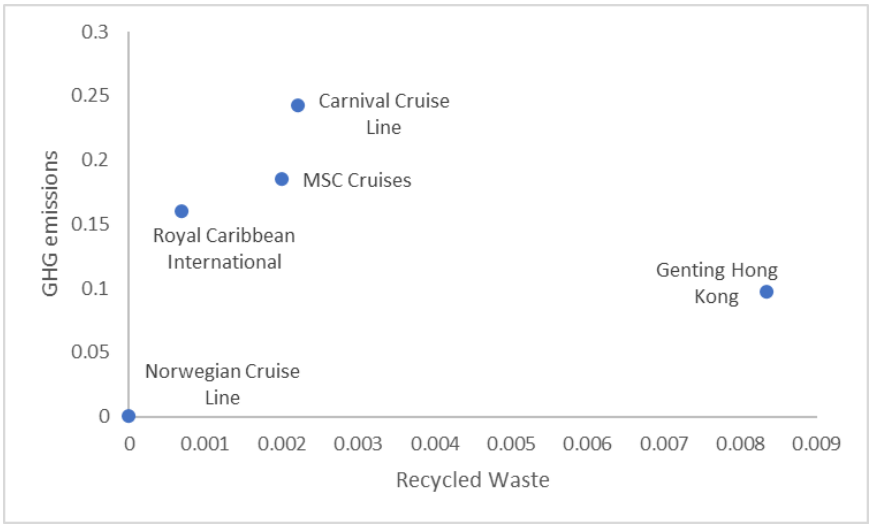

Figure 9 GHG emissions vs Recycled Waste from cruise companies in 2019. Source: Self-elaborated.

From here it is already possible to position the companies in a somewhat best company to worst scale in terms of GHG emissions and recycled waste, being that the least emissions and the most recycled waste is the 'greener' place. And the ranking goes as follows: in first place belongs to Genting Hon Kong, the second place to MSC cruises, third place to The Royal Caribbean cruises and fourth place to Carnival cruises.

Q3: Are ESG cruise companies more profitable than other cruise companies?

From the analysis performed before in section 5.3.2., we can conclude that the information available to the public regarding ESG scores along the multiple platforms is very small yet. Apart from Bloomberg, other sustainability ranking website companies, such as, Sustainalytics and CSRHub were consulted, as suggest by Vinodkumar & Alarifi (2020) and only results from the same three companies, Carnival, Royal Caribbean, and Norwegian Cruise Lines appeared being that no values were attributed to any other known cruise company.

Table 3 2019 ESG values from 3 different sources. Source: Self-elaborated.

2019 ESG SCORES	Bloomberg (RobecoSAM)	Sustainalytics	CSRHub
Carnival	80	21.7	56
Royal Caribbean	73	22.3	55
Norwegian Cruise Lines	27	28	46

Throughout the three sources, the conclusions taken will have into account only Bloomberg's results since it was the private platform available to the researcher, and at the same time where one could have more detailed information of each of the parameter's scores (environment, social and governance). In accordance we can see from table 5 that, Bloomberg's and CSRHub scores position the companies, in different scales but, in a similar way being Carnival the one with the highest score, Royal Caribbean the second highest and Norwegian Cruise Lines with the lowest scores.

Being 2020 a very untypical year, the analysis will not have into account the relationship between ESG and financial variables in this year.

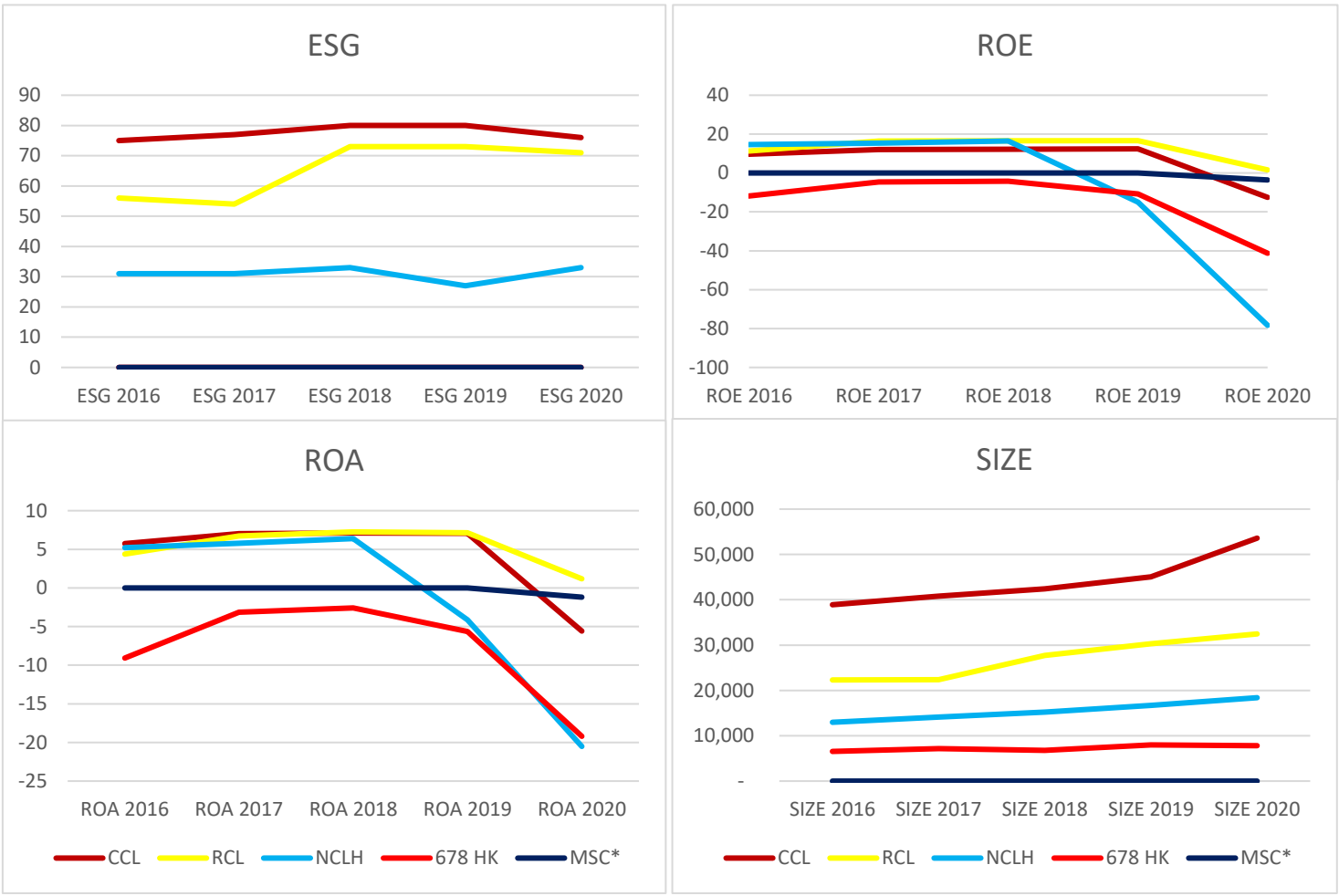

Figure 2 Graphs resulting from tables in figure 1 Source: Self-elaborated

ESG vs. ROE

From figure 5 we can see that even though Norwegian Cruise Lines has the lowest ESG score, at the same it has the highest ROE. And that Carnival having the highest ESG score has the lowest ROE value along 2016-2019. Does this mean that the variables are negative correlated? Not precisely since many other factors can be taken into account. But it can give us a clue on the assumption that many managers have where 'ESG practices do make the company less efficient in generating profits', this in short-run since most of the cruise companies only started reporting ESG information very recently.

Nevertheless, the difference in ROE values between the companies is very small compared to ESG score and, ROE values do not show any big changes along the for years and as so, not a noticeable relationship can be deduced from these variables.

ESG vs. ROA

Comparing the ESG and the ROA graphs on figure 5, we can determine that ESG company position is similar to the ROA company position Carnival being the highest positioned company, followed by Royal Caribbean and Norwegian Cruise Lines, respectively. However, in starting point of 2016 Norwegian Cruise Lines was the second highest value in ROA among the three companies, in the year of 2017 in was overlapped by Royal Caribbean.

Also, from these graphs not general relationship can be revealed since no apparent synchrony between the exists in terms of function behaviour. Notice that similar to Rahi et al., (2021) a t+1 time lapse is being used to capture the impact that ESG practices (symbolized by ESG scores) have on financial indexes (ROA, ROE). On the other hand, the same time lapse is being used on size and ESG values, but the other way around, what impact does size have on ESG scores.

ESG vs. SIZE

Now, looking at 'SIZE' graph and 'ESG' graph, on figure 5, a clear similarity of values exists. Clearly, Carnival being the company with the biggest size has the highest ESG scores, and in parallel notice we have Royal Caribbean and Norwegian Cruise Lines. Notice also that Genting HK and MSC Cruise being smaller companies do not even have ESG scores attributed to them, similarly to the other 6 companies that were excluded from the beginning of the study for not having publicly published ESG or CSR reports.

This is an expected result since, bigger companies usually more resources, leading to an easier allocation of resources to the ESG subject (reports, activities, operations…), in accordance with (Iturrioz del Campo et al., 2019).

7. Conclusions and Recommendations

Unlike the original study of Landrum's five stages of sustainability, the number of companies is this study was small, with only five companies to compare results and all of them from the same industry, tourism cruise companies. As so, the results obtained cannot be generalized like Landrum's since the sample is so reduced and the results were not standardized due to this factor. Even so, this content analysis enabled this study to come up with the necessary results for an understanding view of the Sustainability Reports of these five cruise companies and conclude about the priorities and the themes discussed in these reports.

Across all reports we were able to conclude that little to almost no mention was done to terms on Regenerative and Coevolutionary stages even thought, these stages are the ones necessary to reflect an understanding urgency and reality of sustainability and its realms. We can in this way determine, like Landrum concluded in his studies, that weak sustainability with traditional approaches, and corporate language is still the main view on a sustainable evolution of the cruise tourism business. On one hand this conclusion is not intended to underestimate the action and activities that companies are making to compensate for the bad environmental outcome, since these actions are what helps and uplifts the society and the institutions around the companies but on the other hand this study intends to reveal the reality and true content behind the sustainability reports of these companies. Apart from almost being obligatory worldwide, these sustainability reports are every time becoming more shallow and "greenwashed". So far, the main strategy is by systemic change diminish the emissions, diminish the waste, and water pollution little by little and compensate for the bad effects that have surface because of the cruise industry in the last few years. No mentioning of important studies that could have been published or collaboration between the companies to look for a global solution is done and so far, it shows that the cruise industry is still a long way to go in what it comes to a true sustainable management. Another interesting 'two way street' is the standards that are being used to regulate this sustainability reports, on one side we have GRI reports were a minor pattern can be detected since all the three companies show somehow fewer freedom of expression, with fewer 'sustainability terms' being use compared to non-GRI reports, not knowing if by choice of the companies or if imposed by the standards, on the other side, this system does simplify the assessment between companies it helps to create comparison points between the companies since among the five companies the GRI reports all of them do have more a less the same distribution of the topics and the same quantitative information organized in tables, while the non-GRI reports did not have any optimal organization of topics

and no standards tables were comparisons between emission, waste, human resources among other topics can be made.

As so, like Landrum (2018) said ‘company reports that follow no guidelines may be a better indicator of what a company views as material in their sense making of sustainability’ but it is noteworthy to had that for study purposes following guidelines may give us more realistic and may contribute to comparability operations and results amongst companies in a subindustry like cruise tourism (Dagiliene, 2020) rather than no standardized reports.

From the multilayered content analysis performed in order to come to conclusions regarding the second research questions of this paper, it can be settled that cruise companies Sustainability Reports end up reporting more qualitative information, on the multiple sustainable activities along the year than quantitative information on comparable ecological KPI’s, making it considerably more challenging to compare them among each other. Notice that measuring the benefits that come from supporting a children’s and women’s empowering foundation or an animal and habitat preservation foundation are both important in their own way but do not substitute the other. While qualitative data is the most offered by the cruise companies regarding ecological steps they take for a sustainable cruise tourism, the quantitative data is indeed the simplest to compare and the one that allowed to highlight one company amongst the others that did present the most ecological and greener performance along the year of 2019, the Genting Hong Kong cruises company, that regarding having been the only company positioned as business-centered it also was the one that present the biggest percentage of word distributed between the two more sustainable Landrum’s stages, regenerative and coevolutionary (0,4%). Noting that Genting Hong Kong Sustainability Report is a non-GRI report, meaning that there is no relation between GRI reporting and actual presenting the most environmentally friendly way of cruise tourism.

Now regarding the last research question, very few ESG information is attributed to cruise companies yet, most platforms concentrating on only publishing results on 3 of the companies. About the relationship between the effort that cruise companies are actually making to adopt a more concerning and sustainable management of operations and resources, measured by an ESG index, and, their financial outcome, no relationship was found. It is important to highlight that the three case study values cannot translate for all industry, and that a t+1 timelapse was used to conclude about the relationship, nor ROE or ROA showed signs of improvement or downfall upon ESG scores (translating the company’s adoption of ESG

activities), was found. On the other side, a positive relationship between size and ESG scores was observed, being that the biggest company had at the same time the highest ESG score attributed. This result does not match the content analysis results from the 2019 sustainability reports, since Carnival being the biggest company translates to the Bloomberg's RobecoSAM highest ESG value, but from the information withdrawn from the reports, Genting HK was the one concluded to have better KPI environmental results weighted by size, and more advanced sustainable concepts used compared to the other four companies.

This discrepancy results may be due to the fact that no ESG values attributed by ESG grading companies were found on Genting HK and Msc Cruises, even though Genting HK being one of the smallest companies, from the conclusion taken would have a correspondent small ESG values, and so not match the results from the content analysis. But also, because bigger companies, with bigger buying power can allocate more resources to the matter and so in the short run result in bigger ESG scores. Although what was concluded is that this big companies are focusing on these changes through a weak sustainability point of view (Landrum & Ohsowski, 2018), and so attention must be paid to the way cruise companies are approaching the ESG objectives.

Considering the limitations for this paper it is prominent that because of the very small quantity and quality of the public information published by both the cruise companies, cruise industry consultancy websites and platforms used, very few information, mainly historical information could be gathered limiting the time lapse and the depth of the study. Also, because it was one of the industries most affected by Covid-19 pandemic, recent financial values had to be excluded since most of the downfall shown by the graph was due to the pandemic economic and traveling consequences than to ESG activities.

Finally, some important recommendations for future research are in order since there is very scarce information on the industry, both statically and academic, a lot of fields on the subjects have not been developed. To gatherer for a bigger cruise company sample, by studying listed and not listed companies. Crossing both the legislations of the country with the companies ESG reports to see in any manner this are influence by also cultural and legislative rules of the country. Comparing other financial indicators apart from ROA or ROE so that a core formed conclusion can be taken from the relationship between ESG and financial performance.

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9. Annexes

9.1. Annex A-Listed Cruise Companies Source: Bloomberg

31)	CARNIVAL CORP	CCL US
32)	CARNIVAL PLC	CCL LN
33)	GENTING HONG KONG LTD	678 HK
34)	LINDBLAD EXPEDITIONS HOLDING	LIND US
35)	NEW CENTURY GROUP HONG KONG	234 HK
36)	NORWEGIAN CRUISE LINE HOLDIN	NCLH US
37)	PASSENGER PORT-BRD	PPRT RU
38)	ROYAL CARIBBEAN RUISES LTD	RCL US
39)	SEALINK TRAVEL GROUP LTD	SLK AU
40)	TALLINK GRUPP AS	TAL1T ET

9.2. Annex B - Case Studies company's overview. Source: Self-elaborated.

	The Royal Caribbean International	Carnival Cruise Lines	Norwegian Cruise Lines	MSC Cruises	Genting Hong Kong
Market Cap	$10,950,600,000	$20,800,000,000	$6,462,376,000	$3,232,000,000	$1,561,000,000
Number of employees	76708	150000	36000	20000	16200
Number of Vessels	55	104	28	17	15
Mission	'Royal Caribbean Group is proud of our entrepreneurial spirit, the force that drives us to innovate. It's that state of mind that helps us see opportunity where others see only risk. It reminds us that "good enough" is not remotely good enough. Instead, we greet every new idea with the words "What if?" instead of "It won't work."'	'At Carnival Corporation & plc, our highest responsibility and top priorities are to operate safely, to protect the environment, and to be in compliance everywhere we operate in the world.'	'Our core mission is to provide exceptional vacation experiences delivered by passionate team members committed to world-class hospitality and innovation.'	'MSC Cruises' mission is to provide its people with personal fulfilment and enrichment. We are committed to sharing our knowledge as well as delivering training and support to enable our people's professional growth'	'We are a leading global leisure, entertainment and hospitality corporation committed to enhancing shareholder value and maintaining long term sustainable growth in our core businesses.'
Average Stock Price	$115.5411	$49.5631	$52.6591	$159,000	$4,861 (HK$3,7800)
ROA	7.13	7.1	-4.14	3.6[11]	-5.64
ROE	16.63	12.4	-14.92	8.9[12]	-10.81

[11] ROA and ROE values of MSC Cruises not available on Bloomberg, calculated through MSC Cruises 2019 Annual Report values

[12] ROA and ROE values of MSC Cruises not available on Bloomberg, calculated through MSC Cruises 2019 Annual Report values

9.3 Annex C - Landrum's Sustainability stages and corresponding key words Source: Landrum & Ohsowski (2018)

Sustainability Stages	Root Words	Key Words
Stage 1 - Compliance	complian*	compliance, compliant
	legal*	legal, legalized, legally, legality
	regulat*	regulate, regulated, regulates, regulation, regulatory
	risk*	risk, risks
Stage 2 - Business-Centered	biotechnolog*	biotechnology, biotechnologies
	business as usual*	business as usual
	business model*	business model
	competitive advantag*	competitive advantage, competitive advantages
	cost*	cost, costs, costly, costing, costed
	cost-benefit*	cost-benefit, cost-benefits
	customer*	customer, customers
	demand*	demand, demands, demanding
	efficienc*	efficiency, efficiencies
	expens*	expense, expenses
	growth*	growth
	market*	market, markets, marketing
	market share*	market share, market shares
	market value*	market value, market values
	money*	money
	profit*	profit, profits, profited, profiting, profitable, profitability
	public relations*	public relations
	retention*	retention
	return on investment*	return on investment, ROI
	sales*	sales
	strateg*	strategy, strategies, strategic, strategical, strategically
	technolog*	technology, technologies
	value chain*	value chain, value chains
Stage 3 – Systemic	collaborat*	collaborate, collaborates, collaborated, collaborating, collaborative, collaboratively
	cooperat*	cooperate, cooperated, cooperating, cooperation, cooperative, cooperatives
	ecoefficienc*	ecoefficiency, ecoefficiencies
	game chang*	game changer, game changing
	global citizen*	global citizen, global citizens, global citizenship
	humanity*	humanity
	industry*	industry
	integrat*	integrate, integrates, integrating, integration, integrative
	partnership*	partnership, partnerships
	system*	system, systems, systemic
	transform*	transform, transforms, transformed, transforming, transformation, transformations, transformative
Stage 4 – Regenerative	carrying capacity*	carrying capacity
	consumption*	consumption
	degrowth*	degrowth
	holistic*	holistic
	interdependen*	interdependent, interdependence, interdependencies
	natural system*	natural system, natural systems
	planetary boundar*	planetary boundary, planetary boundaries
	preservation	preservation
	redistribution	redistribution
	repair*	repair, repairs, repairing, repaired
	restor*	restore, restored, restores, restoring, restoration, restorative
	science*	science, sciences
	scientific*	scientific
	steady state*	steady state, steady states
	zero growth	zero growth
Stage 5 - Coevolutionary	circular	circular
	coevol*	coevolve, coevolving, coevolution
	ecocentri*	ecocentric, econcentrics, ecocentrism
	ecoethi*	ecoethic, ecoethics
	ecology*	ecological, ecology
	ecosystem*	ecosystem, ecosystems
	flourish*	flourish, flourished, flourishes, flourishing
	no growth	no growth
	regenerat*	regenerate, regenerated, regenerating, regeneration, regenerative
	resilien*	resilience, resilient

9.4. Annex D - Results from wordcount done to the Sustainability Reports. Source: Self-elaboration

readlines("stage")	**Total Word Count**	**Compliance**	**Business-Centered**	**Systemic**	**Regenerative**	**Coevolutionary**
Royal Caribbean	6955	21	31	54	9	3
Carnival Cruises	32544	286	244	347	59	17
Genting HK	4502	30	33	18	16	2
MSC Cruises	9169	35	57	72	13	12
Norwegian Cruise Lines	7605	29	49	57	19	4

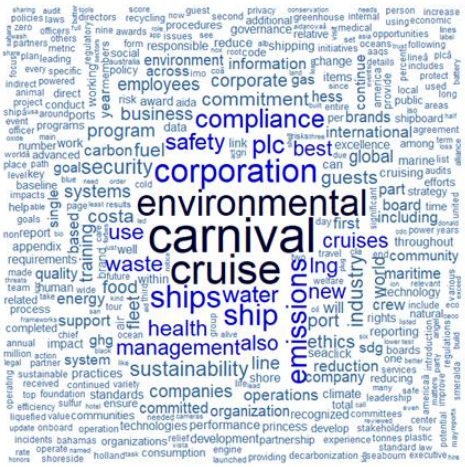
9.5. Annex E - Sustainability reports qualitative conceptual table Source: Self-elaboration

2019	Qualitative Objectives	ESG activities	Awards
Royal Caribbean International	Removed 60% of plastic usage from thesupply chain Inaugurated the 1st bio-thermic digester reducing organic waste up to 95% Scored 100% on te Corporate Equality Index by the HRC Ships equipped with SCR (selective catalyst reduction) to reduce Nox Condensation from air conditioning collected to be used in laundry areas Replaced all sunscreen with biodegradable sunscreen Adhere to CVSSA (Cruise vessel securityand safety act) and to IMO SOLAS (Sfety oflife at sea)	4RCL ships collect oceanographic data critical to study climate change Raised $2,8million for WWF conservation projects 2093 RCL volunteers participated in G.I.V.E Day Guest sailin in the Galápagos have planted 50000 scalesia trees in support to the reforestation on the islands RCL employees have outplanted 1000+ corals in partnership with the University ofMiami Supported the developmet of the world's 1st everguidelinesfor shark and ray tourism Offered $8M in relief fuds and 600K meals to the evacuees in the Caribbeans	Won 5 years in a row the Ethisphere Most Ethical Company Named one ofAmerica's best employers for diversity
Carnival Cruise Line	Delivered de 2nd cruise ship in the world powered by liquified natural gas (LNG) Completed phase 1 of eliminating single use items and plastic program Development of a 2020 Companys' Human Rights Policy	3rd consecutive year ofthe Human Rights Campaign (HRC), leading LGBTQ in the US Work with Catalyst, leading non-profit with the mission of expanding womens opportunities Hosted the "Empowering Women in the Maritime Community" event Pledge $2million for Hurricane Dorian relief efforts in The Bahamas Donated $100.000to Venice port after the 2019 flooding Partnered with Ferrero/Kinder Jpy ofmoving to promote motoric and cognitive development of children	1st Ranking America's most responsible company One ofAmerica's Best large Employers and Best employer for diversity by Forbes Corporate Responsability Magazine 100 Best Corporate Citizen
MSC Cruises	Announced to onwards commit to the UN Sustainable Developments Goals Begin upgranding all ships to HVAC systems (self-adjusting air conditioning systems) Every ship has now a Environmental Compliance Officer (ECO) who reports to the Maritime Support Center No waste permitted to be discharged into the sea policy with the risk of criminal prosecution (exception offood scraps) Replaced all 112 sigle use plastic items with environmentally friendly alteratives Launched the 2nd phase ofthe Plastics Reduction Programme	Actively supporting the $5billion decarbonisation R&D fund for the maritime industry Ground-breaking project to integrate SOFC (Solid Oxide Fuel Cell) onboard MSC cruises Donated 4000 bedline items, 3000 pillows and 500 mattresses to charity Commitment to the Mozambique Governmentto recruit local citizens Signed a Memorandum of Understanding with Dubrovnik and CLIA for innovative destination stewardship Encouring bike tours in already 59 cities "Ocean Cay" Launched the MSC Foundation drivenbya strong sense of resposability to the planet Raised $520.000 to regenerate Val Polcevera area Raised $250.000 to support the Elbe Habitat Foundation in Germany Contributed with $5.5million ofhumanitarian assistance to Hurricane Dorian relief effort Collaboration with Italian marine conservation association 'Marevivo' 'Mercy Ships' Helped ABF's (Andrea Bocelli Foundation) with health service and care assistance	Won the 1st '11Golden Pearl Award' for design and technology

Genting Hong Kong	Introduced Environmental Officers on its ocean-going ships Introduce the SEEMP (Ship Energy Efficiency Management Plan) Achieved all ships with water recycling technology Fleetwide ban on plastic straws All ships with comprehensive waste management segregating hazardous and non-hazardous materials Successfully certified with OHSAS 18001 (Occupatioal Safety and Health Management System) All suppliers are obligated to follow the company Code of Conduct Replacement of product with eco-friendly goods eg. sustainable seafood, biodegradable materials(...)	Launched its' 1st Cruise Voluntourism Campaign Donated $580.000 and 12000hours to volunteering activities Introduced a new charity campaign named "The Heart of MV Shipyard" Collaboration with 'Make-A-Wish International" Collaboration wih Benji Center helping low-income families in Hong Kong Participation in the ORCA's Ocean Watch Program with collecting data for conservation purposes	Awarded de "10 Years Plus Caring Company Logo" by the Hong Kong council of social service
Norwegian Cruise Line	Partnered with EcoloxTech to procive their ship with onboard HOCI (Electrolyzed OxidizingWater Hypochlorous Acid) Partnered with JUST Goods to eliminate all single-use plastic straws by 1st January 2020 The 1st phase of removing all single-use plastic items was accomplished due to a partnership with Vero Water Rolled out 200 new, healthy plnt-based new dishes across the fleet	Raised $1.4million to benefit the Boys & Girls Clubs of Miami-Dade 51 were awarded through the Norwegian Cruise Line's Encore Moments Campaign because of their selfless acts 30 educator were awarded through the Giving Joy campaign by the Norwegian Cruise Lines 3000 crew members donated to the Phillipines MOA youth center and the Virlanie Foundation's Marco Polo Care Center Raised $2.5million for the relief in Key West in the Caribbean Islands Committed $2million to 'All Hands and Hearts' to help join effots to assist victims of the Hurricane Dorian Partnered with the Perry Institute of Marine Science to help the Coral ReefRestorations on the Island of Great Stirrup Cay Hosted the 3rd annual ocean conservtion themed Cruising Conservation Partnered with the Alaska Raptor Center by finding an interpretive nature acre conservation property The Sail & Sustain program helped passed legislation to protect the oceans and reduce plastic waste The Harvest Caye Conservation Foundation helped release 13 Scarlet Macaws into the wild and donated to the manatee health assessment and tagging program Donated to the American Red Cross and other American instutions	No mentions in the report

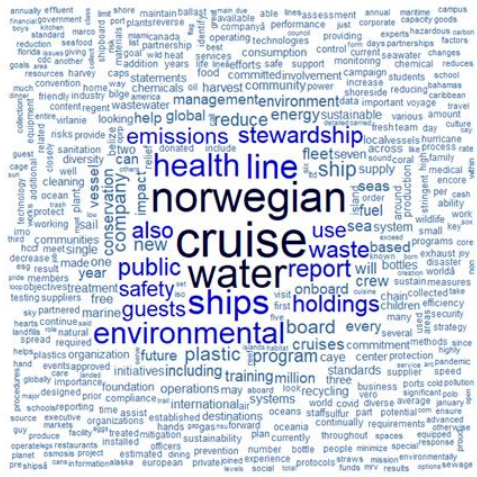
9.6. Annex F -Companies Wordcloud. Source: Self-elaborated.

Royal Caribbean Cruises



Carnival Cruises

MCS Cruises



Norwegian Cruise Lines