

## PAPER DETAILS

TITLE: SUSTAINABILITY REPORTING AND INTEGRATED REPORTING: EVIDENCE FROM  
TURKISH HIGH PERFORMANCE COMPANIES

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# SUSTAINABILITY REPORTING AND INTEGRATED REPORTING: EVIDENCE FROM TURKISH HIGH PERFORMANCE COMPANIES

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**Abstract:** This study widens earlier research, which examined the relationship between financial performance, sustainability reporting (SR) and integrated reporting (IR). High performance enterprises and control group companies were compared with regard to their state of readiness to IR and SR. The population includes non-financial companies in Borsa Istanbul (BIST). Our hypothesis is that HPC will exceed Non-HPC in IR and SR. We evaluate two groups disclosure practices based on an IR and sustainability reported matrix developed from the International Integrated Reporting Committee (IIRC) and Global Reporting Initiative (GRI) standards. The findings reveal that HPCs in Turkey show more on the disclosures of SR and IR compared to Non-HPCs. The paper provides evidence that support the suggestion that Turkish HPCs disclose better information compared to Non-HPCs and achieved to support conclusions of previous research.

**Keywords:** Sustainability Reporting, Integrated Reporting, Performance Measurement, Financial Indicators, BIST100

## Sürdürülebilirlik Raporlaması ve Entegre Raporlama: Türkiye'deki Yüksek Performanslı Şirketler Üzerine Bir Araştırma

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**Özet:** Bu çalışma, finansal performans, entegre raporlama (IR) ve sürdürülebilirlik raporlaması (SR) arasındaki ilişkiyi inceleyen daha önceki araştırmaları genişletmektedir. IR ve SR yayınlamaya hazır olmaları bakımından, yüksek performanslı şirketler (HPC), yüksek performanslı olmayan şirketlerle (non-HPC) karşılaştırılmıştır. Örneklem Borsa İstanbul'da (BIST) faaliyet gösteren ve finans sektörü dışında yer alan şirketleri içermektedir. Çalışmanın hipotezi; IR ve SR yapmaya hazır olmaları bakımından yüksek performanslı şirketlerin yüksek performanslı olmayan şirketlere göre daha önde olduğu üzerine kuruludur. Örneklemi oluşturan şirketlerin açıklamaları Uluslararası Entegre Raporlama Komitesi (IIRC) ve Küresel Raporlama Girişimi (GRI) standartlarından geliştirilen IR ve SR

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matrisi ile değerlendirilmektedir. Bulgular, yüksek performanslı şirketlerin IR ve SR açıklamalarının yüksek performanslı olmayan şirketlere göre daha fazla olduğunu göstermektedir. Çalışmanın sonuçları önceki çalışmaların sonuçlarını destekler şekilde; HPC şirketler tarafından yapılan açıklamaların non-HPC şirketler tarafından yapılan açıklamalardan daha iyi olduğunu göstermektedir.

**Anahtar Kelimeler:** *Sürdürülebilirlik Raporlaması, Entegre Raporlama, Performans Ölçümü, Finansal Göstergeler, BIST100*

## 1. INTRODUCTION

Financial reporting model of today provides only a narrow view of a company's operations since it presents only the financial position and financial performance of the past. Nevertheless, financial reporting users such as creditors and investors care about its future outlook besides its past performance. Furthermore, stakeholders' users would like to see a wide-angle picture of a corporation in financial as well as nonfinancial sides. Hence, today's financial reporting approach cannot meet the information needs of financial report users. Financial reporting should change and provide readers how the companies are creating value in both long and short term by concentrating on both quantitative and qualitative information.

The Global Reporting Initiative (GRI)'s SR Guidelines and the International Integrated Reporting Committee (IIRC)'s International Integrated Reporting Framework (IIRF) have gained importance in the past years as new sets of reporting frameworks. These frameworks require businesses to report on a broader range of subjects concerning companies' social and environmental impacts, governance, strategies, and future goals.

Sustainability disclosures are crucial for companies to continue their sustainable development, transparency and accountability. It enhances the social responsibility of executives and strengthens the trust and credibility of their stakeholders (Miralles-Quiros, Miralles-Quiros and Arraiano, 2017, p.71). As environmental, social and economic concerns have increased in the last two decades, stakeholders have begun to pay more attention to the activities of the companies. Therefore, stakeholders demand more information about the environmental and social impacts of the activities performed by the companies (Bowerman and Sharman, 2016, p.202). Thus, in order to demonstrate sustainability and social responsibility initiatives, many businesses have started to publish sustainability reports (Miralles-Quiros, Miralles-Quiros and Arraiano, 2017, p.71).

In recent years, the number of reports about corporate sustainability and corporate governance has increased in a stable manner. (Albertini, 2014). Although there are increasing numbers of reports, concerns continue about reliability and relevance of these reports. Sustainability reports are criticized especially for not honestly reflecting the financial performance of the enterprise and neglecting important issues (Gray, 2010, p.13; Milne and Gray, 2013, p.13). Apart from these, the lack of explanations about intangible assets such as intellectual capital and the value creation process of the company continues the discussions on this issue (Guthrie et al., 2012, p.203).

Businesses usually do non-financial reporting for compliance or other reasons. They do not make much effort to bring together fragmented information about the business's value creation process. Integrated reporting tackles these challenges and enables stakeholders to view the value creation process and performance of the business from a wider perspective (Setia, Abhayawansa, Joshi and Huynh, 2015, p.398).

IR is an increasingly important form of communication that explains stakeholders how an organization will create value in the long, medium and short term. IR provides a panoramic view of a company through a variety of report types such as sustainability, governance and wage

reports and annual reports. The integrated thinking and reporting cycle results in a more efficient capital allocation and plays an important role for financial stability and sustainability. IR needs the information about the values created by the organizations that meets the needs of stakeholders and creates financial stability and sustainability. (Oshika and Saka, 2017, p.625).

This study examines whether HPCs in Turkey also demonstrate high performance in the transition process to IR and SR. Our research question is “Are financially high performing enterprises ahead of other entities in integrated reporting and sustainability reporting?”. To answer this question High performance enterprises and control group companies were compared in terms of their disclosures related to IR and SR. Our hypothesis is that HPCs IR and SR disclosures will surpass the disclosures of Non-HPCs.

## **2. SUSTAINABILITY REPORTING AND INTEGRATED REPORTING IN TURKEY**

In Turkey there are no regulations that require the companies to prepare a sustainability report. However, a joint venture agreement has been reached between BIST and Ethical Investment Research Services Limited (EIRIS) to establish the BIST Sustainability Index, which assesses the performance of businesses in social, environmental and corporate governance issues. The BIST Sustainability Index has been calculated and published as XUSR price and return since November 2014. BIST Sustainability Index has 1 index period per year, from November to October.

Companies listed in the BIST 30 index in 2014 and companies listed in the BIST 50 index in 2015 were assessed for sustainability performance. The list of companies subject to appraisal since 2016 has been expanded to include volunteers from the BIST 100 companies in addition to the BIST 50 index companies. The list of companies' subject to appraisal is revised every December and declared by BIST. The number of companies listed in the index is 43 as of November 2016-October 2017 period.

When the sustainability reports published in Turkey are examined, it has been determined that the GRI reporting framework is mainly followed. As of January 2017, 96 enterprises have published a total of 248 reports and 191 of them have been prepared on the basis of GRI reporting framework. When the GRI data base and kurumsalsurdurulebilirlik.com data are examined, it is seen that the number of companies preparing the sustainability report in Turkey is increasing.

In Turkey, the awareness of IR in the last 5 years has been increasing rapidly. SKD Türkiye (Sustainable Development Society Turkey) and Corporate Governance Association of Turkey (TKYD) created a working group in 2011 and studies were initiated to raise awareness on IR in Turkey. TKYD represented the IIRC during this process. The Integrated Reporting Network of Turkey (ERTA) was established in 2015 to raise awareness about the IR approach and to support the applications of the enterprises in this area. As of June 2017, there are 3 companies preparing integrated reports. Two of these companies are also been examined in the research part of this study which are Çimsa Çimento Sanayi ve Ticaret A.Ş. and Aslan Çimento A.Ş.

## **3. LITERATUR REVIEW**

The first study, which related to relation between strategy and value creation made by Needles, Frigo and Powers (2002a) focused on efficiency, innovation, and customer service. After this study, the authors examined the economy of India (2002b), these initial studies were extended by investigation of the relations between strategy and integrated financial performance measurement by Needles, Frigo, and Powers (2004). Needles, Powers, and Frigo (2006) reiterate the previous study with refinements that focused on operating asset management performance drivers and measures. In addition to those HPC studies, there were another researches conducted in India

(Needles, 2009), Turkey (Needles, Turel, Sengur and Turel, 2012) and Australia (Needles, Powers and Shigaev, 2013).

Recently, there are various studies in literature related to SR and IR. Rodriguez-Fernandez (2015) examined the two-way relationship between corporate social responsibility and financial performance in companies traded in Spain. Results of the study shows that all social policies increment financial policies, and vice versa, that increased financial performance lead to greater social benefits. Liftin, Meeh-Bunse, Luer and Teckert (2017) identified the superior CSR reporting type from a stakeholder's perspective. Results indicate that the reporting type "reference sustainability report" may not be advisable from a stakeholder's perspective. Also Miralles-Quiros, Miralles-Quiros and Arraiano (2017) analyzed whether sustainability disclosures created relevant information incremental value for European investors in the period of 2001 - 2013, where sustainability disclosures were continuously increasing. Their results support the belief that conducting business in accordance with ethical norms is value relevant for European investors. Uyar (2017) investigated SR practices in the emerging market of Turkish companies for a period of 10 years. Results remark that there is a slow increase in the number of sustainability reports and firms that are not currently publishing sustainability reports are encouraged to set a calendar and agenda to initiate SR.

Rensburg and Botha (2013) investigated how financial information is used within the scope of the new accounting standards. They show that very few investors use the Integrated Reports as their main source investment information, and that these reports are perceived as additional information. Sierra-García, Zorio-Grima and García-Benau (2015) examined why companies are preparing integrated reports, paying special attention to the links with the assurance of the corporate social responsibility (CSR) report. Results points out that the likelihood of disclosing an integrated report is positively associated with having the CSR report assured, year, size and supplement industry. Clayton, Rogerson and Rampedi (2015) studied evolution of IR by large companies in South Africa and assess the impact of the required transition from SR to IR on non-financial disclosure of eight South African corporates using content analysis of annual reports. Results of the study shows that the passage from SR to IR triggers an increase in assurance of non-financial information reports, comparable adherence to external guidelines, the emerge of materiality, risk disclosure and remuneration as new reporting themes; the clear evolution of stakeholder oriented discourse; the tendency towards quantification; and an increase in repletion incidence. Lee and Yeo (2015) examined the relationship between IR and firm valuation. They identify a positive strong association between firm value and IR when firms with higher organizational complexity. Setia, Abhayawansa, Joshi and Huynh (2015) studied the integrated reports which are prepared in accordance with the King III Code of corporate governance regulation. Their purpose is to analyze value creation process and disclosures of South African companies. The results show that social and environmental disclosures which is made by stock-listed companies increase year by year. Mervelskemper and Streit (2016) analyzed the effectiveness of a firm's strategy to report on its Environmental Social Governance (ESG) activities with regard to the extent and direction in which the firm's ESG performance is valued by capital market investors. Their results show that ESG performance is valued more strongly and in the positive direction when firms publish ESG report, irrespective of its type. Oshika and Saka (2017) proposed Key Performance Indicators (KPI's) for IR which decipher a firm's sustainability through empirical analysis. The study found two distinguish facts: the value added that is distributed to stakeholders other than shareholders is significantly larger, and the stability of profitability and the profitability itself are significantly higher in sustainable firms.

This study widens earlier research, which investigated the relationship between financial performance, IR and SR (Needles et al. 2016). They compared a sample of high-performing businesses with sample groups performing integrated reporting and sustainability reporting. According to their findings, IIRC and GRI enterprises failed to meet the criteria for high performance. They evaluated all three groups reporting practices based on an IR and SR matrix developed from the IIRC and GRI standards. They found that high performing enterprises showed equal performance with GRI enterprises in SR and IR applications but high performing enterprises and GRI enterprises showed lower scores than IIRC enterprises in these measures. It has been found that high-performing enterprises disclose less information in their integrated reports and sustainability reports than IIRC enterprises. In addition, they concluded that USA businesses reported less information in their integrated reports and sustainability reports compared to non-USA businesses. They also show that all three groups stayed behind full compliance with standards of IR and SR.

#### **4. DATA AND METHODOLOGY**

##### **4.1. Sample Selection**

Finnet database is used to organize data for this study. The data related to IR and SR are hand collected from the annual reports of the sample companies. Our investigation concentrated on two groups of companies: ordinary companies and HPCs, both traded in the Borsa Istanbul (BIST). We employed companies traded in the BIST with the following adjustment—we did not include some industries such as financial institutions whose business model different from service, retail, and industrial businesses.

Using data from 2011 to 2014 we determine 25 Turkish HPCs according to the following criteria:

- Cash flow return on investment (CFROI) at twice or more the cost of capital or greater than 5% discount rate in Turkey.
- Growth rates in assets exceed average growth rate of Turkish gross domestic product.
- Relative total shareholder returns (TSR) above the BIST 100 average.

These HPCs and benchmark companies are listed in Appendix A.

##### **4.2. Hypothesis and Methodology**

The research question of this study: Do high performance companies also better in Sustainability Reporting and Integrated Reporting? In order to answer this question, a sample of high performing enterprises and the control group which did not perform high were compared. Our hypothesis is that HPC will exceed Non-HPC in IR and SR. The base of this hypothesis is that enterprises with high financial performance will prefer to be more transparent in IR and SR applications in terms of their future interests.

In order to measure SR and IR scores for HPCs and Non-HPCs we used the evaluation matrix in Table 1. Firstly, each entity is assessed as having disclosure (1) or not having disclosure (0) for the elements in the measurement matrix. In the second stage, if an explanation is made about an element in the measurement matrix, the explanations are graded between 1 and 3 in terms of quality and quantity. As can be seen from Appendix B, the maximum score a business can potentially receive is 60.

### 4.3. Results

After the application of three criteria, 25 companies were selected as HPCs. We compare the compliance of HPCs with SR and IR by a paired sample of Non-HPCs. When we were matching companies, a HPC and Non-HPC were accepted pairs since they are active in the same or similar industries. Therefore, the analysis includes a total of 50 paired companies. We used paired sample t-test to understand whether there is a significant statistical difference in financial ratios and SR and IR index ratios between HPCs and Non-HPCs. In order to use paired sample parametric t-test first we test the normal distribution assumption of the sample data. Therefore, we applied Kolmogorov – Smirnov and Shapiro-Wilk tests to test normality. In many circumstances there maybe considerable doubt some of the parametric assumptions, such as that of normality. If parametric methods are not applicable (either because the level of measurement is inappropriate or because the distributional assumptions are violated) there is a class of statistical procedures which do not require stringent assumptions such as that of normality and which can be used with nominal or ordinal level of measurement. Such procedures are generally called non-parametric methods (Winkler and Hays, 1975, pp.815-816). The test results of normality are shown in Table 1.

**Table 1.** Tests of Normality of the Financial Ratios and Index Ratios of HPCs and Non-HPCs

	Kolmogorov-Smirnov			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
HPC Asset Turnover Ratio	0,222	25	0,003	0,697	25	0,000
Non-HPC Asset Turnover Ratio	0,124	25	0,200*	0,928	25	0,078
HPC Profit Margin Ratio	0,155	25	0,125	0,927	25	0,075
Non-HPC Profit Margin Ratio	0,198	25	0,012	0,899	25	0,018
HPC Debt To Equity Ratio	0,145	25	0,187	0,881	25	0,007
Non-HPC Debt To Equity Ratio	0,200	25	0,011	0,802	25	0,000
HPC Cash Flow Yield	0,260	25	0,000	0,711	25	0,000
Non-HPC Cash Flow Yield	0,197	25	0,014	0,867	25	0,004
HPC Growth In Sales	0,140	25	0,200*	0,960	25	0,421
Non-HPC Growth In Sales	0,164	25	0,080	0,843	25	0,001
HPC Return On Assets	0,208	25	0,007	0,895	25	0,014
Non-HPC Return On Assets	0,115	25	0,200*	0,980	25	0,879
HPC Return On Equity	0,127	25	0,200*	0,968	25	0,589
Non-HPC Return On Equity	0,195	25	0,016	0,848	25	0,002
HPC Cash flow Return	0,210	25	0,006	0,929	25	0,081
Non-HPC Cash flow Return	0,124	25	0,200*	0,964	25	0,506
HPC Receivable Turnover	0,269	25	0,000	0,672	25	0,000
Non-HPC Receivable Turnover	0,453	25	0,000	0,279	25	0,000
HPC Receivable Collection Period	0,140	25	0,200*	0,942	25	0,168
Non-HPC Receivable Collection Period	0,161	25	0,093	0,911	25	0,031
HPC Inventory Turnover	0,166	25	0,074	0,879	25	0,007
Non-HPC Inventory Turnover	0,457	25	0,000	0,256	25	0,000
HPC Inventory Conversion Period	0,151	25	0,147	0,922	25	0,058
Non-HPC Inventory Conversion Period	0,111	25	0,200*	0,918	25	0,046
HPC Payment Turnover	0,198	25	0,013	0,842	25	0,001
Non-HPC Payment Turnover	0,234	25	0,001	0,718	25	0,000
HPC Debt Payment Period	0,379	25	0,000	0,360	25	0,000
Non-HPC Debt Payment Period	0,169	25	0,063	0,934	25	0,106
HPC Cash Efficiency Period	0,247	25	0,000	0,658	25	0,000
Non-HPC Cash Efficiency Period	0,088	25	0,200*	0,944	25	0,181
HPC Total General Disclosures and Governance	0,140	25	0,200*	0,909	25	0,030
Non-HPC Total General Disclosures and Governance	0,168	25	0,068	0,925	25	0,066
HPC Total Sustainability Reporting	0,207	25	0,007	0,923	25	0,060
Non-HPC Total Sustainability Reporting	0,157	25	0,111	0,940	25	0,152
HPC Total Index Score	0,123	25	0,200*	0,967	25	0,569
Non-HPC Total Index Score	0,179	25	0,038	0,931	25	0,091

Hence, we decided to use non-parametric Wilcoxon-Signed-Ranks test since the sample of the study is not normally distributed. Table 2 demonstrates the average performance of HPCs relative

to the Non-HPCs for the 2011-2014 period. As can be seen, HPCs outperformed the Non-HPCs for most of the performance drivers and performance measures although not all results are statistically significant. HPCs are very strong on asset turnover, profit margin, return on assets, return on equity, cash flow return, and cash efficiency period.

**Table 2.** Financial Ratios of HPCs and Non-HPCs and Test Results

Paired Samples /Variables		Ratios	z	Asymp. Sig. (2-tailed)
<b>Total Asset Management, Profitability, and Financial Risk</b>				
HPC Asset Turnover Ratio	Performance Drivers	137 %	-1,709 <sup>b</sup>	0,088
Non-HPC Asset Turnover Ratio		103 %		
HPC Profit Margin Ratio		13 %	-3,888 <sup>b</sup>	0,000
Non-HPC Profit Margin Ratio		6 %		
HPC Debt To Equity Ratio		132 %	-0,578 <sup>c</sup>	0,563
Non-HPC Debt To Equity Ratio		140 %		
HPC Growth In Sales	Performance Measures	21 %	-1,493 <sup>b</sup>	0,135
Non-HPC Growth In Sales		17 %		
HPC Return On Assets		14 %	-4,023 <sup>b</sup>	0,000
Non-HPC Return On Assets		5 %		
HPC Return On Equity		29 %	-3,619 <sup>b</sup>	0,000
Non-HPC Return On Equity		8 %		
<b>Liquidity</b>				
HPC Cash Flow Yield	Performance Drivers	162 %	-0,094 <sup>b</sup>	0,925
Non-HPC Cash Flow Yield		- 167 %		
HPC Cash flow Return	Performance Measures	21 %	-4,076 <sup>b</sup>	0,000
Non-HPC Cash flow Return		10 %		
<b>Operating Asset Management</b>				
HPC Receivable Turnover	Performance Drivers	8.62	-0,659 <sup>b</sup>	0,510
Non-HPC Receivable Turnover		12.31		
HPC Inventory Turnover		7.98	-0,767 <sup>b</sup>	0,443
Non-HPC Inventory Turnover		31.28		
HPC Payment Turnover		8.32	-0,161 <sup>b</sup>	0,872
Non-HPC Payment Turnover		8.34		
HPC Receivable Collection Period	Performance Measures	70 days	-1,357 <sup>c</sup>	0,175
Non-HPC Receivable Collection Period		91 days		
HPC Inventory Conversion Period		65 days	-1,543 <sup>c</sup>	0,123
Non-HPC Inventory Conversion Period		87 days		
HPC Debt Payment Period		69 days	-0,511 <sup>c</sup>	0,609
Non-HPC Debt Payment Period		60 days		
HPC Cash Efficiency Period		66 days	-1,682 <sup>c</sup>	0,093
Non-HPC Cash Efficiency Period		117 days		

In the next section of the study, the performance of the enterprises in Turkey with high performance and the control group will be compared using IR and SR related measurement matrix. Scores are expressed as percentages to obtain more accurate data for analysis. Table 3 presents the index scores of general disclosures and governance, SR, and IR for HPCs and Non-HPCs.



The table shows that quality and quantity of general disclosures and governance practices are better among HPCs (69%) compared to Non-HPCs (34%). For example, 64% of HPCs disclose information about remuneration, while only 8% of Non-HPCs. At the same time, HPCs report approximately 72% of possible information on stakeholder engagement whereas Non-HPCs disclose only 19%. Considering another examples, the scores are 42% higher in favor of HPCs for business model and governance.

The remaining part of the Table 3 provides information about SR practices as well as the overall evaluation of the SR and IR practices among HPC and Non-HPC companies. The scores show that in most cases more HPCs disclose information on individual components of SR. For example, 92 % of HPCs disclose economic sustainability information, while only 31% of Non-HPCs. You can see that disclosures in labor practices, human rights, society, and product responsibility by HPCs overwhelmingly higher than Non-HPCs. We should also note that both HPCs and Non-HPCs get lower scores from disclosures related to CSR reporting, environment, risk assessment. Overall, on average, HPC companies disclose 58% of all possible comments from index items while Non-HPCs disclose only 25%.

**Table 3.** Comparison of the Index Results of HPC and Non-HPC Companies

	<b>Index Ratios</b>	<b>HPC</b>	<b>Non-HPC</b>
General Disclosures and Governance	Strategy	84 %	48 %
	Organizational Profile	75 %	49 %
	Opportunity and Risks	68 %	32 %
	Business Model	73 %	31 %
	Stakeholder Engagement	72 %	19 %
	Report Profile	28 %	41 %
	Ethics and Integrity	72 %	53 %
	Future Outlook	69 %	25 %
	Governance	89 %	37 %
	Remuneration	64 %	8 %
	<b>Average Ratios of General Disclosures and Governance</b>	<b>69 %</b>	<b>34 %</b>
Sustainability Reporting	Economic	92 %	31 %
	Environmental	72 %	61 %
	Labor Practices and Decent Work	71 %	27 %
	Human Rights	73 %	12 %
	Society	64 %	17 %
	Product Responsibility	61 %	5 %
	CSR/Sustainability Reporting	9 %	0 %
	Environment	8 %	0 %
	Risk Assessment	8 %	0 %
	Other	8 %	0 %
	<b>Average Ratios of Sustainability Reporting</b>	<b>47 %</b>	<b>15 %</b>
	<b>Average Ratios of Index Scores</b>	<b>58 %</b>	<b>25 %</b>

Table 4 compares HPCs and Non-HPCs scores statistically. All differences are significant at 0,000 level. HPCs show statistically significant results. As shown in Table 4 HPCs exhibit higher performance on the disclosures for general disclosures and governance, and SR practices.

**Table 4.** Test Results for the Index Scores

Paired Samples /Variables	Scores	Z	Asymp. Sig. (2-tailed)
HPC Total General Disclosures and Governance	69%	-4,002 <sup>b</sup>	0,000
Non-HPC Total General Disclosures and Governance	34%		
HPC Total Sustainability Reporting	47%	-4,243 <sup>b</sup>	0,000
Non-HPC Total Sustainability Reporting	15%		
HPC Total Index Score	58%	-4,199 <sup>b</sup>	0,000
Non-HPC Total Index Score	25%		

## 5. CONCLUSION

This paper provides evidence from Turkish traded companies about their state of readiness to integrating reporting and SR. Turkey experience is of wide interest because of close economic and political relationships both with European Union, Middle East Countries and Russia. In 2014, % 49 of foreign direct investment to Turkey inflows from European Union Countries and Turkey is the biggest country as a candidate to European Union. In addition, Turkey with its \$849.48 billion economy is the 17th-largest economy in the world. SR and IR have gained importance in the past years as new sets of reporting frameworks both in Europe and in the world.

This study compares the IR and SR disclosures of HPCs and Non-HPCs. Our findings signalize that HPCs show distinguish performance on SR and IR practices compared to Non-HPCs. According to this result, we argue that integrating environmental, social, and governance data with financial data helps companies determine their corporate strategies with a holistic approach. On the other hand, some argue that HPC's show better performance on SR and IR since they have more financial resources for reporting practices.

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## REFERENCES

- Albertini, E. (2014). A descriptive analysis of environmental disclosure: a longitudinal study of french companies. *Journal of Business Ethics*, 121(2), 233-254. doi: 10.1007/s10551-013-1698-y
- Bowerman S., Sharman U. (2016). The effect of corporate social responsibility disclosures on share prices in Japan and the UK. *Corporate Ownership and Control*, 13(2-1), 202-216. doi: 10.22495/cocv13i2c1p2
- Clayton, A.F., Rogerson, J.M. and Rampedi, I. (2015). Integrated reporting vs. sustainability reporting for corporate responsibility in South Africa. *Bulletin of Geography Socio-Economics Series*, 29, 7-17.
- Gray, R. (2010). A re-evaluation of social, environmental and sustainability accounting. *Sustainability Accounting, Management and Policy Journal*, 1(1), 11-32. doi: 10.1108/20408021011059205
- Guthrie, J., Ricceri, F. and Dumay, J. (2012). Reflections and projections: a decade of intellectual capital accounting research. *The British Accounting Review*, 44(2) 68-82. doi: 10.1016/j.bar.2012.03.004

- 
- Lee, K.W. and Yeo, G.H.H. (2016). The association between integrated reporting and firm valuation. *Review of Quantitative Finance and Accounting*, 47(4), 1221-1250. doi: 10.1007%2Fs11156-015-0536-y
- Litfin, T., Meeh-Bunse, G. and Teckert, Ö. (2017). Corporate social responsibility reporting – a stakeholder’s perspective approach. *Business System Research*, 8(1), 30-42. doi: 10.1515/bsrj-2017-0003
- Mervelskemper, L. and Streit, D. (2017). Enhancing market valuation of ESG performance: is integrated reporting keeping its promise?. *Business Strategy and the Environment*, 26, 536-549. doi: 10.1002/bse.1935
- Milne, M. and Gray, R. (2013), W(h)ither ecology? The triple bottom line, the global reporting initiative, and corporate sustainability reporting, *Journal of Business Ethics*, 118(1), 13-29.
- Miralles-Quiros, M, Miralles-Quiros, J.L. and Arraiano, I.G. (2017). Are firms that contribute to sustainable development valued by investors?. *Corporate Social Responsibility and Environmental Management*, 24, 71-84.
- Needles, B. E., Frigo, M., and Powers, M., (2002a). Strategy and financial ratio performance measures. *Studies in Financial and Managerial Accounting*, 13, 341-359. doi: doi:10.1016/S1479-3512(06)16010-4
- Needles, B. E., Frigo, M. L., and Powers, M. (2002b). Strategy and financial ratio performance measures: The case of an entering economy”, *Indian Accounting Review*, 6(2), 1-15.
- Needles, B. E., Frigo, M. L., and Powers, M. (2004). Strategy and integrated financial ratio performance measures: empirical evidence of the financial performance scorecard and high-performance companies. *Studies in Managerial and Financial Accounting*, 14, 115-151.
- Needles, B. E., Powers, M., and Frigo, M., (2006). Strategy and integrated financial ratio performance measures: Further evidence of the financial performance scorecard and high-performance companies. *Studies in Financial and Managerial Accounting*, 16, 241-267.
- Needles, B. E., Turel, A., Sengur, E.D., and Turel. A. (2012). Corporate governance in Turkey: Issues and practices of high-performance companies. *Journal of Accounting and Management Information Systems*. 11(4), 510-531.
- Needles, B. E. (2009, June). Corporate governance in India: Issues and practices of high-performance companies. In *Working paper presented at IAAER-ANPCONT Third International Accounting Congress*, Sao Paulo City, Brazil.
- Needles, B.E., Frigo, M.L., Powers, M. and Shigaev, A. (2016). Integrated reporting and sustainability reporting: an exploratory study of high performance companies. *Performance Measurement and Management Control: Contemporary Issues, Studies in Managerial and Financial Accounting*, 31, 41-81.
- Oshika, T. and Saka, C. (2017). Sustainability KPIs for integrated reporting. *Social Responsibility Journal*, 13(3), 625-642. doi: 10.1108/SRJ-07-2016-0122
-

- Rensburg, R. and Elsamari B. (2014). Is integrated reporting the silver bullet of financial communication? A stakeholder perspective from South Africa. *Public Relations Review*, 40, 144-152.
- Rodriguez-Fernandez, M. (2016). Social responsibility and financial performance: the role of good corporate governance. *Business Research Quarterly*, 19, 137-151. doi: 10.1016/j.brq.2015.08.001
- Setia, N., Abhayawansa, S., Joshi, M. and Huynh, A.V. (2015). Integrated reporting in South Africa: Some initial evidence. *Sustainability Accounting, Management and Policy Journal*, 6(3), 397-424. doi: 10.1108/SAMPJ-03-2014-0018
- Sierra-García, L., Zorio-Grima, A. and Garcia-Benau, M. (2015) Stakeholder engagement, corporate social responsibility and integrated reporting: an exploratory study. *Corporate Social Responsibility and Environmental Management*, 22, 286-304. doi: 10.1002/csr.1303
- Uyar, A. (2017). Stand-Alone Sustainability reporting practices in an emerging market: A longitudinal investigation. *The Journal of Corporate Accounting and Finance*, 28(2), 62-70. doi: 10.1002/jcaf.22208
- Winkler, R.L., Hays, W.L. (1975), *Statistics: probability, inference, and decision*. USA: Houghton Mifflin Harcourt School.

**Appendix A:** List of HPC and Non-HPC Companies

Industry	HPC Companies	Non-HPC Companies
TRANSPORTATION	DO and CO AKTIENGESELLSCHAFT	ÇELEBİ HAVA SERVİSİ A.Ş.
LARGE STORES	BİM BİRLEŞİK MAĞAZALAR A.Ş.	KİLER GAYRİMENKUL YATIRIM ORTAKLIĞI A.Ş.
RUBBER PRODUCTS	BRİSA BRIDGESTONE SABANCI LASTİK SANAYİ VE TİCARET A.Ş.	GOODYEAR LASTİKLERİ T.A.Ş.
IRON AND STEEL	KARDEMİR KARABÜK DEMİR ÇELİK SANAYİ VE TİCARET A.Ş.	EREĞLİ DEMİR VE ÇELİK FABRİKALARI T.A.Ş.
VEHICLES	EGE ENDÜSTRİ VE TİCARET A.Ş.	DİTAŞ DOĞAN YEDEK PARÇA İMALAT VE TEKNİK A.Ş.
INFORMATION TECHNOLOGY	LOGO YAZILIM SANAYİ VE TİCARET A.Ş.	NETAŞ TELEKOMÜNİKASYON A.Ş.
CHEMICALS	SODA SANAYİİ A.Ş.	SODAŞ SODYUM SANAYİİ A.Ş.
METAL PRODUCTS	TÜRK TRAKTÖR VE ZİRAAT MAKİNELERİ A.Ş.	TÜMOSAN MOTOR VE TRAKTÖR SANAYİ A.Ş.
OTHER-NON METALIC PRODUCTS	BOLU ÇİMENTO SANAYİİ A.Ş.	BURSA ÇİMENTO FABRİKASI A.Ş.
DISH, CLAY, TILE PORCELAIN AND SIMILAR	EGE SERAMİK SANAYİ VE TİCARET A.Ş.	UŞAK SERAMİK SANAYİİ A.Ş.
OTHER-NON METALIC PRODUCTS	HAZNEDAR REFRAKTER SANAYİİ A.Ş.	ÇİMBETON HAZIRBETON VE PREFABRİK YAPI ELEMANLARI SANAYİ VE TİCARET A.Ş.
BEVERAGE	TÜRK TUBORG BİRA VE MALT SANAYİİ A.Ş.	ANADOLU EFES BİRACILIK VE MALT SANAYİİ A.Ş.
TEXTILE	YÜNSA YÜNLÜ SANAYİ VE TİCARET A.Ş.	MENDERES TEKSTİL SANAYİ VE TİCARET A.Ş.
CHEMICALS, PETROLEUM RUBBER AND PLASTIC PRODUCTS	AKSA AKRİLİK KİMYA SANAYİİ A.Ş.	SASA POLYESTER SANAYİ A.Ş.
VEHICLES	BOSCH FREN SİSTEMLERİ SANAYİ VE TİCARET A.Ş.	BALATACILAR BALATACILIK SANAYİ VE TİCARET A.Ş.
FOOD	COCA-COLA İÇECEK A.Ş.	KRİSTAL KOLA VE MEŞRUBAT SANAYİ TİCARET A.Ş.
OTHER-NON METALIC PRODUCTS	ÇİMSA ÇİMENTO SANAYİ VE TİCARET A.Ş.	ASLAN ÇİMENTO A.Ş.
WHOLESALE TRADE	DOĞUŞ OTOMOTİV SERVİS VE TİCARET A.Ş.	SANKO PAZARLAMA İTHALAT İHRACAT A.Ş.
VEHICLES	FEDERAL-MOGUL İZMİT PİSTON VE PİM ÜRETİM TESİSLERİ A.Ş.	PARSAN MAKİNA PARÇALARI SANAYİİ A.Ş.
VEHICLES	FORD OTOMOTİV SANAYİ A.Ş.	KARSAN OTOMOTİV SANAYİİ VE TİCARET A.Ş.
CHEMICALS	GÜBRE FABRİKALARI T.A.Ş.	EGE GÜBRE SANAYİİ A.Ş.
MINING	İPEK DOĞAL ENERJİ KAYNAKLARI ARAŞTIRMA VE ÜRETİM A.Ş.	PARK ELEKTRİK ÜRETİM MADENCİLİK SANAYİ VE TİCARET A.Ş.
GLASS AND GLASS PRODUCTS	İZOCAM TİCARET VE SANAYİ A.Ş.	DENİZLİ CAM SANAYİİ VE TİCARET A.Ş.
PAPER AND PAPER PRODUCTS	KARTONSAN KARTON SANAYİ VE TİCARET A.Ş.	ALKİM KAĞIT SANAYİ VE TİCARET A.Ş.
VEHICLES	OTOKAR OTOMOTİV VE SAVUNMA SANAYİ A.Ş.	ANADOLU ISUZU OTOMOTİV SANAYİ VE TİCARET A.Ş.

**Appendix B:** Integrated Reporting and Sustainability Evaluation Metrics

Evaluation Metrics		Score	Comments	
General Disclosures and Governance	Strategy	1	3	
	Organizational Profile	1	3	
	Opportunity and Risks	1	3	
	Business Model	1	3	
	Stakeholder Engagement	1	3	
	Report Profile	1	3	
	Ethics and Integrity	1	3	
	Future Outlook	1	3	
	Governance	1	3	
	Remuneration	1	3	
Sustainability Reporting	Economic	1	3	
	Environmental	1	3	
	Social	Labor Practices and Decent Work	1	3
		Human Rights	1	3
		Society	1	3
	Assurance Report	Product Responsibility	1	3
		CSR/Sustainability Reporting	1	3
		Environment	1	3
		Risk Assessment	1	3
		Other	1	3
Total		20	60	

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## GENİŞLETİLMİŞ ÖZET

Günümüzün finansal raporlama modeli, işletmelerin geçmiş verilerinden hareket ederek finansal pozisyon ve finansal performansı sunan dar bir bakış açısına sahiptir. Ancak finansal raporların kullanıcıları işletmelerin geçmiş performansları yanı sıra gelecekleri ile de ilgilenmektedirler. Buna ek olarak işletmelerin paydaşları geniş bir bakış açısı ile işletmenin finansal bilgileri kadar finansal olmayan bilgilerini de sunan bir raporlama istemektedirler. Bu istek doğrultusunda Uluslararası Entegre Raporlama Komitesi (IIRC) tarafından Entegre Raporlama Çerçevesi ve Küresel Raporlama Girişimi (GRI) tarafından Sürdürülebilirlik Raporlaması İlkeleri geliştirilmiştir. Geliştirilen bu raporlama yaklaşımları ile işletmelerin sosyal ve çevresel etkilerini de dikkate alan, daha geniş kapsamlı bir raporlama yapılabilmesi amaçlanmaktadır.

Bu çalışmanın amacı yüksek performanslı ve yüksek performanslı olmayan işletmelerin sürdürülebilirlik raporlaması ve entegre raporlamaya hazır olmaları bakımından birbirlerinden farklı olup olmadıklarını analiz etmektir. Bu amaç doğrultusunda hisse senetleri Borsa İstanbul'da (BIST) işlem gören ve finansal sektör dışında faaliyet gösteren işletmeler örneklem olarak seçilmiştir. İşletmeler yüksek performanslı ve yüksek performanslı olmayan olarak iki gruba ayrılmıştır. İşletme varlıklarındaki büyümenin Türkiye'nin gayri safi yurt için hasıladaki büyümeyi aşması, hissedarların yatırımlarının geri dönüşünün BIST 100 ortalamasını aşması ve işletmelerin yatırımlarından nakit akışı dönüşünün sermaye maliyetinin en az iki katı olması yüksek performans kriterleri olarak kullanılmıştır. Bu kriterler daha önce yapılmış uluslararası çalışmalarda kullanılmış kriterlerdir. İlk aşamada kriterlerin uygulanması sonucunda 25 tane yüksek performanslı işletme belirlenmiştir. İkinci aşamada yüksek performanslı olan 25 işletmeden her biri ile aynı sektörde faaliyet gösteren fakat yüksek performans kriterini sağlayamayan 25 işletme eşleştirilmiştir. Böylece 25 tane yüksek performanslı işletme ile 25 tane yüksek performanslı olmayan işletmeden oluşan iki grup elde edilmiştir. Bu çalışmanın araştırma sorusu şu şekildedir: Yüksek performanslı işletmeler sürdürülebilirlik raporlaması ve entegre raporlama açısından yüksek performanslı olmayan işletmelere göre daha hazır durumda mıdır? Çalışmanın hipotezine göre yüksek performanslı işletmelere sürdürülebilirlik raporlaması ve entegre raporlamada yüksek performanslı olmayan işletmelere göre daha hazır olması beklenmektedir. Yüksek performanslı işletmeler ve yüksek performanslı olmayan işletmelerin sürdürülebilirlik raporlaması ve entegre raporlama seviyelerini ölçebilmek için değerlendirme matrisi kullanılmıştır. Seçilen şirketlerin faaliyet raporları incelenmiş ve sürdürülebilirlik raporlaması ile entegre raporlamada olması gereken bilgilerin faaliyet raporlarında ne kadarının ve ne düzeyde sunulduğu analiz edilmiştir. Yapılan incele sonucunda matriste yer alan bilgileri sunan işletmelere 1, sunmayan işletmelere ise 0 puan verilmiştir. İkinci adımda bilgi sunmuş olan işletmelerin sunduğu bilginin yeterliliği değerlendirilerek 1 ile 3 arasında puan verilmiştir. Çalışmanın istatistik analiz kısmında Kolmogorov-Smirnov ve Shapiro-Wilks testleri ile normallik testi yapılmıştır. Testler neticesinde parametrik olmayan Wilcoxon-Eşleştirilmiş Sıralar Testi kullanılmasının uygun olacağı belirlenmiştir. Test sonucunda ilk olarak yüksek performanslı işletmeler ile yüksek performanslı olmayan işletmelerin finansal oranları karşılaştırılmıştır. Finansal performans göstergeleri açısından yüksek performanslı işletmeleri, varlık devir hızları, kâr marjları, aktif kârlılıkları, özsermaye kârlılıkları, nakit akış getirileri ve nakit etkinlikleri açısından yüksek performanslı olmayan işletmelere göre istatistiki açıdan anlamlı derecede daha üstün olduğu tespit edilmiştir. Matris değerlerinin test edilmesi sonucunda ise yüksek performanslı işletmelerin, ekonomik sürdürülebilirlik bilgileri, çalışanlara ilişkin bilgiler, insan haklarına ilişkin bilgiler, sosyal sorumluluğa ilişkin bilgiler ve ürün sorumluluğuna ilişkin bilgiler açısından yüksek performanslı olmayan işletmelere göre istatistiki açıdan anlamlı derecede daha fazla bilgi sunduğu belirlenmiştir. Buna ek olarak hem yüksek performanslı hem de yüksek performanslı olmayan işletmelerin çevresel olaylara ilişkin bilgileri ve risk değerlemesine ilişkin bilgileri sunmada yetersiz oldukları ortaya çıkmıştır. Çalışma da elde edilen bulgulara göre çevresel, sosyal ve kurumsal bilgilerin finansal bilgiler ile entegre edilmesinin, şirketlerin kurumsal stratejilerinin bütünsel bir yaklaşım ile belirlenmesine yardımcı olacağı iddia edilebilir. Çalışma bulguları önemlidir çünkü Türkiye dünyanın en büyük yirmi ekonomisi içinde yer almaktadır ve Avrupa Birliği, Orta Doğu ve Rusya ile yakın ekonomik ve politik ilişkiler içerisinde. Aynı zamanda Türkiye Avrupa Birliğine aday en büyük ülke durumundadır.

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