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SUSTAINABILITY AND THE WORLD'S LEADING CRUISE COMPANIES

Abstract

Purpose - The aim of this paper is to offer an exploratory review of the extent to which the leading ocean cruise companies are publicly addressing and reporting on their sustainability strategies and achievements and to offer some reflections on sustainability within the cruise industry.

Design/Methodology/Approach – The paper begins with an outline of cruising and the cruising industry and a short commentary on the sustainability challenges the industry faces. The information on which the paper is based is drawn from the leading cruise companies' corporate web sites.

Findings – The findings of the paper reveal a marked variation in the extent to which the leading cruise companies publicly report on their sustainability strategies and achievements. While the two leading cruise companies, namely the Carnival Corporation and Royal Caribbean Cruises, published extensive sustainability reports which covered a number of environmental social and economic issues, the other leading cruise companies published very limited information on sustainability. More critically the authors argued that the cruise companies' commitments to sustainability are driven by the search for efficiency gains and are couched within existing business models centred on continuing growth than on maintaining the viability of natural ecosystems and communities. As such the leading UK retailers are, at best, currently pursuing a 'weak' rather than a 'strong' model of sustainability.

Originality/Value – The paper provides an accessible exploratory review of sustainability reporting in the cruise industry and it will interest professional working in the cruise industry and more generally in the hospitality industry as well as academics and students interested in hospitality management.

Keywords - Cruise industry: sustainability; environment: assurance; materiality; economic growth

Introduction

The modern origins of ocean cruising have been traced back to the late 1960's and early 1970's (World Tourism Organization 2010). Since then cruising has grown rapidly to become an increasingly important and high profile element in leisure tourism, with an estimated 22.2 million passengers carried during 2015 (Cruise Market Watch 2015). The geography of cruising has expanded from its origins in the Caribbean (Wood 2000) to embrace the Mediterranean and the Atlantic Islands, Northern Europe, Canada and Alaska, Dubai and the Arabian Gulf, Asia and the Pacific, Australia and New Zealand, South America and Antarctica. Indeed Rodrigue and Notteboom (2013, p. 31) have argued that cruising has '*become the salient symbol of the globalization of the tourist industry in terms of its*

coverage, its practices and the mobility of its assets.' Given its increasingly global reach and *'one of the fastest growing segments of leisure tourism'* (Klein 2011, p. 107) the environmental and social impacts of cruising are growing in scale and Sustainability Accounting Standards Board (2014, p.1) have argued that the *'management (or mismanagement) of material sustainability issues, therefore has the potential to affect company valuation through impacts on profits, assets, liabilities and costs of capital.'* With this in mind the aim of this paper is to offer an exploratory review of the extent to which the leading ocean cruise companies are publicly addressing and reporting on their sustainability strategies and achievements.

Cruising and Sustainability

The first dedicated ocean going passenger service was established between England and the United States in the early nineteenth century. Early in the twentieth century ever larger ships were being built with an emphasis on the comfort of the passengers and on elegance and the idea of sailing as a romantic adventure. Modern cruising emerged in the late 1960's and early 1970's and coincided with the decline of scheduled ocean going passenger services and the rapid development of scheduled long distance air services. Cruising grew relatively moderately during the 1970's and 1980's but in the decades since then it has consistently grown rapidly and it has become an iconic and a dynamic niche within the leisure tourism market, continually extending and enhancing its product and service offer and developing new markets.

As the popularity of cruising has grown so ownership patterns have become increasingly concentrated largely through merger and acquisition activity. Two major companies, namely the Carnival Corporation and Royal Caribbean Cruises, currently dominate the market accounting for some 47% and 23% of cruise passengers with Norwegian Cruise Lines being the third largest operator with some 10% of all cruise passengers (Market Realist 2015, webpage). Originally founded in 1972 Carnival Corporation acquired a number of cruise operators in the 1990's and merged with P&O in 2003 and it now operates a number of distinct brands namely Carnival Cruise Line, Princess Cruises, Holland America Line, Seabourn, Cunard, AIDA, Costa Cruise, P&O Cruises, P&O Australia and Fathom. Princess Cruises, for example, is a global cruise and tour company operating a fleet of 18 ships, the largest of which accommodates some 1,700 passengers while AIDA is the market leader within the German cruise market and it operates in the Mediterranean, Northern Europe, the Caribbean, the Arabian Gulf and around the Canary Islands. Royal Caribbean Cruises also operates number of brands namely Royal Caribbean International, Celebrity Cruises, Pullmantur Cruises, Azamara Club Cruises and CDF Croisieres de France.

The larger more recently built cruise ships can carry up to 6,000 passengers and offer a wide range of facilities including shops, restaurants, cafés and pubs, nightclubs, discos, casinos, art galleries and museums, theatres and cinemas, libraries, internet cafes, personal care areas and spas, solariums, gyms, swimming pools, tennis courts and ice skating rings. Onboard activities include cooking demonstrations, lectures, art seminars, organised outdoor and indoor games, bingo, karaoke, quizzes, live entertainment, massage, dance classes and rock climbing. The cruise companies generally offer a variety of packages and experiences ranging from 'mini' cruises for between 2 and 5 days to round the world cruises

spanning up to six months and there are 'fly and cruise' and 'cruise and stay' packages and specialist cruises including themes gay cruises and music cruises. Geographically cruises now cover virtually all areas of the world, though the Caribbean and the Mediterranean are the most popular routes, and visit over 500 destinations.

As the scale and geographical reach of cruising has grown so has its environmental, social and economic impacts and there is growing interest from governments, investors, environmental pressure groups and the media about such impacts and about how the cruise companies are managing these impacts. Such interest is part of much wider concerns that *'the transition to more sustainable patterns of production and personal consumption is not optional'* and reflects the belief that *'leading business recognise this as an opportunity and want to be part of the solution rather than part of the problem, as more and more consumers look to by smart and will increasingly establish new norms for socially acceptable behaviour'* (Deloitte 2012, p1). In a similar vein Lubin and Esty (2010, p.3) have argued that *'customers in many countries are seeking out sustainable products and services or leaning on companies to improve the sustainability of traditional ones'* and that *'managements can no longer ignore sustainability as a central factor in their companies' long-term competitiveness.'*

The environmental, social and economic impact of cruising and the development of sustainability strategies and programmes within the cruising industry have received limited attention within the academic literature. Johnson (2002, p.261) stressed that cruising's *'socio-economic, cultural and environmental considerations need to be continually analysed'* as a contribution to *'achieving sustainable tourism.'* Johnson (2002, p. 261) concluded that secondary evidence suggested that the cruise industry was taking some belated but positive steps to address environmental impacts but suggested that *'decision makers in cruise tourism destinations'* needed to work more closely with cruise operators *'to facilitate both integrated waste management and intergenerational and intra-societal equity rather than merely accept the prospect of short-term economic gain.'* Brida and Zapata (2010, p.224) examined a range of the economic, environmental, social and cultural effects of cruise tourism on destinations and by way of a conclusion they suggested that *'ensuring the sustainable development of a cruise destination has a very high cost'* and questioned if *'the benefits of attracting cruises to a tourism destination are higher than the costs.'* Klein (2011, p. 107) used case study examples to examine the impact of the growth of cruise tourism on coastal and marine environments, local economies and on the sociocultural nature of port environments. Having reviewed a range of impacts including wastewater treatment, solid waste, air emissions from fuel, the distribution of benefits, sociocultural authenticity and the homogenisation of the port experience, Klein (2011, p.114) concludes that using *'the responsible tourism lens'* is a *'useful exercise'* in that *'it helps focus the analysis of sustainability on the local community and stakeholders that are affected by cruise tourism.'*

Some work has also been undertaken on the impact of cruise tourism in specific regions. In reviewing the negative impact of cruise tourism in Polar Regions Luck et. al. (2010), for example, argued that the overall response to the environmental and social impacts had been woefully inadequate and suggest that cruise companies, governments, regulators and local communities need to work together to protect the fragile environment of the polar world. Stewart and Draper (2006, p.77) examined the elements of management

and planning deemed to be important in the development of sustainable cruise tourism in Arctic Canada and conclude that *'stakeholders might benefit from cruise tourism management and planning being given higher priority in approaches to integrated coastal management.'* In marked contrast Wood (2000, p.345) examined the *'deterritorialization, cultural theming and simulation'* as a manifestation of *'globalization at work in the Caribbean cruise industry.'* He argued, for example, that *'the Caribbean cruise rests on many processes of economic and political deterritorialization'* (Wood 2000, p. 358) including freedom from political regulations, the ability to draw on a global pool of labour unconnected to the local region and decreased dependence on the ports of call.

From a more professional perspective in 2014 the Sustainability Standards Accounting Board (SASB) published a *'Research Brief'* on *'Cruises Lines'* which included a valuable description and discussion of the main sustainability issues facing the industry (SASB 2014) The SASB identified four sets of *'sustainability-related risks and opportunities'* relating to the environment, to social capital, to human capital and leadership and governance. The environmental dimensions were seen to be fuel use and air emissions, waste discharges and their ecological impacts. In outlining the impacts associated with fuel and air emissions, for example, the SASB argued that greenhouse gases and air pollutants are the major problems for cruise companies and that the effective management of fuel use can positively impact on operational efficiencies and overall cost structures. Social capital *'concerns the perceived role of business in society, or the expectation of business contribution to society in return for its license to operate'* and it includes how companies manage relationships with a range of key stakeholders including customers, local communities, the general public and governments. The management of health and safety was seen as the major social capital issue and the SASB stressed the importance of avoiding both health risks, food safety and physical safety issues and argued failure to deal with any such issues promptly and effectively could lead to a loss of market share, reduce shareholder value and impair brand image.

Human capital issues revolve around the management of company employees and include engagement, diversity and inclusion, labour relations, health and safety at work and education, training and employee development. The SASB specifically emphasised the importance of meeting increasingly stringent labour regulation. Leadership and governance is seen to be concerned with the *'management of issues that are inherent to the business model or common practice in the industry and are in potential conflict with the interests of broader stakeholder groups'* (SASB 2014, p.24). More specifically here the focus was wide ranging and included regulatory compliance, lobbying, political contributions, risk management, supply chain management, anti-competitive behaviour, corruption and bribery. The four sets of issues identified by the SASB and outlined above can be seen to offer a general template when considering the cruise companies sustainability reports.

In an attempt to obtain an exploratory review of the extent to which the world's leading cruise companies are publicly addressing and reporting on their sustainability strategies and achievements the ten leading cruise companies, as measured by revenue, (Statista 2015) were selected for study. As the leading players within the cruising industry the selected companies might be seen to reflect contemporary approaches to sustainability within the sector and be keen to publicise their sustainability initiatives to a wide audience.

Increasingly large companies employ the Internet to report on their sustainability strategies and achievements. This led the authors to conduct a digital Internet search for information, using the key phrase 'sustainability report' and the name of each of the selected cruise companies. This search was undertaken in November 2015, employing Google as the search engine, and the most recent information obtained via this search formed the empirical material for this paper.

A number of authors have used content analysis to systematically identify features within reports and on corporate websites. However in this preliminary examination the authors deliberately chose to identify and review the selected companies' published approaches to sustainability and as this information is in the public domain the authors took the view that they did not need to contact the selected companies to obtain formal permission prior to conducting their research. At the same time the authors recognise that the approach chosen has its limitations in that there are issues in the extent to which a company's public statements fulsomely, and in detail, reflect strategic corporate thinking and whether or not such pronouncements might be considered little more than carefully constructed public relation exercises. However the authors believe that their approach offers an accessible window and an appropriate portal for the present exploratory study.

Findings

The findings reveal a marked variation in the extent to which the selected nine companies publicly report on their sustainability strategies and achievements. Two companies, namely Carnival Corporation and Royal Caribbean Cruises which account for almost 75% of revenue of the selected companies, published extensive dedicated sustainability reports. A number of the brands operated by both the Carnival Corporation and Royal Caribbean Cruises also published sustainability reports and information on their approach to sustainability. These included Costa Cruises, the Holland America Line and Princess Cruises owned by the Carnival Corporation and Azamara Club Cruises owned by Royal Caribbean Cruises. These reports and information are not included in this paper in that the authors took the considered view that the definitive information on the approach to sustainability and on sustainability achievements would be provided by the parent corporation. Six companies, namely Norwegian Cruise Lines, MSC Cruises, Disney Cruises, Thomson Cruises, Star Cruises and Silversea, published some limited information on sustainability while Hirtigruten published no information on sustainability.

While the two reports published by Carnival Corporation and Royal Caribbean Cruises have their own approach and reporting style a number of common elements can be identified. Both companies report on their approach to sustainability and materiality; on governance, ethics and compliance; on environmental stewardship; on impacts on, and involvement with, local communities; on the work environment; and on external assurance. Both companies included environmental and social performance data and both claimed that their reports were developed in the light of the Global Reporting Initiative (GRI) guidelines. Royal Caribbean Cruises, for example, emphasises its belief that *'companies can be financially successful while also serving as stewards of the environment and the communities in which they operate'* and in delivering on its vision *'to generate superior return for our*

stakeholders' the company recognises that it must *'balance and manage a series of important economic, environmental and social considerations.'* Carnival Corporation stressed that *'our reputation and success depends on having sustainable and transparent operations'* and claimed that *'given our global reach and the vast impact on our guests, employees and the environment, we have developed a robust commitment to sustainability.'*

More specifically both companies outlined their approaches to materiality which they employed to define the contents of their reports. Carnival Corporation, for example, reported undertaking a materiality assessment *'to identify the significant economic, environmental and social aspects of our operations.'* This assessment enables the company to determine how these aspects of its operations affect the company's stakeholders, the environment and society and to recognise sustainability linked risks and opportunities. In undertaking this assessment the company drew upon information from a range of sources namely enquiries amongst its investors and customers, internal meetings with company executives and employees, benchmarking its sustainability strategy and reference to the sustainability guidelines published by the GRI.

All the material aspects identified by stakeholders and the company were then mapped onto a materiality matrix on which *'current or potential impact on the company'* and *'relative concern to our stakeholders'* formed the two axis. This in turn allowed the company to prioritise materiality issues and led to the identification of some 21 high scoring issues. These included economic performance, compliance, employees, labour management relations, occupational health and safety, security practices, energy, and biodiversity. All the issues identified as medium and high scoring are included in the company's sustainability report. While Royal Caribbean Cruises employed a slightly different approach to determining materiality the essential elements in the process were broadly similar. Here following engagement with 11 different groups of stakeholders, including travel agents, shareholders, guests, suppliers, employees and research institutions, 12 high priority issues were identified. These issues included legal and regulatory compliance, fuel and energy consumption, greenhouse gas emissions, climate and disaster risk management, ocean stewardship and food safety.

Compliance, ethics and governance feature in both the Carnival Corporation and the Royal Caribbean Cruises reports. Royal Caribbean Cruises, for example, emphasised its commitment to ethics and compliance and its belief that *'it is critical all employees regularly refresh their knowledge of our Code of conduct and Business Ethics and Standards Policy.'* The code of conduct covers business practices, corporate assets, the workplace environment and community involvement. Royal Caribbean cruises also reports on how it seeks to ensure compliance with safety and security laws and environmental regulations, how it monitors ant-corruption risks and on how it to meets public health guidelines and regulations. Carnival Corporation also reported on its *'Code of Business Conduct and Ethics'* which covers business integrity, environmental protection, labour and human rights, health and safety protocols and the reporting of concerns.

A number of environmental issues were addressed in the two reports including energy and greenhouse gas emissions, water and wastewater management, waste and chemical management, biodiversity, conservation and sustainable tourism. Royal Caribbean

Cruises, for example, outlined how *'environmental stewardship is engrained in our company history'* and stressed that *'our commitment to the environment extends throughout our organization.'* More specifically Royal Caribbean Cruises, for example, argued that *'improving the way our ships move through the water is a critical element in our quest for sustainable energy efficiency'* and reported on its progressive installation of more efficient rudder-propeller systems throughout its fleet. In a similar vein the company also reported on its commissioning of new designs and technologies to reduce carbon dioxide emissions.

Water consumption is a vital resource for cruise liners being used for swimming pools, jacuzzis and spas, cooking, cooling water, personal hygiene and cleaning. Fresh water is normally not bunkered in areas suffering from water stress and thus the focus is on both the reduction in water use and wastewater management. Carnival Corporation, for example, reports on its commitment to reducing water use throughout its fleet, without affecting the customer experience, and on the setting of annual reduction targets ranging from 1% to 5% and on desalination and wastewater treatment. Royal Caribbean Cruises recognised that *'managing the amount of waste we land ashore from our ships is a key part of our commitment to protecting the global environment'* and here the focus is on reducing, reusing and recycling solid waste. More specifically the company claimed to work with its suppliers wherever possible to reduce packaging and to use more sustainable resources and to recycle as much waste as possible on board ship. More generally Carnival Corporation stressed its *'obligation to protect the earth's biodiversity'* and it reported on its work to prevent negative impacts on habitats and unique ecosystems, such as Antarctica and the Great Barrier Reef.

Carnival Cruise's and Royal Caribbean Cruises reported on their approach to corporate citizenship. Carnival Corporation, for example, recognized *'the inextricable links between the health of our business and the vitality and sustainability of our communities.'* Further the company claimed to *'continually strive to contribute in a positive social, environmental and economic manner to our communities, working in conjunction with local governments, trade associations, tourism organizations and other community stakeholders.'* More specifically Carnival Corporation reported on its involvement in the development, enhancement and financing of port development in various parts of the world, on its work in emergency aid and relief and on its wider community support and philanthropic activity. Royal Caribbean Cruises stressed its commitment *'to extend its reach into the underserved areas of our communities'* and reported on its charitable funding programmes and to encouragement of its employees to participate in community service.

Both company reports stress their commitments to their employees. Royal Caribbean Cruises, for example, argued *'everything we do starts with our employees'*, *'we believe one of our greatest assets is our human capital'* and that *'workforce engagement is critical to future success and an important part of how we bind the fabric of our culture.'* Royal Caribbean Cruises reports on its commitment to diversity, to creating an inclusive working environment and to its longstanding record in employing a multicultural workforce on shore and at sea. The company also stressed its commitment to creating working environment where employees are engaged and challenged and to providing all employees with a range of learning opportunities and development programmes. The company claims

its culture of development is reinforced through its promotion of a culture of open communication and through its performance management philosophy.

Carnival Corporation commissioned Lloyds Register to undertake limited independent assurance of its greenhouse gas emissions inventory and assertions. In conducting this exercise Lloyds Register conducted site visits to two of Carnival Corporate offices, reviewed the company's processes for the management of data, and interviewed staff responsible for managing, maintaining, preparing and reporting data on greenhouse gas emissions. Lloyds Register concluded that *'nothing has come to our attention that would cause us to believe that the total direct greenhouse gas emissions and the energy indirect greenhouse gas emissions disclosed by Carnival..... are not materially correct.'* At the same time Lloyds Register made two recommendations namely that automated data collation should be introduced where possible to reduce the potential for data transposition errors and that the company should undertake its annual review of its greenhouse gas management systems prior to the start of the external verification of its greenhouse gas emissions inventory. While Royal Caribbean Cruises reported that it had *'received assurance for our greenhouse gas emissions'* it neither included an external assurance statement within its sustainability report nor provided any information about how the assurance process was undertaken.

In contrast to the Carnival Corporation and Royal Caribbean Cruises six of the selected companies publicly provided only limited and largely unstructured information on their approach to sustainability and on their sustainability achievements. MSC Cruises, for example, provided a brief outline of its approach to *'social responsibility and sustainability'* which claimed *'as a family company based on family values. With vast experience of sailing and respecting the world's waters MSC Cruises' social and environmental priorities are marine conservation, children, families and education.'* MSC Cruises further claimed to be *'constantly working on ways of lowering the environmental impact of its cruises through the use of modern technologies and environmentally friendly materials'* and that *'as a leading member of the European Cruise Council MSC Cruises has agreed to promote a transparent and sustainable cruise industry.'*

Disney Cruises posted a short *'Environmental Overview'* spanning four web pages, which outlined the company's approach to environmental monitoring; waste minimisation; fuel efficiency and energy conservation; water purification; conservation and wildlife; inspiration and education; and community outreach. In addressing waste minimisation, for example, the company outlined its focus on the recycling of metals, plastic, glass and paper, its recycling of naturally occurring condensation from its ships' air conditioning system to supply fresh water on board laundry facilities and for cleaning purposes and the offloading and recycling of used cooking oil. Disney Cruise's community outreach embraces two elements namely the development of environmental education resources designed to integrate marine conservation into the school science curriculum in the Bahamas and a voluntary community service programme for company employees. Norwegian Cruise Lines claimed that *'for more than four decades'*, the company *'has committed to the protection of the oceans through sustainable environmental practices, investments in technology and a commitment to exceed regulatory requirements, fulfilling its core company value of*

Environmental Protection. Silversea Cruises posted a brief description of its support for a child health and education charity under the banner of *'Social Responsibility.'*

Thomson Cruises' parent company, the TUI group, posted its *'Sustainability Strategy 2015-2020'* which claimed *'our cruise operations are playing their part to make the industry more sustainable'* and that *'we are constantly improving the environmental performance of our fleet.'* More specifically the TUI Group reported *'Thomson Cruises reduced carbon dioxide emissions per passenger night by 24% between 2007 and 2014 by making changes to cruise itineraries and retrofitting its ships with energy-saving technologies.'* In a similar vein Genting Group, the parent company of Star cruises, claimed that *'as a responsible corporation, the Genting Group, has always practised the sustainability philosophy in the operation and management of our global teams'* and it outlined how it discharges these responsibilities under the standard banner headings environment, marketplace, workplace and community. Under the environment banner, for example, Genting argued *'we are committed to maintain a sustainable balance between the development and the conservation of natural resources'* and that in pursuing this approach the accent is on *'continuous improvement, innovation and implementation of green technologies and environmentally sustainable practices.'*

Discussion

The majority of the leading cruise companies either formally publicly reported or provided some information on the impacts their operations have on the environment, on communities and on the economy but there is considerable variation in the nature and the coverage of the reporting and information provision process. Only two of the leading companies produced sustainability reports and all but one of the other leading companies only provided limited information on their approach to sustainability. This is not a problem per se in that companies have no statutory obligation to report on sustainability but it makes it difficult to make any meaningful comparisons between one cruise company and another or to attempt any evaluation of the contribution cruise companies are making towards the achievement of sustainability targets at regional, national and arguably more importantly at international levels. As such this may reflect the reality that collectively the world's leading cruise companies are at the beginning of what may well be a long and difficult journey towards sustainability and a number of issues merit discussion and reflection. Firstly, for example, if *'developing a sustainable brand can help to manage reputational risks, enhance relationships with key stakeholders, and meet the requirements of a growing segment of consumers that place value on sustainability'* (European Union et. al. 2013) within the industry then the majority of cruise companies are currently falling well short of the mark. More specifically reporting on sustainability may be important in helping to counter media and pressure group criticism. In January 2015 the UK newspaper *The Guardian*, for example, published an article entitled *'Murky Waters: the Hidden Environmental Impacts of Cruising.'* (The Guardian 2015) Friends of the Earth publish an annual *'Cruise Ship Report Card'*, and the 2014 version reported *'most travelers don't realize that taking a cruise is more harmful to the environment and human health than many other forms of travel'* (Friends of the Earth 2014).

On the one hand if the popularity of cruising continues to grow and if consumer, media, pressure group and government concerns about the environmental, social and economic impacts of cruising gain momentum then the majority of the leading cruise companies may be well advised to commit themselves to sustainability reporting in order to secure their market position and long term competitiveness. On the other hand the Carnival Corporation and Royal Caribbean Cruises are clearly ahead of their competitors in publicly providing sustainability reports but concerns remain about the processes employed to determine the material environmental, social and economic issues addressed in, and about the independent external assurance of, these reports.

There are concerns, for example, that the basic dimensions of the matrix that the Carnival Corporation, for example, used to determine materiality, is not fit for purpose. McElroy (2011, webpage) argued that many companies have adapted the original concept of the materiality matrix, initially favoured by the Global Reporting Initiative, to suit corporate, rather than wider environmental, social and economic, goals. The Carnival Corporation uses *'concern or potential impact on the company'* and *'relative concern to our stakeholders'* as the two axis of its materiality matrix. McElroy (2011, webpage) claimed that such a change *'amounts to a perversion of the idea of materiality in sustainability reporting because it essentially cuts out consideration of what are arguably the most material issues'* namely *the broad social, economic and environmental impacts of an organisation regardless of how they relate to a particular business plan or strategy.'* There are also concerns about the assurance process reported by both companies which produced sustainability reports. Royal Caribbean Cruises provided no details of the assurance process they reported having commissioned and thus the process can be seen to lack transparency. The external assurance exercise reported by the Carnival Corporation was limited both in its scope and in that it covered only greenhouse gas emissions and ignored all the other sustainability deemed to be material by the company. Such concerns would seem to limit the value, credibility and integrity of the assurance process.

Secondly there are issues about the way the cruise companies collectively implicitly construct both their definitions of sustainability and their sustainability agendas. Defining sustainability is not straightforward and there are a number of contrasting and contested meanings. Roper (2010,p.72), for example, distinguished between *'weak'* and *'strong'* sustainability. While *'weak sustainability prioritises economic development, strong sustainability subordinates economies to the natural environment and society, acknowledging ecological limits to growth'* Roper 2010, p. 72). Although all but one of the selected cruise companies stress their commitment to sustainability, albeit in varying measure, their definitions of sustainability can be seen as being dominantly, but not exclusively, built primarily around efficiency gains and the search for competitive advantage. They are driven more by business continuity goals than by concerns for the environmental, social and economic impacts of their operations. At the strategic level, for example, this is reflected in the *'Message from the Chairman and Chief Executive Officer'* of Carnival Corporation at the beginning of their company's sustainability report. This message emphasised that *'our future is anchored by our singular mission; to deliver unmatched joyful vacation experiences and breakthrough shareholder returns by exceeding guest expectations and taking advantage of our scale.'*

At the operational level while many of the environmental initiatives reported by the cruise companies are designed to reduce energy and water use and waste generation they also reduce the cruise companies' operating costs. At the same time the cruise company's reported commitments to good working conditions, diversity, employment training, compensation and benefits, the role of women within the cruising industry can all be seen to help to reduce employee turnover and to promote stability, loyalty and efficiency within the workforce. As the Carnival Corporation, for example, claimed its recognition and celebration of performance and tenure created *'a positive stimulating work environment in which all employees are motivated and can work to their full potential'*. More generally and more critically this echoes Banerjee's (2008,) argument that *'despite their emancipatory rhetoric, discourses of corporate citizenship, social responsibility and sustainability are defined by narrow business interests and serve to curtail the interests of external stakeholders.'*

Thirdly there are more fundamental issues around the underlying tensions between sustainability and economic growth. In recent decades the cruising industry has experienced spectacular growth. With an eye to the future the sustainability reports published by the Carnival Corporation and Royal Caribbean Cruises are couched within the idiom of continuing growth and business expansion and they reflected a belief in continuing consumption. Under the banner *'Enabling Responsible Growth'* Royal Caribbean Cruises, for example, stressed that *'as our company grows in revenue and geographical reach, we aim to achieve responsible growth'* and that *'as we visit each port we will be able to promote economic development through taxes, port fees, port development projects and most notably guest and crew spending at destinations.'* Royal Caribbean Cruises does not offer a definition of responsible growth per se but their approach is rooted in the general belief that continuing economic growth will be accompanied by the more efficient use of resources. This trend which is seen as either relative or absolute decoupling (relative decoupling refers to using fewer resources per unit of economic growth while absolute decoupling refers to a total reduction in the use of resources) underpins many conventional definitions of sustainability and the vast majority of current corporate sustainability strategies and programmes. However Wiedmann et. al. (2015, p.6271) argued that *'achievements in decoupling in advanced economies are smaller than reported or even non-existent'* and this, in turn, may be seen to undermine the concept of responsible growth.

The concept of sustainable consumption, for example, which Cohen (2005, webpage) has described as *'the most obdurate challenge for the sustainable development agenda'* is conspicuous by its absence in the sustainability reports and information posted by the leading cruise companies. In many ways both the concept and the practice of cruising, with its aim, for example, to *'enrich the guest experience through culinary, entertainment and technology enhancements'* and its advertisements to *'Cruise the World in Luxury'* can be seen as the very antithesis of sustainable consumption. That said the continuing popularity of cruising suggests little consumer appetite for sustainable consumption and here the European Environment Agency's (2012) recognition that *'sustainable consumption is seen by some as a reversal of progress towards greater quality of life'* in that *'it would involve a sacrifice of our current, tangible needs and desires in the name of an uncertain future'* resonates.

Finally there are criticisms of the sustainability of the cruise industry drawn from a political economy perspective. On the one hand Sprague (2014, webpage) suggested that *'the cruise ship industry has become adept at repatriating more and more value from passenger spending, while at the same time maintaining a web of local and regional alliances that benefit from the industry.'* Further Sprague (2014, webpage) argued that *'the major companies in the cruise industry have come to embody what it means to be transnational- circumventing borders and manipulating local economies in order to enrich the very few and sell exotic experiences to privileged sectors while at the same time generating very little benefit for those they exploit to achieve these ends.'* More generally Mansfield (2009, p. 37), argued that conventional approaches to sustainability fail to recognise *'the political nature of the socio-economic processes that produce environmental degradation poverty and injustice.'* Jackson (2006) has argued that *'it is entirely fanciful to suppose that deep emission and resource cuts can be achieved without confronting the structure of market economies.'* In a similar vein Castro (2004) has questioned the very possibility of sustainable development under capitalism and argued that economic growth relies upon the continuing and inevitable exploitation of both natural and social capital

Conclusions

This exploratory review of the leading cruise companies reveals marked variations in the extent to which the leading cruise companies publicly address and report on their sustainability strategies and achievements. On the one hand the two market leaders, the Carnival Corporation and Royal Caribbean Cruises, currently publish dedicated sustainability reports that bear favourable comparison with those published, for example, by leading companies in the global hotel industry (Jones, et. al .2014) and by the world's leading retail companies (Jones et. al. 2011). On the other hand the majority of the leading companies within the industry provide only limited information on how they are managing the environmental, social and economic impact of their operations. As sustainability becomes increasingly important in managing risk and reputation then a number of the leading cruise companies may need to reconsider their current approach to sustainability reporting if they are to retain, and ideally enhance, their position within what is a very competitive marketplace.

More generally the authors would argue that current commitments to sustainability within the cruise industry definitions of, and commitments to, sustainability can be interpreted as being primarily driven by business imperatives. The accent being on making efficiency gains across a wide range of economic, social and environmental issues rather than on maintaining the viability and integrity of natural ecosystems and on reducing demands on finite natural resources. More critically the authors suggest that the leading cruise companies' commitments to sustainability are couched within existing business models centred on continuing growth and consumption and that these commitments represent a weak approach to sustainability. As such this echoes Roper's (2012, p.72) belief that weak sustainability represents *'a compromise that essentially requires very little change from dominant economic driven practices but effectively works to defuse opposition, increase legitimacy and allow business as usual.'*

Although the exploratory nature of this paper provides a snapshot of current approaches to sustainability reporting within the cruise industry it does not lend itself to the development of detailed corporate managerial implications. The findings do however suggest that the majority of the leading cruise companies might be advised to consider moving towards best current practice, as demonstrated by the Carnival Corporation and Royal Caribbean Cruises, in order to enhance their current limited approaches sustainability management and reporting. That said both the Carnival Corporation and Royal Caribbean Cruises may want to continue to review their approach to sustainability reporting and more specifically to embracing materiality to include more external stakeholder inputs and to commissioning more comprehensive external assurance. More generally fostering and disseminating a positive public corporate image of, and commitment to, engagement with a range of sustainability issues, and being able to publicly evidence this commitment through a transparent sustainability reporting process will surely serve cruise companies increasingly well in the future.

A number of potential future research agendas can be identified across a range of disciplines within hospitality management. Marketing research would be valuable, for example to explore how cruise customers, travel agents and consultants decode the concept of sustainability and on the extent to which customers are prepared to change their cruise purchasing behaviour and cruise company patronage in the light of companies' sustainability strategies and achievements. The management of sustainability issues between the cruise companies and local suppliers and local labour markets also merits greater research attention. Such research might shed light on the power relations between cruise companies and host communities and jurisdictions which could, in turn, contribute to the globalization debate mentioned earlier in this paper. Research might also be profitably be pursued to examine how cruise companies look to manage the environmental, social and economic impacts in the major cruise destinations in both traditional areas such as the Caribbean and the Mediterranean and in the more fragile environments such as Arctic Canada and Antarctica. Research into information system developments to integrate the continuous automatic recording, transmission and aggregation of sustainability performance data would be important in strengthening the assurance process. On the finance side research designed to examine how commitments to sustainability are reflected in profit margins and stock market performance also seems likely to becoming increasingly important.

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