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Airport Corporate Sustainability: An Analysis of Indicators Reported in the Sustainability Practices

Seyhani Koç* Vildan Durmaz

*The Air Logistics Command Inspection and Acceptance Commission Directorate, Eskisehir, Turkey
Anadolu University, Faculty of Aeronautics and Astronautics, Eskisehir, Turkey*

Abstract

Sustainability is getting more important in the developing air transportation industry. As airports are the most significant elements of the air transportation industry the indicators for the sustainability of airport management should be stressed for the awareness of the airport sustainability among the whole actors. This study has been undertaken to provide a comparison of the world's best 10 airports, based from the results gathered annually by passenger surveys that has been done by an aviation passenger research firm named Skytrax and also The Airports Council International's (ACI) benchmarking programme named Airport Service Quality (ASQ), sustainability performance and the differences along the sustainability indicators according to sustainability reports which have been developed through the GRI guidelines.

Keywords: Airports, Sustainability, Sustainability Report, GRI

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1. Introduction

Commercial aviation has become one of the fastest growing sectors. Since 1970, according to the numbers of passengers, aircrafts and traffic and related other sectorial elements the world aviation industry has been developing incredible and the annual average growth rate of flight traffic has been nearly % 5. In 2012, 2.681 billion passengers has been served by 24.844 aircraft of 1.568 commercial airlines at 3.846 airports. And this operations has generated about 2.2 trillion dollar contribution to the world economy (ATAG, 2012).

The rapidly growth influenced airport stakeholders incredibly through economic, social and environmental dimensions. The rapid growth adversely affects the environment; increases energy and fuel

* Corresponding author. Tel.: 05323307050
E-mail address: seyhani_koc@hotmail.com

consumption that releases greenhouse gases into the environment which causes the climate change, also generates significant solid and water wastes, and also increases air and noise pollution. The airport infrastructure which can't be developed simultaneous due to the to growth rate, will let flight delays, delivering incorrect baggage, presenting low service quality, causing dissatisfied customers. Building extra airport units like terminal and runways in order to avoid these problems will increase negative environmental impacts. On the other hand, there are positive contributions like creating job opportunities, providing fast and secure transportation, rising incomes and the support of tourism influences social and economic life.

Due to the significant socio-economic and environmental impacts inherent to their operations, airports worldwide are increasingly being managed within the framework of sustainable development guiding principles mainly as a response to the pressure received by their various stakeholders (Jordao, 2009). Sustainability involves incorporating economic, environmental and social performance indicators which are also defined as triple bottom line or the dimensions of sustainability (GRI, 2006) in business management and reporting process (Elkington, 1997). In long term, the airport which has a powerful economic structure, socially meets stakeholders expectations and minimizes negative environmental impacts could be sustainable. In short term companies should provide competitive products and services to sustain economically and also protect the natural and human resources to provide continuity for the generation's future needs (Artiach et al., 2010). The most widely accepted definition of sustainability is that proposed in the Brundtland Report "Development that meets the needs and aspirations of the present without compromising the ability of future generations to meet their own needs" (WCED, 1987).

Under pressure from internal and external stakeholders, companies considers a variety of sustainability initiatives according to environmental and social impacts of their operations. Corporations share detailed information about these initiatives through their sustainability reports.

Details on these initiatives are increasingly publicly shared in corporate sustainability, or equivalent reports. However, stakeholders often struggle to make sense of the information reported. To help highlight corporations with exemplary sustainability performance, a number of ratings, awards, and indices have emerged (Sadowski et al., 2010). Airports that wants to highlight their contributions, and inform their stakeholders about their activities and progresses are publishing and developing corporate sustainability reports.

This study has been undertaken to provide a comparison of the world's best 10 airports, based from the results gathered annually by passenger surveys that has been done by an aviation passenger research firm named Skytrax and also The Airports Council Internationals (ACI) benchmarking programme named Airport Service Quality (AQS), sustainability performance and the differences along the sustainability indicators according to sustainability reports which have been developed through the GRI guidelines.

The study aims to address the following research questions:

- What is the frequency of reporting on GRI indicators in Airports Sustainability Reports?
- Which performance indicators in the reports were included or not?

In the first section we review recent concerns regarding social, environmental and sustainability reporting. The following section briefly outlines the main features of the sustainability, corporate sustainability and sustainability reporting literature. The research method is discussed in the third section. Results of this study are presented in section five and we conclude our study with some recommendations for future research.

2. Literature Review

2.1. Sustainability

The Brundtland report, published in 1987 as “*Our Common Future*”, declared that the only way for the mankind to get on from the increasing environmental problems is to construct a vital linkage between environmental improvement and economic development and also making the development sustainable. According to Satterfield et al. (2009) sustainability is important to ensure the future quality of the global environment, it is also a business opportunity, an investment for the future and a pathway for innovation and creative thinking. But Upham et al. (2003) determine that aviation is going to an unsustainable direction due to damage given to the environment.

2.2. Corporate Sustainability

There is no common definition of corporate sustainability. Although Steurer et al. (2005) view sustainable development as a societal concept, they mentioned it increasingly being applied as a corporate concept under the name of “corporate sustainability”. Christofi et al. (2012) express corporate sustainability developments should be regard to economic growth, environmental regulation, social justice and equity. IISD (1992) defines corporate sustainability as adopting business strategies and activities that meet the needs of the enterprise and its stakeholders today while protecting, sustaining and enhancing the human and natural resources that will be needed in the future. As Dyllick and Hockerts (2002) define it by meeting the needs of the firm’s direct and indirect stakeholders (shareholders, employees, clients, pressure groups, communities etc.), without compromising its ability to meet future stakeholder needs as well. Corporate sustainability is essential in achieving company’s vision without losing competitive advantage while ensuring companywide economic growth, environmental stewardship and providing social responsibilities without contradict from its mission and goals.

2.3. Sustainability Reporting

Senge (2008) in his book “*The Necessary Revolution*” discusses how organizations and individuals can work together to create a sustainable world. Indeed, in traditional management, companies give account only to their shareholders, while in corporate sustainability understanding the scope of accountability has been expanded. Shareholders would get information about their company’s social, environmental and financial performance while sustainability performance can be defined as the performance in all dimensions of a company for all corporate sustainability drivers (Schaltegger and Wagner, 2006). With sustainability reports, shareholders would evaluate company performance in terms of environmental and corporate responsibility elements and compare with other sectorial rivals. In order to survive in the future, companies need to incorporate sustainability along with their long-term goals which will make it possible for the company to have a sustainable growth. And also refocus on their vision in terms of sustainability which will provide a roadmap to meet the changing needs of the community like climate change, depletion of resources and poverty.

The World Business Council for Sustainable Development (2002) defined sustainability reporting as: “public reports by companies to provide internal and external stakeholders with a picture of corporate position and activities on economic, environmental and social dimensions. In short, such reports attempt to describe the company's contribution towards sustainable development”. Soerensen (2003) defines sustainability reporting as the annual evaluation of a firm’s economic, environmental, and social performance and the sound practice of corporate activity associated with corporate accountability and transparency which is driven by environmental and societal demands. While Jackson (2005) defines it as

a high level strategic document that reflects organizational activities which affects the society, economy and natural environment as well as addresses the challenges, opportunities and issues of sustainable development to the organization and its industry sector. Sustainability reporting means to inform stakeholders during the reporting period with qualitative and quantitative information about the company's economic, environmental and social improvements and also effectiveness and efficiency activities which are integrated with the company's strategic elements.

Companies reporting process has started in the 1930's with the financial reporting process, sustainability reporting; is considered to have been started in the 1970's with social reporting. Then from the 1980's till the middle of the 1990's the focal point for reporting has been environmental reporting. Elkington (1997) introduced the triple bottom line concept for corporate reporting by covered not only the classical bottom line (economic and financial performance) and also extends it with environmental and a social dimension. Sustainability reporting is developed in the middle 1990's as a tool for balancing; to manage communities and their productive efforts around economic, environmental and social performance elements. It has been used instead of the corporate social responsibility since the 2000's (White, 2003; Christofi et al., 2012). Sustainability reporting has become an increasingly important cornerstone to organization's overall business plan. These reports allow companies to assess current practices, establish sustainability goals, create competitive advantages while simultaneously improves company image, communicates to stakeholders, motivates the internal workforce and strengthens internal policies and procedures (Goebel and Derks-Wood, 2010).

Global Reporting Initiative (GRI) is an international non-profit organization was founded in 1997 by the Coalition for Environmentally Responsible Economies (CERES) and the United Nations Environmental Programme (UNEP). The GRI Guidelines were initially published in 2000 to support companies in creating sustainability reports that integrate social, environmental and economic impacts of business with a common form. The GRI intends to establish their guidelines as an internationally accepted framework that promotes comparable and applicable sustainability reporting for all sectors and all corporates (Willis, 2003; GRI, 2006; Sherman, W. R. and DiGuilio, 2010). As mentioned by Morhardt et al. (2002), the GRI sustainability reporting guidelines are the most detailed, comprehensive and prescriptive guidelines to-date that any company rigorously follows would provide a tremendous performance.

GRI has become one of the most recognized standard for sustainability reporting and is a widely accepted framework for reporting on economic, environmental and social performance. Hohnen's (2012) paper "The Future of Sustainability Reporting" shows that the vast majority of companies issuing reports use the GRI, and that its popularity has grown steadily over its short lifetime. In 2010, over 1.800 companies publicly declared their use of the GRI framework. The same year, 95% of the companies on the Dow Jones Sustainability Index (DJSI) Super Sector Leaders list used the GRI. Fully 78% of companies listed on the FTSE4Good Global 100 and 70% of companies on the "Global 100 Most Sustainable Corporations also used the GRI framework to disclosure sustainability data. Kolk (2003) claims that sustainability reporting process standardization with the support of the GRI and Governments will let the reports amount and quality increase, in addition with standardized reporting companies could analyze their sustainability data easier.

Bossel's (1999) claims in his study about "how corporate sustainability should be measure" that for providing accurate and base information about validation of the entire system and their each component; the identification of the indicators and determining the basic subsystems is important. In this context, businesses uses economic, environmental and social performance indicators in defining and measuring the sustainability (GRI, 2006). So corporate sustainability reporting needs to contain qualitative and quantitative information on environmental, social, economic, and corporate governance.

2.3.1. Social Performance Indicators

Social performance and social report, is related with the company's social activities within its social system. It represents the company's social performance on qualitative and quantitative information.

2.3.2. Environmental Performance Indicators

According to International Organization for Standardization (ISO, 1999) environmental performance and environmental report is defined as “the result of an organization’s management of its environmental aspects” (ISO, 1999). It addresses a company’s influences on “living and non-living natural systems, including ecosystems, land, air, and water” (GRI, 2006). The environmental report is the report that demonstrates the organization’s environmental performance indicators which represents environmental performance of company’s inputs and outputs as well as company’s product and services impacts on them.

2.3.3. Economic Performance Indicators

According to GRI (2006), economic performance indicators are the company's effects on its stakeholder’s economic condition as well as domestic, national and/or international level economic systems.

In airport industry less studies had been done on sustainability reporting. Graham (2005) concluded a conceptual study imposed on UK airports which are derived from a mixture of service measures and passenger survey responses based on the benchmarking methods along with economic performance, service quality, operational performance and environmental performance indicators that became important since the commercialization of airports. Upham and Mills (2005) argued that enriching stakeholder dialogue through the use of sustainability reporting is the key to facilitating improved performance-based benchmarking and converting through better outcomes which will require closer scrutiny of environmental and sustainability reports that are prepared along with GRI performance indicators. In order to find airport sectors preparing sustainability report trend and to establish a guidance for the aviation industry GRI reviewed 17 sustainability reports from airports around the world according to their performance indicators and published it as “A Snapshot of Sustainability Reporting in the Airports Sector” (GRI, 2009). This preliminary study determines the most used sector-specific themes and these findings considered in the GRI Airports Sector Supplement (GRI, 2011). Jordao (2009) reviews the sustainable development issues by some airports that have been considered as the best in the world from their customer’s perspective with a performance measurement methodology on the basis of GRI performance indicators. Skouloudis et al. (2012) conducted a content analysis to review airports corporate sustainability reports scope and their quality according to GRI guidelines.

3. Methodology

Research Goal

In the study our aim is to find out the GRI guidelines indicators which are currently being disclosed in airports corporate sustainability reports. We investigate the sustainability issues highlighted in the sustainability reports of the top 10 airports listed by Skytrax’s World Airport Awards and ACI’s Airport Service Quality (ASQ) Awards in 2012 (Table 1.) according to their passenger-driven surveys. These reports had no particular format, and contained varied components. So our methodology focuses on GRI reporting guidelines through triple bottom line elements of corporate sustainability reporting. All most

recently published corporate sustainability reports of the airports (while Nagoya Chubu Centrair Airport do not provide information on social and economic it is dismissed in the research) were reviewed in order to identify any references to the GRI guidelines through content analysis.

Table 1. World's Best Airports.

Airport	Location	Region	Report Type	Year	GRI Level
Hong Kong Int. Airport (HGK)	Hong Kong / China	Asia	Annual Report	2011	GRI - G3.1
Singapore Changi Airport (SIN)	Changi / Singapore	Asia	Annual Report	2011	----
Incheon Int. Airport (JCN)	Seul / Güney South Korea	Asia	Social Responsibility Report	2011	GRI - G3.1
Munich Airport (MUC)	Munich / Germany	Europe	Annual Report	2011	GRI - G3.1
Beijing Capital Int. Airport (BJS)	Beijing / China	Asia	Annual Report	2010	----
Amsterdam Schiphol Airport (AMS)	Amsterdam / Holland	Europe	Annual Report	2012	GRI - G3.1
Zurich Airport (ZRH)	Zurich / Switzerland	Europe	Sustainability Report	2008	----
Auckland Int. Airport (AKL)	Auckland / New Zeland	Oceania	Annual Report	2012	----
Kuala Lumpur Int. Airport (KUL)	Kuala Lumpur / Maleyzia	Asia	Sustainability Report	2011	GRI - G3.1
Copenhagen Airport (CPH)	Kopenhag / Sweden	Europe	Social Responsibility Report	2011	GRI - G3.1
Nagoya Chubu Centrair Airport (NGO)	Nagoya / Japan	Asia	Centrair Environment Report	2011	----

Source: Airports Corporate Reports,

Skytrax, 2012, http://www.worldairportawards.com/Awards_2011/Airport2011.htm (20.1.2013),

ACI ASQ, 2012. <http://www.airportservicequalityawards.com/> (20.1.2013).

4. Findings

The sustainability performance measures within the framework of Airports sustainability reports shows different frequency of usage as a result of the examination of the GRI sustainability criteria (Table 2-3 and Figure 1). Jordao (2009), by examining airports sustainability reports, emphasizes that Zurich Airport is best among environmental aspects, Incheon Airport has been identified as the best airport according social and economic activities as well as overall reporting aspects. In 2009 Jordao reported that Münch Airport is 4th among five airports over all aspects on sustainability reporting indicators. The study found that nowadays Munich Airport (94,9%) provided the most comprehensive sustainability report which is followed by Inceheon Airport (% 92.1), while Auckland and Beijing airports scored the lowest in the study which denotes that they provided minimal disclosures of sustainability reporting performance. However, in practice this doesn't mean that these airports running good or bad performance. Failure not to record the exact information on sustainability reports, the right performance of airports couldn't be displayed.

Table 2. Listed top 10 airports sustainability reports quality according to GRI criteria.

Sustainability Dimension	Airport Code									
	HKG	SIN	JCN	MUC	BJS	AMS	ZRH	AKL	KUL	CPH
Average Economic Reporting Score	0,833	0,625	0,917	0,917	0,542	0,75	0,458	0,25	0,458	0,375
Average Environmental Reporting Score	0,456	0	0,912	0,985	0	0,676	0,588	0	0,118	0,309
Average Social Reporting Score	0,129	0,152	0,935	0,946	0,033	0,815	0,196	0,043	0,25	0,293
Average Reporting Score (%)	46,7	25,9	92,1	94,9	19,1	74,7	41,4	9,8	27,5	32,6

Table 3 shows the investigation of indicators that are reported by each airport. Airport sustainability reports should be expected to contain descriptions about many of the GRI sustainability indicators, but as seen in the investigation only 3 of the 10 airports presents sustainability disclosures on GRI indicators over 50%. Given the importance of environmental sustainability in the aviation industry the airports which's sustainability reports gives information over 50% on this topic is only 4.

Table 3. Airports comprehensive sustainability quality according to GRI criteria.

Sustainability Dimension	Airport Code									
	HKG	SIN	JCN	MUC	BJS	AMS	ZRH	AKL	KUL	CPH
Average Economic Reporting Score	0,833	0,625	0,917	0,917	0,542	0,75	0,458	0,25	0,458	0,375
EP (Economic Performance)	0,75	0,5	0,75	0,75	0,875	0,625	0,25	0,125	0,375	0,625
MP (Market Presence)	0,833	0,667	1	1	0,5	0,833	0,75	0,333	0,5	0,333
IEI (Indirect Economic Impacts)	1	0,75	1	1	0	0,75	0	0,25	0,5	0
Average Environment Reporting Score	0,456	0	0,912	0,985	0	0,676	0,588	0	0,118	0,309
M (Materials)	0,75	0	1	1	0	0,75	1	0	0,5	0,5
E (Energy)	0,8	0	1	1	0	0,6	0,7	0	0,4	0,4
W (Water)	0,375	0	0,75	1	0	0,375	1	0	0	0,25
B (Biodiversity)	0,7	0	1	1	0	1	0,4	0	0	0
EEW (Emissions, effluents and Waste)	0,25	0	0,833	1	0	0,708	0,625	0	0,042	0,5
IEI (Indirect Environmental Impacts)	0,333	0	1	0,917	0	0,583	0,167	0	0,083	0,083
Average Social Reporting Score	0,12	0,152	0,935	0,946	0,033	0,815	0,196	0,043	0,25	0,293
LPDW (Labor Practices and Decent Work)	0,286	0,143	0,857	1	0	0,821	0,429	0,071	0,429	0,464
HR (Human Rights)	0	0	1	0,773	0	0,727	0,045	0	0,227	0,5
S (Society)	0	0,273	1	1	0,136	0,818	0,136	0,045	0,091	0,045
PR (Product Responsibility)	0,15	0,2	0,9	1	0	0,9	0,1	0,05	0,2	0,1
Average Reporting Score	0,467	0,259	0,921	0,949	0,191	0,747	0,414	0,098	0,275	0,326

According to Skystar and ACI survey these airports shows the best practices in airport sector while the findings among airport reporting approaches reflects a considerable variability on sustainability performance. Their scores range from 9,8 % to 94,9 % (Tables 2-3 and Figure 1).

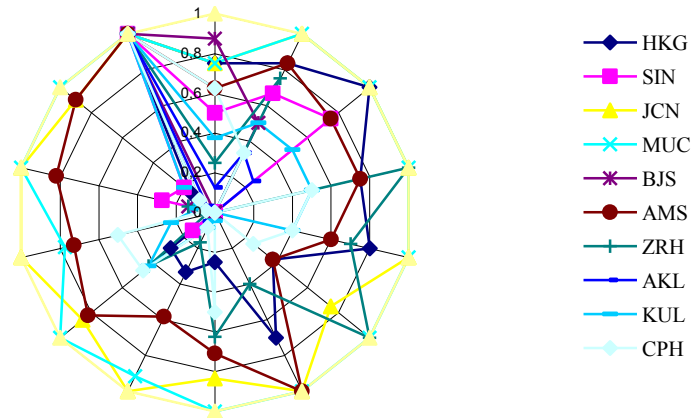


Figure 1. Top ranked airports Sustainability Performance.

In the study the tables (Tables 2-3) have been developed according the assumption that the ideal airport should take 1 point. While considering the different needs and demands of airport stakeholders the excellent sustainability report should take 0,8 point and above. Some airports are already near perfect performance (2 airports), one airport shows good performance (0,6-0,8 points) while the selected airports average performance score in the study is 0,44 the rest airports need improvements in their sustainability reporting performance.

According to the three dimensions of sustainability complete summary of the GRI indicators are reported below.

4.1. Economic Sustainability

AO1 (Total number of passengers annually, broken down by passengers on international and domestic flights and broken down by origin-and-destination and transfer, including transit passengers), AO2 (Annual total number of aircraft movements by day and by night, broken down by commercial passenger, commercial cargo, general aviation and state aviation flights), AO3 (Total amount of cargo tonnage) and EC1 (Direct economic value generated and distributed, including revenues, operating costs, employee compensation, donations and other community investments, retained earnings, and payments to capital providers and governments) reflects the highest frequency of use between the economic performance indicators.

The least frequently used indicator is EC2 (Financial implications and other risks and opportunities for the organization’s activities due to climate change) which was reported by 3 airports.

In this respect to improve the economic situation of airports, focusing and developing strategies on this 4 key indicators is more important comparatively than the other indicators.

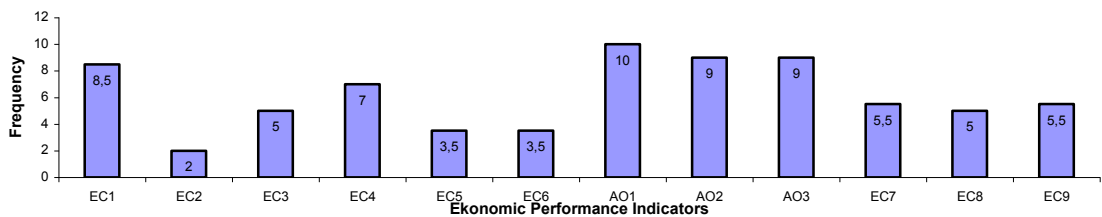


Figure 2. GRI Economic indicators use frequency from selected Airports Sustainability Reports.

4.2. Environmental Sustainability

The most cited environmental performance indicators are EN1 (Materials used by weight or volume), EN2 (Percentage of materials used that are recycled input materials), EN3 (Direct energy consumption by primary energy source), EN5 (Energy saved due to conservation and efficiency improvements), EN6 (Initiatives to provide energy-efficient or renewable energy based products and services, and reductions in energy requirements as a result of these initiatives), EN21 (Total water discharge by quality and destination) and EN22 (Total weight of waste by type and disposal method).

The least frequently used indicators were reported by 2 airports corporations. These indicators were AO4 (Quality of storm water by applicable regulatory standards) and EN24 (Weight of transported, imported, exported, or treated waste deemed hazardous under the terms of the Basel Convention Annex I, II, III, and VIII, and percentage of transported waste shipped internationally).

This performance indicators shows the airports which sustainability reports are examined are trying to use airports material and energy effectively in order to use less or the same amount to get more input and output.

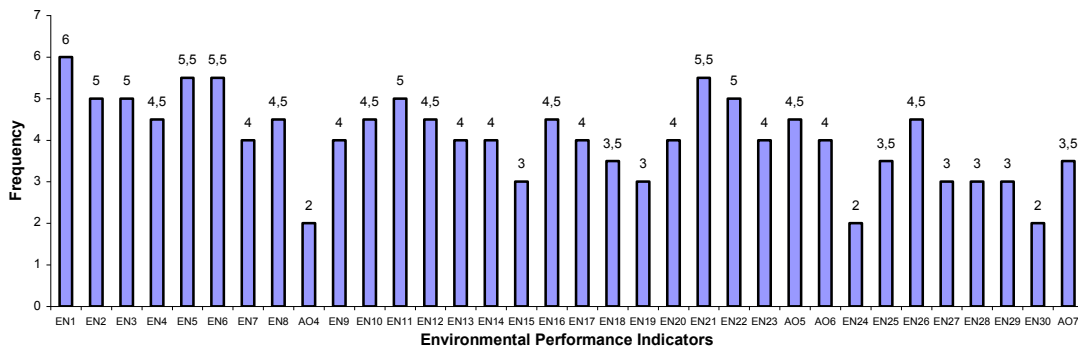


Figure 3. GRI Environmental indicators use frequency from selected Airports Sustainability Reports.

4.3. Social Sustainability

In relation to labour practice and decent works indicators, LA4 (Percentage of employees covered by collective bargaining agreements.) and LA11 (Programs for skills management and lifelong learning that support the continued employability of employees and assist them in managing career endings) are the most used, Out of total eleven indicators outlined in GRI framework in human rights category HR6 (Operations and significant suppliers identified as having significant risk for incidents of child labor, and measures taken to contribute to the effective abolition of child labor) and HR7 (Operations and significant suppliers identified as having significant risk for incidents of forced or compulsory labor, and measures to contribute to the elimination of all forms of forced or compulsory labor) have been the most answered indicators. Within ten product responsibility indicators, PR5 (Practices related to customer satisfaction, including results of surveys measuring customer satisfaction) has been the used one. Due to the investigation among the social performance indicators SO8 (Monetary value of significant fines and total number of non-monetary sanctions for noncompliance with laws and regulations) is the mostly answered indicator.

The least frequently used indicators were HR10 (Percentage and total number of operations that have been subject to human rights reviews and/or impact assessments) and HR11 (Number of grievances related to human rights filed, addressed and resolved through formal grievance mechanisms).

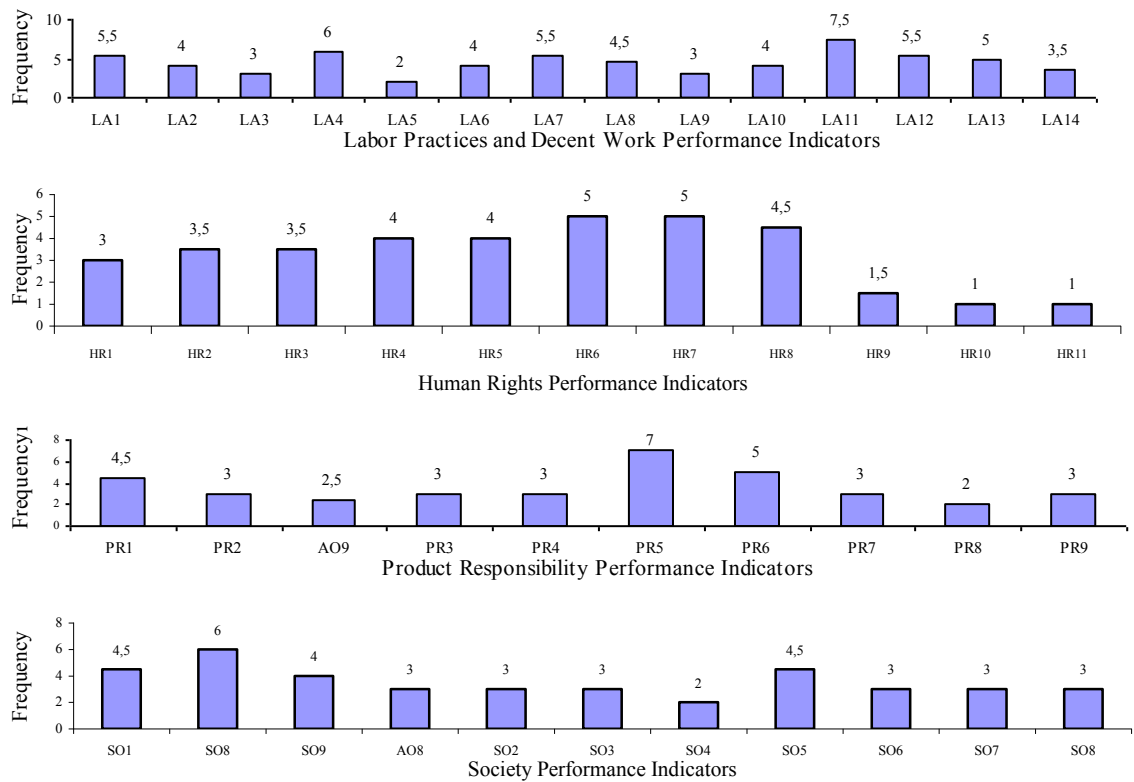


Figure 4. GRI Social indicators use frequency from selected Airports Sustainability Reports.

5. Conclusion

Since the emergence of the sustainability, there have been numerous companies at different level and industries such as automotive, construction, textile and medical find themselves in the environmental, social and economic challenges. In fact, companies aware the importance of sustainability and take into account deeply and therefore they put into practices. These indicators have applicability to all companies for exploring, developing and assisting their sustainability process and reporting their performance.

Businesses in different regions and industries are influenced by different sustainability factors. Despite the variability among identification and measurement of sustainability, the GRI sustainability reporting frame helps different corporations to compare each other in the same line. This study provides an insight into airport sustainability reports and their indicators. Most of the airports are using the GRI reporting framework in sustainability reporting. Therefore, the world's top 10 airports (according to Skystar and ACI ASQ surveys published in 2012) sustainability reports evaluated based on the GRI G3 guidelines have been carried out in this study. The purpose of this study is to find the most sustainable airport therefore it focuses not only on environmental performance and also economic and social performance dimensions.

It can be seen that the “best airports” vary significantly according to the perspective they have been analysed. An airport that performs very well according to stakeholder expectations might not perform satisfactorily by sustainability reporting investigation on empirical findings.

The study also shows that the airports studied reported on three areas of the triple bottom line (economic, social and environmental), varied considerably by GRI indicators have different scopes.

The GRI Sustainability reports guidelines include 12 economic indicator, 34 environmental indicator and 46 social indicator. A total of 920 indicators summed from the 10 studied airport's sustainability report which were full answered by a total 337 indicators, and partial answers were 90 indicators. The overall frequency of reporting on GRI indicators in Airports Sustainability Reports is % 46,4 (Full answered indicators ratio is % 36,6, partial indicators ratio is % 9,8) which shows as the sustainability reporting process in airport sector has much more works to done especially in social and environmental issues.

In the study the most frequently answered indicators are;

1. In relation to social indicators, LA7 (Rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities by region and by gender), LA11 (Programs for skills management and lifelong learning that support the continued employability of employees and assist them in managing career endings) and LA12 (Percentage of employees receiving regular performance and career development reviews, by gender), PR5 (Practices related to customer satisfaction, including results of surveys measuring customer satisfaction).

2. In relation to environmental indicators EN1 (Materials used by weight or volume) and EN3 (Direct energy consumption by primary energy source).

3. In relation to economical indicators, AO1 (Total number of passengers annually, broken down by passengers on international and domestic flights and broken down by origin-and-destination and transfer, including transit passengers), AO2 (Annual total number of aircraft movements by day and by night, broken down by commercial passenger, commercial cargo, general aviation and state aviation flights), AO3 (Total amount of cargo tonnage) and EC1 (Direct economic value generated and distributed, including revenues, operating costs, employee compensation, donations and other community investments, retained earnings, and payments to capital providers and governments) reflects the highest frequency of use between the economic performance indicators.

The least frequently used indicators are;

1. In relation to social indicators,

LA5 (Minimum notice period(s) regarding operational changes, including whether it is specified in collective agreements), HR9 (Total number of incidents of violations involving rights of indigenous people and actions taken), HR10 (Percentage and total number of operations that have been subject to human rights reviews and/or impact assessments), HR11 (Number of grievances related to human rights filed, addressed and resolved through formal grievance mechanisms), SO4 (Actions taken in response to incidents of corruption) and PR8 (Total number of substantiated complaints regarding breaches of customer privacy and losses of customer data).

2. In relation to environmental indicators,

The least frequently used environmental indicators were AO4 (Quality of storm water by applicable regulatory standards) and EN24 (Weight of transported, imported, exported, or treated waste deemed hazardous under the terms of the Basel Convention Annex I, II, III, and VIII, and percentage of transported waste shipped internationally).

3. In relation to economic indicators,

EC2 (Financial implications and other risks and opportunities for the organization's activities due to climate change) and also EC5 (Range of ratios of standard entry level wage compared to local minimum

wage at significant locations of operation) and EC6 (Policy, practices, and proportion of spending on locally-based suppliers at significant locations of operation). As a result of the study, the top performer airports concerned not only the optimum usage of natural resources and inputs and also give importance to social surroundings and economic developments. There is still more and significant work to do to improve the quality of corporate sustainability reporting in the airport industry. In this context, the corporate sustainability reports of airports should comprehensively integrate their strategies with corporate sustainability, and therefore must highlight their efforts in response to stakeholder's needs and demands. While most airports fails to develop a vision and strategies toward sustainability, the most used performance indicators in airport sustainability reports and visions will help researchers easily understand the airport sustainability strategies. Further research about sustainability indicators disclosed with airports strategies would let to find the real focus of airports sustainability. And also an international standard for the integration of the financial reports with the corporate sustainability reports as a single report will contribute to speed up the process even more.

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