EVOLUTION OF NEW CORPORATE REPORTING TRENDS IN THE WORLD AND IN TURKEY OVER TIME: CURRENT REVIEW AND A STUDY ON THE AIRLINE INDUSTRY

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ABSTRACT

EVOLUTION OF NEW CORPORATE REPORTING TRENDS IN THE WORLD AND IN TURKEY OVER TIME:
CURRENT REVIEW AND A STUDY ON THE AIRLINE INDUSTRY

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In today's world, with globalization, technological advances, increasing world population and consumption, the term "sustainability" has gained importance, and the enterprises' investments in sustainability and their level of performance have begun to be considered as an important investment criteria by capital providers. The information demand of the users that provide capital to the businesses has led to the emergence and gradual growth of different corporate reporting trends in addition to financial reporting. In this thesis, the most widely-accepted three different alternative corporate reporting trends are explained in detail, and in order to illustrate the development of them in the world and in Turkey, an analysis was carried out in the global airline industry in terms of Global Reporting Initiative (GRI). Moreover, Turkish Airlines Sustainability Reporting, the only report in the aviation sector in Turkey, is also examined in this context, and in order to ensure that the shareholders of Turkish Airlines make healthy investment decisions, recommendations are made for the improvement of Turkish Airlines report. In addition, as a result of the evaluation of the three different reporting options, it was

concluded that all corporate reports of the companies should be converged into a single report taking cost-benefit into account.

Keywords: voluntary reporting, sustainability reporting, integrated reporting, SASB standards, airline industry

ÖZ

YENİ RAPORLAMA TRENDLERİNİN DÜNYA VE TÜRKİYE'DEKİ GELİŞİMİ:
LİTERATÜR TARAMASI VE HAVACILIK SEKTÖRÜ ÖZELİNDE BİR ÇALIŞMA

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Günümüzde küreselleşme, teknolojik gelişmeler, artan dünya nüfusu ve tüketim ile birlikte "sürdürülebilirlik" konusuna verilen önem giderek artmış, işletmelerin bu konuda yaptığı yatırımlar ve gösterdikleri performanslar paydaşları, yatırımcılar ve kredi verenler tarafından önemli bir yatırım kıstası olarak değerlendirilmeye başlamıştır. Şirketlere sermaye sağlayanların bilgi talepleri şirketlerin mali raporlama yanı sıra farklı raporlama eğilimlerinin doğmasına ve giderek gelişmesine sebep olmuştur. Bu tezde en çok kabul edilen üç farklı alternatif raporlama trendi detaylı olarak açıklanmış ve bunların Dünya ve Türkiye'deki gelişimlerini resmetmek amacıyla da dünya havacılık sektörü özelinde Küresel Raporlama Girişimi yaklaşımı açısından analiz yapılmıştır. Türkiye havacılık sektöründeki tek rapor olma özelliğini taşıyan Türk Hava Yolları Sürdürülebilirlik Raporlaması da bu kapsamda incelenmiş ve THY paydaşlarının sağlıklı yatırım kararları vermelerini sağlamak amacıyla THY raporlarının geliştirilmesi için öneriler yapılmıştır. Ayrıca,

üç farklı raporlama seçeneklerinin değerlendirilmesi sonucunda, şirketlerin maliyet-fayda açısından raporlama seçeneklerinin tek bir raporlamaya dönüştürülmesi gerektiği sonucuna varılmıştır.

Anahtar Kelimeler: gönüllü raporlama, sürdürülebilirlik raporlaması, bütünleşik raporlama, SASB standartları, havacılık sektörü

Dedicated to my pillars of support, my mother Sevgi Dinç, my father Avni Dinç, my beloved brother Çağdaş Dinç and my brother's wife Melike Dinç
Without my mother's moral, emotional and educational support, my father's courage and my brother's continued encouragement this thesis could not have been completed. Thank you all for being the biggest part of my life…

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LIST OF ABBREVIATIONS

WCED	World Commission on Environment and Development
IATA	The International Air Transportation Association
GRI	Global Reporting Initiative
IIRC	The International Integrated Reporting Council
SASB	The Sustainability Accounting Standards Board
EIRIS	Investment Research Services Limited
UNGC	United Nations Global Compact
COP	Communication on Progress
OECD	The Organization for Economic Co-operation and Development
CDP	Carbon Disclosure Project
ISAE 3000	The International Standard on Assurance Engagements
CDSB	Climate Disclosure Standards Board
CCRF	Climate Change Reporting Framework
SRA	Sustainability Reporting Assurance
GAAP	Generally Accepted Accounting Principles
SEC	Securities and Exchange Commission
IAS	International Accounting Standards
IASC	International Accounting Standards Committee
GSIA	Global Sustainable Investment Alliance
WRI	World Resources Institute
WBCSD	World Business Council for Sustainable Development
IFAC	International Federation of Accountants
WEF	The World Economic Forum

CHAPTER 1

INTRODUCTION

Allocation of savings as a scarce resource to investment opportunities is one of the critical problems of any economy. The problem is not only to equate savings to investments but also to allocate the scare resources to "good" investments that would create jobs and wealth, and therefore increase life standards in a society. Capital markets are one of the mechanisms where savings and investment opportunities meet. Individuals and organizations with savings need to distinguish "good investments" from "bad investments". Existing and new investors in the market seeking capital are in the market believing that they have the "best" investment opportunities. Investors are known to oversell their investment ideas. The savers, on the other hand, do not have as much information about the business ideas and the value of investment opportunities (returns earned in excess of cost of capital) as investors do. In order to alleviate the so-called "lemons" problem, such financial intermediaries as venture capital firms, banks, mutual funds, and insurance companies focus on aggregating funds from savers and analyze different investment alternatives to make investment decisions. Information intermediaries such as auditors, financial analysts, bond-rating agencies, and financial press focus on providing information to investors and financial intermediaries on the quality of various business investment opportunities. Financial intermediaries and information intermediaries help investors distinguish "good" investment opportunities from the "bad" ones. One of the sources of information used by both financial intermediaries and information intermediaries are financial reports of the corporations.

Traditionally, financial reports are prepared based on a set of accounting standards to "provide financial information about the reporting entity that is useful to existing and potential investors, lenders and other creditors in making decisions about providing

resources to the entity". Financial information is provided through a set of financial statements which include:

> (a) a statement of financial position as at the end of the period;
> (b) a statement of profit or loss and other comprehensive income for the period;
> (c) a statement of changes in equity for the period;
> (d) a statement of cash flows for the period;
> (e) notes, comprising significant accounting policies and other explanatory information;
> (ea) comparative information in respect of the preceding period
> (f) a statement of financial position as at the beginning of the preceding period when an entity applies an accounting policy retrospectively or makes a retrospective restatement of items in its financial statements, or when it reclassifies items in its financial statements

This kind of financial information obtained from financial statements is used by both financial and information intermediaries with the same purpose but in a different way. Information intermediaries provide information to the investors regarding credibility and the quality of the financial report; financial intermediaries analyze the financial information in the statements and help savers determine whether to invest or not (Palepu, Healy & Bernard, 2004; Akerlof, 1970).

On the other hand, many researchers have been concerned that the traditional financial disclosures disseminated annually by the companies are not adequate for the firms to meet users' information demand (Cheng, Green, Conradie, Konishi, & Romi, 2014; Adams, Fries, & Simnett, 2011; Financial Reporting Council (FRC), 2009; Cohen, Holder-Webb, Nath, & Wood, 2012); hence in addition to financial information, non financial disclosures have tended to be issued by the companies nowadays.

The common reasons for inadequacy of financial information include the following:
(1) Financial information informs users only about the past financial performance of the company,
(2) Non-financial information helps to give insight into the future performance of the company and,

(3) Due to globalization, technological developments, rapid population and consumption growth, the world has changed. This situation has affected not only the resource scarcity and ecosystems but also the organizations' reactions to these changes and stakeholders' perspective on businesses' "sustainability" performance. (The International Integrated Reporting Committee, 2011).

With the increase in the information demand and the change of user's needs, stakeholders especially investors at large want to see further details such as non-financial information that create value for the companies instead of only financial and profit-based information in the firm's report. Moreover, with the developing world and the change in dynamics of the global economy, the concept of value has also changed and the market value of companies has started to be explained more with the value of their intangible assets instead of their tangible assets compared to the last 40 years. Considering the fact that most of the companies have greater market value than their book value, non-financial disclosures and reporting provide information regarding the companies' intangible assets that are not included in the financial reports (Serafeim, 2014).

(4) Other reasons behind the tendency to report non-financial information are the rising effect of the global initiatives on the companies, the increase in the investigation of the companies for their impact on the society and economy because of the loss of trust resulting from the business scandals in 2001 and because of the growing interest in the sustainable, ethical and responsible investments worldwide (Dhaliwal, Li, Tsang, & Yang, 2011).

(5) In addition to the extra information and the benefits provided to the external stakeholders at a global scale, companies gain advantage from these non-financial reports as well. Many researchers have been concerned with these benefits and have done studies about finding the answer to the question "What advantages do the firms gain by publishing these kinds of reports?".

The major advantages are the increase in the reputation of the firms, a more efficient and effective operational performance and the positive impact on their long-term sales. The studies have particularly concentrated on the financial effect of the reports on the enterprises and in this regard, the relationship between the cost of the capital and the voluntary disclosure of the companies has been examined (Dhaliwal, Li, Tsang & Yang, 2011; Diamond & Verrecchia, 1991; Botosan, 1997; Leuz & Verrecchia, 2000; Botosan & Plumlee, 2002). Overall, it has been found that voluntary disclosures result in the decrease in the cost of equity capital.

Due to the above-mentioned reasons; since the beginning of the 2000s, non-financial disclosure has remained on the companies' agenda and firms have tended to provide non-financial information to their stakeholders. Organizations have also developed ways and methods to help companies to report non-financial information in addition to financial information and have discussed alternative types of corporate reporting formats (KPMG, 2011; Cohen, Holder-Webb, Nath, & Wood, 2012).

Considering the recent developments, non-financial disclosures can be disclosed separately as a stand-alone "sustainability report" or aggregately as "one report" and so-called "integrated report" by combining traditional financial report and non-financial information (Simnett, Vanstraelen & Chua, 2009; KPMG, 2011; Cohen, Holder-Webb, Nath & Wood, 2012). In a nutshell, over time, as of 1980, non-financial reporting has come into use in addition to financial reporting, and corporate reporting has evolved from financial reporting to other types of reporting such as integrated and sustainability reporting, which is shown in Table 1 in detail. It can be seen in Table 1 that integrated and sustainability reporting have changed the order of precedence of financial statements by the 2020s:

Table 1: Evolution of the Corporate Reporting [1]

1960	1980	2000	2020 (Projected)
→	→	→	→
Financial Statements	Financial Statements	Financial Statements	Integrated Reporting
	Management Commentary	Management Commentary	Sustainability Reporting
	Environmental Reporting	Governance and Remuneration	Governance and Remuneration
	Governance and Remuneration	Sustainability Reporting	Financial Statements
			Management Commentary

In this thesis, the main and noteworthy corporate reporting formats reviewed are;

(i) sustainability reporting

(ii) integrated reporting and

(iii) ESG (Environmental, Social and Governance) disclosures

The institutions that issued a set of guidelines to guide the preparers of such reports are:

(i) Global Reporting Initiative's (GRI) Sustainability Reporting Guidelines for sustainability reporting,

(ii) International Integrated Reporting Council's (IIRC) framework for integrated reporting, and

(iii) Sustainability Accounting Standards Board's (SASB) Standards for ESG disclosures.

[1] IIRC 2012, “Towards integrated reporting, communicating value in the 21st century", page 6-7

1.1. The Aims of the Thesis and Research Methodology

The emerging trends in corporate reporting and the newly-developed norms for reporting have been embraced by several large firms. With the growing awareness of this issue, reporting implementations have increased significantly and gradually throughout the world. In this regard, the main purpose of this study is to indicate the historical development of corporate reporting and to present what has been done regarding the current trend of corporate reporting over the years worldwide and the latest developments regarding this issue.

In Turkey, the literature on and the implementation of these new reporting formats are limited. Therefore, this study also aims to make a contribution to the recognition of these types of voluntary reporting formats in Turkey.

In order to acquire background knowledge on the above-mentioned three corporate reporting formats, namely sustainability reporting, integrated reporting and SASB standards, the existing literature was reviewed. Besides, to trace the historical development of the sustainability reporting practice, the global airline industry was selected and airline companies' sustainability reports in compliance with GRI guideline were analyzed comprehensively. Then, the sustainability report of Turkish Airlines, an example from the Turkish airline industry, was examined in detail to gain an insight into the sustainability reporting practice. In this regard, by analyzing the report according to the SASB standards, recommendations were made for the improvement of the current corporate reports.

1.2. Outline of the Thesis

This thesis is comprised of five chapters and is structured as follows: First, in the introduction part, a review of the current corporate reporting, the drivers of the need for new corporate reporting formats and the future of corporate reporting are presented. In this regard, the names of three new corporate reporting formats and

their norm developers are emphasized. Moreover, in this chapter, the aims of the thesis and the research methodology are identified.

Second, in the literature review part, these three widely-accepted voluntary corporate reporting formats in the 21st century, namely GRI's sustainability reporting, IIRC's integrated reporting and SASB sustainability standards are discussed in detail. This chapter also focuses on their frameworks / guidelines, the differences and similarities between these three norms and the comparisons of them with traditional financial reporting. Besides, this chapter cites all the studies, developments and practices related to these three corporate reporting formats in Turkey.

Next, in the third chapter, sustainability and sustainability reporting trends in the airline industry is examined. In this context, to indicate the historical development of the sustainability reporting practice in the global airline industry, airline companies' sustainability reports prepared according to GRI guideline are analyzed comprehensively in terms of two indicators namely *"compliance"* and *"external assurance"* by using the content analysis method. Moreover, the research method, the data used in the analysis and the results are discussed in detail in this chapter.

This is followed by the chapter on sustainability and sustainability reporting trends in the Turkish airline industry. The fourth chapter mainly focuses on the analysis of the Turkish Airlines' Sustainability Report to measure whether and to what extent the report is in the compliance with SASB standards. Besides, based on the results of this analysis, evaluations and recommendations are made for the case of Turkish Airlines in the context of sustainability reporting.

Finally, the thesis is concluded with the summary of the whole study, suggestions, a proposal for converging alternatives for non-financial reporting and recommendations for future studies.

CHAPTER 2

LITERATURE REVIEW

2.1. The Development of the Corporate Reporting: A Shift from Financial to Non-Financial Reporting

The principles of corporate reporting dates back to the years when the accounting records were kept for agricultural activities. However, the publication of the records in the form of financial statement was required after the "Great Depression" experienced in the early 1930s in the United States. After the Great Depression, due to the decreased investor confidence in financial reporting, U.S. Generally Accepted Accounting Principles (U.S. GAAP) was developed. Following the establishment of Securities and Exchange Commission (SEC) in the United States, publication of the financial information by publicly held corporations listed on the stock exchange became compulsory in the U.S. Other countries that saw the positive impact of the transparency of the financial information disclosure on the investor confidence made similar arrangements and developed their own principles, and thus, financial reporting became widespread throughout the world in a relatively short period of time.

However, the variations in the reporting practices and the differences in accounting standards between countries made it difficult for the investors to compare the information in the financial reports and also increased the cost of filing for publicly held corporations in different countries during the period of globalization. Therefore, in order to decrease the cost of filing of an international corporation in different countries and to facilitate the comparison of financial reports of publicly held corporations with securities which internationally traded in stock exchange markets, a need for international accounting standards arose. The International Accounting

Standards-IAS was developed by the International Accounting Standards Committee (IASC) in London in 1973 when almost each one of the major countries had its own financial accounting standards. With the rise of globalization and the support of International Organization of Securities Commission (IOSCO) and G-20 countries, IASC was changed into International Accounting Standards Board (IASB) and was authorized to issue International Accounting Standards. Most of IAS's standards were revised by IASB and the title of the new standards were changed to International Reporting Standards (IFRS). These standards were updated and have been accepted as the common reporting standards since 2001. They are currently acknowledged by over 120 countries in the world except the USA. A convergence of US GAAP and IFRS is in progress as suggested by G-20 Countries.

While these developments in financial reporting are taking place, the large part of the company's assets has been shifted from "tangible assets" to "intangible ones" that are not reported in the financial statements mostly as a result of the decrease in the machinery and labor-based production and the developments in the knowledge-based economy. According to a research study conducted by Ocean Tomo in 2011, intangible assets such as intellectual property rights, human capital, reputation and know-how constitute approximately 80% of the market value of the S&P 500 companies. While financial reports provide detailed information about the company's tangible assets, the value of the intangible assets is relatively more difficult to assign a monetary value and therefore cannot be included in financial reports. Therefore, it can be said that financial reports are inadequate to reflect the actual value of the company.

Reflecting the company's past financial performance rather than the long-term risks and opportunities is seen as another weakness of the financial reports in an increasingly global competitive environment. Diminishing natural resources against rapidly increasing population, natural disasters, widespread supply chains and rapidly evolving technology cause the companies to face different risks and opportunities.

Today, a natural disaster which occurred in one part of the world can have an impact large enough to stop the production in another part of the world.
Considering all the risks and determining the measures that could be taken against them are directly related to the companies' financial future. Financial reports that now remain insufficient to shed light on the future of the companies have led investors to seek alternative sources of information.

Investors who realize the effects of environmental, social and governmental (ESG) performance of the companies on both the current and the future value of the companies as much as their financial performance have begun to demand non-financial information about the companies.

In today's world, not only investor expectations but also the expectations from companies regarding their role of shaping the future of the society have changed.
Since the beginning of the industrial revolution, the companies that have been growing at the expense of consuming the world's resources are expected to be the part of the solution, not the problem. Nowadays, not only the amount of the profit made by the company but also the way this profit was obtained has become an important criterion. The expectations of the users have increased in the direction of identifying the social, environmental and economic impacts of companies' operations, monitoring and reporting them and providing continuous and long-term commitment (Perrin, 2005). The changing expectations of the stakeholders, especially investors, have forced the companies to redefine their responsibilities towards the society and the stakeholders and to develop a new reporting model that meets the needs of their stakeholders (Aras & Sarıoğlu, 2015).

2.2. Sustainability Reporting

2.2.1. The Concept of Sustainability and Sustainability Reporting

The term "sustainability" is first defined by the World Commission on Environment and Development (WCED), (also known as the Brundtland Commission), in 1987 as

a "development that meets the needs of the present without compromising the ability of future generations to meet their own needs."[2]

In this report, it is also stated that:

> sustainable development is not a fixed state of harmony, but rather a process of change in which the exploitation of resources, the direction of investments, the orientation of technological development, and institutional change are made consistent with future as well as present needs[3] (United Nations, 1987).

It is inferred from these two statements that the notion of sustainability directs firms to make decisions by considering long term effects on economic, social and environmental areas, which helps to create sustainable value for the stakeholders. In other words, organizations should take their actions by considering the effects of economic decisions on environment, economic development and social issues people are involved in (The International Federation of Accountants, 2011). Another definition of sustainability development according to the World Business Council on Sustainable Development is that

> The sustainable development involves the simultaneous pursuit of economic prosperity, environmental quality and social equity. Companies aiming for sustainability need to perform not against a single, financial bottom line but against the triple bottom line[4] (World Business Council on Sustainable Development).

This implies that there are three pillars of sustainability, namely environmental, social and economic:

- **Environmental performance** of the company is based on the natural resources consumed while providing products and services
- **Social performance** of the firm is related to the effects of its actions on people and social concerns such as work health and safety, behavioral skills and motivation of the workforce, human relationships in the workplace, and community relations.

[2] United Nations, 1987, page 41

[3] Ibid, 1987, page 17

[4] World Business Council on Sustainable Development Web Site as at 29 December 2015

- **Economic performance** contains not only financial performance of the organization but also its effect on the whole economy. For instance, profit and growth are key financial performance indicators for the companies, wage and salary for the employees and their families, and tax collection for the government (The International Federation of Accountants, 2011).

In the literature, sometimes "corporate social responsibility (CRS)" is used as a synonym of "sustainability". Although these two terms are usually used interchangeably, they differ from each other in some respects (Aktaş, Kayalidere, & Karğin, 2013).

> Sustainability is more of an over-arching concept which seeks to promote continuous long term growth in all the various forms of capital available to us—financial, natural and social. By contrast many see CSR as a more limited concept, focused on shorter-term issues and activities such as legal compliance, philanthropy and improvement in workforce conditions. In general it might be said all organizations aspire to being responsible but few would claim to be truly sustainable[5] (IFAC, 2006).

The notion of "sustainability" and the concept of producing goods and services without harming the environment and drawing attention to the issue worldwide has led "sustainability reporting" to become a current issue for the organizations and encouraged them to implement it. In addition making a profit, companies have a responsibility to protect the environment and should act in the public interest. Sustainability reporting refers to a way that indicates environmental, social and economic performance, plans, programs and preferences of the firms (Willis, Campagnoni, & Gee, 2015). Sustainable development report is also defined by the WBCSD 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 toward sustainable development[6] (World Business Council for Sustainable Development, 2002).

Moreover, Global Reporting Initiative identifies sustainability reporting as

[5] IFAC, 2006, page 1
[6] World Business Council for Sustainable Development, 2002, page 7

> a process that assists organizations in setting goals, measuring performance and managing change towards a sustainable global economy – one that combines long term profitability with social responsibility and environmental care. Sustainability reporting – mainly through but not limited to a sustainability report – is the key platform for communicating the organization's economic, environmental, social and governance performance, reflecting positive and negative impacts[7] (Global Reporting Initiative, 2015).

2.2.2. The Rising Interest in Sustainability Reporting in the Corporate World

Although stakeholders in business paid attention to only financial information in mandatory annual reports in the past, social and environmental performance of the firms have become significant for them as well due to the reasons mentioned above; hence, the number of firms disclosing sustainability performance has increased and nowadays the terms "sustainability" and "sustainability reporting" have become noteworthy for the users and also businesses. According to one of the current surveys by UN Global Compact and Accenture, 93% of more than 1000 CEOs state that sustainability is "important" or "very important" factor to reach success in the future (United Nations Global Compact, 2013; Gomes, Eugenio, & Branco, 2015). Moreover, to be able to analyze the evolution of the corporate sustainability reporting worldwide, a lot of researches have been done. In this regard, companies listed on the Fortune Global 250 and Fortune Global 500 have been analyzed, and it was reported that 39% of the firms in G250 list have issued sustainability reports in 1999, 52% in 2002, 69% in 2005, 79% in 2008 and 93% in 2010 (Kolk, 2008; Kolk, 2010; KPMG, 2008; Junior, Best, & Cotter, 2013). Besides, 47% of the firms in G500 list have issued sustainability reports in 2000 and it increased to 85% according to a study in 2010 (Rikhardsson, Andersen, Jacob, & Bang, 2002; Junior, Best, & Cotter, 2013). KPMG has also published report regarding the global evolution of the sustainability reports biannually and its last report "The KPMG Survey of Corporate Responsibility Reporting 2015" states that 73% of the largest 100 companies (N100) have issued corporate responsibility reports, a slight increase compared to 2013 (71%). Among

[7] GRI, 2015, page 85

G250 companies 92% of them have issued their CR reports (in 2013 it was 93%) (KPMG, 2015). 53 % of the S&P 500 companies submit sustainability reports (Ernst & Young & The Boston College Center for Corporate Citizenship, 2013).

2.2.3. The Benefits of the Sustainability Reporting

One of the reasons for the increase in the number of the preferences on sustainability reporting is the benefits provided to both its reporters and stakeholders. The benefits provided by sustainability reporting are listed as follows:

- Sustainable businesses reduce their production and operations costs, which provides “financial savings” to the company:

Through sustainability reports, companies determine their short and long-term goals by getting the opportunity to measure performance related to resource usage, produce solutions and new technologies to minimize damage to the environment and reduce their water and energy. All these practices that will make the company's operations more effective, efficient and sustainable reduce costs. As a result, they create a win-win situation by providing value for company itself and to all stakeholders.

- According to the study done by Eccles et al., 180 companies are examined and the companies that give higher importance to the issue of "sustainability", measure their sustainability performance permanently and issue voluntary reports have been defined as "very sustainable". The companies that do not possess almost any of these features have been called as "less sustainable". The study shows that "very sustainable" companies have better performance on their share value and the balance sheet in the long term (Eccles, Ioannou, & Serafeim, 2012).
- Sustainability reporting enables bringing a new perspective to the company's risk management and identifies the risk that was not reported previously and provides the link with the financial and non-financial risks. Sustainable businesses promise long-term benefits for all stakeholders and also provide confidence in relations by reducing risk and uncertainty (Aras, 2015).

- To be able to obtain operation and production efficiency, the company becomes open to the new ideas and innovation.
- Sustainability activities of the company facilitate entrance to the new markets because of growing interest in the topic of "sustainability".
- According to the recent studies by Albu et al. and Dwaliwal et al., companies with high cost of capital tend to observe reduction in their cost of capital after they initiate disclosure of their social responsibility activities voluntarily. Therefore, it can be stated that there is a relationship between the cost of capital and companies' disclosure of voluntary non-financial reporting.
- It also gives the firm an opportunity to get lower cost financing with appropriate maturity and interest rates, which reduces the “management risk”.
- The firm giving importance to the sustainability issues affects its suppliers, wants them to conform sustainability principles as well and controls them constantly.

Gradually increasing number of large companies have expanded their sustainability strategies to cover their supply chain. In this case, small and medium-sized companies (SMEs) working as suppliers are forced to fulfill the criteria desired by the main company to be able to continue doing business and gain a competitive advantage over their rivals.

- In terms of employees, making useful contribution to the society and environment help the employees to feel valued, build trust, regards them as more valuable people by their families and friends and ultimately, this reinforces the work commitment of the employees and improves their productivity. Development of workforce and employee training increases the social quality.

According to the survey conducted by PwC in 2014, the new generation wants to work for a company having a purpose and contributing to the world and is willing to be proud of his/her firm (PricewaterhouseCoopers, 2014). Moreover, according to the survey of "Global Corporate Social Responsibility" made by Nielson, 67% of the respondents stated that they prefer to work in socially responsible companies (Nielson, 2014). Sustainable performance of the company has become one of the

priorities for the job preference of especially employees under the age of 30. Employee satisfaction and loyalty increases in the type of companies explaining their purpose and giving value to their employees and encouraging them to participate in a social responsibility program. Therefore, sustainability report is an important tool that attracts the attention of young talented people by disclosing the objectives and activities of the company.

- The organization communicates its performance to its stakeholders via sustainability reports, which strengthen intercompany and market relations, provide "corporate communication", lead to a positive change in stakeholders' perceptions about the firm and increase investors' willingness of making investments.

According to research carried out by Cheng et al., companies with better sustainability performance do not have so much difficulty in finding finance compared to others. The reasons of this situation are restriction of short-term opportunistic view with better sustainability performance, the ensurance of stakeholder communication in a more advanced level and the reduction of information asymmetry between the company and investors through more information flows (Cheng, Ioannaou, & Serafeim, 2014).

- Sustainability reporting increases company reputation, helps to build the brand:

The conscious consumers that question the sustainability of the product in addition to the price, quality or functionality of it have been increasing day by day according to the findings of Global Survey of Corporate Social Responsibility made by Nielson. These consumers are forcing companies to be more transparent about where their products come from and under which conditions they are produced. When today more than half of the consumers agreeing to pay extra for sustainable products is considered, the reputation of companies that share information with their customers regarding how to obtain their products and services and their impacts on the society has been observed to increase (Nielson, 2014).

- It increases the investor confidence:

According to research done by Global Sustainable Investment Alliance (GSMA) in 2012, the investors that manage assets worth a total of 13.6 trillion dollars worldwide consider environmental, social and governance issues as well when making choices and managing their investments. This figure is equivalent to 21.8 % of all global investment. 65% of the sustainability investments in the world are made in EU and about 12 % of the portfolios of all investment firms in the United States is divided into sustainable and responsible investments (Global Sustainable Investment Alliance, 2012; PricewaterhouseCoopers, 2012). CDP, which encourages thousands of companies and city governments with the world's largest economy to measure their environmental information and disclose their data, shared its gathered data with 722 institutional investors managing assets of 87 trillion dollars (CDP, 2016). In 2009, Bloomberg has begun to release economic, social and administrative information of hundreds of public companies.

- The benefits of "continual growth", lowering costs and more efficient production, more effective risk management, talent acquisition and easier access to finance give the firm a competitive advantage and this enables a high profit margin and ultimately gaining more customers.

(Yaz, 2015; Albu N., Albu, G., & Sandu, 2011; Willis, Campagnoni, & Gee, 2015; Dhaliwal, Li, Tsang, & Yang, 2011; Aras & Sarıoğlu, 2015).

2.2.4. Sustainability Reporting Standards and Guidelines#

In the early periods of sustainability related reports, from beginning to mid-1990s, sustainability issues were stated in the narrative format and as a part of the annual reports of the firms. Those reports did not contain a great deal of valuable information and there was not an opportunity to compare them with each other. To provide integrity and credibility, to enhance the content of the reports, to guide companies, and to assess the comparability of the issued reports, many organizations at national, international and regional levels have issued their own studies. Due to being voluntary and lack of accepted and compulsory regulations, the numbers of

their initiatives and thereby the publications have been increasing (Tinjala, Pantea, & Buglea, 2015).

2.2.4.1. Global Reporting Initiative

The most widely recognized and used one is the **Global Reporting Initiative-GRI's guideline**. In the first few years after GRI framework was first published, only a few companies used it; however, nowadays it is the most widely used guideline for the organizations. The number of companies adopting the GRI guideline has been increasing each year. Today, 78 of the world's largest 100 companies (N100) that issue sustainability reports giving reference to GRI principles, while this number reaches 95 for the largest 250 companies worldwide (KPMG, 2015). Approximately 63% of the S&P 500 firms published their sustainability reports in accordance with GRI guidelines (Ernst & Young & The Boston College Center for Corporate Citizenship, 2013). In total; in 2013, 3300 organizations worldwide issued thier reports according to the GRI guidelines and that number was 2666 compared to the year of 2011 (Willis, Campagnoni, & Gee, 2015; Global Reporting Initiative, 2015).

GRI was established by company representatives and non-governmental organizations (NGOs) in Boston, USA in the year 1997 and is an independent and a non-profit organization which helps all type of institutions to understand, measure and communicate some possible effects and performances of the sustainability issues, namely climate change, human rights and corruption. Its vision is "to create a future where sustainability is integral to every organization's decision making process."[8] Its mission is "to empower decision makers everywhere, through our sustainability standards and multi-stakeholder network, to take action towards a more sustainable economy and world" [9] (Global Reporting Initiative)

[8] GRI Web Site as at 15 February 2016

[9] GRI Web Site as at 15 February 2016

GRI has improved its guidelines periodically since the first publication. The first version of the guidelines, G1, was released in 2000, which was the first global comprehensive framework about sustainability reporting. The second one, G2, was issued in 2002 and in 2006 GRI's third generation of Guidelines, G3, was launched and updated as G3.1 Guidelines in 2011. The latest version of the fourth generation of sustainability reporting guideline, G4, was issued in May 2013. G4 focuses on the topics that are material for the organization itself and its stakeholders and thus it is a more user-friendly, relevant and credible version than previous ones. It is appropriate for any type of organizations in different sizes or sectors. Similar to G3 and G3.1, G4 guidelines consists of two parts: The first one is the *reporting principles* and *standard disclosures* which includes principles, standards and the criteria used to meet the guidelines, and the second one is implementation manual designed for the application and interpretation of the first part (Global Reporting Initiative, 2013; Global Reporting Initiative, 2015). The reporting principles guide organizations throughout the reporting phase to direct them, build the content of the reporting and to check the quality of the given information, which is indicated below:

Table 2: GRI Reporting Principles [10]

GRI Reporting Principles	
Content	Stakeholder inclusiveness
	Sustainability context
	Materiality
	Completeness
Quality	Balance
	Comparability
	Accuracy
	Timeliness
	Clarity
	Reliability

Standard disclosures assist organizations in explaining their performance and effects on material issues concerned with economic, environmental, social, and strategy and

[10]GRI, 2015, "G4 Sustainability Reporting Guidelines", page 16-18

governance topics. Standard disclosures are divided into two parts: The first one is the "General Standard Disclosures", which cover the mandatory disclosure requirements. The required standards disclosures are comprised of 7 categories, namely;

- Strategy and Analysis,
- Organizational Profile,
- Identified Material Aspects and Boundaries,
- Stakeholder Engagement,
- Report Profile,
- Governance,
- Ethics and Integrity

The second group of required standard disclosures are "Specific Standard Disclosures", which contain material aspects for the organization and is divided into three categories, namely;

- Economic,
- Environmental and
- Social

The Social Category is comprised of four sub-categories and these are listed as

- Labor Practices and Decent Work,
- Human Rights,
- Society and Product Responsibility

Moreover, compared to the earlier version of the GRI, in the updated one, G4, there is an increase in the number of the disclosure standards and a change in the *level of disclosure*. In the early generations, the companies could report according to one of the three **application levels A, B and C** including different requirements. Briefly stated, application level C has smallest number of GRI disclosure items that shall be presented in the report and Level A has the largest. Application level C is for entry-level reporting organizations, while level B is for intermediate and level A is for the advanced organizations. Further information about each one of the level requirements are presented in Appendix B.

Additionally, the ratings have changed with the G4 Guidelines. Instead of three application levels, the organization can choose one of the two "in accordance" options namely **"core"** or **"comprehensive"** criteria. The "core" option requires firms to explain the essential elements of the sustainability reports and informs users about the organization's performance and its impact on the ESG issues. As the name implies "comprehensive" criteria option has additional disclosure requirements regarding company's strategy and analysis, governance and ethics. The organizations can choose one of these two alternatives according to their reporting needs and wants of their stakeholders, and the selection does not express the firm's performance or the quality of the report.

2.2.4.2. Other Important Sustainability Reporting Frameworks or Standards

In addition to the GRI, there are other several global and national initiatives that develop and issue frameworks or standards regarding sustainability reporting for businesses. Some of them approach sustainability comprehensively, while some of them focus on the specific sectors or issues such as GHG emissions, climate change (UNEP & GRI & KPMG & The Centre for Corporate Governance in Africa, 2013).

United Nations Global Compact:

One of the international frameworks is the UNGC-United Nations Global Compact principles. The GRI's guideline and UNGC's 10 Principles are the most widely used frameworks for sustainability according to the report of the *Centre for Strategy and Evaluation Services*. Although the framework submitted by GRI is used for the large companies due to its comprehensive content, UNGC's framework is generally used by both large firms and SMEs (Tinjala, Pantea, & Buglea, 2015). By means of the tools and 10 principles related to the areas of human rights, labor, environment and anti-corruption, UNGC guides participants' operations and strategies in terms of sustainability. The participants of UNGC are required to share their operations

related to these 10 principles with the public annually via the report of *"Communication on Progress (COP)"* (Ernst & Young & The Boston College Center for Corporate Citizenship, 2013; Aras & Sarıoğlu, 2015).

In addition to these international frameworks, a number of sustainability standards that provide harmonization with the abovementioned frameworks have been developed recently. The prominent ones are;

1. AccountAbility's AA1000 Series,
2. ISO 26000,
3. OECD Guidelines for Multinational Organizations,
4. CDP-Carbon Disclosure Project and
5. Greenhouse Gas Protocol (GHG Protocol) Corporate Standard.

AA1000 Series: Firstly, AccountAbility's AA1000 Series is one of the most known principle-based standards to assist firms in the issues of sustainability by providing a framework and making them more accountable and sustainable. AA1000 series consists of three standards:

- AA1000APS- The AA1000 AccountAbility Principles Standard is a framework that helps organizations to determine and solve their sustainability challenges.
- AA1000AS- The AA1000 Assurance Standard helps users to evaluate the firms' publications in terms of adherence to the AccountAbility Principles by providing a methodology.
- AA1000SES- The AA1000 Stakeholder Engagement Standard is a framework that helps organizations in the stakeholder engagement issues (AccountAbility, 2015).

ISO 26000: The second one is the ISO 26000, which is the latest version and was issued in 2010 by the *International Organization for Standardization* to guide companies regarding the social responsibility and help them to take actions in a

socially responsible way (Tinjala, Pantea, & Buglea, 2015). It contains information on seven areas, namely;

a. organizational governance,
b. human rights,
c. labor practices,
d. the environment,
e. fair operating practices,
f. consumer issues,
g. community involvement and development

This standard can be applied to any organizations regardless of size and sector (UNEP & GRI & KPMG & The Centre for Corporate Governance in Africa, 2013).

OECD Guidelines for Multinational Enterprises: The third one is the OECD Guidelines for Multinational Organizations which is a tool for the multinational enterprises to develop their practices in a sustainable and socially responsible way by submitting principles and standards in the areas of;

a. employment and industrial relations,
b. human rights, environment,
c. information disclosure,
d. combating bribery,
e. consumer interests,
f. science and technology,
g. competition, and
h. taxation

OECD Guidelines was first published in 1976 and until the last update in 2011 it was reviewed five times. Today, all 34 OECD countries including Turkey and 12 non-OECD countries have been following this guideline (The Organization for Economic Co-operation and Development (OECD) , 2015).

Carbon Disclosure Project (CDP): Another guideline is the Carbon Disclosure Project's tool and framework which assist organizations in the preparation of the

reports to disclose their impacts on environment by providing an online questionnaire. Thus, CDP encourages companies to measure and issue their GHG emissions, risk, opportunity, performance and strategies related to climate change and collects this information in its database. 4200 world's largest companies disclosed their data and sent them to CDP in 2012. With its framework, it also provides the integration between the company's financial report and the information about climate change (Ernst & Young and The Boston College Center for Corporate Citizenship, 2013; UNEP & GRI & KPMG & The Centre for Corporate Governance in Africa, 2013).

Greenhouse Gas Protocol (GHG Protocol) Corporate Standard: The Greenhouse Gas Protocol's standard which is prepared by *World Resources Institute* (WRI) and the *World Business Council for Sustainable Development* (WBCSD). It provides a tool and framework for both companies and governments to measure, manage and reduce their GHG emissions (Greenhouse Gas Protocol, 2016).

Apart from the international frameworks and standards mentioned above, there are many national compulsory standards developed by the countries themselves as follows: in South Africa, the King III standard was issued in 2009 and compliance with it is mandatory for the firms listed on the Johannesburg Stock Exchange. In France, the Grenelle II Act was released in 2012; in Denmark, Norway and the Netherlands, there have been governance requirements concerning environmental reporting since 1996.

2.2.5. Legislative Regulations Related to Sustainability Reporting in the World

Although sustainability reporting is generally voluntary type of reporting, in some countries it is mandatory. Over time the number of countries that bring mandatory or voluntary regulations for sustainability reporting has increased. With the impact of the global crisis in 2008, especially in developing countries, financial regulations

have been tightened further. Therefore, some countries encourage voluntary reporting for sustainability, while some countries required the companies to disclose a certain amount of information by going a step of further. In many countries, publication of sustainability data has become compulsory for the firms listed on the stock exchange in addition to their obligation to disclose financial data. The trend and distribution of the mandatory and voluntary sustainability reports in the countries are presented below:

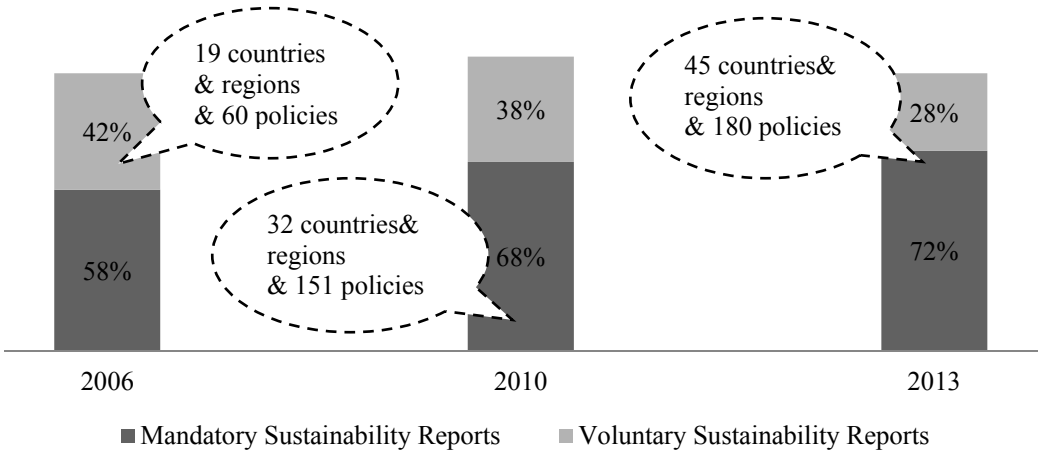


Figure 1: Distribution of the Mandatory and Voluntary Sustainability Reporting in the Countries [11]

It can be inferred from the graph that there has been a significant increase in the number of mandatory sustainability reporting in the 7 years period from 2006 to 2013. Although in 2006, 58% of 60 policies in 19 countries were mandatory; in 2013 72% of the 180 policies in the 45 countries were mandatory (UNEP & GRI & KPMG & The Centre for Corporate Governance in Africa, 2013).

With a new Directive of the European Parliament, large public interest entities with 500 or more employees and a balance sheet of 200M or more Euro, or a net turnover

[11] UNEP & GRI & KPMG & The Centre for Corporate Governance in Africa, 2013, "Carrots and Sticks, Sustainability reporting policies worldwide-today's best practice, tomorrow's trends ", page 9

of 40 M or more Euro of EU member countries must have had to issue sustainability related reports since December 2014 (Willis, Campagnoni, & Gee, 2015).

In the USA some entities such as U.S. Securities and Exchange Commission (SEC), U.S. Congress, the Environmental Protection Agency (EPA) and the Forum for Sustainable and Responsible Investment (US SIF) require some form of sustainability-related disclosures (James, 2014). In England, according to the Companies Act in 2006, companies listed on stock exchange are required to report their non-financial information.

In Germany, German Accounting Standards (GAS 15, key performance indicators (KPIs) involves explanations related to risks and opportunities, and corporate governance.

In addition to the mandatory or voluntary approach of the publication of sustainability reporting mentioned above, another approach *"report or explain"* has been adopted. This approach is a hybrid version and a mix of mandatory and voluntary information requests for sustainability, and it forces companies to either disclose their sustainability performance or explain why if they do not. It attracts interest since, by identifying the minimum criteria, it provides a fairer competitive environment and does not bring new bureaucratic burdens for companies. Denmark can be given as an example of the country adopting the approach. Denmark's Financial Statements Act was revised and the disclosures related to CSR has become mandatory for large companies. After 3 years of presence in the mandatory notification, the number of large companies publishing sustainability reports in Denmark has increased from 50 % to 95 % (UNEP & GRI & KPMG & The Centre for Corporate Governance in Africa, 2013). Moreover, in Brazil the companies listed on the Sao Paulo Stock Exchange report their non-financial key performance indicators in line with the principle "report or explain"

2.2.6. The Assurance of Sustainability Reporting

With a steady increase in the number of the publication of sustainability reports, the concept of "sustainability reporting assurance (SRA)" have emerged in recent years. Today, not only preparing of reports according to the GRI guideline is important, but also getting verification services for these reports provided by independent authorities has become another important concern for especially external stakeholders because of some reasons.

Due to the fact that managers are in tendency to put forward the good parts of their companies and sustainability reports are generally issued voluntarily, disclosures in voluntary reports can be seen less reliable than disclosures in the mandatory reports like annual financial reports (Gomes, Eugenio, & Branco, 2015; Neu, Warsame, & Pedwell, 1998). Therefore, providing assurance on the reliability and conformity of reports to the GRI guideline by independent accounting and other firms is the first reason for the interest of external assurance of sustainability reports.

Other reasons for the trend toward SRA is to improve credibility of the content of the report and provide reliability according to the current literature (Gomes, Eugenio, & Branco, 2015; Ackers, 2009; Adams & Evans, 2004; Beets & Souther, 1999; Cohen & Simnett, 2015; Deegan, Cooper, & Shelly, 2006; Kolk & Perego, 2010; O'Dwyer & Owen, 2005; O'Dwyer & Owen, 2007; Perego & Kolk, 2012; Simnett, Vanstraelen, & Chua, 2009; Hodge, Subramaniam, & Stewart, 2009; Pflugrath, Roebuck, & Simnett, 2011). In addition, research done by Moroney and Aw has shown that external independent assurance enhances the quality of the sustainability reports (Moroney & Aw, 2012). Moreover, the external independent assurance makes reports more persuasive, reliable, credible and comparable and makes companies more recognized and trustable. Therefore, although the assurance of the sustainability reporting is not compulsory except for France and South Africa, many investors find it important and pay attention whether the report is audited or not.

Due to the benefits mentioned above and increased awareness, SRA is an area of interest and both firms and external stakeholders' demand of getting external assurance services has increased. GRI has recommended the GRI Guidelines users to get assurance for their sustainability reports from external assurance providers in recent years as well. In this context, according to the survey of Corporate Responsibility Reporting made by KPMG in 2013, 82% of the top 250 global firms and 78% of the top 100 companies invested in the subject of external assurance and used the SRA guideline issued by GRI (Ernst & Young & The Boston College Center for Corporate Citizenship, 2013; Tinjala, Pantea, & Buglea, 2015; Gomes, Eugenio, & Branco, 2015). Besides, according to the GRI's report, in 2012 over 46% of the reports in the GRI sustainability disclosure database contained external assurance statement.

2.2.6.1. The Verification Process of Sustainability Reporting Assurance

To be able to get SRA, the external assurance service providers should be selected at first and there are three types of firms providing this service:

- Accountancy firms: They are global based, have their own assurance systems, tools and procedures. They offer services for both financial and non-financial reporting of businesses,
- Engineering firms: They have expertise in engineering, offer technical certifications, and make risk-based analysis by using multi-disciplinary approach,
- Sustainability services firms: They are local based, relatively small compared to others and have expertise in the sustainability issues.

According to the GRI's report, in 2012 over 64% of the reports were assured by accountancy firms, 23% sustainability by services firms and 13% by engineering firms.

Second, after the completion of assurance engagement provided by these external assurance providers, the outcome of the obtained information called “assurance reports” shall be prepared and these reports should contain the parts of introduction, scope, level of assurance, criteria / methodology / standard used in the preparation, conclusion and recommendation.

In the level of assurance part, the degree of confidence, extent and depth of the reports shall be disclosed. There are two types of assurance levels, namely "reasonable assurance (high but not absolute)" and ‘limited assurance (moderate)". The "reasonable assurance" means that disclosures made by company are not materially misstated and have high level of confidence while ‘limited assurance" means that disclosures made by company have lower level of confidence and contain higher risk of being materially misstated. In addition, the report can be fully or partially assured or some of its parts might be reasonably assured and the some of them might be limited assured.

In the assurance standard part, the assurance standards or frameworks used in the verification process shall be disclosed. The external assurance providers can use national or international standards and frameworks. There are two most known and referred international standards, namely the International Standard on Assurance Engagement (ISAE 3000) and AccountAbility 1000 Assurance Standard (AA1000AS).

ISAE 3000 is a standard for assurance engagements and was submitted by the International Auditing and Assurance Standards Board (IAASB) of the International Federation of Accountants (IFAC) in 2003. The latter one is the *AA1000 Assurance Standard* developed by AccountAbility. It is commonly preferred by the assurers apart from the professional accountants (GRI-Global Reporting Initiative, 2013; Gomes, Eugenio, & Branco, 2015; Simnett, 2012; De Beelde & Tuybens, 2015; Manetti & Becatti, 2009; Marx & Van Dyk, 2011; Perego & Kolk, 2012).

According to the many studies, said standards are all complementary not a substitutes and can be used together. ISAE 3000 emphasizes the procedures of the SRA and AA1000AS focuses on the quality of it (Gomes, Eugenio, & Branco, 2015; Perego & Kolk, 2012; Ackers, 2009; Manetti & Becatti, 2009; Marx & Van Dyk, 2011).

2.2.7. Sustainability Reporting in Turkey

In Turkey, companies listed on the İstanbul Stock Exchange (BIST) have been required to prepare their financial statements according to the principles of International Financial Reporting Standards (IFRS) since 2005. At the same time, as of 2005 the firms have had to add a Corporate Governance (CG) Compliance Report to their annual reports. These are current mandatory practices for businesses in Turkey.

On the other hand, sustainability reporting is voluntary type of reporting and due to being new concept, its history does not exceed five years in Turkey. However, with increased demand for sustainability reporting in global market, the use of it has become widespread among especially large companies in Turkey in recent years. For instance, there has been a growing increase in the number of GRI reports since 2008, which is indicated in Figure 2 below (Sabancı Univesity & Corporate Governance Forum of Turkey, 2014):

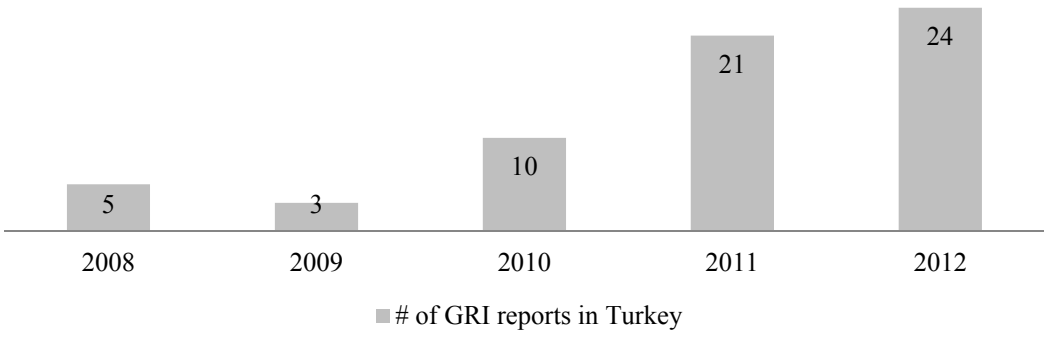


Figure 2: Evolution of the GRI Reports in Turkey[12]

[12] Data from the Sustainability Disclosure Database as at 13 January 2014.

As seen in Figure 2, the year 2010 is an important year for Turkey in terms of the number of sustainability reports and 10 firms submitted GRI reports. The details of these companies are presented in Table 3 below (International Finance Corporation, 2011).

Table 3: Details of the GRI Reporting in Turkey[13]

2010		
Akbank	C	GRI-checked
Anadolu Efes Brewery and Mult Industry	C	GRI-checked
Arçelik	C	GRI-checked
Coca-Cola Icecek Turkey	B	GRI-checked
Dogus Otomotiv Servis ve Tic A.Ş.	C	GRI-checked
Milteks	C	Self-declared
SLN Tekstil ve Moda San. Tic. Ltd. Sti	C	GRI-checked
TSKB- Türkiye Sınai Kalkınma Bankası	C	GRI-checked
Tubas Textile	C	Self-declared
2009		
GGEN	Undeclared	-
Tubas Textile	C	GRI-checked
2008		
Aksa	Undeclared	-
Coca-Cola Icecek Turkey	C	GRI-checked
2007		
Aksa	Content Index	-
2006		
Aksa	Content Index	-
2005		
Erdemir	Content Index	-

According to the study of "Sustainability Reporting Between 2004-2014 in Turkey" ,which is the first and only research regarding the historical development of sustainability reporting in Turkey, 21 firms submitted their sustainability related reports for the first time and in total 39 reports were published in 2013. In this study, data is collected by using companies' website, their annual reports and database of

[13] ILLAC, 2011, "Sustainability Investment in Turkey", page 62-63

"kurumsal sürdürülebilirlik". Moreover, non GRI reports and CSR activities are accepted as sustainability reports.

According to the result of this research, there has been incremental increase in the number of sustainability reporting throughout the last ten years period. 81 of the companies in Turkey issued 198 sustainability reports in total between the years of 2004 and 2014. The detail of the development of sustainability reporting in Turkey since 2004 is shown in Figure 3 below.

When examining the profile of firms in research, the findings are summarized as follows: 77 of them (~95%) are private companies, 70 of them (~86%) are corporations, 64 of them (~79%) are located in İstanbul, and 39 of them (~ 42%) are publicly traded firms. Considering as of December 31, 2014 the total number of publicly traded companies in Turkey are 425 and 34 of them have declared sustainability reports so far, it is stated that only 8% of them make sustainability related disclosures (Yaz, 2015).

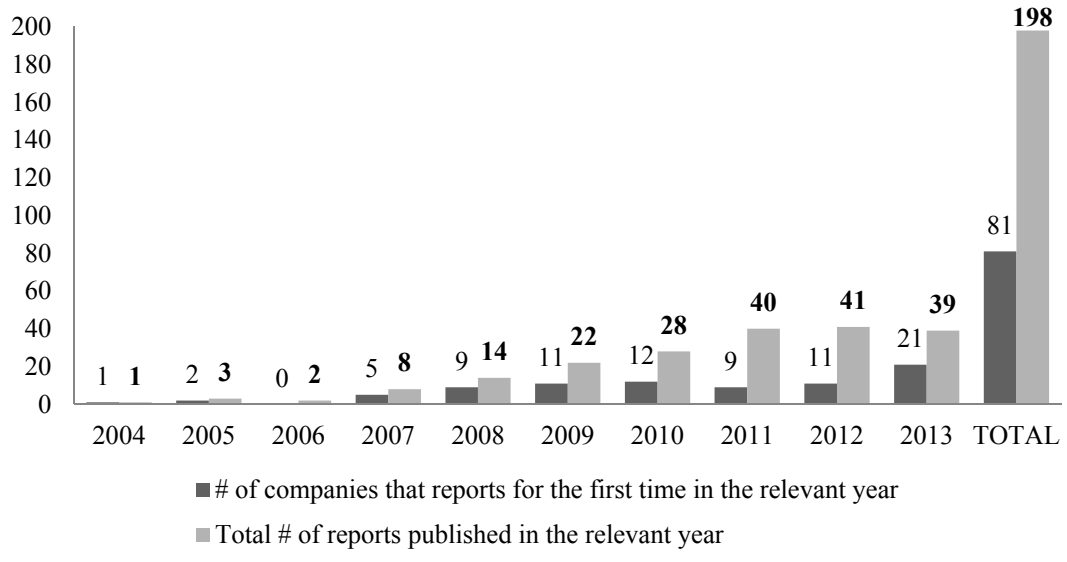


Figure 3: Evolution of the Sustainability Reports in Turkey throughout the Last Ten Years[14]

[14] Yaz, 2015, "Sustainability Reporting Between 2004-2014 in Turkey", page 20

To encourage organizations to issue sustainability reports and to increase the numbers of organizations issuing sustainability reports, some constructions, platforms and sustainability indexes have been formed in the world, as well as in Turkey.

One tool is the stock exchanges that play an important role in promoting organizations to publish their sustainability reports through *sustainability index*. Sustainability indexes have been formed under stock exchanges all over the globe. They give benchmarking opportunity regarding sustainability issues, raise awareness of the companies about sustainability risks, and help to improve firms' sustainability practices and performances on sustainability issues. The first example of sustainability index in the world is the Dow Jones Sustainability Index (DJSI) that launched in 1999 and in 2001 the FTSE4Good Index was formed. After these two pioneers, many sustainability indexes were introduced, which are listed in Table 4 below (Sabancı Univesity & Corporate Governance Forum of Turkey, 2014):

Table 4: Sustainability Indices in Developing Markets [15]

Exchange	**Index**	**Launch**
Johannesburg Stock Exchange	Socially Responsible Investment Index	2004
Sao Paulo Stock Exchange (BM&FBOVESPA)	Corporate Sustainability Index	2005
National Stock Exchange of India	S&P ESG India Index	2008
Korea Exchange	KRX SRI Index	2009
Indonesia Stock Exchange	SRI-KEHATI Index	2009
Hong Kong Stock Exchange	Hang Seng Corporate Sustainability Index	2010
Egyptian Exchange	S&P/EGX ESG Index	2010
Bolsa Mexicana de Valores (BMV)	BMV Sustainability Index	2011

In Turkey, BIST Sustainability Index has been launched by the cooperation with Borsa İstanbul and Ethical Investment Research Services Limited (EIRIS) in 2013 to

[15] Sabancı Univesity & Corporate Governance Forum of Turkey, 2014, "Promoting Sustainable Development: The Way Forward for a Sustainable Index in Turkey", page 14

provide a benchmark in local and global market for the companies listed on Borsa İstanbul with high corporate sustainability performance.

BIST Sustainability Index offers many advantages for both businesses and investors. In terms of businesses, it aims to raise awareness, improves practice and corporate transparency, helps companies to manage their risks and opportunities associated with the sustainability issues, evaluates and develops their own performance, sets targets and thus provides competitive advantage for the organizations. At the same time, being included in the sustainability index is a source of prestige for the firms. In terms of the investors, it is used as a platform which gives an opportunity to determine and invest in the companies with better sustainability performance.

To form this index, Borsa İstanbul has worked with the EIRIS which is established in London as an independent research company. EIRIS has given services for asset owners and managers and index providers in the field of ESG for more than 30 years. Apart from İstanbul Stock Exchange, it provides services for the Johannesburg and Mexico Stock Exchanges. BIST 30 index companies and selection of methodology are determined by this partner EIRIS according to the criteria regarding environment, biodiversity, climate change, human rights, Board Practice, Countering Bribery and Health & Safety issues in the period for November-October a year. To be able to be chosen and take place in the index, firms ought to exceed limit of each criteria determined by EIRIS and outperform others. With the participation of 30 companies, BIST Sustainability Index was published for the first time on 4 November 2014. For the period between November 2015 and October 2016, the companies indicated Table 5 below was selected as successful ones in the field of sustainability in Turkey (Borsa İstanbul, 2015):

Table 5: Successful Companies in BIST Sustainability Index for the Period between November 2015 and October 2016 [16]

1	AKBNK	AKBANK	**16**	PETKM	PETKİM
2	AKSEN	AKSA ENERJİ	**17**	SAHOL	SABANCI HOLDİNG
3	AEFES	ANADOLU EFES	**18**	SAFGY	SAF GMYO
4	ARCLK	ARÇELİK	**19**	TSKB	T.S.K.B.
5	ASELS	ASELSAN	**20**	TAVHL	TAV HAVALİMANLARI
6	BRISA	BRİSA	**21**	TOASO	TOFAŞ OTO. FAB.
7	CCOLA	COCA COLA İÇECEK	**22**	TCELL	TURKCELL
8	DOAS	DOĞUŞ OTOMOTİV	**23**	TUPRS	TÜPRAŞ
9	EREGL	EREĞLİ DEMİR CELİK	**24**	THYAO	TÜRK HAVA YOLLARI
10	FROTO	FORD OTOSAN	**25**	TTKOM	TÜRK TELEKOM
11	GARAN	GARANTİ BANKASI	**26**	ULKER	ÜLKER BİSKÜVİ
12	ISCTR	İŞ BANKASI (C)	**27**	VAKBN	VAKIFLAR BANKASI
13	KCHOL	KOÇ HOLDİNG	**28**	VESTL	VESTEL
14	MGROS	MİGROS TİCARET	**29**	YKBNK	YAPI VE KREDİ BANK

Moreover, in 2009 UN established a multi-stakeholder platform called “Sustainable Stock Exchanges Initiative (SSE)” with the cooperation of UNCTAD, UN Global Compact, United Nations Environment Programme Finance Initiative (UNEP-FI) and the United Nations supported Principles for Responsible Investment (PRI). In this platform investors, regulators and businesses share their best practices related to sustainability and learn from each other. Contact people of a large number of stock exchanges in Europe, America, Asia and Africa and Borsa İstanbul, is a founding member of this platform, come together in the “Global Dialogue” every two years to discuss the risks and opportunities they face and share their experiences in various fields especially necessary arrangements during the practice of companies’ sustainability strategies.

Another action regarding sustainability in Turkey is the formation of a platform called "Kurumsalsurdurulebilirlik.com" by the agreement between Kıymet-i Harbiye Yönetim Danışmanlık and Global Reporting Initiative (GRI) to gather and share sustainability performance and reports of the companies via GRI Sustainability

[16] Data from the BIST Sustainability Index Web Site as at 20 February 2016.

Disclosure Database. According to this database, until now 77 organizations have been affiliated with the platform, 204 reports have been submitted and 148 of them issued in compliance with GRI guideline (Kurumsal Sürdürülebilirlik, 2015).

2.3. Integrated Reporting

2.3.1. Towards Integrated Reporting

Due to the fact that corporate financial reports become insufficient to show all the performance and risks, the number of companies engaged in sustainability reporting have increased day by day. However, the relationship between sustainability performance of the company and its financial performance and the effect of sustainability performance on financial results are mostly unexplained in sustainability reports. Therefore, not connecting a link of data in the sustainability reports with the company's business model, strategy and financial assets makes the understanding of how sustainability performance provides a contribution to the company's value creation process difficult for investors (Eccles & Serafeim, 2014; Aras & Sarıoğlu, 2015).

According to the survey conducted in 18 countries by ACCA in 2013, 89% of the investors state that sustainability data is very important for investment decisions. In research other issues that the majority of investors emphasize are as follows:

- Sustainability reports are not comparable to those issued in other countries.
- Sustainability reports are insufficient to highlight the important points for investors.
- Sustainability reports are not successful enough to establish a connection with the company's strategy and risks.
- Integration of the financial information with the non-financial one is required.

(The Association of Chartered Certified Accountants & The European Sustainable Investment Forum, 2013)

One of the biggest criticisms of the sustainability reporting in the eyes of investors is the disconnection of information presented in the report, being extremely detailed

and the inadequacy of the information. The link between sustainability performance and financial performance of the companies and how sustainability creates value for companies are difficult to understand for investors because of the weak-overlap between company's business model and strategy and information in the report. This disconnection between information in the report prevents investors to see the big picture and make right decisions regarding the company's current and future performance.

As a result of being insufficient of the current reports to meet the expectations of the investors and other stakeholders, integrated reporting has been emerged as a new reporting format today to explain how to create value of the company in the long term. Since the beginning of the 2000s, some companies such as Philips, Novozymes, Novo Nordisk and Natura have issued integrated reports; however the development of the literature on integrated reporting has found at the end of the 2000s (Aras & Sarıoğlu, 2015).

2.3.2. Concept of Integrated Reporting

"The world has changed, reporting must too". In 2009, the introduction of integrated reporting was made with these words by His Royal Highness the Prince of Wales in the meeting to constitute The International Integrated Reporting Council (IIRC) (Kaya & Türegün, 2014).

Rapidly changing economic social and environmental dynamics have affected the structure of the businesses. According to the discussion paper of IIRC, in 1975 83 % of the company's market value was explained with the value of company's tangible factors such as its physical, financial assets and financial statements. The remaining 17% was related to the value of intangible factors of the company such as intellectual property, human capital, reputation, know-how. On the other hand, as of 2009 intangible factors of the firm has explained 81% of the market value, which is shown in Figure 4 below (The International Integrated Reporting Committee, 2011).

This means that the value creation components have changed and because of the fact that many intangible assets are not included in the financial reports and financial reports are insufficient to reflect the value of the company, other type of reporting like integrated reporting instead of traditional financial reporting has gained importance over time.

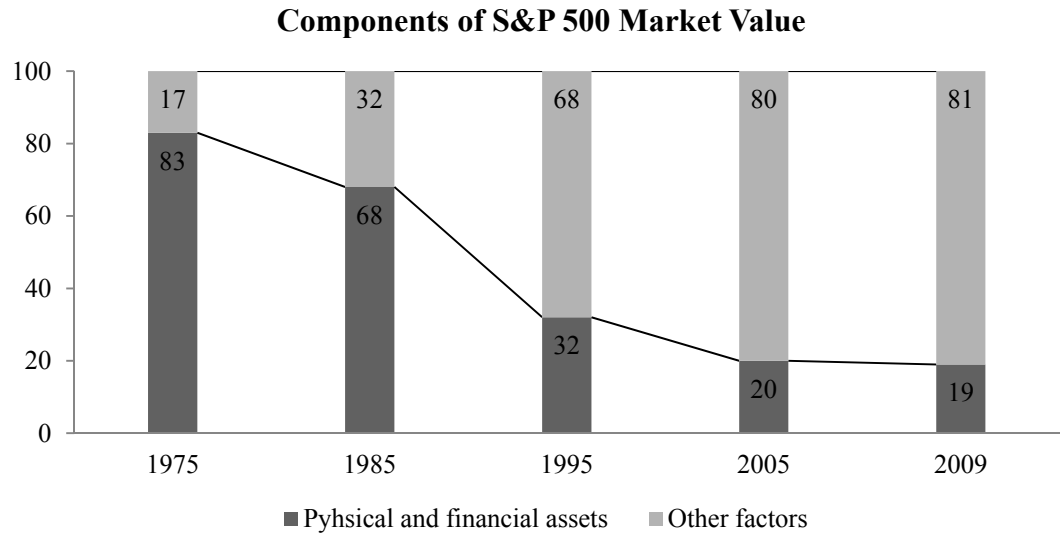


Figure 4: Change in the Factors Contributed to the Market Value from Physical and Financial to Intangible Ones as a Percentage over Time[17]

Integrated reporting, sometimes referred to as One report, is another corporate reporting format and informs stakeholders regarding key factors of the organization that create present and future value. The main aim of this reporting is to disclose how the company creates value during its existence. The definition of integrated reporting according to the IIRC is that

> "brings together material information about an organization's strategy, governance, performance and prospects in a way that reflects the commercial, social and environmental context within which it operates. It provides a clear and concise representation of how an organization demonstrates stewardship

[17] IIRC, 2012, "Towards integrated reporting, communicating value in the 21st century", page 4

and how it creates and sustains value."[18] (The International Integrated Reporting Committee, 2011).

Integrated reporting gathers most important information in existing financial and sustainability reports, establishes the connection with one another and explains how this information impacts on organization's value creation components at present and in the future. Businesses not only establish a connection with their economic, social and environmental operations via integrated reports but also have opportunity to disclose their long-term perspective. At the same time, integrated reporting analyzes important financial and non-financial opportunities, risks and performance of the companies and their supply chain as well. Thanks to integrated reporting, entities have an opportunity to achieve sustainable success in today's competitive environment by establishing more effective communication with shareholders and other stakeholders. Integrated reporting aims

- to improve the quality of information provided to users of financial reports
- to make corporate reporting more integrated and efficient
- to strengthen the elements of accountability and manageability for the capitals of the company (financial, manufactured, intellectual, human, social, natural)
- to promote value creation in short, medium and long term (The International Integrated Reporting Council, 2013; Aras & Sarıoğlu, 2015)

2.3.3. Traditional and Sustainability Reporting versus Integrated Reporting

Integrated reporting benefits from the sustainability and traditional annual reports of the company during its preparation; however it is not stated that integrate reporting is just a combination of these two ones. It not only provides financial and non-financial information to bring together in a single report, but also establishes the relationship of this information with each other and enterprise strategy and indicates how this

[18] IIRC, 2011, page 2

information makes a contribution to the value creation concepts of the company such as its strategy, governance, performance and prospects.

All information in financial and sustainability reports do not have to be found in the integrated reports; the information that plays an important role in creating short, medium and long term value should be disclosed in integrated reporting. Although sustainability reporting indicates whether the action of the organization is relevant to the sustainability concept or not and assists in determining the sustainability presidencies and key subjects, integrated reporting examines the effects of sustainability trends, risks and opportunities on the organization in the long run. It also helps firms *determine the strategic objectives, identify the material issues, promote integrated thinking* and *create value* (Global Reporting Initiative, 2015).

The notion of "integrated thinking" is defined as

> the active consideration by an organization of the relationships between its various operating and functional units and the capitals that the organization uses or affects. Integrated thinking leads to integrated decision-making and actions that consider the creation of value over the short, medium and long term [19] (The International Integrated Reporting Council, 2013).

In other words, integrated thinking is being monitored, managed and provided communication of the value creation process and how this process becomes long-term value by senior management. It aims to connect all resources of the organization (financial, manufactured, intellectual, human, social and natural capital) with one another and understand how these effects on value creation in the short, medium and long run. In this regard, organization's operational and functional units and all of capitals used in value creation should be considered. It can be inferred that the integrated report is not just a report; it is also a reflection of the approach to value creation process of the organization. Integrated thinking is a requirement of the integrated report; the report itself is a product of this thinking (Aras & Sarıoğlu, 2015).

[19] IIRC Web Site as at 12 October 2015

In a nutshell, differently from sustainability reporting, integrated reporting informs users about not only three main issues namely economic, social and governance but also all subjects that create value in the short to long run. Therefore, it is more comprehensive type of reporting (Willis, Campagnoni, & Gee, 2015). Moreover, integrated reporting should not be confused with traditional annual reporting. Although annual reports reveal the past performance of the organization in a given period; in terms of a forward-looking perspective, integrated reports reflect the value of the organization that will create in the future; risks, opportunities and strategies. The differences between traditional and integrated reporting are summarized below:

Table 6: Traditional Reporting versus Integrated Reporting[20]

Thinking:	Isolated	⟶	Integrated
Stewardship:	Financial capital	⟶	All forms of capital
Focus:	Past, financial	⟶	Past and future, connected, strategic
Timeframe:	Short term	⟶	Short, medium and long term
Trust:	Narrow disclosures	⟶	Greater transparency
Adaptive:	Rule bound	⟶	Responsive to individual circumstances
Concise:	Long and complex	⟶	Concise and material
Technology enabled:	Paper based	⟶	Technology enabled

2.3.4. The Benefits of Integrated Reporting

Integrated reporting provides a better understanding of how to create value for top management, employees and all stakeholders of the company. Thus, integrated report helps the organization and its stakeholders to make better decisions based on more accurate information. The benefits of integrated reporting for the organizations, investors and other stakeholders are summarized below:

In terms of organization:

[20] IIRC, 2011, "Discussion Paper", page 9

- Preparing integrated reports is a kind of learning and restructuring process for the organizations. The selection of important issues, calculating the impact of organizational activities, collection of data, risks, opportunities and determining strategies give organizations the ability to better identify challenges in their process and improve organizational performance.
- Financial data combined with administrative and environmental data allows the determination of corporate strategy with a more holistic approach.
- The reporting of organizational performance on different fields and also reporting them by establishing connection among those fields enable organizations to keep track of their activities easier, which increases cooperation with the board of directors and improves decision-making.
- Having a broader perspective on the organization's created value allows organization's strategy, distribution and management of resources to adopt to this value.
- Integrated reporting provides a forward, long term view rather than short-term plans.
- Thanks to integrated reporting, organizations have an opportunity to make better risk analysis by realizing not only economic risks but also sustainability risks.
- Integrated reporting enables the reduction of costs arising from the separate cost analysis of financial and non-financial information.
- It also provides organization to integrate their sustainability issues with decision making mechanism.
- By encouraging cooperation between different departments of the organization it reduces duplication.
- It promotes creativity and innovation in the organization.
- By increasing stakeholder participation in the organization, it provides a better understanding of expectations of the stakeholders.
- It strengthens communication with organization's external stakeholders and employees. Better convey of organization's created value to employees

enables much better understanding of the common objectives and increases employees' participation in the organization's process, their motivation and commitment.

- Being shared of the organizations performance with pearls and pitfalls increases the stakeholders' confidence in the company, the brand value and reputation.
- Increased transparency and higher quality reporting increase the confidence of investors in the company; facilitate the company's access to finance.
- With the cost reduction, operational efficiency, and increase in the value of the brand and innovation, companies gain a competitive advantage.

In terms of investors:

According to the study conducted by George Serafeim from Harvard Business School, companies publishing integrated reports attract longer-term investments. In this study, integrated reporting and investor relations of publicly traded companies in U.S between the years of 2002 and 2010 are examined and it is found that the number of long-term investors has increased in the companies publishing integrated reports; the number of short-term investors has decreased (Serafeim, 2014).

- Today, when investors are taking investment decisions, they want to see both financial and non-financial risks, how to manage all those risks of companies and how to create value in the short, medium and long term. Many companies publishing both financial reports and sustainability reports often have difficulty in establishing a connection of information in these two separate reports and also comparing that information with other companies. Integrated reporting reflects the companies' performance in a more holistic manner to investors by providing a framework offering all the important information needed to determine the actual value of the company's performance, which reduces the uncertainty in terms of investors.
- Integrated report enhances the quality of data used in the report and facilitates the establishment of links between data. It also includes necessary and important issues for the investors.
- It enables safe, holistic, standard and comparable data to the investors.

- Investors identify companies with deep knowledge of the significant risks and opportunities thanks to the integrated reports and can direct their resources to those companies with better management of risks and opportunities.

In terms of other stakeholders:

Today consumers are also important players influencing the decision-making of the company like investors. In recent years, one of the most important factors forcing companies to take action on the field of "sustainability" is the consumers that have boycotted companies acting insensitive to environment, human rights and society. Integrated reporting is the best way to show the value created by the company to the other stakeholders such as non-governmental organizations and consumers.

- Integrated reporting provides organizations to recognize their stakeholders better and helps to strengthen communication with them.
- It enables to show the relationship between organization and its supply chain and how to create value throughout this supply chain.
- Integrated reporting provides suppliers to establish closer ties with the organization. It increases the awareness of suppliers in the issue of sustainability and develops cooperation with the supply chain.
- Integrated reporting attracts attention of young talents by disclosing the value created by organization and facilitates to familiarize companies for which young talents want to work.
- Integrated reporting contributes to raise awareness of consumers on sustainability issues and to help them to make more responsible choices.
- It inspires both employees and society by increasing the sense of social and environmental responsibility (Aras & Sarıoğlu, 2015; Black Sun Plc & IIRC, 2014).

In a nutshell, the benefits of the integrated reporting are summarized under three main groups namely internal benefits, external market benefits and managing regulatory risk.

First, it provides determining and understanding of material metrics which is used for measuring performance, better communication with shareholders, holistic view for

the employees due to the integration of firm's strategy and performance, identification of fields to improve, better risk management, process and production efficiency and better relationship with employees and stakeholders.

Second, it enables company to be involved in sustainability indices, satisfy the customers who give importance to sustainability in their decisions, to obtain credibility and decrease supply chain risks due to better information from the vendors, to gain reputation and to reduce reputational risk.

Last, it helps to adapt new reporting guidelines easily and comply with possible regulations and requirements (Eccles & Armbrester, 2011).

2.3.5. The International Integrated Reporting Council and Its Framework

Acceleration of work on a global scale for integrated reporting has started with the establishment of IIRC- International Integrated Reporting Council in 2010. The members of IIRC consist of many organizations such as the UN Global Compact, GRI, the World Bank, IFAC-International Federation of Accountants, WEF- the World Economic Forum, company representatives like HSBC, Microsoft, Nestlé, academician, investors, accounting firms and bodies and NGOs.

The vision of IIRC is stated as "to align capital allocation and corporate behavior to wider goals of financial stability and sustainable development through the cycle of integrated reporting and thinking."[21] And its mission is stated as "to establish integrated reporting and thinking within mainstream business practice as the norm in the public and private sectors."[22]

[21] IIRC Web Site as at 28 April 2016

[22] IIRC Web Site as at 28 April 2016

To be able to accomplish its mission and provide an internationally accepted integrated reporting framework, International Integrated Reporting (IR) Framework was developed by IIRC in December 2013 (The International Integrated Reporting Council, 2013). IR Framework is principle based and does not provide a template, key performance indicators or metrics to be used in reporting. Being principle based framework enables organizations to select an appropriate method for their reporting structure by taking into consideration IR principles.

IR principles include three main parts namely ***content elements, guiding principles and fundamental concepts*** for companies and describes the basic contents behind all these parts to prepare and present the integrated reports (Willis, Campagnoni, & Gee, 2015; Aras & Sarıoğlu, 2015). The concepts, elements and principles of the integrated reporting are shown in Table 7 below (Deloitte, 2014):

Table 7: Fundamental Concepts, Content Elements and Guiding Principles of the Integrated Reporting[23]

FUNDAMENTAL CONCEPTS	CONTENT ELEMENTS	GUIDING PRINCIPLES
Value creation for the organization and for others: change in the capitals caused by activities, interactions and relationships and outputs of the organization	Organizational overview and external environment	Strategic focus and future orientation
The capitals: stocks of value, resources used by the organization – financial, manufactured, intellectual, human, social and natural capital	Governance	Connectivity of information
	Risk and opportunities	Materiality
	Strategy and resource allocation	Conciseness
	Performance	Reliability and completeness

[23] Deloitte, 2014, "Integrated Reporting More than a Sum of Parts", page 15

Table 7 (cont'd)

	Outlook	Consistency and comparability
	Basis of preparation and presentation	

2.3.6. Integrated Reporting in the World and in Turkey

In the world the number of companies publishing integrated reports has increased since its first introduction. As of 2014, more than 400 private companies have published integrated reports. In another study it is stated that approximately more than 150 companies across 25 countries has benefited from IR Framework in their reports (Willis, Campagnoni, & Gee, 2015).

Although there is an incremental increase in the number of integrated reports in recent years, the emergence of the integrated reporting dates back to recent history the year of 1994 when South Africa switched to full democracy. Initially, publishing integrated reports were voluntary for the companies in South Africa, however in 2010 all companies listed on the Johannesburg Stock Exchange has become mandatory to publish integrated reports. Therefore, South Africa is the leading country in the number of submitting integrated reports. This is followed by the countries of Holland, Brazil and Australia. The reason of taking place at the forefront of these countries is encouragement of integrated reports through initiatives and regulations of government and stock exchanges. In addition to these countries, Finland, Switzerland, Spain, USA, Sweden, Canada, Germany and the UK are among the countries publishing integrated reports. Asian countries like Singapore, Japan, Malaysia, and New Zealand are also taking steps towards integrated reporting. At the same time, The European Commission, with a regulation adopted at the beginning of 2014, have been demanding approximately 6,000 large companies across Europe to disclose their non-financial information and board of directors;

however, integrated reporting has not been mandatory for them (Aras & Sarıoğlu, 2015).

In France with the Grenelle II legislation, both public and private companies with 500 or more employees have been required to include their non-financial information into their annual reports as of the year 2012 (Eccles & Armbrester, 2011). Moreover, looking at the issue of integrated reporting in terms of companies in particular, integrated report has been practiced for the first time by U.S. companies United Technologies Corporation in 2008, American Electric Power and Southwest Airlines in 2009, the French insurance company AXA, the German chemical company BASF, the Swiss pharmaceutical company Novartis and the Dutch waste treatment and recycling company Van Gansewinkel Group (Eccles & Armbrester, 2011).

In Turkey, the extent of the application in integrated reporting and the study on this reporting format is not widespread compared to sustainability reporting. Moreover, like any other non-financial reports, integrated reports are not mandatory as well. In Turkey, only two companies (Çimsa Çimento A.Ş. and Garanti Bankası A.Ş.) have participated in the IIRC's Pilot Programme (Yaz, Finans Gündem, 2014).
The only IIRC activities in Turkey have been carried out by Integrated Reporting Platform established by Türkiye Kurumsal Yönetim Derneği (TKYD) and İş Dünyası ve Sürdürülebilir Kalkınma Derneği (SKD Turkey). The aim of the platform is to create awareness for the Turkish public and private companies regarding integrated reporting by organizing seminars, activities and panels (Yaz, Finans Gündem, 2014).

2.4. The Sustainabiliy Accounting Standards Board's (SASB) Standards for Esg Reporting

2.4.1. SASB, SASB's Standards and the Content of SASB's Standards

Although the GRI guidelines are the most preferred and used standards worldwide for sustainability reporting, some countries have developed their own reporting

standards. One of the other leading frameworks is the Sustainability Accounting Standards Board (SASB)'s Standards.

SASB is a 501(c)3 organization which means independent, not for profit, exempt from tax in U.S and accredited by the American National Standards Institute (ANSI). Its mission is "to develop and disseminate sustainability accounting standards that help public corporations disclose material, decision-useful information to investors" (SASB, 2016).

It provides sustainability reporting guidance and standards customized to serve 88 industries in 10 sectors (healthcare, financials, technology & communications, non-renewable resources, transportation, services, resource transformation, consumption, renewable resources & alternative energy, and infrastructure) for publicly traded U.S. companies by 2015. It aims to develop sustainability reporting standards and specific performance metrics at the industry level for the benefits of firms and investors without practice and to disclose the material sustainability issues in Securities and Exchange Commission (SEC) filings (e.g. annual reports on 20-F and Form 10-K) which is mandatory to be prepared with the SEC for the many publicly listed U.S. companies and foreign companies whose securities are traded on U.S. exchange (Sustainability Accounting Standards Board, 2015). SASB also asserts its mission to develop industry driven standards used for the disclosure of sustainability issues and so to make contribution to the integrated reporting (Gilman & Schulschenk, 2013).

SASB standards are not a framework to be able to create a new report; help to guide companies in different industries to determine their environmental, social and governance factors that are material for their operations and investors (Willis, Campagnoni, & Gee, 2015). In other words, according to SASB sustainability means the examination of the company's activities and performance by looking at environmental, social and governance (ESG) dimensions. It is also defined as the management of organizational effects on environment and society and management of environmental and social capital needs to provide long term value. In addition to

this, it contains the effect of environmental and social elements on the innovation, business models, and corporate governance. Based on this, it can be said that SASB's sustainability topics are comprised of five main dimensions including **environment, social capital, human capital, business model and innovation, leadership and governance:**

- In the dimension of **environment**, the effect of the company on environment is disclosed. This impact might be occurred during the use of non-renewable resources such as water, minerals, plants etc. for the production, or environmental externalities or the release of environmental pollutants like greenhouse gas (GHG) emissions, waste disposal etc.
- In the dimension of **social capital**, the position of the company toward the society or the expected contributions to them are presented. The management of the relations between the firm and stakeholders (customers, society, government and employees) and the issues of availability of the product or services, affordability, social responsibility and customer privacy are mentioned as well.
- In the dimension of **human capital**, the management of the firm's employees and contractors called human resources and the firm's approach for their well-being are examined. The factors that have an impact on the productivity of the workforce like compensation and incentives, diversity, engagement, retention, health and safety of the employees are addressed in detail.
- In the dimension of **business model and innovation**, the effect of social and environmental elements on innovation and business model is discussed. It expresses the interaction between social and environmental factors and company's processes. In other words, it examines the impact of these factors on providing resource or product efficiency (during its design, usage and disposal), making innovations in the production process or product and the management of these effects on tangible and financial assets.
- In the dimension of **leadership and governance**, the management of general issues related to business model or general implementations on the industry and potential conflict with stakeholders are disclosed. The topics of

compliance with regulation, lobbying, risk-safety-supply chain-resource management, anticompetitive behavior, corruption and bribery and conflict of interest are included as well.

2.4.2. SASB Standards & GRI Guidelines & IR Framework: Similarities and Differences

Except for SASB, other organizations in U.S. such as The Financial Accounting Standards Board (FASB) and U.S. Generally Accepted Accounting Principles (U.S. GAAP) set a framework for the capital markets to quantify and report the company's financial issues such as its assets, liabilities and owner's equity (capital). In these items of financial accounting there are indicators relating to show sustainability performance of the company. For instance, assets are comprised of tangible and intangible assets and some intangible ones provide the users information about non-financial capitals such as human and social capital. In the liabilities part, information related to environmental or social capital can be found as well. However, these deductions are limited and inadequate.

Non-financial capitals with respect to sustainability issues, such as environmental and social cannot be stated in terms of cash or any common unit of measure like a currency. Therefore, SASB determines metrics or indicators associated with sustainability accounting as qualitative and quantitative and submits these "total mix of information" to the investors. The industry-specific sustainability performance indicators present more detailed information to the users, facilitate their decision making process, direct them to consider the other forms of capital and help them to make accurate financial valuation for the company (Sustainability Accounting Standards Board, 2013).

The standards improved by SASB are the latest one. Other organizations carried out works about sustainability accounting GRI and IIRC serve at the same purpose; but, they offer different approaches regarding sustainability issues (Sustainability

Accounting Standards Board, 2015). The differences and similarities of the submission of these three organizations are shown in Table 8 below:

Table 8: SASB Standards versus GRI Guidelines versus IR Framework[24]

	SASB (SASB Standards)	**GRI (GRI Guidelines)**	**IIRC (IR Framework)**
Type of Guidance	Standards	Guidance	Framework
Scale	U.S.	International	International
Scope	Industry specific	General	General
Target Disclosure	Mandatory filing	Voluntary report	Voluntary report
Target Reporters	Public companies traded on U.S. exchanges	Public and private companies	Public companies traded on international exchanges
Target User	Investors	All stakeholders	Investors
Type of Institution	independent, non- profit organization exempt from tax in U.S	non-governmental organization	non-governmental organization

[24]SASB. "About SASB". Retrieved December 31, 2015 from http://www.sasb.org/sasb/vision-mission/

Table 8 (cont'd)

"Materiality" Definition	Information is regarded as material if "a substantial likelihood that the disclosure of the omitted fact would have been viewed by the reasonable investor as having significantly altered the 'total mix' of the information made available." according to the U.S. Supreme Court	According to the GRI, information that "may reasonably be considered important for reflecting the organization's economic, environmental and social impacts, or influencing the decisions of stakeholders" is material.	According to the IIRC "A matter is material if it is of such relevance and importance that it could substantively influence the assessments of providers of financial capital with regard to the organization's ability to create value over the short, medium and long term."

The guidelines developed by GRI have submitted indicators with respect to sustainability reporting. IIRC has provided overall framework and principles that help companies to guide for their integrated reporting, however it does not state metrics. IFRS and U.S. GAAP have prepared standards for the financial information whilst SASB focuses on standards for the material nonfinancial information that used in integrated reporting. The standards of the SASB are complementary, compatible, do not overlap with the other two organizations' publications regarding the sustainability reporting and so that SASB standards should be integrated into GRI and IIRC's publications. Shortly, SASB standards are used as the disclosure of minimum set of material issues in the part of integrated or other types of reports and help to support them.

2.4.3 SASB Standards for the Airline Industry

In this part, the SASB sustainability standards for the Airlines Industry included in the transportation sector will be discussed in detail. The reasons of choosing the airline industry is based on having international based structure and being global. The implementations, metrics or standards do not differ much from countries to countries. Although SASB standards are developed for the U.S., they are easy to practice on the companies in Turkey as well.

2.4.4. SASB's Activity and Accounting Metrics in Airline Industry

SASB's sustainability reporting structure constitute 2 main parts namely **activity metrics** and **accounting metrics**.
In the first part of the sustainability report, activity metrics listed below should be calculated and issued.

Table 9: Activity Metrics[25]

Activity Metric	Category	Unit of Measure	Code
Available seat kilometers (ASK)	Quantitative	Kilometers (km)	TR0201-A
Passenger load factor	Quantitative	Kilometers (km)	TR0201-B
Revenue passenger kilometers (RPK)	Quantitative	Kilometers (km)	TR0201-C
Revenue ton kilometers (RTK)	Quantitative	Ton-kilometers	TR0201-D
Number of departures	Quantitative	Number	TR0201-E
Average age of fleet	Quantitative	Years	TR0201-F

[25] SASB, 2014, "Airlines Sustainability Standard", page 6

First 4 metrics are the most common performance indicators of the airline industry; they are defined in the guidance as follows:

> **TR0201-A:** Available seat kilometers (ASK) is defined a measure of the maximum potential cumulative kilometers traveled by passengers (i.e., kilometers traveled by occupied and unoccupied seats).
> **TR0201-B:** Load factor is a measure of capacity utilization and is calculated as passenger kilometers traveled divided by seat kilometers available.
> **TR0201-C:** A Revenue passenger kilometer (RPK) is defined as a measure of cumulative total kilometers traveled by passengers. A revenue passenger means a passenger for whose transportation an air carrier receives commercial remuneration.
> **TR0201-D:** Revenue ton kilometers (RTK) is defined as one metric ton of revenue traffic transported one kilometer. Revenue ton kilometers are computed by multiplying the aircraft kilometers flown on each flight stage by the number of tons of revenue traffic carried on that flight stage, which includes passengers, baggage, freight, mail, etc. [26]

In the second part of the sustainability report, accounting metrics that are standardized for the companies at the same industry shall be examined. These performance indicators are collected under the 4 main headings that are shown in Table 10 below. Each firm in the airlines industry should be disclosed its sustainability performance by using these sustainability topics as follows:

Table 10: Sustainability Disclosure Topics and Accounting Metrics[27]

TOPIC	ACCOUNTING METRIC	CATEGORY	UNIT OF MEASURE	CODE
Environmental Footprint of Fuel Use	Gross global Scope 1 emissions	Quantitative	Metric tons CO2-e	TR0201-01

[26] SASB, 2014, “AIRLINES Sustainability Accounting Standard”, page 6

[27] SASB, 2014, "Airlines Sustainability Standard", page 8

Table 10 (cont'd)

Environmental Footprint of Fuel Use	Description of long-term and short-term strategy or plan to manage Scope 1 emissions, emissions reduction targets, and an analysis of performance against those targets	Discussion and Analysis	n/a	TR0201-02
	Total fuel consumed, percentage renewable	Quantitative	Gigajoules, Percentage (%)	TR0201-03
	Notional amount of fuel hedged, by maturity date	Quantitative	Millions of gallons, Year	TR0201-04
Labor Relations	Percentage of active workforce covered under collective-bargaining agreements, broken down by U.S. and foreign employees	Quantitative	Percentage (%)	TR0201-05
	Number and duration of strikes and lockouts	Quantitative	Number, Days	TR0201-06
Competitive Behavior	Amount of legal and regulatory fines and settlements associated with anti-competitive practices	Quantitative	U.S. Dollars ($)	TR0201-07
Accidents & Safety Management	Description of implementation and outcomes of Safety Management System	Discussion and Analysis	n/a	TR0201-08
	Number of accidents	Quantitative	Number	TR0201-09
	Number of governmental enforcement actions of aviation safety regulations	Quantitative	Number	TR0201-10

The sustainability topics of Environmental Footprint of Fuel Use, Labor Relations, Competitive Behavior and Accidents & Safety Management are involved in the dimensions of **Environment, Human Capital and Leadership & Governance** respectively.

2.4.4.1. Environmental Footprint of Fuel Use

The first topic of Environmental Footprint of Fuel Use is consists of 4 accounting metrics namely amount of the company's direct greenhouse gas (GHG) emissions, its long and short term strategy, plans and targets related to managing it, the amount of fuel use and the notional amount of fuel hedged.

Due to the over dependency on oil, the airlines industry emits directly large amounts of greenhouse gases (GHG), which consists mostly of carbon dioxide, to the atmosphere. Fuel usage, ground equipment and facility electricity are the causes of GHG releases for this industry and therefore fuel management becomes one of the most critical issues for the airline companies. In this context, providing fuel efficiency and using alternative fuel help to raise profit, reduce the effect of volatile fuel pricing and lower future regulatory costs.

TR0201-01.01: In the first metric "gross global scope 1 emissions", the GHGs (carbon dioxide (CO2), methane (CH4), nitrous oxide (N2O) and fluorinated gases namely hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride and nitrogen trifluoride) emitted during operational activities of the company should be declared numerically and measured in “tons of carbon dioxide equivalents” (CO2-e). The aforementioned “gross emissions” represent the amount of GHG emissions released to the air by the company before any reductions or adjustments that have lowered for emissions (Sustainability Accounting Standards Board, 2014). To calculate this metric, the amount of company’s gross emissions is multiplied by the global warming potential (GWP). The future effect of greenhouse gases on the global warming can be predicted by using this GWP with appropriate time horizon. GWP

facilitates to compare the different GHGs mentioned above because these gases affect the global warming differently and varies from each other according to the factors namely the ability to "absorb energy (radiative efficiency)" and "how long to stay in the atmosphere (lifetime)". GWP is stated in terms of Carbon dioxide (CO2) because CO2 is expressed as a reference gas and therefore, the GWP of the CO2 is shown as a value of 1 regardless of the time period used and other types of GHGs are represented according to it. In other words, GWP is a unit of measure that how much energy one metric ton of gas absorbs to the atmosphere and how long this gas stays in the air, relative to one metric ton of CO2. For instance, according to IPPC the methane has a GWP of 21 over 100 years , which means that it warms the Earth 21 times more than the carbon dioxide per unit over that time period. The GWP of other types of GHGs are shown below (IPPC Working Group I, 1995):

Table 11: Global Warming Potential of Main Greenhouse Gases[28]

Main Greenhouse Gases					
GHG	**Chemical Formula**	**Lifetime (years)**	**Global Warming Potential (GWP)**		
			20 years	**100 years**	**500 years**
Carbon-dioxide	CO2	variable	1	1	1
Methane	CH4	12±3	56	21	6,5
Nitrous oxide	N2O	120	280	310	170

Moreover, the information regarding the company's emissions shall be corresponded to the section CC8.2 of the "Carbon Disclosure Project Questionnaire" issued by Carbon Disclosure Project and the section 4.25 of the "Climate Change Reporting Framework (CCRF)" submitted by Climate Disclosure Standards Board. The further

[28] IPCC Working Group I, 1995, "IPCC's Second Assessment Report", page 22

information about the aforementioned sections can be found in the Appendix E. (Sustainability Accounting Standards Board, 2014).

TR0201-01.02: The companies in this industry shall be disclosed their GHG emissions based on the sources in Scope 1. According to The Greenhouse Gas Protocol, the Scope 1 emissions contain the direct emissions of GHGs which are owned or controlled by the firms. For the airline industry the Scope 1 emission sources are presented as follows:

- the combustion of fuels from the company's owned or controlled stationary sources (turbine, furnace, boiler etc.) during production of electricity, heat or steam,
- the combustion of fuels from the company's owned or controlled mobile sources (bus, car , truck, airplane, train etc.) during transportation of raw materials, products, waste and employees
- fugitive emissions such as hydrofluorocarbon (HFC) emissions resulted from the use of refrigerator and air conditioner, leakage from equipment or during gas transportation.

The further information regarding this standard can be found in Appendix D. (World Resources Institute and World Business Council, 2004).

TR0201-01.03: GHG emission data should be consolidated with the same approach used for the consolidation of its financial reporting data as well.
Firstly, as mentioned in previous standard TR0201-01.02, the company determines its Scope 1 GHG inventory (sources) (Sustainability Accounting Standards Board, 2014). Secondly; due to the fact that the firm can constitute joint ventures, subsidiaries and others except for its wholly owned operations, it selects its reporting boundary to use for this Scope 1 emission inventory and determine its approach to consolidate its GHG emissions. With this "consolidation approach" it should implement the required standards on all of its entities or operations if any. According to the SASB's sustainability reporting, the "financial control approach" shall be selected and adopted by the firms. Based on this approach, all entities or businesses

under financial control of the main firm must be taken into account and during the calculation of the emission their effect shall be considered as well (Carbon Disclosure Project, 2013). In other words, based on this approach the 100% of GHG emissions of the operations under financial control is included in the company's Scope 1 emission calculation. On the other hand, GHG emissions of the operations that the company has an interest in them but no financial control do not include. As for the term of financial control "the company has financial control over the operation if the former has the ability to direct the financial and operating policies of the latter with a view to gaining economic benefits from its activities."[29] (World Resources Institute and World Business Council, 2004)

TR0201-01.04: CDP guidance is a reference document for the technical approach for the data collection, analysis and disclosure. Any updates made to this guidance shall be followed by the firm.

TR0201-01.05: If there is a change in the emissions of the company compared to previous year data, this situation and its reasons should be explained in the current report. For example, these changes can be stemmed from making change in output, calculation methods, emission reduction, merger and acquisition etc.

TR0201-01.06: If the scope or consolidation approach of the company's GHG emission calculated according to CDP or other organizations (e.g., a national regulatory disclosure program) differs from the current reporting, this emission might be revealed; however, the main disclosure must be in accordance with the aforementioned guidelines.

TR0201-01.07: The calculation methodology of the company's emission and whether the data are created by using continuous emissions-monitoring systems (CEMS), engineering calculations or mass balance calculations should be discussed.

[29] World Resources Institute and World Business Council, 2004, page 17

TR0201-02.08: The long and short term strategies, plans in order to control Scope 1 emissions, targets for emission reduction and the performance evaluation for those targets are disclosed by the company. The scope of the firm's activities is discussed in the case of making different strategies, plans, targets for different business units, geographies or emission sources. The strategies, plans and targets pertained to an emission disclosure reporting or reduction programs namely E.U., ETS, RGGI, WCI or regional, national, international, sectoral programs are explained as well. Moreover, the action plans to be taken and investments to attain these plans or potential risks shall be defined.

TR0201-02.09: The targets related to emission reduction should include the information regarding the percentage of the emissions, the percentage of its reduction compared to the emission in the base year, absolute or intensity based targets and the timelines of the reduction activity in the start, target and base year and the mechanisms used to fulfill the target, such as energy efficiency efforts, energy source diversification etc.

GHG absolute and intensity based targets are the types of targets that are used to reduce GHG emissions. Although absolute targets are set as a quantity or fixed number such as X tons of carbon dioxide equivalents, intensity targets are determined as emissions per unit of output such as GDP or product. An intensity target aims to accomplish a specific emissions rate or level of performance instead of particular amount of emissions (Herzog, Baumert, & Pershing, 2006).

TR0201-02.10: In the case of change in the target base year emissions, need of the recalculation or reset of the target base year, these changes are discussed by the registrant.

TR0201-02.11: All disclosures should be conformed to the "Management Actions" in the CDSB Section 4 and "CC3, Targets and Initiatives" in the CDP questionnaire whose details are presented in Appendix E and F respectively.

TR0201-02.12: Fuel efficiency related efforts such as ground power use and pre conditioned air instead of APU-Auxiliary Power Units in the parking position, flight speed adjustments, and route design (NextGen) to save energy, fuel and costs can be discussed. Moreover, aircraft related efforts such as winglets use, reduction in weight and fleet upgrades to new aircraft can also be added.

TR0201-03.13: Total fuel consumed by the firm shall be disclosed as gigajoules or multiples. In this regard, fuel consumption made by the company's own or controlled entities is included in the scope; however, non fuel energy sources such as purchased electricity and stream are excluded from the scope.

TR0201-03.14: Higher heating values (HHV), known as gross calorific values (GCV), are used to calculate the energy content of fuels and biofuels. Their measurements are existed in the publications of Intergovernmental Panel on Climate Change (IPCC), the U.S. Department of Energy (DOE), or the U.S. Energy Information Administration (EIA). The details of them are presented in Appendix G.
In energy statistics, consumption and production of solid, liquid and gaseous types of fuels are expressed as physical units such as tonnes or cubic metres. Calorific values are used to convert these units to common energy units such as joules or terajoules. They measure the value of the fuel for heating purposes. They are divided into two parts namely net (NCV) and gross calorific values (GCV) which are known as lower (LHV) and higher heating values (HHV) respectively. Although some organizations use net calorific values for the conversion, SASB prefers gross calorific values. According to the IPCC's definition which takes place in its guidelines,

> "the Gross Calorific Value is the total quantity of heat released during combustion when all water formed by the combustion reaction is returned to the liquid state. The Net Calorific Value is the total quantity of heat released during combustion when all water formed by the combustion reaction remains in the vapour state."[30]

[30] IPCC, 1996, "IPCC Guidelines for National Greenhouse Gas Inventories : Reporting Instructions, page 4

Therefore it can be said that NCV is less than the GCV. For coal and oil NVC is 5% less whilst for natural gas it is approximately %9-10 less than the GCV. The further detail about this standard can be found in Appendix G (Intergovernmental Panel on Climate Change, 2006; Intergovernmental Panel on Climate Change, 1996).

TR0201-03.15: Energy content of renewable fuel consumed divided by the energy content of all fuel consumed equals the percentage of fuel from renewables.

TR0201-03.16: Renewable fuel means that energy from renewable sources replenished by ecological cycles in a short period of time. Examples include geothermal, wind, solar, hydro and biomass.

TR0201-03.17: The scope of the hydro and biomass sources is limited compared to other type of renewable sources. Energy produced from hydro sources should be certified by the Low Impact Hydropower Institute and biomass sources by Green-e Energy or conformed to Renewable Portfolio Standard.

TR0201-03.18: The conversion factors shall be applied for the whole related data, such as HHV (Higher Heating Value) for the fuel usage.

TR0201-04.19: The amount of fuel as millions of gallons entered into the fuel derivative contracts (fuel hedges) shall be disclosed. The scope of the fuel involves the aircraft (jet) fuel and other related ones including crude oil, diesel fuel and heating oil. The scope of the fuel derivate instruments contains the other type of instruments such as purchased call options, collar structures, call spreads, swaps etc. Therefore, all items in this scope must be explained.

TR0201-04.20: The maturity or settlement date of the fuel hedges shall be disclosed. In this regard, the amount of the fuel in contract that become due each subsequent year or the maximum settlement year for all fuel contracts might be preferred for the disclosure.

TR0201-04.21: All type of fuel hedges is included in the scope of the disclosure.

TR0201-04.22: The percentage of the forecasted future fuel consumed annually that the fuel hedges account for might be disclosed preferentially.

2.4.4.2 Labor Relations

Another main topic that shall be informed by the registrant is the labor relations. It might affect the long term profitability of the companies negatively in the case of its mismanagement. Due to the fact that many personnel are subject to the collective bargaining agreement to conduct negotiation regarding the protection of their rights, workers might go on strike and do not perform their duty for a while in the case of disagreement; which decreases the revenue, hinders the operations of the firm and damages the reputation as well. On the other hand, acceptance of the worker demands causes to increase the labor costs. Therefore, it can be said that there is a tradeoff between them and the management of human resources plays an important role for the future of the all sectors especially the airlines industry.
As required by the SASB's Standards, the businesses shall be disclosed following accounting metrics regarding the labor relations:

TR0201-05.23: The percentage of the U.S. and foreign employees in the active workforce and collective bargaining agreements during the fiscal years shall be presented. Active workforce means the number of employees working throughout the fiscal year. Whereas U.S. employees have not need a visa to work for the companies in U.S., foreign ones must have a visa to work.

TR0201-05.24: Moreover, the active workforce subject to collective bargaining agreements might be indicated as their working positions, such as pilots, flight attendants etc.

TR0201-06.25: The number of work stoppages from any causes namely strike and lockout, its total duration and the number of worker days idle should be issued. If 1000 or more workers involve and the action lasts one full shift or longer, this is considered as work stoppage. The worker days idle is calculated as the number of non-productive days multiplied by the number of employees involved.

TR0201-06.26: The causes of the work stoppages, its effect on the business in terms of its operations and measure to be taken against the possibility of the recurrence are disclosed in the report.

2.4.4.3 Competitive Behavior

In the airlines sector there is a high barriers to entry due to some reasons. High start-up and labor costs and existing subsidized national carriers in foreign markets are listed as the first reason. These factors drive airlines to form alliances or consolidation to benefit from economies of scale. For example, %75 of the U.S. airline market is controlled by the four players. In Turkey, the situation is not different. Approximately 81% of the Turkish airline market is controlled by two players namely Turkish Airlines and Pegasus in 2014 (Türkiye Odalar ve Borsalar Birliği, 2014). The limited landing rights and increase in the airport congestion are another factors for high barriers to entry. All these reasons push airlines to implement anti-competitive practices such as activities related to market concentration, airport slot management, predatory pricing and airline alliances or mergers. Due to the fact that these type of implementations lead to increase in prices in terms of consumers, antitrust authorities have examined the movements of the airlines. In the case of taking legal actions against airlines, the material risk for the investors because of the legal fees, reputational risk for the company, costs based on the delayed operations and slow growth stemming from acquisition will occur. On the other hand, if mergers are not confirmed, firms might go bankruptcy.
As required by the SASB's Standards, the businesses shall be disclosed following accounting metrics regarding the competitive behavior:

TR0201-07.28: The amount of all fines or agreements related to anti-competitive behavior namely price-fixing, antitrust behavior (exclusivity contracts), patent misuse, network effects, bundling of services etc. shall be disclosed.

TR0201-07.29: Civil (civil judgments, settlements or regulatory penalties) and criminal actions (criminal judgments, penalties or restitutions) taken by government, firms or individuals shall be explained.

TR0201-07.30: In addition to the amount of all fines and settlements, their nature (guilty plea, deferred or non-prosecution agreements) and context (price-fixing, patent misuse, antitrust etc.) shall be included.

TR0201-07.31: The corrective actions taken by the company for each issue shall also be disclosed. These actions or changes might be related to the firm's operation, process, management, product etc.

2.4.4.4. Accidents and Safety Management

Providing the passenger safety is the most crucial criteria for the airline industry. Airline accidents might cause environmental and social externalities, cost companies because of making improvements and giving compensations for victims. Incidents based on safety, penalties or non-compliance of the regulations result in bad reputation, decrease in the demand of the passengers and cargo shippers. In order not to have these negative effects, the subject of personal training, crew members' health and prosperity, regular and sufficient maintenance of the aircrafts become crucial for the companies.

TR0201-08.32: The implementations of Safety Management System (SMS) that is aligned with the "Federal Aviation Administration (FAA) Safety Management System Framework" and "International Civil Aviation Organization (ICAO) Safety

Management Manual (SMM)" shall be disclosed. According to these documents, SMS contains the safety policy, safety risk management, safety assurance and safety promotion.

TR0201-08.33: The company should mention the processes and methods related to preventing and controlling the accidents, emergency situations, and the incidents that affect the human health, society and environment.

TR0201-08.34: The implementation level that has been made and planned to complete it by the company shall also be explained. These implementation levels recommended by the ICAO are indicated below:

Level 0: Orientation & Commitment
Level 1: Planning & Organization
Level 2: Reactive Processes
Level 3: Proactive Processes
Level 4: Continuous Improvement

TR0201-08.35: In the case of the SMS audit made by the IATA's Operational Safety Audit (IOSA), the occurrence and findings from it shall be disclosed.

TR0201-08.36: The outcomes of the company's SMS including the number of safety risks and other dangerous situations that are identified by the firm as a present or probable accident or incident and the percentage of the safety risks and situations that were reduced shall be disclosed.

TR0201-08.37: All actions that have been taken by the firm to minimize the risk and hazardous situations might be explained. Changes in control, management, processes or products can be given as an example for these actions.

TR0201-09.38: The total number accidents shall be disclosed (Sustainability Accounting Standards Board, 2014). The term of "accident" is defined by the International Civil Aviation Organization (ICAO) as presented in Appendix H.

TR0201-10.39: The number of sanctions applied by the national authority such as U.S. Federal Aviation Administration (FAA), the European Aviation Safety Agency (EASA) etc. shall be disclosed. These enforcements might be related to the aviation safety, maintenance, transportation of dangerous materials, documentation, training, noise, drug testing etc.

TR0201-10.40: The scope of the enforcements consists of civil penalties, consent order, certificate suspension and certificate revocation (Sustainability Accounting Standards Board, 2014).

CHAPTER 3

SUSTAINABILITY AND REPORTING TRENDS IN THE AIRLINE INDUSTRY

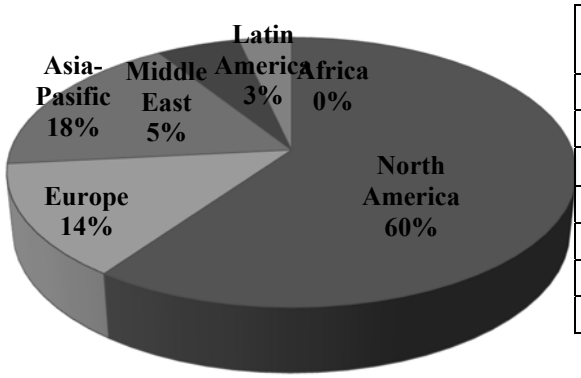
The main purpose of this chapter is to indicate the historical development and evolution of the sustainability reporting by using the airline companies' data in the global airline industry and to contribute to the current literature by making data analysis regarding the sustainability reporting in the airline industry.

This chapter consists of two main subsections. First, the airline industry will be explored to reveal its growth and importance for the global economy. Second, in the methodology subsection, the limitation of the study, the research method, the data analysis and the results of the analysis are discussed in detail.

3.1. Global Airline Industry

The airline industry makes significant contributions to the economic growth of Turkey in terms of trade, transportation service, investment and innovation, connectivity of the people, jobs and most importantly tourism. Especially in developing economies, the airline industry has vital impacts on tourism. For instance, 53 % of the international tourists prefer airlines for their transportation. The value provided with the transportation of the goods by air constitutes 35% of the international trade (Turkish Airlines, 2014). Moreover, airline industry provides $2.4 trillion annually, which makes up 3.4 % of the global gross domestic product (GDP) according to the key facts and figures of ATAG in 2012. According to the International Air Transportation Association (IATA) annual data in 2014, the global airline industry generated approximately $751 billion revenue, $20 billion net profit, 2.7% net profit margin and 79.9% load factor, and carried over 3 billion passengers, supported more than 58 million jobs and performed over 33 million flights

worldwide in total. In 2013, the developing and the developed countries constituted the 42% and 58% of the global air traffic market, respectively. The actual net profit of the year 2014 was distributed as follows:



Net Profit (Global)	Total (Billion $)	%
North America	11,9	0,6
Europe	2,7	0,14
Asia-Pasific	3,5	0,18
Middle East	1,1	0,06
Latin America	0,7	0,04
Africa	0	0
Total	**19,9**	**1**

Figure 5: Percentage Distribution of the Net Profit [31]

Source: IATA, ACI

In 2015, IATA expected an increase in air traffic, capacity and total revenue by 7%, 5.5% and 4.3%, respectively and it expects to double them in the coming 20 years due to the globalized economy, increasing travel demand and technological advancements. The net profit was expected to reach to about $25 million in 2015 (a 25% rise compared to 2014), the net profit margin to 3.20% (a 18% rise compared to 2014), the number of flights to 35.40 million (a 6% rise compared to 2014) and the number of total passengers to 3.53 billion (a 6.78 % rise compared to 2014). In spite of the increase in the number of passengers carried and the volume of air traffic, the load factor is predicted to decrease by 0.38% to % 79.6 because of the rise in the capacity. The other actual and predicted performance metrics of airline industry is indicated below in detail:

[31] ATIG, 2015, "Havayolu Sektörü-2015'e Bakış", page 2

Table 12: Realized Data of Last 5 Years in the Airline Industry and the Expected One for the Year 2015[32]

Net Profit (Global)	2010	2011	2012	2013	2014	2015 (Prediction)
Net Profit	17,30	8,30	6,10	10,60	19,90	25,00
Net Profit Margin	3,10	1,30	0,90	1,50	2,70	3,20
Operating Profit	27,60	19,80	18,40	25,30	38,30	46,80
Operating Profit Margin	4,90	3,10	2,60	3,50	5,10	6,00
Number of Flights in Millions	27,80	30,10	31,20	32,00	33,40	35,40
Net Profit per Passengers	6,45	2,92	2,05	3,38	6,02	7,08
Number of Passengers Carried	2,681	2,845	2,977	3,314	3,306	3,530
The Increase in the Number of Passengers Carried	7,90	6,30	5,10	5,40	5,70	7,00
Load Factor	78,50	78,40	79,40	79,70	79,90	79,60
Return on Invested Capital (ROIC)	6,30	4,70	4,30	4,90	6,10	7,00

Source: IATA,ACI

Factors behind the growth expectations of the airline industry is the increasing demand for travelling as a result of globalization, decrease in the fuel prices and technological developments (Air Transport Action Group, 2014; ATIG Yatırım Menkul Değerler A.Ş., 2015).

Apart from the substantial contribution to the global economy and the important role in the economic growth, the internal and external environmental and competitive dynamics of the airline industry should be examined closely to understand its position better. To that end, by using the tool of SWOT (strengths, weaknesses,

[32]ATIG, 2015, "Havayolu Sektörü-2015'e Bakış", page 2

opportunities and threats) analysis, the frame of the airline industry can be formed, which is shown in Table 13 below in detail:

Table 13: SWOT Analysis of the Airline Industry[33]

Strengths	Weaknesses
Increasing need for services due to the population growth and increase in the demand for travel	Dependence on weather conditions
Reduction in air transport accident rate	Expensive material & equipment and the high correlation between the total costs and the price of fuel
Technological improvements	Increase in the number of employees and the requirements of the international presence
	Increased costs due to the high regulation requirement of political events

Opportunities	Threats
Reduction of costs as a result of technological developments	High competition
Cooperation opportunities between companies on international flights	Variability of especially travel for tourism and the impact of the global economic outlook
	Cooperation opportunities between companies on international flights

Source: ATIG

The airline industry includes full-service, low cost and regional airlines that provide air transportation for the customers traveling with the purposes of holiday or business. Full service ones, also known as network or legacy carrier, use hub and spoke route system which provides opportunity to fly more destinations for the large companies such as British Airways, Lufthansa and Turkish Airlines. With this model, routes are organized from hub airports to spoke airports and they are all connected via a hub or hubs. However, low cost carriers, also known as discount airlines, are operated by using point to point route system that leads to serve fewer routes and offer no frills service to the passengers. Ryanair, Easy Jet, and Pegasus

[33]ATIG, 2015, "Havayolu Sektörü-2015'e Bakış", page 4

can be given as examples for this type of airline companies. Regional carriers work under the control of the full service carriers and exist to expand networks of the master brand. For instance, Anadolujet has been formed as a sub-brand of Turkish Airlines to serve domestic destinations in Turkey effectively and efficiently.

Moreover, most airlines offer cargo service for their customers and its revenue constitutes 2-3 % of the total revenues in the U.S. market, and 9-12% in Europe, Asia and Latin America. In addition to the cargo service, partnerships or alliances namely Star Alliances (27 members worldwide), Oneworld (15 members worldwide) and Skyteam (20 members worldwide) could be seen frequently as a nature of the airline industry to expand the network, get access to international destinations with the same ticket instead of using multiple airlines, split the overhead costs, gain competitive advantages in the international market without entering it physically (Sustainability Accounting Standards Board, 2014).

Being highly concentrated can be mentioned as a major threat to the airline industry. For example, 75% of the market share was incurred by four U.S. full service airlines, namely United Continental Holdings, Delta Airlines, American Airlines and Southwest Airlines in 2013 and this number was 70% in 2012. The increase in the concentration stemmed from the mergers and acquisitions that occurred during the last 12 years in the U.S., which decreased the number of airlines from ten to four. For instance, Delta Airlines merged with Northwest Airlines in 2009, United Airlines with Continental Airlines in 2010 and American Airlines with US Airways in 2013. In 2011, Southwest Airlines acquired AirTran Airways.

Another threat to the airline industry is having formidable barriers to entry due to high capital requirements, government regulations and other requirements related to licensing and reporting. This industry is also highly competitive especially in some regions because of the restrictive airport infrastructure and airport slots, which affect the new and emerging companies adversely. Especially airport slots are essential and

valuable for the airlines to have a right to get permissions to use airports during arrival and departure.

As a weakness of the airline industry, fuel pricing is one of the most critical factors that has an impact on profitability. The costs related to fuel account for one third of the total operating expenses. The other weakness is the wages, which constitute the 16-19 % of the total operating expenses. Since it is not possible to reflect the rise in the fuel prices on the passengers, this cost affects the profit of the airlines directly. Therefore, the volatility of the oil prices plays an important role in the stability of the industry and the future of the firms. To be able to reduce the effect of this, most companies practice fuel hedging strategies and use some instruments such as swap contract, call option, collars, futures and forwards contracts.

On the other hand, in spite of the positive contribution to the economy, the airline industry has a negative impact on the climate change which is one of the most crucial global environmental problems. According to the United Nations Intergovernmental Panel on Climate Change (IPCC), this industry accounts for approximately 2% of the human induced carbon dioxide emissions.

3.2. Methodology

3.2.1. Limitation of the Study

The selection of the airline industry to indicate the development of sustainability reporting worldwide is the limitation of the analysis. The study is restrictive with the data on the global airline industry, and the lack of data from other sectors constitutes a shortcoming of the study. Therefore, research studies with data from more sectors would be required to ensure the appropriate generalization of the findings of the study and to provide a more holistic picture.

3.2.2. Research Method

Large companies in this industry have made progress in the field of sustainability reporting in the last 8 years, which is the hypothesis of the research.
Content analysis was used as the method of analysis. Content analysis is one of the research techniques used in social science and enables the analysis of the qualitative data in reports, documents, web sites etc. According to Krippendorff (1989), the purpose of this methodology is to make valid inferences from text.

To conduct the content analysis, the largest 50 airline companies from different regions were chosen and their sustainability reports and websites were examined in terms of two indicators, namely "conformity to GRI guidelines" and "assurance" covering the period from 2008 to 2015. In this regard, eight sustainability reports of each selected airline was reviewed considering the information required for the indicators. The analysis aimed to find answers to the following questions: Is the report in conformity with the GRI guideline? What is the application level of the report? Is there an external assurance statement in the report? What is the scope of the assurance (whether the entire report or some specified parts are assured)? What is the level of the assurance (whether the report is reasonable / high assured or limited / moderate assured)

3.2.3. Data and Data Analysis

Data was derived from the GRI Sustainability Database, which contains an archive of all registered GRI sustainability reports on its website. As previously mentioned, the examination was made considering two indicators: compliance of the sustainability reports with the GRI guidelines and the assurance of these reports.

In line with the first indicator, the compliance of the reports and their degree of compliance with the GRI guidelines were analyzed, and thus, the quality of these reports was tried to be determined. There were three factors that determined the

quality of the reports: 1) whether the report was written according to the GRI guidelines and one of its application levels A, B, C, 2) whether it was not written based on the GRI guidelines at all, and 3) whether a report existed or not. The companies' documents were graded based on these factors to be able to make comparisons between them and to ensure uniformity. Although the application levels of GRI were A, B and C in the earliest version, these were replaced by the "in accordance" levels "core" and "comprehensive" with the publication of the new generation GRI G4 in May 2013. Therefore, sustainability reports published after 2013 have different application levels. The scoring categories that assess the quality of the reports are shown in Table 14 in detail:

Table 14: Scoring Table of the First Indicator "Compliance of the Reports with the GRI Guidelines" [34]

Score	Description
100	Report was prepared in accordance with GRI guidelines, Application Level A(+) and A or "core" and "comprehensive
75	Report was prepared in accordance with GRI guidelines, Application Level B(+) and B
50	Report was prepared in accordance with GRI guidelines, Application Level C(+) and C
25	Report was prepared in accordance with GRI guidelines, but the application level is undetermined, or the report was not prepared in accordance with GRI
0	No sustainability or corporate social responsibility (CSR) report

The other indicator is the assurance of the reports from the external international or national verification providers, assurance scope and levels. The assurance of the reports is provided according to certain standards. The international ones are ISAE 3000 and AA1000 and the national ones vary from country to country, which are explained in the Literature Review chapter in detail. The scoring categories used for

[34] Adapted from Sustainalytics' framework

grading the assurance of the reports are illustrated in Table 15 (Tinjala, Pantea, & Buglea, 2015)

Table 15: Scoring Table of the Second Indicator "Assurance of the Reports" [35]

Score	Description
100	The whole report was externally confirmed in accordance with international or national recognized standards and got "reasonable / high assurance".
75	The whole report was externally confirmed in accordance with other not widely recognized standards, and got "reasonable / high assurance".
50	The whole report was externally confirmed and got "limited/moderate assurance", or parts of the report were externally confirmed and got "reasonable / high assurance".
25	Significant deficiencies were found by the auditors in the report.
0	The report was not externally confirmed or the firm does not issue a sustainability or CSR report.

To be able to make an analysis and determine a score for sustainability reports, the following information has been collected for all registered reports in the GRI database:

In first stage of the research:

- GRI content of the report
- application level of the report (A(+), A, B(+), B, C(+), C, core and comprehensive)

In the second stage of the research:

- external assurance statement
- scope of the assurance (entire report, specified sections)
- level of assurance (reasonable / high assurance, limited / moderate assurance)

[35] Adapted from Sustainalytics' framework

3.2.4. Results and Discussion

The aim of this study is to analyze the evolution and trend in sustainability reporting and its assurance in the global airline industry over an 8 year period covering 2008-2015. To this purpose, information of the world's 50 best airlines derived from GRI Sustainability Database was examined in detail in terms of the aforementioned criteria. Looking at the profile of the selected companies, 19 of them (38%) are the firms in Asia, 12 of them (24%) in Europe, 9 (18%) in Northern America, 7 (14%) in Latin America & Caribbean, 2 (4%) in Oceania and the remaining 1 (2%) in Africa as illustrated below:

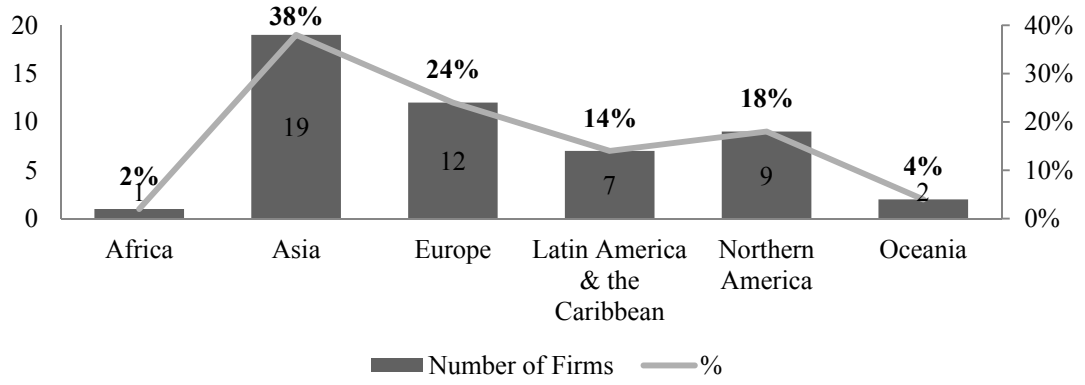


Figure 6: Profile of the Selected Companies in Terms of the Region[36]

The profile of the selected companies in terms of their countries shows that the highest number of companies in the GRI database are located in the U.S.A (6 firms), followed by China (5 firms). This is followed by the United Kingdom of Great Britain and Northern Ireland with 4 firms, and Canada with 3 firms. Further information regarding the profile of the selected companies can be found in Appendix A.

[36] Author's results

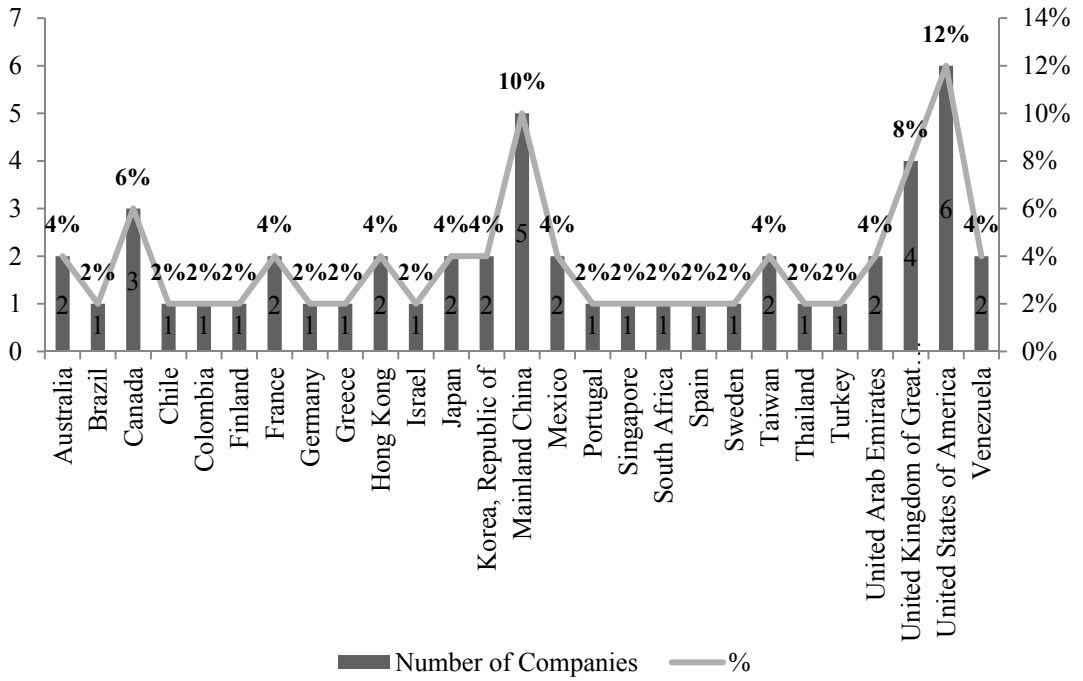


Figure 7: Profile of the Selected Companies in Terms of the Country[37]

In general; during the period of 2008-2015, 246 sustainability or CSR reports were issued by some of these 50 companies, 58% of which have a score of 25, 5% of 50, 13% of 75, and 24% of 100. The number of companies publishing a report and receiving the highest score 100 increased by 42% from 12 in 2014 to 17 in 2015. Whilst there were 12 companies with a score of 75 in 2013, this number decreased by 58% and became 5 in both 2014 and 2015. The number of firms with a score of 50 decreased by 33% from 3 in 2012 to 2 in 2013. Both in 2014 and 2015 there was no report issued with a score of 50. There was a 9% decrease in the number of firms whose reports have a score of 25 (in 2014: 24 firms, in 2015: 22 firms). At the same time, the number of companies not issuing a report and receiving a score of 0 decreased by 33% from 9 in 2014 to 6 in 2015. Although in 2008, 38 companies listed in the database had no report, their number decreased year by year and in 2015 only 6 firms without a report remained. On the other hand, only 1 company issued a report with a score of 100 score in 2008, but the number of firms with the same score increased to 17 in 2015. Consequently, it can be said that the number of companies

[37] Author's results

with lowest or zero score show a negative trend and the number of companies with the highest score have reflected a positive slope for the last 8 years, which is illustrated below:

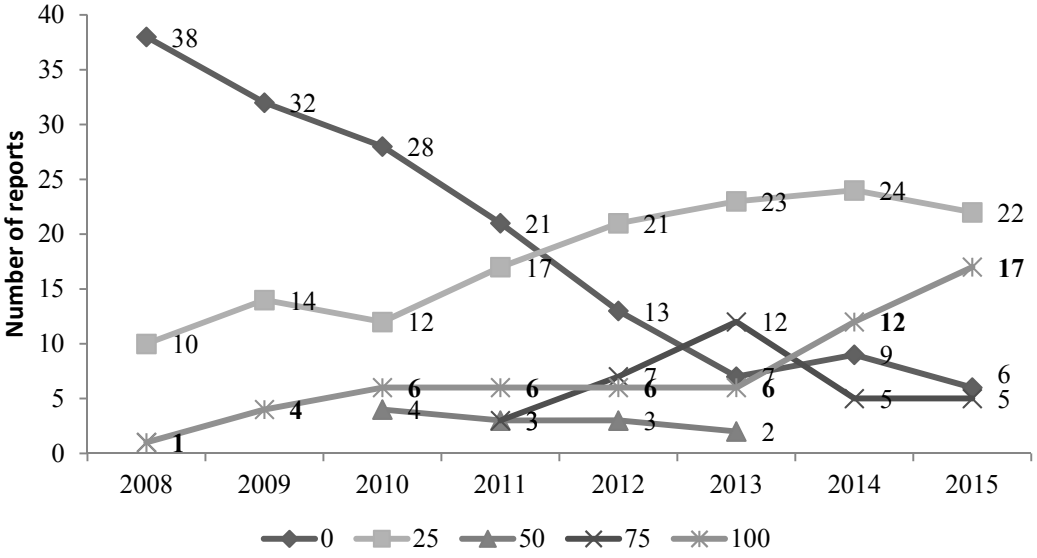


Figure 8: Evolution of the Sustainability Reporting According to the Indicator of the "Compliance of the Reports with the GRI Guidelines"[38]

The region publishing the largest number of reports is Asia, followed by Europe. Over the years 2008-2015, 25 out of the 96 reports (26%) in the 100 score category were released in Europe and 21 of 152 reports (14%) in Asia. Similarly, 33 out of the 96 reports (34%) in Europe had a score of 0 in Europe and 59 of 152 reports (39%) in Asia. In the 75 and 50 score categories America is in the forefront as presented below:

Table 16: Evolution of the Sustainability Reporting in Terms of the Region[39]

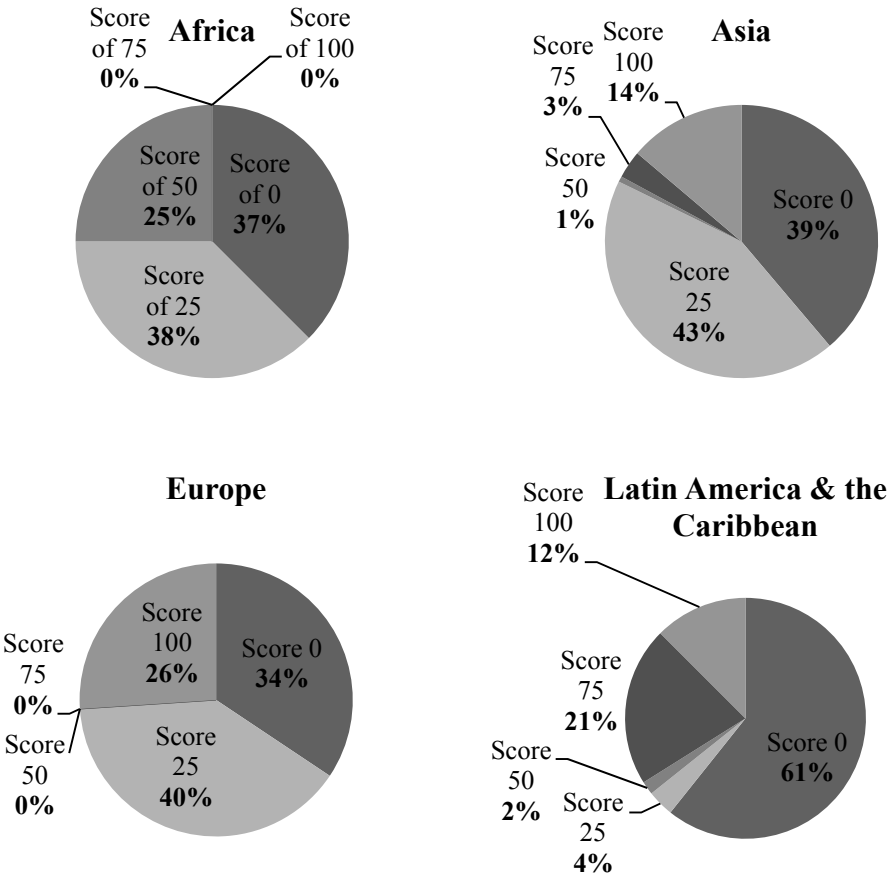
Region	0 - (%)	25 - (%)	50 - (%)	75 - (%)	100 - (%)	Total
Africa	3 **(38%)**	3 **(38%)**	2 **(25%)**			8
Asia	59 **(39%)**	66 **(43%)**	1 **(1%)**	5 **(3%)**	21 **(14%)**	152
Europe	33 **(34%)**	38 **(40%)**			25 **(26%)**	96

[38] Author's results
[39] Author's results

Table 16 (cont'd)

Latin America & the Caribbean	34 **(61%)**	2 **(4%)**	1 **(2%)**	12 **(21%)**	7 **(13%)**	56
Northern America	22 **(31%)**	21 **(29%)**	8 **(11%)**	16 **(22%)**	5 **(7%)**	72
Oceania	3 **(19%)**	13 **(81%)**				16
Total	**154**	**143**	**12**	**33**	**58**	**400**

The distribution of the reports according to the regions and the quality shown in Figure 9 is also illustrated as follows:



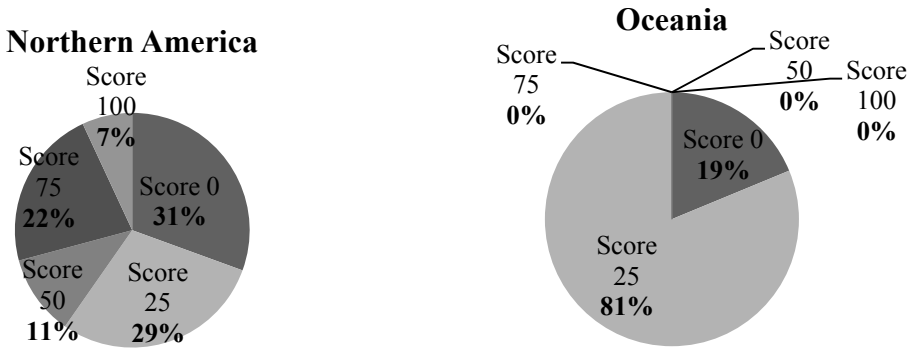


Figure 9: Distribution of the Reports According to the Regions and the Quality[40]

The pie charts illustrate that Europe is the first region that submits the highest number of reports with a top score (26% of its total reports). This is followed by Asia with 14 %, and Latin America & the Caribbean with 12%. In contrast, 61 % of the total reports in the region of Latin America & the Caribbean has no sustainability related report, and therefore, receives a 0 according to the scoring table. This is followed by Asia with 39 %, and Africa with 37%.

On the other hand, it is essential to examine the trend of the sustainability reports in terms of the second indicator of external assurance of the reports, which also indicates the quality and the credibility of the reports toward users. Therefore, in the second stage of the research, the evolution of the SRA in the aviation industry was analyzed in detail.

[40] Author's results

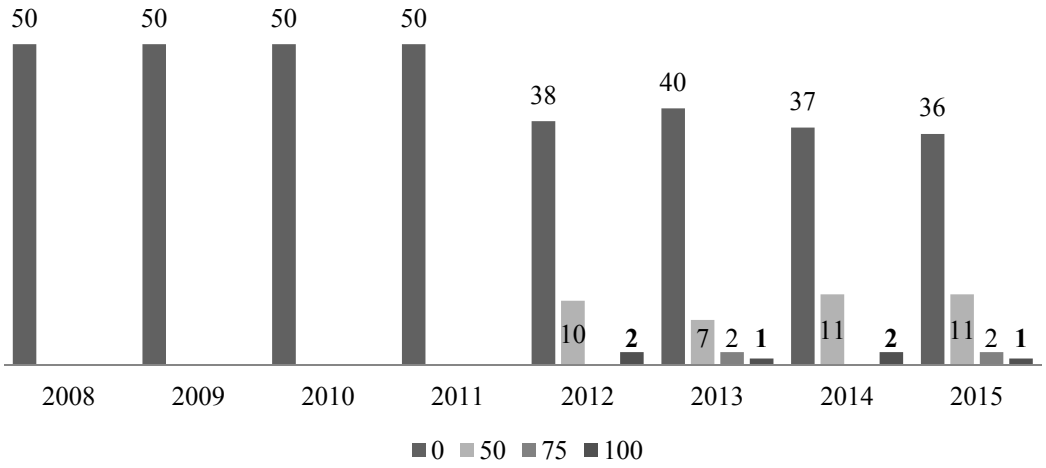


Figure 10: Evolution of the Sustainability Reporting According to the Indicator of the "External Assurance of the Reports" [41]

Figure 10 shows that between the years 2008-2011, there is no report that is externally verified. In total, 49 reports were externally assured during 2012-2015. The number of these kinds of reports has increased and had a positive trend after 2012. The region publishing the largest number of assurance reports is Asia, and the second one is Europe. 19 out of the 49 reports in the 50, 75 and 100 score category were released in Asia and 9 of them in Europe over the years 2012-2015 as presented below:

Table 17: Evolution of the External Assurance of Sustainability Reporting According to the Region[42]

Region	**0**	**50**	**75**	**100**	**Total**
Africa	7	1			8
Asia	132	16	1	3	152
Europe	87	7	2		88
Latin America & the Caribbean	49	7			56
Northern America	64	4	1	3	72
Oceania	12	4			16
Total	**351**	**39**	**4**	**6**	**400**

[41] Author's results
[42] Author's results

In Turkey, Turkish Airlines is the only airline company preparing a sustainability report. It submitted its first report according to the last version of the GRI Guidelines "GRI-G4", in compliance with the "core" option in 2015. The report includes the company's sustainability related information for the period of January 1, 2014 - December 31, 2014 (Turkish Airlines, 2014). In terms of the first indicator of "compliance of the reports with the GRI guidelines", the report received the score of 100; however, because of the fact that the report was not externally verified, it received the score of 0 for the second indicator of "assurance of the reports". Considering that most of the companies have prepared their non-financial reports since 2008 and Turkish Airlines is one of the most preferred leading companies worldwide, its publication can be regarded as late for the industry.

In brief, non-financial reporting all over the world over the last 8 years was evaluated in terms of the two indicators. Compared to other research, this study does not only analyze the number of the issued reports, but also measures the content, quality and reliability of these reports by examining their degree of compliance and assurance.

CHAPTER 4

SUSTAINABILITY AND REPORTING TRENDS IN TURKISH AIRLINE INDUSTRY

In this chapter, the sustainability report of Turkish Airlines, which is the first and only report in the Turkish airline industry, will be evaluated. In this context, Turkish Airlines' sustainability report will be examined in detail according to the SASB's sustainability standards for the airline industry mentioned in the previous section.

This chapter consists of four main subsections. First, the Turkish airline industry will be described to emphasize its growth and importance for the Turkish economy. Second, information regarding Turkish Airlines will be given to highlight its size and market share in the industry. Next, the content of the sustainability report of Turkish Airlines will be mentioned briefly. Finally, an analysis of the report will done to measure whether and to what extent the report is in compliance with both the *accounting* and *activity metrics* of the SABS for the airline industry, and its results will be discussed in detail.

4.1. Airline Industry in Turkey

In the area of air transportation, Turkey has held a strategically important place due to its geographical position and the continued increase in its air traffic. For instance, the airline industry in Turkey has achieved three times more growth performance compared to the world average. The global average growth rate of the sector in the last decade has been around 5%, whilst the Turkish airline industry grew by 14.5% in 2013. According to the airport passenger traffic, Turkey ranked 11th in the world after India, and 5th after Spain in Europe at the end of 2013.

The airline industry, which includes transportation services, airports and ground services contributed with TL 61 billion to the GDP of Turkey in the year 2014, which is equivalent to 3,5% of the total Turkish GDP. Considering only air transportation, its annual turnover was $26 billion in 2014 (in 2013: 23.8 billion $). For the same year in 2014, the airlines industry supported 187.419 direct jobs in Turkey (in 2013:180.570). When considering the indirect jobs supported by the industry, such as jobs based on supply chain of the industry and the spending of employees, this number can be predicted to be over 400.000 in total (Turkish Airlines, 2014; T.C. Ulaştırma Denizcilik ve Haberleşme Bakanlığı, 2014).

The increase in the number of airports, aircraft, and passengers carried every year is another indicator of the continued growth of the airline industry in Turkey. Although the number of active airports in our country was 26 in 2013, this figure reached 53 by the end of the year 2014. The number of domestic passengers increased by more than 9 times to 85,4 million, while the total number of passengers using the airline reached 166,2 million, which is a rise of more than 4 times compared to the year 2013. The total number of aircrafts increased from 162 in 2013 to 422 in 2014, the seat capacity from 27.599 to 76.297, and the cargo capacity from 303 to 1,349 tons. (T.C. Ulaştırma Denizcilik ve Haberleşme Bakanlığı, 2014; ATIG Yatırım Menkul Değerler A.Ş., 2015).

The data above implies that the expected global growth in the airline industry is valid for our country as well, and for the last ten years Turkey has performed over the growth rate of the global industry. As Turkey is a developing country, witnesses an increase in population and developing technology, and consequently population growth, it bears a potential of growing in this sector.

In the Turkish civil aviation sector, 13 airlines operate. Three of them engage in only cargo transportation, while four in air freight shipping with their cargo aircrafts in addition to air passenger transportation. In 2014, Turkish Airlines (with Anadolu Jet), served 53%, Pegasus 28%, Onur Air 7%, Atlas Global 6%, Sun Express 5% and

Bora Jet 1% of the domestic air transportation market. Although in 2010, the share of the domestic to foreign carriers ratio in the foreign air transportation market was 56% / 44%, in 2014 these rates changed to 61% / 39% in favor of Turkish domestic carriers. Turkish Airlines served 65-66% , Pegasus 15%, Sun Express 7-6% and other carriers 1-3% of the foreign air transportation market (Türkiye Odalar ve Borsalar Birliği, 2014):

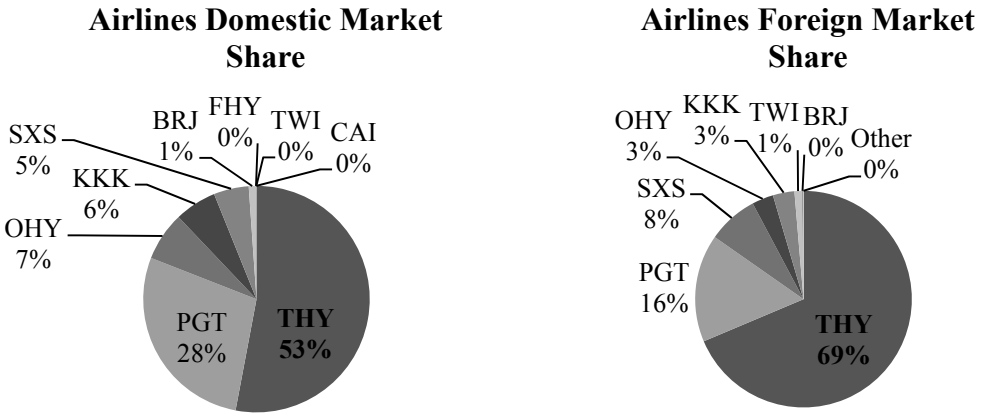


Figure 11: Players of Domestic and Foreign Market Share[43]

Source: DHMİ (KKK; Atlas Global, BRJ: Bora Jet, CAI: Corendon, FHY: Freebird, OHY: Onur Air, PGT: Pegasus, SHY: Antalya Bird, SXS: Sun Express, TWI: Tailwind, THY: Türk Hava Yolları)

4.2. Turkish Airlines at a Glance

Turkish Airlines was established in 1933 and its headquarter is located in İstanbul. It has the feature of flag carrier airline of Turkey and offers air transportation service for the domestic and international passengers and cargo transportation services. It is the market leader of Turkey, which carries 44% of the total passengers in Turkey. İstanbul Atatürk Airport, Sabiha Gökçen and Ankara Esenboğa are the main hubs of Turkish Airlines. It is chosen "Best Airline in Europe" throughout the four consecutive years. Its fleet consists of 299 aircrafts and it carried 61.2 million customers in 2015. When all its subsidiaries are taken into consideration as well, the

[43] TOBB, 2014, "Türkiye Sivil Havacılık Meclisi Sektör Raporu ", page 30-32

number of its employees is 19.902 worldwide. As of 2014 it has the 4th largest flight network, which flies to 284 destinations in 108 countries and thanks to this, it is ranked as the number one airline worldwide that provides its service for the most number of countries and destinations from a single hub İstanbul Atatürk Airport. At the same time it plays an important role in the growth of economy, trade and tourism.

It gained 11.7 billion $ of revenue, 845 million $ of net profit and 2.044 million $ of EBITDAR in 2014. Moreover, it provided 23.157 direct jobs in 2013, 25.117 in 2014 and over 43.000 jobs when considered its subsidiaries as well in 2014. The number of passengers carried increased by 11.8% and reached to 61.2 million in 2015 from 54.8 million in 2014. As of the year 2014, it has 261 aircrafts in its fleet and its average fleet age is 7,2.

It has 13 subsidiary companies relating maintenance and overhaul, catering, ground handling services and fuel supply (Turkish Airlines, 2014).

4.3. Turkish Airline's Sustainability Report

In Turkey, Turkish Airlines is the only airline company preparing a sustainability report. It submitted its first sustainability report according to the last version of GRI Guidelines "GRI-G4", in compliance with the "core" option in 2015. The report includes the company's sustainability related information for the period of January 1, 2014 - December 31, 2014 (Turkish Airlines, 2014).

The report consists of 5 main parts including company information, governance, economy, environment, and social topics. In the first part, brief information regarding the company, its vision and mission, and its competitive strength and priorities are mentioned. This is followed by the issues regarding the measure of sustainability performance.

4.4. Analysis of the Sustainability Report of Turkish Airlines

4.4.1. Accounting Metrics of Turkish Airlines

4.4.1.1. Environmental Footprint of Fuel Use

Gross Global Scope 1 Emission

Turkish Airlines has taken many actions and carried out various activities to minimize its environmental footprint. Firstly, all its operations in Turkey are certified by Turkish Standards Institution (TSE) within the framework of TS ISO EN 14001, which is globally known as Environment Management System. This provides system standards and by making the firm follow the necessary procedures and obligatory documents, its environmental performance is continuously followed and improved, while its environmentally harmful operations are decreased or prevented.

Following this system, the firm spends continuous effort to achieve fuel efficiency, invests in the area of sustainable biofuels, and reduces natural resources consumption (electricity, natural gas, water, paper etc.) in offices and during flights. Secondly, Turkish Airlines' Environmental Policy is available on its website and shows the environmental approach of the company to its stakeholders (Turkish Airlines, 2014).

In the report, it is issued that compared to former years, Turkish Airlines has reduced its GHG emissions and produced 86,916 tons less CO2 due to its environmental management system. This information is insufficient because the gross global scope 1 emission as metric tons of CO2 is not included in this report. This calculation should be made and declared comparatively according to company's accounting year end. Therefore, it can be stated that these disclosures do not comply with ***the requirements of the SASB's accounting metric TR0201-01.***

Long-Term and Short-Term Strategy to Manage Scope 1 Emissions

To be able to reduce CO2 emissions, Turkish Airlines has undertaken many tasks, set targets, and strived to implement them. Within this scope, many measures are required to provide fuel efficiency, which constitutes most of its operating expenses as well as its GHG emissions.

Turkish Airlines aims to decrease its fuel consumption by 5% as liter / available ton-km by 2020 and to 10% by 2025. Moreover, to optimize its operation, and thereby decrease its carbon footprint and achieve this target, it has built more than 100 projects and some of them have been realized. These are collected as 3 main pillars listed below:

1) "optimization of the operations" aims to provide fuel efficiency:

- techniques related to piloting such as single engine taxi, reduced-flap takeoff/ landing, climb/ level flight/descent procedures, NADP, Cost Index, descert speed, short-cut, idle reverse etc.
- ground operations such as using auxiliary power unit (APU) during waiting period on the ground, activities that decrease the weight of the aircraft (portable water, fly away kits, magazines, baggage containers, catering equipment), fuel servicing, center of gravity (CG) etc. For example, by replacing its 2614 baggage containers with the composite ones, the firm will reduces the weight of its flights and so provide 3000-3500 tons of fuel saving per year.
- dispatch / flight planning such as new flight planning system, optimized routes and aircraft speed and tankering
- aircraft maintenance such as making modifications (winglet, sharklet), engine wash and configuration deviation list (CDL).

  For example; with the setup of the sharklets to all A320 aircrafts in its fleet, the firm will save 17-21 thousand tons of fuel annually according to the figures in 2015, which provide nearly 2-3 % of fuel efficiency.

2) investment on the new technologies

- modernization of the fleet: Turkish Airlines has ordered new generation aircrafts (92 Airbus, 75 Boeing), which are planned to add to its fleet by 2021 and provide 15% fuel efficiency for the company.
- carrying out studies regarding the use of alternative fuels such as aviation biofuels
- modern 4-D flight planning systems
- improvement of fuel management system and monitoring software
  With this system the cost of the ATC operations will be calculated, created solutions for it and followed the factors that have an impact on the fuel consumption such as change in flight plan, route or altitude, speed etc.

3) improvement of infrastructure

- ATC operations such as separation, efficient airspace usage (Single European Sky Atm Research-SESAR project, military airspace, optimization of the flight route)
- improving airport infrastructure such as new parking areas and taxiways, assessment of equipments of service providers (Turkish Airlines, 2014).

The information submitted in the Turkish Airlines's sustainability report is sufficient and complies with ***the requirements of the SASB's accounting metric TR0201-02. However, according to the sub metric TR0201-02.08 risks, any factors that limit the plans, investments and activities to accomplish the targets shall be disclosed and added to the report (TR0201-02.08).***

Fuel Consumption

Since the launch of the fuel saving project in 2008, Turkish Airlines has provided 20% fuel efficiency and thus saved 27,592 tons of fuel, which equals 86,916 tons of CO2 according to the end of 2014 data. At the same time, it has conducted research on the use of biofuels and contacted Solena Fuel Corporation in Washington DC, USA in 2013 to determine whether there is an opportunity to establish a biofuel production facility in Istanbul (Turkish Airlines, 2014).

However; except from the information above, there is no data regarding the total fuel consumed and percentage of the alternative energy sources in number and thus it is does not comply with ***the requirements of the SASB's accounting metric TR0201-03****.*

Fuel Hedging

There is not enough information about this issue in the report. The report should include whether to agree on fuel hedging contracts to control and mitigate the impact of fuel prices or not. Therefore, it can be stated that disclosures in the report do not comply with ***the requirements of the SASB's accounting metric TR0201-04.***

4.4.1.2. Labor Relations

Workforce under Collective-Bargaining Agreements

For approximately 48 years, collective bargaining agreements have been reached between Turkish Airlines and the Union. In this way, the rights of the employees have been improved and the possible conflicts between two parties solved easily. Therefore, in the sustainability report of Turkish Airlines it is stated that finding a compromise with the union will continue (Turkish Airlines, 2014).

Apart from the information above, there is no data regarding the percentage of Turkish and foreign employees covered by collective bargaining agreements. Therefore, it can be stated that these disclosures do not comply with ***the requirements of the SASB's accounting metric TR0201-05.***

Strikes and Lockouts

The report does not contain information regarding the number of strikes and lockouts, their durations in worker days idle, and their reasons. Therefore it can be stated that these disclosures do not comply with ***the requirements of the SASB's accounting metric TR0201-06.***

4.4.1.3. Competitive Behavior

Legal and Regulatory Fines and Settlements

The report does not contain information regarding the amount of fines / settlements associated with anti-competitive practices. Therefore, it can be stated that these disclosures do ***not comply with the requirements of the SASB's accounting metric TR0201-07.***

4.4.1.4. Accidents and Safety Management

Safety Management System

Ensuring safety in its operations and performing with highest standards are the first priority for Turkish Airlines. To that end, it has used one of the state of the art systems called the Safety Management System (SMS) in its operations to manage safety risks and in turn provide sustainability since 2006. The CEO of the Turkish Airlines is at the head of the current SMS.

Turkish Airlines aims to provide continuous improvement for its operations to meet and exceed the global standards determined by authorized organizations, which is stated in its Safety Policy in detail. To be able to accomplish this, it has established the Integrated Management System (IMS), of which SMS is the part is related to the management of operational safety. At the same time Turkish Airlines has been selected as the best airline in Europe for four consecutive years for the quality of its operations.

In the management of the SMS, the CEO holds the top position and the Senior Vice President (SVP) - Corporate Safety is the second most responsible person of the daily administration. Under the SVP, three main departments operate, namely, Safety Information Management, Maintenance and Ramp Safety, and Flight Operations Safety. These departments include the sub departments of Safety Documentation, Flight Data Monitoring Programs, Fatigue Risk Management, Safety Assurance,

Dispatch, Ground and Cargo, Training, Maintenance, and Cabin and Flight Safety, as indicated in Figure 12 below:

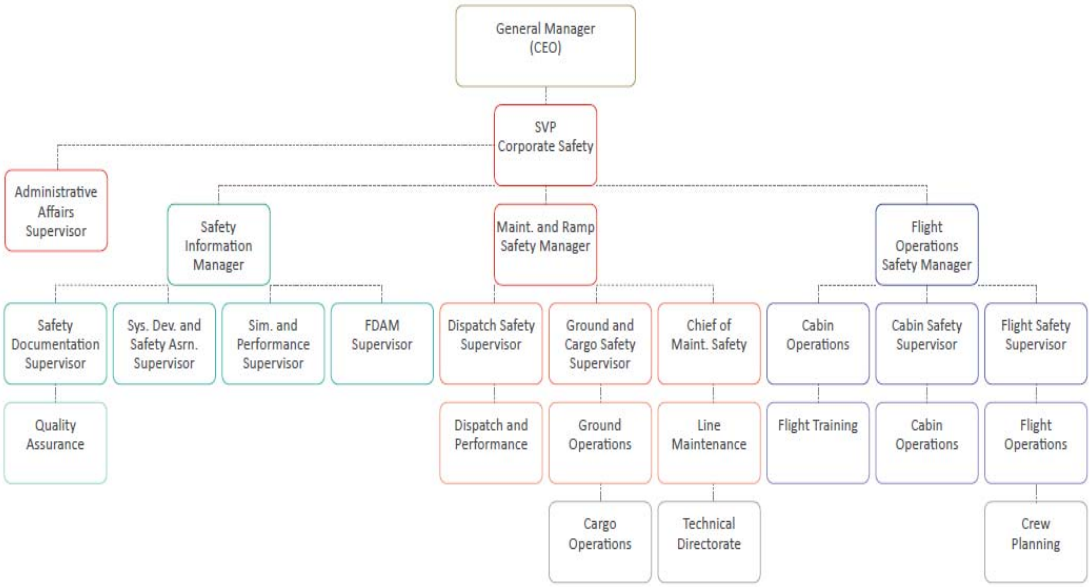


Figure 12: Organization Chart of the Safety Management System [44]

Every two months, the Safety Board constituted by the CEO evaluates the current goals, objectives, action plans, performance, and Safety Performance Indicators (SPI) of the SMS.

Since the IOSA (IATA Operational Safety Audit) program was first launched in 2006, Turkish Airlines has been audited by the International Air Transportation Association (IATA). Except for the IOSA audit, the Turkish Directorate General of Civil Aviation (DGCA) has also occasionally conducted inspections to evaluate the safety of its operations. Turkish Airlines has successfully passed all safety audits of the IATA and DGCA. Moreover, it has conducted Line Operations Safety Audit (LOSA) internally since 2010 to identify threats, determine errors, and make improvements with respect to safety.

[44] Turkish Airlines, 2015, "Sustainability Report 2014", page 69

In addition to the implementation of the SMS, the Turkish Airlines promotes a safety culture in itself and forms this kind of structure with the attributes of flat, reporting, learning, informed, adaptive, committed and just.

Moreover, thanks to the SMS training and safety communications with the whole company and especially personnel in the cockpit, an awareness regarding safety has been created and safety culture has been improved.

Turkish Airlines has a security department which is independent from the safety department. It assures security and sustainability throughout all the activities including the protection of passengers, aircrafts, cargo, facilities, vehicles, employees etc. via Security Management System (SeMS) (Turkish Airlines, 2014).

The sustainability report of Turkish Airlines covers most of the required information and complies ***with the requirements of the SASB's accounting metric TR0201-08. However, according to the sub metric TR0201-08.36, the outcomes of the SMS including the number of safety risks and their percentages that were mitigated by this system should be disclosed and added to the report.***

Number of Accidents

The report doesnot contain information as to the occurrence of accidents and their number. Therefore it can be stated that these disclosures do ***not comply with the requirements of the SASB's accounting metric TR0201-09.***

Number of Governmental Enforcement Actions

The report does not present information regarding the number of governmental enforcement actions of aviation safety regulations.t. Therefore, it can be stated that these disclosures do ***not comply with the requirements of the SASB's accounting metric TR0201-10.***

4.4.2. Activity Metrics of Turkish Airlines

The report does not contain information regarding the performance metrics of the airline industry except for "average age of fleet". By the end of the year 2014, the average fleet age of Turkish Airlines was 7.2. However, this information is not given comparatively. To be able observe the improvement, the last 3 year details should be disclosed and thus the comparison should be shown side by side in the report. Therefore, it can be stated that these disclosures do not ***comply with the requirements of the SASB's accounting metric TR0201-A, TR0201-B, TR0201-C, TR0201-D, TR0201-E.***

To sum up, examination of the sustainability report of Turkish Airlines reveals that most of the metrics are not disclosed. The SASB disclosure checklist is presented below:

Table 18: SASB Accounting Metric Checklist[45]

Code	Disclosure Topic	Accounting Metric	Disclosure made	Page
TR0201-01		Gross global Scope 1 emissions	No	-
TR0201-02	Environmental Footprint of Fuel Use	Description of long-term and short-term strategy or plan to manage Scope 1 emissions, emissions reduction targets, and an analysis of performance against those targets	Yes	52 to 62
TR0201-03		Total fuel consumed, percentage renewable	No	-
TR0201-04		Notional amount of fuel hedged	No	-
TR0201-05	Labor Relations	Percentage of active workforce covered by collective-bargaining agreements, broken	No	-
TR0201-06		Number and duration of strikes and lockouts	No	-
TR0201-07	Competitive Behavior	Amount of legal and regulatory fines and settlements associated with anti-competitive	No	-
TR0201-08		Description of implementation and outcomes of Safety Management System	Yes	68 to 76
TR0201-09	Accidents and Safety Management	Number of accidents	No	-
TR0201-10		Number of governmental enforcement actions	No	-

[45] Author's results

Table 19: SASB Activity Metric Checklist[46]

Code	Activity Metric	Disclosure made	Page
TR0201-A	Available seat kilometers (ASK)	No	-
TR0201-B	Passenger load factor	No	-
TR0201-C	Revenue passenger kilometers (RPK)	No	-
TR0201-D	Revenue ton kilometers (RTK)	No	-
TR0201-E	Number of departures	No	-
TR0201-F	Average age of fleet	Yes	58

This analysis also indicates that the sustainability report of Turkish Airlines prepared according to the GRI-G4 guideline and in compliance with its "core" option does not include important metrics for the airline industry. Therefore, the GRI guidelines and SASB industry standards should be used together to be able to show the real performance and allow for comparison among companies in the same industry.

[46] Author's results

CHAPTER 5

CONCLUSIONS AND RECOMMENDATIONS

This thesis aims to put forward the future of the corporate reporting, to evaluate the new alternative corporate reporting in the world and Turkey, to draw attention to their importance for especially investors and other stakeholders, to raise awareness about these, and to offer suggestions regarding its use in this field.

This thesis also contributes to the current and further research for several reasons. Differently from previous research, this is the first study in Turkey that examines all the 3 most important, widely used, and different corporate reporting trends together, namely sustainability reporting, integrated reporting, and SASB standards. Secondly, it is also the first research to measure the historical development of the sustainability reporting in the global airline industry according to the GRI guidelines and to analyze it in terms of the criteria of compliance (*quality)* and external assurance (*credibility)*. Thirdly, this thesis presents the SASB's standards for the airline industry and examines Turkey's first sustainability report in the airline sector according to these standards. Moreover, some recommendations for future reporting are made and a template for the suggested corporate report is included at the end of the thesis.

In line with these aims of the thesis, three main corporate reporting formats that come to the forefront are examined in detail. These are the sustainability reporting guideline developed by Global Reporting Initiative (GRI), the integrated reporting framework submitted by the International Integrated Reporting Council's (IIRC) and the sustainability reporting standards created by the Sustainability Accounting Standards Board's (SASB).

Moreover, in this thesis, the SASB sustainability standards for the airline industry are explained in detail. Sustainability report of Turkish Airlines is selected as a case study to evaluate its scope and content, and is examined to determine its relevance in terms of these standards. In addition, to be able see the evolution of these kind of non-financial reports in the airline industry, 50 companies in the GRI database are examined and analyzed over a period of 8 years in terms of "the compliance of the reports with the GRI guidelines" and their "assurance ".

According to these analyses, the publication of sustainability reports in the airline industry worldwide has evolved between the years of 2008-2015. Although in 2008 among selected 50 airline companies from all over the world only 11 sustainability or CSR reports were issued, in 2015 the number of reports increased by 291% and reached 43. That is, in 2008, only 22% of the total number of companies issued these kinds of reports; while in 2015 88% of all firms did. Throughout the analysis period, 238 reports related to the sustainability were written, of which 24% received the score of 100 (application level A), 14% of 75 (application level B), 5% of 50 (application level C) and the remaining 57% of 25 (undetermined application level or inconsistent with the GRI guidelines) as a total. Apart from the numerical analysis, the quality of the report is vital for the users. Therefore, in this thesis, compliance of the reports with the GRI guidelines is rated in accordance with the application levels and external assurance. Whereas in 2008, there was only 1 report that received a score of 100, and in 2015 this number increased to 17. Whilst between 2008 and 2012 there were no reports verified externally, after the year 2011, 12 reports with external assurance were published. In 2015, the number of these kinds of reports reached 14.

In Turkey, Turkish Airlines is the only airline company preparing a sustainability report. It submitted its first report according to the last version of GRI Guidelines "GRI-G4", in compliance with the "core" option in 2015. In terms of the first indicator of "compliance of the reports with the GRI guidelines" the report received the score of 100; however, because of the fact that the report was not externally

verified, it received the score of 0 for the second indicator of "assurance of the reports ".

This thesis demonstrates that there has been a significant increase in the submission of sustainability reports in the airline industry compared to the past 8 years. Apart from the number of the reports, their quality has increased and although the number of reports with assurance is low and has not increased significantly, the number of them has been evolving in the last 4 years.

In the thesis, another analysis aims to determine whether Turkish Airline's sustainability reports is relevant according to SASB's airline industry standards or not. After the result of this analysis, it can be clearly seen that most of the SASB sustainability metrics are not disclosed in the report. This means that although the sustainability report of Turkish Airlines was prepared in compliance with the GRI guideline and received a top score according to findings of the first analysis, the report does not include important metrics for the airline industry. Therefore, GRI guideline and SASB industry standards should be used in combination to make it possible to reflect the real sustainability performance and allow for comparison among companies in the same industry. Furthermore, external assurance of the report should be provided to improve the reliability and credibility of the sustainability report of Turkish Airlines.

In addition to the suggestion made for Turkish Airlines' sustainability report above, the publications developed by the three organizations GRI, IIRC and SASB should be combined with each other and standardized. They share similarities but they approach the field of sustainability differently. When each is used separately, they have some weaknesses in themselves. The GRI guides companies in preparing their sustainability reports and provides sustainability reporting indicators. IIRC provides firms with a framework to integrate their financial and non-financial reports. Although the IIRC’s framework is used as a reference point, it does not provide a specific reporting format to define the basic principles and elements that should be included in the report. In contrast, the SASB provides industry related accounting

metrics and standards for it. Hence, these approaches are complementary, rather than substitutes for each other. Although nowadays sustainability reports are issued separately from annual financial ones, sustainability reports prepared in accordance with GRI guidance and SASB industry standards should be integrated with the financial information, be rendered into one report according to the IIRC framework and it should be made compulsory for all the public companies to obtain better corporate reports. In brief, companies should use GRI guideline and SASB standards in their integrated reports in accordance with the IIRC framework. The recommended report ought to be aligned with the content elements issued in the IIRC framework. The environmental, social, and governmental data in the report are disclosed in accordance with the GRI-G4 core guidelines. The report and its indicators are also prepared in accordance with the SASB corresponding industry standards.

Further, one organization should be established to work in coordination with the institutions IIRC, GRI and SASB, and to be able to control the quality and determine the level of the proposed reports.

In this thesis, a template is proposed by examining the Turkish Airlines annual report and sustainability report, and an outline specific to Turkish Airlines is recommended as follows:

Table 20: Template for the Recommended Report[47]

Title
Turkish Airlines **Annual Review** **About Turkish Airlines** THY at a Glance Financial Analysis Industry Developments and the Forecast

[47] Author's results

Table 20 (cont'd)

	Chairman's Message
	Board of Directors
	Mission and Vision
	Strategy
Turkish Airlines Group	
	Its Subsidiaries
	Traffic Results
	Fleet
	Flight Networks
	THY in last year
	Its Activities
Governance	
Economy	
Environment	
Social	
Appendix	
	1. Consolidated Financial Statements
	2. GRI G4 Content Index — Page — Explanation
	General Standard and Disclosures
	Organizational Profile
	Identified Material Aspect and Boundaries
	Stakeholder Engagement
	Report Profile
	Governance
	Ethics and Integrity
	Specific Standard Disclosures
	Economic
	Environmental
	Social
	Labor
	Human Rights
	Society
	Product Responsibility
	3. External Assurance

Table 20 (cont'd)

	4. SASB Standard for Airlines Content Index — Page — Explanation *Quantitative Accounting Metrics* *Environmental Footprint of Fuel Use* *Labor Relations* *Competitive Behavior* *Accidents and Safety Management* *Activity Metrics*

The said template can be used as a checklist for the airline companies and help to confirm whether the report covers all important parameters.

5.1. Future Research

For future research, (1) the analysis can be extended with larger sample size; for example, it can be improved for the all GRI reports worldwide or all sectors and thus the general trend for the sustainability reporting can be observed globally.

Apart from the analysis of the evolution of new corporate reporting in Turkey or in the world in terms of number, quality, and the assurance, there are many other research opportunities: (2) Especially in Turkey, due to the fact that these reporting formats are not widely known and used, their effect on the decision making and the level of awareness of the stakeholders can be measured. Moreover, (3) their effect on the cost of capital can be another research topic and (4) to obtain insight in the practice dimension, more case studies or research is needed for the implementation and combination of these three different formats with each other, so that the suggested template can be improved or edited in the light of the results observed in practice. (5) It would also be beneficial to examine whether and to what extent the external assurance of the reports has an impact on the stakeholders' perceptions.

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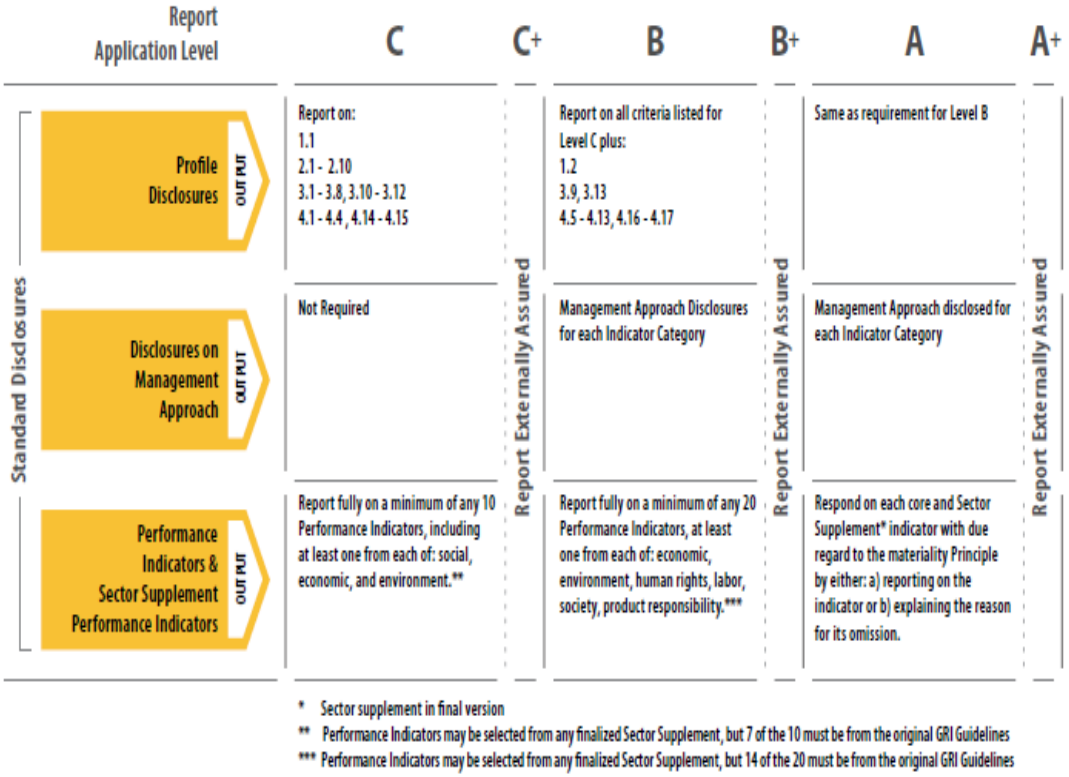
APPENDICES

A. SELECTED COMPANIES USED IN THE ANALYSIS

#	Company	Country	Region
1	Comair	South Africa	Africa
2	Air China	Hong Kong	Asia
3	Cathay Pacific Airways	Hong Kong	Asia
4	El Al	Israel	Asia
5	All Nippon Airways Company Limited	Japan	Asia
6	Japan Airlines	Japan	Asia
7	Asiana Airlines	Korea, Republic of	Asia
8	Korean Air	Korea, Republic of	Asia
9	China Eastern Airlines	Mainland China	Asia
10	China National Aviation Corporation (CNAC) - China	Mainland China	Asia
11	China Southern Airlines	Mainland China	Asia
12	HNA Group	Mainland China	Asia
13	Xiamen Airlines	Mainland China	Asia
14	Singapore Airlines Limited	Singapore	Asia
15	China Airlines (CAL)	Taiwan	Asia
16	EVAAIR	Taiwan	Asia
17	Thai Airways International Public Company Limited	Thailand	Asia
18	Turkish Airlines	Turkey	Asia
19	Etihad Airways	United Arab Emirates	Asia
20	The Emirates Group	United Arab Emirates	Asia
21	Finnair	Finland	Europe
22	Air France-KLM	France	Europe
23	Dassault Aviation	France	Europe
24	Deutsche Lufthansa	Germany	Europe
25	AEGEAN AIRLINES	Greece	Europe
26	TAP Group	Portugal	Europe
27	IBERIA AIRLINES OF SPAIN	Spain	Europe
28	SAS Group AB (Sweden)	Sweden	Europe
29	British Airways	United Kingdom of Great Britain and Northern Ireland	Europe

30	Easyjet	United Kingdom of Great Britain and Northern Ireland	Europe
31	Ryanair	United Kingdom of Great Britain and Northern Ireland	Europe
32	Virgin Atlantic	United Kingdom of Great Britain and Northern Ireland	Europe
33	GOL	Brazil	Latin America & the Caribbean
34	LATAM Airlines Group	Chile	Latin America & the Caribbean
35	Avianca Holdings S.A.	Colombia	Latin America & the Caribbean
36	Grupo Aeroméxico	Mexico	Latin America & the Caribbean
37	Volaris	Mexico	Latin America & the Caribbean
38	Aserca Airlines	Venezuela	Latin America & the Caribbean
39	SBA Airlines, S.A.	Venezuela	Latin America & the Caribbean
40	Air Canada	Canada	Northern America
41	Transat	Canada	Northern America
42	Westjet	Canada	Northern America
43	Alaska Air Group	United States of America	Northern America
44	American Airlines	United States of America	Northern America
45	Delta Air Lines	United States of America	Northern America
46	JetBlue	United States of America	Northern America
47	Southwest Airlines	United States of America	Northern America
48	United Airlines	United States of America	Northern America
49	Qantas	Australia	Oceania
50	Virgin Australia	Australia	Oceania

B. LEVEL OF GRI DISCLOSURES[48]



[48] GRI, 2011, "GRI Application Levels", page 2

C. CLIMATE DISCLOSURE STANDARDS BOARD (CDSB) CLIMATE CHANGE REPORTING FRAMEWORK (CCRF)[49]

4.24 The CCRF's recommendation is that GHG emissions should be reported in two parts, first for the following entities:

Part 1 GHG emissions (Scope 1 and Scope 2)

Total	Entities	GHG emissions Scope 1 and Scope 2 GHG emissions are to be reported separately
Line 1	Parent company and subsidiaries under financial control including leased assets treated as assets of the consolidated group for financial accounting purposes[49].	100% of emissions
Line 2	Joint ventures	X % of emissions according to the % interest in the joint venture

4.25 The approach outlined above (entitled "part 1 GHG emissions") takes account of the fact that the provision of GHG emissions information relating to indirect upstream impacts including transportation costs and energy use and indirect downstream impacts from products after sale would be inconsistent with other information in annual financial statements. However, the CCRF also recognizes that confining GHG emissions disclosures to those from sources and activities within the boundary defined for financial reporting purposes omits GHG emissions information that might be of interest to investors. Therefore, in addition to, but separately from part 1 GHG emissions as set out above, the CCRF also recommends disclosure of "part 2 GHG emissions" as defined below, in order to distinguish them from GHG emissions from sources and activities within the organizational boundary used for financial reporting.

[49] CDSB, 2012, "Climate Change Reporting Framework –Edition 1.1", page 24

D. A CORPORATE ACCOUNTING AND REPORTING STANDARD[50]

TABLE 1. Financial accounting categories

ACCOUNTING CATEGORY	FINANCIAL ACCOUNTING DEFINITION	ACCOUNTING FOR GHG EMISSIONS ACCORDING TO *GHG PROTOCOL CORPORATE STANDARD*	
		BASED ON EQUITY SHARE	BASED ON FINANCIAL CONTROL
Group companies / subsidiaries	The parent company has the ability to direct the financial and operating policies of the company with a view to gaining economic benefits from its activities. Normally, this category also includes incorporated and non-incorporated joint ventures and partnerships over which the parent company has financial control. Group companies/subsidiaries are fully consolidated, which implies that 100 percent of the subsidiary's income, expenses, assets, and liabilities are taken into the parent company's profit and loss account and balance sheet, respectively. Where the parent's interest does not equal 100 percent, the consolidated profit and loss account and balance sheet shows a deduction for the profits and net assets belonging to minority owners.	Equity share of GHG emissions	100% of GHG emissions
Associated / affiliated companies	The parent company has significant influence over the operating and financial policies of the company, but does not have financial control. Normally, this category also includes incorporated and non-incorporated joint ventures and partnerships over which the parent company has significant influence, but not financial control. Financial accounting applies the equity share method to associated/affiliated companies, which recognizes the parent company's share of the associate's profits and net assets.	Equity share of GHG emissions	0% of GHG emissions
Non-incorporated joint ventures / partnerships / operations where partners have joint financial control	Joint ventures/partnerships/operations are proportionally consolidated, i.e., each partner accounts for their proportionate interest of the joint venture's income, expenses, assets, and liabilities.	Equity share of GHG emissions	Equity share of GHG emissions
Fixed asset investments	The parent company has neither significant influence nor financial control. This category also includes incorporated and non-incorporated joint ventures and partnerships over which the parent company has neither significant influence nor financial control. Financial accounting applies the cost/dividend method to fixed asset investments. This implies that only dividends received are recognized as income and the investment is carried at cost.	0%	0%
Franchises	Franchises are separate legal entities. In most cases, the franchiser will not have equity rights or control over the franchise. Therefore, franchises should not be included in consolidation of GHG emissions data. However, if the franchiser does have equity rights or operational/financial control, then the same rules for consolidation under the equity or control approaches apply.	Equity share of GHG emissions	100% of GHG emissions

[50] The Greehouse Gas Protocol, 2004, "A Corporate Accounting and Reporting Standard", page 19

E. CC3, TARGETS AND INITIATIVES IN THE CDP QUESTIONNAIRE [51]

CC3. Targets and Initiatives

Targets

CC3.1 Did you have an emissions reduction target that was active (ongoing or reached completion) in the reporting year?

If you have an absolute target:

CC3.1a Please provide details of your absolute target

If you have an intensity target:

CC3.1b Please provide details of your intensity target

CC3.1c Please also indicate what change in absolute emissions this intensity target reflects

The following details are requested for targets (in Questions CC3.1a and CC3.1b), to be inputted in tables in the ORS:

- Scope
- % of emissions in scope
- % reduction from base year
- Metric denominator (intensity targets only)
- Base year
- Base year emissions
- Target year
- Comment

Direction of change anticipated in absolute Scope 1+2 emissions at target completion?	% change anticipated in absolute Scope 1+2 emissions	Direction of change anticipated in absolute Scope 3 emissions at target completion?	% change anticipated in absolute Scope 3 emissions	Comment

For both types of target, also:

CC3.1d For all of your targets, please provide details on the progress made in the reporting year **(CDP 2013 Q3.1d, amended)**

% complete (time)	% complete (emissions)	Comment

If you do not have a target:

CC3.1e Please explain: (i) why you do not have a target; and (ii) forecast how your emissions will change over the next five years **(CDP 2013 Q3.1e, amended)**

Emissions Reduction Initiatives

CC3.2 Does the use of your goods and/or services directly enable GHG emissions to be avoided by a third party?

If yes: CC3.2a Please provide details of how the use of your goods and/or services directly enable GHG emissions to be avoided by a third party **(CDP 2013 Q3.2a, amended)**

CC3.3 Did you have emissions reduction initiatives that were active within the reporting year (this can include those in the planning and/or implementation phases)

If yes, complete questions CC3.3a, CC3.3b and CC3.3c:

CC3.3a Please identify the total number of projects at each stage of development, and for those in the implementation stages, the estimated CO_2e savings

Stage of development	Number of projects	Total estimated annual CO_2e savings in metric tonnes CO_2e (only for rows marked *)
Under investigation		
To be implemented*		
Implementation commenced*		
Implemented*		
Not to be implemented		

CC3.3b For those initiatives implemented in the reporting year, please provide details in the table below **(CDP 2013 Q 3.3b, amended)**

Activity type	Description of activity	Estimated annual CO_2e savings (metric tonnes CO_2e)	Annual monetary savings (unit currency – as specified in CC0.4)	Investment required (unit currency – as specified in CC0.4)	Payback period	Estimated lifetime of the initiative, years	Comment

CC3.3c What methods do you use to drive investment in emissions reduction activities?

Method	Comment

If no: CC3.3d If you do not have any emissions reduction initiatives, please explain why not

[51] CDP, 2014, "CDP's Climate Change Information Request", page 4-5

F. MANAGEMENT ACTIONS IN THE CDSB SECTION 4[52]

4. Management actions

4.12 Disclosure shall include a description of the organization's long-term and short-term strategy or plan to address climate change-related risks, opportunities and impacts, including targets to reduce GHG emissions and an analysis of performance against those targets.

4.13 Detail that makes information about management's actions decision-useful:

• describes the nature of the plans (e.g.: whether they involve GHG emissions reductions, energy efficiency and/or diversification, managing reliance on fossil fuels and so on);

• explains the GHG reduction target (where one is set) including:

– the type of target, whether absolute or intensity-based;

– the timescales over which the company aims to achieve the target;

– the target base year and GHG emissions for the organizational boundary and targeted GHG emissions sources or activities for that year. The base year is the first or starting year against which emissions are evaluated towards the achievement of the target;

– an explanation of the circumstances in which the target base year emissions have been or may be re-calculated retrospectively or where the target base year has been reset;

• explains other goals and timescales that have been set under the plans and the key performance indicators against which those goals will be evaluated;

• specifies the organizational boundary and the GHG emissions activities and/or sources to which the plans apply;

• describes the activities and investments required to achieve the plans and any risks or limiting factors that might affect achievement of the plans and/or targets; and

• analyzes progress to date against previously set plans or targets.

• analyzes progress against regional, national, international or sectoral targets.

[52] CDSB, 2012, "Climate Change Reporting Framework –Edition 1.1", page 21

G. DEFAULT NET CALORIFIC VALUES AND LOWER AND UPPER LIMITS OF THE 95% CONFIDENCE INTERVALS[53]

TABLE 1.2
DEFAULT NET CALORIFIC VALUES (NCVS) AND LOWER AND UPPER LIMITS OF THE 95% CONFIDENCE INTERVALS [1]

Fuel type English description		Net calorific value (TJ/Gg)	Lower	Upper
Crude Oil		42.3	40.1	44.8
Orimulsion		27.5	27.5	28.3
Natural Gas Liquids		44.2	40.9	46.9
Gasoline	Motor Gasoline	44.3	42.5	44.8
	Aviation Gasoline	44.3	42.5	44.8
	Jet Gasoline	44.3	42.5	44.8
Jet Kerosene		44.1	42.0	45.0
Other Kerosene		43.8	42.4	45.2
Shale Oil		38.1	32.1	45.2
Gas/Diesel Oil		43.0	41.4	43.3
Residual Fuel Oil		40.4	39.8	41.7
Liquefied Petroleum Gases		47.3	44.8	52.2
Ethane		46.4	44.9	48.8
Naphtha		44.5	41.8	46.5
Bitumen		40.2	33.5	41.2
Lubricants		40.2	33.5	42.3
Petroleum Coke		32.5	29.7	41.9
Refinery Feedstocks		43.0	36.3	46.4
Other Oil	Refinery Gas [2]	49.5	47.5	50.6
	Paraffin Waxes	40.2	33.7	48.2
	White Spirit and SBP	40.2	33.7	48.2
	Other Petroleum Products	40.2	33.7	48.2
Anthracite		26.7	21.6	32.2
Coking Coal		28.2	24.0	31.0
Other Bituminous Coal		25.8	19.9	30.5
Sub-Bituminous Coal		18.9	11.5	26.0
Lignite		11.9	5.50	21.6
Oil Shale and Tar Sands		8.9	7.1	11.1
Brown Coal Briquettes		20.7	15.1	32.0
Patent Fuel		20.7	15.1	32.0
Coke	Coke Oven Coke and Lignite Coke	28.2	25.1	30.2
	Gas Coke	28.2	25.1	30.2
Coal Tar [3]		28.0	14.1	55.0
Derived Gases	Gas Works Gas [4]	38.7	19.6	77.0
	Coke Oven Gas [5]	38.7	19.6	77.0
	Blast Furnace Gas [6]	2.47	1.20	5.00
	Oxygen Steel Furnace Gas [7]	7.06	3.80	15.0
Natural Gas		48.0	46.5	50.4
Municipal Wastes (non-biomass fraction)		10	7	18
Industrial Wastes		NA	NA	NA
Waste Oil [8]		40.2	20.3	80.0
Peat		9.76	7.80	12.5

[53] IPCC, 2006, "IPCC Guidelines for National Greenhouse Gas Inventories", page 18-19

TABLE 1.2 (CONTINUED)
DEFAULT NET CALORIFIC VALUES (NCVS) AND LOWER AND UPPER LIMITS OF THE 95% CONFIDENCE INTERVALS [1]

Fuel type English description		Net calorific value (TJ/Gg)	Lower	Upper
Solid Biofuels	Wood/Wood Waste [9]	15.6	7.90	31.0
	Sulphite lyes (black liquor) [10]	11.8	5.90	23.0
	Other Primary Solid Biomass [11]	11.6	5.90	23.0
	Charcoal [12]	29.5	14.9	58.0
Liquid Biofuels	Biogasoline [13]	27.0	13.6	54.0
	Biodiesels [14]	27.0	13.6	54.0
	Other Liquid Biofuels [15]	27.4	13.8	54.0
Gas Biomass	Landfill Gas [16]	50.4	25.4	100
	Sludge Gas [17]	50.4	25.4	100
	Other Biogas [18]	50.4	25.4	100
Other non-fossil fuels	Municipal Wastes (biomass fraction)	11.6	6.80	18.0

Notes:

[1] The lower and upper limits of the 95 percent confidence intervals, assuming lognormal distributions, fitted to a dataset, based on national inventory reports, IEA data and available national data. A more detailed description is given in section 1.5.

[2] Japanese data; uncertainty range: expert judgement

[3] EFDB; uncertainty range: expert judgement

[4] Coke Oven Gas; uncertainty range: expert judgement

[5-7] Japan and UK small number data; uncertainty range: expert judgement

[8] For waste oils the values of "Lubricants" are taken

[9] EFDB; uncertainty range: expert judgement

[10] Japanese data ; uncertainty range: expert judgement

[11] Solid Biomass; uncertainty range: expert judgement

[12] EFDB; uncertainty range: expert judgement

[13-14] Ethanol theoretical number; uncertainty range: expert judgement;

[15] Liquid Biomass; uncertainty range: expert judgement

[16 -18] Methane theoretical number uncertainty range: expert judgement;

H. DEFINITION OF ACCIDENT BY ICAO[54]

"An occurrence associated with the operation of an aircraft which takes place between the time any person boards the aircraft with the intention of flight until such time as all such persons have disembarked, in which

(a) a person is fatally or seriously injured as a result of

- being in the aircraft, or
- direct contact with any part of the aircraft, including parts which have become detached from the aircraft, or
- direct exposure to jet blast, except when the injuries are from natural causes, self-inflicted or inflicted by other persons, or when the injuries are to stowaways hiding outside the areas normally available to the passengers and crew: or

(b) the aircraft sustains damage or structural failure which

- adversely affects the structural strength, performance or flight characteristics of the aircraft, and
- would normally require major repair or replacement of the affected component, except for engine failure or damage. When the damage is limited to the engine, its cowlings or accessories: or for damage limited to propellers, wing tips, antennas, tires, brakes, fairings, small dents or puncture holes in the aircraft skin: or

(c) the aircraft is missing or is completely inaccessible.

Note 1. For statistical uniformity only, an injury resulting in death within thirty days of the date of the accident is classified as a fatal injury by ICAO.

Note 2. An aircraft is considered to be missing when the official search has been terminated and the wreckage has not been located." (International Civil Aviation Organization, 2001).

[54] SASB, 2014, "AIRLINES Sustainability Reporting Standard", page 16-17

I. TURKISH SUMMARY

YENİ RAPORLAMA TRENDLERİNİN DÜNYA VE TÜRKİYE'DEKİ GELİŞİMİ:

LİTERATÜR TARAMASI VE HAVACILIK SEKTÖRÜ ÖZELİNDE BİR ÇALIŞMA

Günümüzde şirketlerin finansal performanslarını gösteren ve mali dönem sonlarında **yayınlamak zorunda oldukları geleneksel finansal raporların şirketlerin gelecek** performanslarını resmetmede yetersiz kaldığı görülmektedir. Küreselleşme, teknolojik gelişmeler, artan nüfus, aşırı tüketim ve bunlara bağlı kaynak yetersizliği ve çevreye verilen zarar; dünyanın "sürdürülebilirlik" konusuna olan bakışını değiştirmiştir. Bu nedenlerden ötürü bir çok risk ve fırsatlarla karlı karşıya kalan şirketlerin sadece geçmiş performanslarının yer aldığı finansal tablolarda çevresel, sosyal ve yönetimsel risklere karşı aldığı önlemlerin yer almaması, bu risklerin kendilerine mal olabilecek finansal sonuçlarının ve kendi sürdürülebilirliklerini bile etkileyecek boyutta olduklarının görülememesi yatırımcıların şirketlerden bu konulardaki finansal olmayan performanslarına ilişkin bilgi talep etmesine sebep olmuştur.

Yatırımcıların bu yöndeki beklentileri dışında, şirketlerin de sosyal, çevresel ve ekonomik etkilerini belirlemesi, izlemesi ve bunları raporlaması tüm paydaşları, toplum ve dünya için de önem arz etmektedir. Artık şirketlerden sadece kar elde edip büyümesi değil, bu karı nasıl kazandığı ve bunu elde ederken gelecek için yaratmış olduğu tehditleri ve "sürdürülebilirlik" konularındaki uzun vadeli hedeflerini de açıklaması yönünde beklentiler artmıştır.

Bunların yanı sıra küresel ekonomideki değişimler de finansal raporlamadan finansal olmayan raporlamaya doğru gidişatı desteklemektedir. 2011 yılında Ocean Tomo'nun S&P 500 firmaları özelinde yapmış olduğu bir araştırmaya göre, son 40 yıla kıyasla

bu listede yer alan şirketlerin piyasa değerleri onların maddi varlıklarından (fiziksel ve finansal) ziyade daha çok maddi olmayan varlıkları (know-how, insan sermeyesi mülkiyet hakları vb.) ile açıklandığı görülmüştür. Finansal raporlar daha çok maddi varlıklara ilişkin bilgiler sunarken, maddi olmayan varlıklar bu raporlarda yer almamaktadır. Dolayısıyla finansal raporların şirketlerin değerlerini açıklamada yetersiz olduğu çıkarımı yapılabilir.

Tüm bu değişimler, gelişmeler, şirketlerin bu konulardaki sorumlulukları ve tüm paydaşların beklentileri geleneksel finansal raporların yetersiz kalmasına ve yeni raporlama modellerinin doğmasına sebep olmuştur.

Bu tezde Dünyada en çok bilinen 3 yeni raporlama formatından detaylı olarak bahsedilmiş olup, bunların Dünya ve Türkiye'deki gelişmelerinin aktarılması amaçlanmıştır. Bunlar "sürdürülebilirlik raporlaması", "bütünleşik raporlama" ve SASB' sürdürülebilirlik standartlarıdır. Tez; bu konularda sağladığı literatür taraması haricinde havacılık sektöründeki "sürdürülebilirlik raporlaması" özelinde Küresel Raporlama Girişimi (GRI) nin yayınladığı yaklaşım açısından incelenen bir "içerik analizi" de içermekte olup, bu raporlamanın havacılık sektörü firmaları örnekleminde gelişimine dikkat çekmektedir. Aynı zamanda Türkiye havacılık sektöründeki tek rapor olma özelliğini taşıyan "Türk Hava Yolları Sürdürülebilirlik Raporlaması" da bu kapsamda SASB havacılık standartları açısından incelenmiştir. Bu üç raporlama modelinin şirketler tarafından ayrı ayrı kullanılabilmesi dışında hepsinin birbiri ile entegre edilmiş halinin yeni bir format yaratılarak uygulanması sonucu daha sağlıklı bilgilerin elde edileceği önerisi de getirilmektedir.

Sürdürülebilirlik ve Sürdürülebilirlik Raporlaması

Sürdürülebilirlik kavramı; ilk olarak Birleşmiş Milletler'in 1987 yılında yayınlanan "Bizim Ortak Geleceğimiz" raporunda "günümüz ihtiyaçlarının gerektirdiği kalkınmanın, gelecek kuşakların gereksinimlerini karşılama kabiliyetlerini ortadan kaldırmayacak şekilde gerçekleşmesidir." olarak tanımlanmıştır.

Sürdürülebilirlik sadece şirketlerin çevreye karşı olan sorumluluğunu ve karar veya aksiyon alırken çevreye olan etkilerini düşünerek hareket edilmesi gerektiğini ifade eden bir yaklaşım değildir. Sürdürülebilirliğin ekonomik, çevresel ve sosyal olmak üzere üç ayağı (triple bottom line) olup, şirketler bu alanlardaki amaçlarını gözeterek operasyonlarını gerçekleştirmeli ve finansal performanslarının yanı sıra çevresel ve sosyal performanslarını da raporlaştırmalılardır. Örneğin, şirket kar elde edip ekonomiye katkı sağlarken çevreyi korumaya yönelik sorumluluklarını unutmamalı ve toplumun menfaatine uygun olarak faaliyetlerini gerçekleştirmeli, toplumsal refaha katkı sağlamalıdır.

Sürdürülebilirlik raporlaması da bu üç alandaki performansların ölçülmesine katkı sağlarken, şirketlerin uzun vadeli stratejilerinin de belirlenmesine yardımcı olmaktadır. Bunun yanı sıra sürdürülebilirlik raporlamasının başlıca faydaları şu şekilde sıralanabilir: yatırımcı güveninde artış, finansmana erişimde kolaylık, maliyetlerinin azalması ile verimliliklerinde artış, daha iyi risk yönetimi, paydaşlarla iletişimin artması, çalışan memnuniyetinde artış, kurumsal itibar ve markaya olan bağlılıkta artış, ve bütün bunlar sayesinde sürdürülebilir büyüme ve rekabet avantajı, mevzuata, yasal zorunluluklara, borsaya kote şartlarına uyum üstünlüğüdür.

GRI Sürdürülebilir Raporlama İlkeleri

Sürdürülebilirlik raporlamasının yapılabilmesi için gerekli prensip ve standartların ihtiyaç duyulması ile birlikte ulusal, uluslararası bir çok kurum tarafından raporlar, kılavuzlar ve standartlar geliştirilmeye başlamıştır. Bunlar arasında en çok bilinen ve en yaygın kullanılanı ise "GRI Sürdürülebilir Raporlama İlkeleri" dir. Günümüzde en büyük 100 şirkettin %78 i bu raporlama ilkelerine göre rapor hazırlamaktadır.

GRI ilkeleri ilk olarak Birinci Kuşak Raporlama Kılavuzu (G1) adı altında 2000 yılında Küresel Raporlama Girişimi (GRI) tarafından yayınlanmış olup, periyodik olarak güncellenmektedir. Son versiyonu olan Dördüncü Kuşak Raporlama Kılavuzu

(G4) ise mayıs 2013 yılında çıkarılmıştır. Bu raporlama rehberi raporlama ilkeleri, standart bildirimler ve uygulama el kitabı olmak üzere 2 ana bölümden oluşmaktadır. Kılavuzda yer alan "GRI uygulama seviyeleri" ise sürdürülebilirlik raporunun hangi seviyede ve kapsamda uygulandığını göstermektedir. Bu bağlamda C, B ve A olmak üzere 3 seviye bulunmaktadır. Eğer rapor için dış denetimden faydalanılmışsa ve rapor bağımsız denetimden geçmişse, seviyeler "artı" ("+") eklenerek C+, B+ ve A+ halini alır. A+ en nitelikli, kapsamlı seviyeyi ifade etmektedir. Ancak bu seviyeler G4 Kılavuzu ile "temel (core)" ve "kapsamlı (comprehensive) uygulama düzeyi" olmak üzere 2 alternatife indirilmiştir. Bu iki düzey; raporların kalitesini veya niteliğini göstermemekte olup, şirket ihtiyaç veya paydaş isteklerine göre şirket tarafından seçilir.

Entegre Raporlama

Sürdürülebilirlik raporlarında yer alan bilgilerin şirketin iş modeli, stratejisi ile ilişkisinin kurulamaması ve sürdürülebilirlik performanslarının da finansal performansları ile bağının kurulamıyor olması sürdürülebilirliğin şirkette yarattığı ve uzun vadede yaratacağı değerin anlaşılmasını zorlaştırmaktadır. Bilgiler arasındaki bu bağlantısızlık ve yatırımcıların beklentilerini karşılamıyor olması entegre raporlamanın doğmasına neden olmuştur. Entegre raporlama "şirketin hem finansal hem de sürdürülebilirlik performansının bütüncül ve entegre sunumu" olarak tanımlanmıştır.

Uluslararası Entegre Raporlama Çerçevesi (IR)

Entegre raporlamanın gelişimi 2010 yılında Uluslararası Entegre Raporlama Konseyi' nin (IIRC) kurulmasına dayanmaktadır. Kuruluşun üyeleri arasında Küresel Raporlama Girişimi (GRI), Dünya Bankası, Birleşmiş Milletler (BM) Global Compact, Uluslararası Muhasebeciler Federasyonu (IFAC), Dünya Ekonomik Forumu (WEF), şirket temsilcileri, akademisyenler ve sivil toplum temsilcileri bulunmaktadır. Üyelerin katkıları ile hazırlanan ve entegre raporlama yapacak

şirketlere yol gösterecek Uluslararası Entegre Raporlama Çerçevesi (IR) ise 2013 yılında yayınlanmıştır.

Entegre raporlama birçok yönü ile sürdürülebilirlik ve geleneksel finansal raporlardan ayrılır. Entegre rapor, sadece finansal ve sürdürülebilirlik raporunun birleştirilmesi demek değildir, aynı zamanda bu bilgilerin birbirleri ve kuruluş stratejisi, iş modeli ile ilişkisini kurar ve günümüz, orta, uzun vadede değer yaratımına nasıl bir katkı sağladığını gösterir. Entegre raporlama, sadece geçmiş performans ile ilgili bilgiler veren finansal raporların aksine, ileriye yönelik bakış açısı ile gelecekte yaratılacak değer, stratejiler, risk ve fırsatlar hakkında da bilgi sağlamış olur.

Entegre raporlama şirketler, yatırımcılar ve diğer paydaşları açısından bir çok yarar sağlamaktadır. Bunlar; var olan ve muhtemel paydaşlarla daha iyi iletişim sağlama, şirket strateji ve performanslarının birlikte görülebilmesi sonucu çalışanların bütüncül bir bakış açısı kazanması, geliştirilmesi gereken alanların tespit edilmesi, daha iyi risk yönetimi, süreç ve üretimde verimliliğin artması, şirkete olan güvenilirliğin artması, tedarikçilerle daha iyi iletişim kurulması kaynaklı tedarik zinciri ile alakalı risklerin azalması, artan kurumsal itibar ve markaya olan bağlılık, mevzuata, yasal zorunluluklara uyum olarak özetlenebilir.

SASB Sektörel Sürdürülebilirlik Standartları

Sürdürülebilirlik Muhasebesi Standartları Kurulu (SASB)' nun çıkarmış olduğu bir diğer format olan SASB Sektörel Sürdürülebilirlik Standartları, şirketler için sürdürülebilirlik muhasebesi standartları ve sağlık, finans, teknoloji ve iletişim, yenilenemeyen kaynaklar, taşımacılık, hizmetler, kaynak dönüşümü, tüketim, yenilenebilir kaynaklar ve alternatif enerji, altyapı olmak üzere 10 sektör-88 iş alanına özel temel performans göstergeleri yayınlamaktadır. 2010 yılında borsaya kayıtlı Amerikan şirketlerinden istenen zorunlu evraklardaki bilgilere açıklama

getirmek ve Amerikan Ulusal Standartlar Enstitüsü tarafından standartlar oluşturmak için akredite edilmiş, bağımsız ve kar amacı gütmeyen bir kuruluştur.

GRI, IIRC ve SASB Yayınları Arasındaki Benzerlik ve Farklılıklar

Bu üç kuruluş sürdürülebilirlik için ortak amaçlara sahip olsalar da yaklaşım olarak farklılık göstermektedir. Küresel Raporlama Girişimi (GRI) şirketlere ESG performanslarını ölçmeleri ve raporlamaları için gerekli prensip ve sürdürülebilirlik göstergeleri sunarken, Uluslararası Entegre Raporlama Komitesi finansal ve finansal olmayan bilgilerin birleştirilmesi için bir çerçeve ve prensipler bütünü sağlamaktadır. Sürdürülebilirlik Muhasebesi Standartları Kurulu ise ikisinden farklı olarak her sektöre özel performans metrikleri ve standartları geliştirmiştir.

Birbirlerini tamamlayan ve birbirleri ile çakışmayan bu özellikleri sebebi ile bu 3 yayının birlikte kullanımının daha iyi bir kurumsal rapor elde edilmesi için gerekli olduğu yorumu tez içerisinde getirilen önerilerden birini oluşturmaktadır.

Türk Hava Yolları Sürdürülebilirlik Raporu Özelinde İnceleme

Bu tezde taşımacılık sektörü içerisinde yer alan havacılık iş alanına ait SASB standartları ayrıntılı bir şekilde açıklanmış ve 2015 yılında çıkarılan, GRI G4 kılavuzunun temel düzeyine uyumlu olarak hazırlanmış Türk havacılık endüstrisinin ilk sürdürülebilirlik raporu özelliğine sahip "Türk Hava Yolları "Sürdürülebilirlik Raporu" bu standartlara göre incelenmiştir. Bu analiz sonucunda görülmüştür ki GRI kılavuzuna göre hazırlanan sürdürülebilirlik raporunda, SASB standartları içerisinde yer alması beklenen metriklere ait bilgiler çoğunlukla yer almamaktadır. Bu da bize daha sağlıklı bir sürdürülebilirlik raporu için sektöre ait metriklerin SASB standartları ve GRI kılavuzu ile birlikte hazırlanması gerektiğini göstermektedir. Bu analiz tez içerisinde yapılan önerinin de desteklenmesine katkı sağlamıştır.

Türkiye ve Yeni Raporlama Trendleri

Bu raporların Türkiye'deki gelişmeleri ve uygulamaları incelendiğinde ise literatürün daha yeni oluşmaya başladığı ve farkındalığının 2000'li yılların başlarına denk düştüğü görülmektedir. Bunda sürdürülebilirlik raporlaması konusunda düzenleyici bir kuruluşun bulunmaması ve gönüllülük esası gereği rapor çıkarımının şirketlerin inisiyatifine bırakılmış olmasıdır.

Uygulamalardan bir tanesi "Borsa İstanbul Sürdürülebilirlik Endeksi"dir. Bu endeks Borsa İstanbul'a kote olmuş şirketlerin sürdürülebilirlik konularındaki performanslarının ölçülmesi ve bunun kamu ile paylaşılarak bu konudaki farkındalığın ve Türkiye'deki uygulamaların arttırılmasını amaçlamaktadır. Aynı zamanda şirketler ve yatırımcılar Türkiye ve Dünyadaki şirket sürdürülebilirlik performanslarını karşılaştırma imkanı elde ederler. Bu bağlamda da 2014 yılında BIST 30 endeksi içerisinde yer alan, 2015 yılında ise BIST 50 endeksinde yer alan şirketlerin kamuya açık bilgileri Ethical Investment Research Services Limited (EIRIS) şirketinin koymuş olduğu kriter ve hesaplamalara göre değerlendirilmiş ve yayınlanmıştır.

Türkiye genelinde sürdürülebilirlik raporlamaları ise en çok GRI Küresel Raporlama Girişimi Kılavuzuna göre hazırlanmaktadır. Türkiye'de yayınlanan sürdürülebilirlik raporlarının toplandığı, GRI Bölgesel Veri Ortaklık Anlaşması sonucunda oluşturulan bir platform olan "kurumsalsurdurulebilirlik.com" da bir diğer Türkiye uygulamasına örnek olarak verilebilir. Bu platform Türkiye'de yayınlanmış sürdürülebilirlik raporlarının toplandığı bir arşiv özelliği de taşımakta olup, sitesinde su ana kadar 77 işletmenin toplamda 204 rapor yayınladığı ve bu raporlarında 148 tanesinin GRI raporu olduğunu görebilmekteyiz.

Metodoloji

Tezin ilk amaçlarından biri kurumsal raporlamanın tarihsel gelişimini göstermek, sürdürülebilirlik alanında en çok bilinen ve tercih edilen üç raporlama formatını tanıtarak farkındalık yaratmak, Dünya ve Türkiye'deki uygulamaları hakkında da bilgi vermektir. Bu bağlamda geniş bir "literatür taraması" yapılmıştır. İkinci amacı ise GRI Kılavuzuna göre hazırlanmış sürdürülebilirlik raporlamalarının Dünya havacılık sektörü özelindeki gelişimini göstermektir.

Bunun için de tez içerisinde iki ayrı analiz yapılmış ve her ikisi içinde havacılık sektöründe faaliyet gösteren şirket / şirketler örneklem olarak alınmıştır. Bu sektör sınırlaması analizin kısıtlarından biri olup daha genel çıkarımlar için ileriki çalışmalarda örneklemdeki sektör sayısı arttırılabilir.

İlk analizde; Türk havacılık sektöründeki tek GRI G4 Kılavuzu "temel düzey" ine göre hazırlanmış sürdürülebilirlik raporu olma özelliğini taşıyan ve 2015 yılında çıkarılan "Türk Hava Yolları Sürdürülebilirlik Raporu", SASB'nin havacılık standartlarına göre detaylı olarak incelenmiştir. Analiz sonucunda THY raporunun, SASB standartlarının büyük bir çoğunluğunu içermediği görülmüştür. Bu analiz; GRI Kılavuzuna göre hazırlanan sürdürülebilirlik raporunun endüstri özelinde eksik bilgiler içerdiği çıkarımının yapılmasına ve daha sağlıklı raporlar için GRI Kılavuzu ve SASB standartlarının birlikte kullanılmasını önerisinin de getirilmesi açısından önemlidir.

İkinci analizde "içerik analizi" metodu kullanılmış ve "GRI Sürdürülebilirlik Veritabanı"ndan alınan en büyük 50 havayolu şirketinin 2008 ve 2015 yılları arasını kapsayan bütün sürdürülebilirlikle alakalı raporları ve web siteleri detaylı olarak incelenmiştir. Analizin hipotezi ise şudur: "Havacılık sektöründe yer alan büyük firmalar sürdürülebilirlik raporlaması alanında son 8 yılda ilerleme kaydetmiştir."

Bu gelişimi göstermek için 2 ayrı gösterge kullanılmıştır: "GRI Kılavuzuna olan uygunluk" ve "dış denetim ile sağlanan sürdürülebilirlik raporu garantisine sahip olmak". İlk gösterge ile uygunluk ve uygunluk dereceleri dolayısıyla raporun kalitesine göre bir analiz yapılmış, ikinci gösterge ile de raporun garantisi, garanti kapsamı ve seviyesi incelenmiştir. Raporlar sahip oldukları özelliklere göre aşağıda gösterilmiş olan skor tablolarında kullanılan puanlara göre derecelendirilmiştir.

Tablo 21: "GRI Kılavuzuna Olan Uygunluk" Göstergesine Ait Skor Tablosu[55]

Skor	Tanım
100	Rapor GRI Kılavuzuna göre hazırlanmış ve A(+) ve A ya da "temel" ve "kapsamlı" uygulama seviyesine sahiptir
75	Rapor GRI Kılavuzuna göre hazırlanmış ve B(+) ve B uygulama seviyesine sahiptir
50	Rapor GRI Kılavuzuna göre hazırlanmış ve C(+) ve C uygulama seviyesine sahiptir
25	Rapor GRI Kılavuzuna göre hazırlanmış ancak uygulama seviyesi belirlenememiş ya da rapor GRI Kılavuzuna uygun olarak hazırlanmamıştır
0	Şirket sürdürülebilirlik ile alakalı bir rapora sahip değildir

Tablo 22: "Sürdürülebilirlik Raporunda Garanti" Göstergesine Ait Skor Tablosu"[56]

Skor	Tanım
100	Rapor kabul görmüş uluslararası veya ulusal standartlara göre (ISAE 3000 / AA1000) değerlendirilerek bağımsız denetimden geçmiş ve "makul / yüksek güvence" seviyesine uygun görülmüştür
75	Rapor diğer çok bilinmeyen standartlara göre değerlendirilerek bağımsız denetimden geçmiş ve "makul / yüksek güvence" seviyesine uygun görülmüştür
50	Rapor bağımsız denetimden geçmiş ve "kısıtlı / orta güvence" seviyesine uygun görülmüştür ya da raporun bazı bölümleri bağımsız denetimden geçmiş ve makul / yüksek güvence" seviyesine uygun görülmüştür
25	Raporda önemli seviyede eksiklikler bulunmuştur

[55] Sustainalytics' in puanlama tablosundan uyarlanmıştır
[56] Sustainalytics' in puanlama tablosundan uyarlanmıştır

0 Rapor bağımsız denetimden geçmemiş ya da şirket sürüdürülebilirlikle alakalı bir rapor yayınlamamıştır.

Sonuçlar ve Değerlendirme

Yapılan analize göre yayınlanan toplam raporların %58'i 25 puan, %5 i 50 puan, %13 ü 75 puan ve %24 ü en yüksek skor olan 100 puan almıştır. Raporu 100 puan almış şirket sayısı 2014 ve 2015 yılları arasında %42 artarak 12 den 17 ye çıkmıştır. Diğer taraftan rapor çıkarmayan dolayısı ile 0 puana sahip şirket sayısı ise 2014 ve 2015 yılları arasında %33 azalarak 9 dan 6 ye düşmüştür. 2008 yılında raporu olmayan şirket sayısı 38 iken, bu sayı 2015 yılında 6 olmuştur. 2008 yılında 100 puana sahip şirket sayısı 1 iken, bu sayı 2015 yılında 17'ye yükselmiştir. Bu sonuçlar göz önüne alındığında düşük puanlı rapora sahip veya rapor çıkarmamış şirketlerin sayıları negatif bir trend gösterirken, yüksek puanlı rapora sahip şirket sayıları pozitif bir eğime sahiptir diyebiliriz.

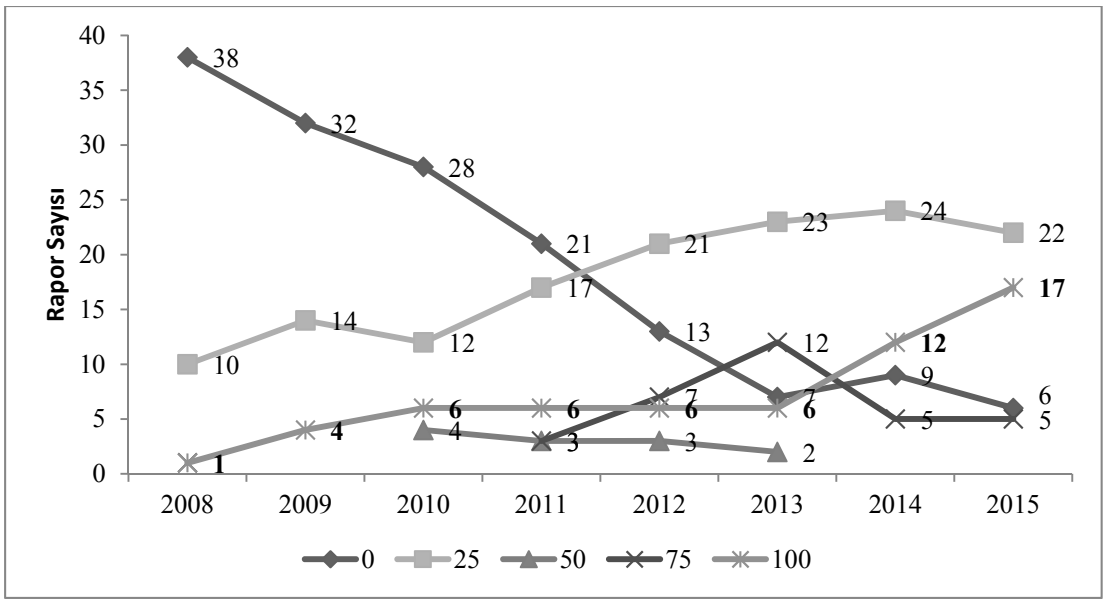


Figure 13: İlk Göstergeye Göre Sürdürülebilirlik Raporlaması Gelişimi "[57]

[57] Yazarın sonucu

İkinci göstergeye ait analiz sonuçlarına bakıldığında ise 2008 ve 2011 yılları arasında hiç bir raporun dış denetime tabi tutulmadığı görülmektedir. 2012 yılından itibaren ise bu konuya olan ilgi giderek artmış ve denetimi yapılan rapor sayısında artış görülmüştür. 2012-2015 periyodunda ise toplamda 49 rapor bağımsız denetçiler tarafından denetimden geçmiştir:

Figure 14: İkinci Göstergeye Göre Sürdürülebilirlik Raporlaması Gelişimi [58]

Sonuçlar ve Öneriler

- Sürdürülebilirlik raporlamasına olan ilginin her geçen yıl artmakta olduğu havacılık sektörü örnekleminde "uyum" ve "denetim" göstergeleri açısından analiz edilerek gösterilmiştir. Rapor ve şirket sayısından ziyade raporların gelişiminin "kalite" ve "güvenilirlik" açılarından da incelenmiş olması önemlidir.
- Yukarıda bahsedilen gerekçeler sonucu üç raporlama trendinin birbirini tamamlaması nedeni ile şirketlerin finansal ve finansal olmayan bilgileri IIRC' nin entegre raporlama çerçevesi kapsamında birleştirilmeli, şirketlerin çevresel, sosyal ve yönetimsel verileri ise GRI 'ın G4 "temel veya kapsamlı düzeyi"ne ve SASB nin sektöre özel standartlarına göre düzenlenmelidir. Bu

[58] Yazarın sonucu

üç formatın birbiri ile entegrasyonu ve standart hale getirilmesi kurumsal raporların daha doğru, karşılaştırılabilir ve güvenilir sonuçlar göstermesine yardımcı olacaktır.

- Önerilen formatın yayınlanması gönüllülük esasından ziyade şirketler için zorunlu hale getirilmeli ve bu üç raporun birbiri ile entegrasyonu için bu üç kuruluş ile koordineli olarak çalışacak ve elde edilen raporların denetimini de sağlayacak başka bir kuruluş oluşturulmalıdır.

J. TEZ FOTOKOPİSİ İZİN FORMU

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YAZARIN

Soyadı : DİNÇ
Adı : CANSU
Bölümü : Business Administration

TEZİN ADI : EVOLUTION OF NEW CORPORATE REPORTING TRENDS IN THE WORLD AND IN TURKEY OVER TIME: CURRENT REVIEW AND A STUDY ON THE AIRLINE INDUSTRY

TEZİN TÜRÜ : Yüksek Lisans [X] Doktora [ ]

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