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IFRS implementation in Turkey: benefits and challenges

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Abstract: This paper presents a study of the implementation process for International Financial Reporting Standards (IFRS) in Turkey. The study analyzes the application of IFRS in Turkish publicly traded companies which have been preparing their financial statements under IFRS since 2005, and highlights some key issues that are arising in IFRS implementation by using a questionnaire-based survey, which was completed by 90 Turkish listed firms. The benefits and challenges of IFRS implementation are analyzed, as well as the level of understanding and experience with IFRS, and the perception of the accounting quality provided by IFRS. According to the results, the implementation of IFRS is believed to improve financial reporting by increasing the comparability, quality and transparency of financial statements. However, the lack of IFRS implementation guidance, sufficient sector-adopted regulations, and the difficulty in applying fair value concept are considered major challenges to IFRS implementation in Turkey.

Keywords: IFRS implementation, Turkish GAAP, accounting quality, survey

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1. Introduction

Recent accounting scandals (e.g., Enron, Worldcom, Parmalat, Global Crossing) seriously eroded confidence in the capital markets and initiated a discussion over

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the quality of financial reporting. The Sarbanes Oxley Act of 2002 recommends global convergence in the area of accounting practices to restore investor confidence in listed companies by improving the quality of financial reporting (Jermakowicz & Tomaszewski, 2006: 170). A major milestone towards accounting convergence was the decision of the European Commission to adopt International Financial Reporting Standards (IFRS) for listed companies. In 2002, the Parliament and Council of the European Union approved a regulation requiring all listed companies, including banks and insurance companies, to prepare their consolidated financial statements in accordance with IFRS from January 1, 2005. This regulation does not cover IFRS adoption for financial reporting of non-listed companies or individual financial statements of listed companies. Member countries have the option to extend IFRS adoption to unlisted companies and to individual accounts of listed companies.

Another important development related to global accounting convergence was the Norwalk Agreement between the Financial Accounting Standards Board (FASB) and the International Accounting Standards Board (IASB). In this agreement, the Boards acknowledged their commitment to the development of high-quality and compatible accounting standards and to eliminate a variety of differences between United States Generally Accepted Accounting Principles (US GAAP) and IFRS (Demir *et al.*, 2013: 120). The intention of the Boards to develop high-quality accounting standards for domestic and cross-border financial reporting was appreciated by many regulators, including the U.S. Securities and Exchange Commission (SEC). In November 2007, the SEC voted to permit foreign filers to present financial statements prepared in accordance with IFRS without reconciliation to US GAAP (Dykxhoorn & Sinning, 2010).

The desired goal of accounting convergence via adoption of IFRS is to contribute to the efficient and cost-effective functioning of the capital market (Regulation (EC) No 1606/2002). Proponents of accounting convergence believe many benefits may be derived from the use of a common accounting language: improved transparency, comparability and quality of financial statements, as well as decreased cost of capital (Hail *et al.*, 2010; Armstrong *et al.*, 2010; Barth *et al.*, 1999, 2008). Despite the challenges and costs, IFRS adoption is expected to help eliminate barriers to cross-border trading in securities and, consequently, increase market efficiency and reduce the cost of raising capital. Furthermore, IFRS adoption is believed to improve reporting by increasing comparability, quality and transparency of financial statements. Opponents of accounting convergence, on the other hand, argue that the differences in environmental influences across countries remain considerable obstacles to a common accounting language and that IFRS implementation has no impact on the cost of equity capital. Moreover, some empirical evidence creates doubts about accounting convergence. For example, the study of Daske (2006) does not provide support for the hypothesis that the adoption of IFRS should decrease cost of equity capital for companies. Rather, he finds that

the expected cost of equity capital appears to have increased under non-local accounting standards (Daske, 2006). Similarly, Jermakowicz and Gornik-Tomaszewski (2006) investigate companies' perception of IFRS implementation; their results indicate that companies do not expect to lower their cost of capital by implementing IFRS.

Consequences of IFRS adoption studies can be examined in three groups; impact of IFRS on financial items, application issues and compliance, and value relevance and accounting quality studies (Balsarı & Varan, 2014). Previous research in developed countries provide evidence on all of these areas (Ballas *et al.*, 2010, Chua *et al.*, 2012; Dask, 2006; Hail *et al.*, 2010; Iatridis, 2010; Stolowy, 2008; Jermakowicz, 2004; Jermakowicz & Gornik-Tomaszewski, 2006; Navarro-García & Bastida, 2010; Tsalavoutas & Evans, 2010). However, previous research in Turkey focused only on the impact of IFRS on financial statements and IFRS compliance (Demir & Bahadir, 2013; Terzi *et al.*, 2013; Alkan & Dogan, 2012; Atmaca & Celenk, 2011; Elitas, 2010; Balsari *et al.*, 2009). Accounting literature in Turkey lacks of emprical evidence on the expected benefits and challenges of IFRS implementation (Bruggemann *et al.*, 2013; ICAEW, 2015). This study contributes to the literature by extending IFRS implementation studies in developing economies and by providing insights to the perceived benefits and challenges of IFRS implementation by companies in Turkey, a code-law country with a very different cultural and institutional framework from that of common law countries.

Turkey has a distinctive culture and financial reporting regime that differs significantly from IFRS. Since several accounting practices of IFRS, such as fair value measurement of certain assets, are not permitted under Turkish GAAP, it is expected that Turkish companies' financial statements should be affected considerably by the transition to the new accounting regime. This study focuses on companies' perceptions of IFRS implementation in Turkey. According to the results, companies believe that IFRS implementation improves reporting by increasing comparability, quality and transparency of financial statements. However, the lack of IFRS implementation guidance, the lack of sufficient sector-adopted regulations, and the difficulty in applying fair value concept are considered major challenges to IFRS implementation in Turkey. Furthermore, the implementation of IFRS is not considered to lower cost of capital. Since IFRS are derived from common law countries and most studies in this area are conducted in common law countries, little is known about the value relevance of IFRS to code law countries, such as Turkey.

The study attempts to determine if there are factors in a code-law country such as Turkey that may affect IFRS application and compliance. Purposes of this study are the following:

- to provide insights to IFRS implementation problems that Turkish companies have,
- to analyze challenges and benefits of IFRS adoption,
- to analyze the level of understanding and experience with IFRS, and
- to analyze perception of the quality of IFRS.

The rest of the paper is organized as follows: Section 2 briefly explains the history of the Turkish accounting framework and compares Turkish GAAP to IFRS; Section 3 reviews certain papers from international literature, focusing mainly on material referring to the impact of IFRS implementation in developed and developing countries; Section 4 describes the research methodology and research design; Section 5 summarizes the results; Section 6 presents the conclusion.

2. Evaluation of national accounting standards in relation to IFRS

In Turkey, as in several other continental European countries, a close link exists between accounting principles and taxation. Due to the purpose of credit protection, many recognition and measurement principles are influenced by the concept of prudence and historical cost accounting. There were no written documents involving standardized accounting rules and principles in Turkey until 1992, when they were standardized with the issuance of an accounting regulation by the Ministry of Finance, known as “The Uniform Accounting System.” This accounting regulation, under which all companies prepare and present their financial statements, is accepted as the Turkish GAAP. Still in use for non-listed companies, the principle of fiscal neutrality dominates the Turkish accounting framework. The principle of fiscal neutrality means that financial reporting is affected by GAAP unless the fiscal law expressly provides otherwise (Jermakowicz, 2004). When there is conflict between tax laws and GAAP for the recognition and measurement of assets and liabilities, tax laws dominate. As a consequence, assets and liabilities are not valued at economically justifiable values and the balance sheet and income statement do not provide a fair and accurate view (Jermakowicz, 2004). Another main feature of the Turkish GAAP is that it gives more importance to the legal form of the operations than to their economic basis. It should be noted that this system has been criticized for being overly-affected by taxation and thus not providing a basis for high quality financial reporting.

The rapid development of financial markets and globalization of the world economy demands the harmonization of accounting principles and rules around the world. The International Accounting Standards Committee (IASC) began to issue financial reporting standards in order to harmonize different accounting frameworks. As an emerging financial market, Turkey was not indifferent to these

developments in accounting systems. The need for attracting foreign investments and increasing the credibility of companies requires Turkey to adopt and implement IFRS. Another factor that plays an important role in implementing IFRS is the application of Turkey for full European membership; Turkey has sought to align its regulatory practices with those existing in the EU. As a result of these developments, the Turkish Accounting Standards Board was formed and charged with adoption of IFRS to the Turkish accounting framework. All of IFRS were translated into Turkish and accepted as Turkish Financial Reporting Standards (TFRS).

Since 2005, the European Union has required that all EU companies listed on stock exchanges need to prepare and present their consolidated accounts in accordance with IFRS. Due to this regulation, the Turkish Capital Markets Board issued a communiqué involving almost all IFRS; with the issuance of this communiqué, listed companies in Turkey have been presenting their financial statements in accordance with IFRS since the fiscal year beginning January 1, 2005.

An important development in reference to the wider adoption and application of IFRS is the new Turkish Commercial Legislation, which mandates all companies (listed or non-listed) to prepare and present their financial statements in accordance with TFRS. As a result of this regulation, TFRS will supersede Turkish GAAP and a full transition to IFRS will be achieved.

The basic differences between IFRS and Turkish GAAP are summarized in Table 1. Table 1 shows that Turkish GAAP does not recognize the concepts of deferred tax, investment properties, biological assets and biological product. It also does not use the fair value model. Depreciation and amortization rates for assets are not calculated on the basis of expected useful lives, but rather specified by the Ministry of Finance. Financial instruments are carried at cost and there are no specific requirements for hedge accounting. In addition, revaluation of tangible assets are not permitted under Turkish GAAP.

Table 1. Comparison of IFRS to Turkish GAAP

Category	IFRS	Turkish GAAP
Basic financial statements	Under IAS 1, balance sheet (statement of financial position), income statement (statement of financial performance), statement of cash flows and statement of changes in stockholders' equity are basic financial statements of the company.	Statement of cash flows and statement of changes in stockholders' equity are not required to be presented.
Revenue recognition	IAS 18 requires that revenues are measured at the fair value of the consideration received or receivable. The difference between the fair value and the nominal amount of the consideration is recognized as interest revenue.	Revenues are recognized at the nominal amount of the consideration.

Category	IFRS	Turkish GAAP
Measurement of inventories at the initial recognition	Under IAS 2, for goods which are purchased on deferred settlement terms, a difference between the purchase price for normal credit terms and the amount paid is recognized as interest expense over the period of financing.	At the initial recognition, inventories are measured at the nominal amount of the consideration.
Cost of inventories for manufacturing companies	Under IAS 2, the allocation of production overheads to the cost of conversion is based on the normal capacity of production facilities .	Idle capacity is not considered when allocating production overheads to the cost of conversion.
Measurement of inventories	IAS 2 requires that inventories are measured at lower of cost or net realizable value.	Inventories are measured at cost. In case of damages, allowances for impairment are allowed.
Property plant and assets	IAS 16 allows companies to choose between cost method and revaluation method for measurement of tangible fixed assets.	Revaluation method is not allowed. Fixed assets are measured at cost less accumulated depreciation.
Intangible assets	IAS 38 allows companies to choose between cost method and revaluation method for measurement of intangible fixed assets.	Revaluation method is not allowed. Fixed assets are measured at cost less accumulated depreciation.
Depreciation period	IAS 16 requires that fixed assets are depreciated according to estimates based on useful lives.	The depreciation rate is determined by ministerial decision.
Research and development costs	Under IAS 38, all research costs are recognized as expense in the period they incur. Development costs are capitalized only when it is estimated that the product will generate economic benefits to the company.	Both research and development costs are recognized as asset when the product is feasible.
Deferred taxes	IAS 12 requires recognizing deferred tax assets and liabilities resulting from temporary differences between carrying amount of an asset or a liability and its tax base.	No specific guidance exists to calculate and record deferred tax assets and liabilities.
Impairment of assets	IAS 36 requires recording impairment losses when carrying amount of an asset exceeds its recoverable amount.	No specific guidance exists to calculate and record impairment losses of assets.
Goodwill	IFRS 3 requires companies to recognize goodwill at cost less accumulated impairment loss. Amortization is not allowed.	Goodwill is amortized over its useful life.
Financial investments-passive investments	Under IAS 39, financial investments over which the investor has no influence are passive investments. For the purpose of measurement, passive investments are classified as financial assets at fair value through profit or loss, held-to-maturity investments, loans and receivables and available-for-sale financial assets. They are all measured at fair value	The concept of prudence dominates in treatment of passive investments. Passive investments are recognized at the lower of cost and market value.

Category	IFRS	Turkish GAAP
Financial investments-active investments	Under IFRS, active investments are classified as investment in associates (investments over which the investor has significant influence) and investment in subsidiaries (investments over which the investor has control power). Significant influence occurs when the investor has 20% or more of investee's voting stocks. Control power exists when the investor has 50% or more of the investee's voting stocks.	A financial investment is classified as investment in associates when the investor owns 10% or more of investee's voting stocks. Investment in subsidiaries are those investments over which the investor has 50% or more of the investee's voting stocks.
Accounting method for investment in subsidiaries	IAS 27 requires that the parent company prepares and presents consolidated financial statements in order to represent two companies as they are one entity.	No specific guidance provided.
Accounting method for investment in associates	IAS 28 requires that investment in associates are accounted by applying equity method. Under equity method, the investment in an associate is recognized at cost and the carrying amount is increased (decreased) with the company's share of profit (loss).	Investment in associates are recognized at cost.
Financial derivatives and hedging	IAS 39 classifies financial derivatives as fair value hedges, requires financial derivatives are measured at fair value. The difference between fair value unrealized holding gains or losses resulting from fair value measurement of financial derivatives.	Financial derivatives are not reported in financial statements. Disclosure required.

3. Literature review

Since the decision of the European Commission to adopt IFRS for listed companies and the Norwalk agreement between IASB and FASB, empirical evidence on IFRS adoption has become more and more imperative in accounting literature. In this section, we briefly review certain papers from the international literature, focusing mainly on material referring the impact of IFRS adoption in developed and developing countries.

Most studies examined the merits of adopting IFRS by focusing on companies' perceptions of the implementation, such as whether the benefits of the expected increased capital flows would outweigh the costs of implementation. The impact, progress and difficulties of IFRS implementation are also analyzed. For example, Jermakowicz (2004) conducts an empirical study on Belgian companies' perceptions of IFRS adoption by using a questionnaire and performing an analysis on the annual reports of those companies. He focuses on the impact that IFRS conversion has on companies, their internal organization, accounting and finance

strategy. The benefits and challenges of IFRS adoption, as well as the level of understanding and experience with IFRS, are also analyzed. Results indicate that maintaining different accounting systems for individual and consolidated accounts is considered complex and costly. Moreover, the lack of adequate IFRS implementation guidance and the tax-driven nature of national accounting standards result in several reconciliation items in the conversion process that present key challenges in the process of adopting IFRS. It is believed, however, that transition to a common accounting language will have a positive impact on the competitiveness and the realization of an integrated financial services market in the EU.

Similar results are obtained by Jermakowicz and Gornik-Tomaszewski (2006). Employing data collected by finance officers of 410 EU publicly traded companies listed on major European stock exchanges, they examine the costs and benefits of IFRS implementation from the perspective of EU publicly traded companies. Their results indicate that companies have adopted IFRS for more than just consolidation purposes. Companies find IFRS implementation process costly, complex and burdensome. Moreover, companies do not expect to lower their cost of capital by implementing IFRS but expect increased volatility in financial results. According to EU companies, the complexities of IFRS, in addition to the lack of implementation guidance and uniform interpretation, are key challenges in convergence.

Larson and Street (2004) examine the progress and perceived impediments to convergence in seventeen European countries through data collected by the six largest international accounting firms during their 2002 convergence survey. Their results reveal that the complicated nature of particular IFRS (including financial instruments), the tax-orientation of many national accounting systems, as well as insufficient guidance on first-time application of IFRS are the major barriers to convergence in Europe. On the other hand, the majority of surveyed countries are expected to continue to require or allow national accounting standards for individual accounts, suggesting the development of a ''two-standard'' system.

Taylor (2009) compares the costs and benefits of IFRS implementation in listed companies in the United Kingdom, Hong Kong and Singapore, where different approaches to harmonization leading up to IFRS adoption have been adopted. Results show that, in each of the three countries, financial statements prepared under IFRS generate insignificant benefits to users in terms of providing incrementally more value-relevant information than financial statements prepared under local generally accepted reporting practices. The extent and cost of adjustments to financial statements of UK companies at first-time adoption of IFRS, however, is greater than companies in Hong Kong and Singapore. According to Taylor (2009), the self-develop-then-harmonize strategy of the United Kingdom's Accounting Standards Board caused companies to incur higher

costs-to-benefits on adoption of IFRS than the selective importing of IFRS strategy in Hong Kong and Singapore.

Navarro-Garcia and Bastida (2010), like previous researchers, investigate the impact of IFRS implementation based on a questionnaire sent to the chief accountants and financial managers of Spanish listed companies. However, their study is different in that they also compare IFRS to national standards. They find that Spanish listed firms do not consider IFRS, in general, to be better than Spanish standards. Two main factors explain this result. First, IFRS are viewed as more complex, flexible and troublesome than Spanish standards. Second, respondents indicate increased reporting costs due to higher disclosure requirements and the majority predicts an increase in their firm's earnings volatility. Despite an increase in disclosure requirements, respondents do not believe in a reduction in creative accounting, and perceive IFRS to be less suitable than Spanish standards to limit creative accounting practices. Similarly, Ballas *et al.* (2010) analyze the challenges and benefits, including value relevance, of the adoption of IFRS by Greek firms based on secondary sources and a questionnaire sent to company executives. Their study reveals that despite the difficulties and costs associated with the transition to IFRS, there appeared to be a positive stance towards IFRS by Greek accountants. The application of IFRS is believed to improve the quality of financial reporting and therefore to make access to financial markets easier.

A survey conducted by Ionaşcu *et al.* (2007) on a sample of listed Romanian firms seeks to identify and evaluate the costs of Romanian accounting with IFRS. The results indicate that harmonization benefits are perceived as not being significant by the majority of companies, even though implementation costs are rather low. In another study, Albu *et al.* (2013) provide evidence that implementation of IFRS in emerging economies (namely, Czech Republic, Hungary, Romania and Turkey) may yield other benefits (e.g., attraction of foreign investment, easier access to external capital, opportunities for the accounting profession to contribute to the development and enhancement of economic development) than those previously advocated for adoption in developed economies (e.g., increased comparability of financial reporting).

In addition to these studies, which examine benefits and costs of IFRS implementation from the perspectives' of companies, an undeniable portion of the literature includes studies which investigate other issues, such as the impact of IFRS implementation on financial statements. For example, Tsalavoutas and Evans (2010) examine the impact of the transition to IFRS on the financial statements of Greek-listed companies, focusing on net profit, shareholders' equity, gearing and liquidity. Their results show that IFRS implementation has a significant impact on the financial position and reported performance, in addition to the gearing and liquidity ratios of the firms analyzed. Shareholders' equity and net income increased while gearing and liquidity decreased in the year which IFRS was

implemented by Greek firms. Jeanjean and Stolowy (2008) examine whether the transition to IFRS was accompanied by a decline in earnings management by focusing on three IFRS first-time adopter countries, namely Australia, France and the UK. They find that earnings management did not decline after the introduction of IFRS, and in fact increased in France. In order to investigate the impact of IFRS implementation on key financial measures and volatility effects of IFRS adoption, Iatridis (2010) compares the UK GAAP-based financial numbers reported in 2004 and the IFRS-restated financial numbers reported in the same year. Their findings show that IFRS implementation has favorably affected the profitability and growth potential of firms. The study also provides evidence that the transition to IFRS appears to introduce volatility in income statement and balance sheet figures.

Investors' reactions to the adoption of IFRS is another area of research. It has been argued that investors would react positively towards IFRS adoption since they expect that the application of IFRS would result in reduced information asymmetry and lower cost of capital by improving quality of financial reporting relative to application of domestic standards. This argument is supported by previous research. For example, by using a sample of firms from twenty-one countries, Barth, Landsman, and Lang (2008) find that firms that adopted IFRS voluntarily exhibit less earnings management, more timely loss recognition, and greater value relevance of accounting income. They conclude that the application of IFRS is associated with higher quality accounting amounts than the application of non-U.S. domestic standards. Furthermore, Barth *et al.* (2009) provide evidence that firms with more transparent earnings enjoy a lower cost of capital. Armstrong *et al.* (2010) examine European stock market reactions to certain events associated with the adoption of IFRS in Europe. Their results indicate a positive reaction for firms with lower pre-adoption information quality and higher pre-adoption information asymmetry. These findings are consistent with investors expecting IFRS to improve the information quality for these firms.

In order to investigate the impact of IFRS adoption on accounting quality, Chua *et al.* (2012) compare the quality of accounting numbers under Australian GAAP and IFRS by using a wide range of accounting-based metrics and market-based data. They examine the impact of IFRS on accounting quality by focusing on earnings management, timely loss recognition and value relevance. Their findings indicate that the mandatory adoption of IFRS results in better accounting quality than previously under Australian GAAP by reducing earnings management and improving the timeliness of loss recognition. Moreover, they find that the value relevance of financial statement information improved with the mandatory adoption of IFRS.

Research in Turkey focused on the impact of IFRS on financial statements and IFRS compliance. Terzi *et al.* (2013) examine the impact of IFRS adoption on financial statement items and financial ratios, such as current ratios, receivables

turnover ratios, asset turnover ratios, total liabilities/tangible assets, fixed assets turnovers, equity turnover rates, short term liabilities/total debts and short term liabilities/total assets ratios. Their results indicate that the financial statements prepared in accordance with local GAAP and IFRS were statistically different. Similarly, Balsari *et al.* (2009) investigate the impact of IFRS on major financial ratios and find that, inflation accounting application in Turkey mediates the effect of IFRS on financial ratios. Their findings also suggest that, financial statement items are affected by the IFRS adoption, but the results should be examined carefully for other mediation effects. Atmaca and Celenk (2011) conducted a survey study and analyzed the results of the First 500 Greatest Industrial Corporations in Turkey to reveal the impact of IFRS implementation on the quality level of financial analyses prepared by companies for managerial purposes. Their results indicate that after IFRS implementation, managers perceive financial reports more reliable, business performance is measured more accurately, and decision making for investment and managerial decisions are positively affected. Based on a sample of 168 companies, Demir and Bahadir (2013) investigate the extent of compliance with IFRS by listed companies in Turkey. Their results unveil a considerable extent of non-compliance. Furthermore, they find that IFRS compliance is also negatively associated with the level of leverage. Other company characteristics, such as profitability, company size and age are determined to be statistically insignificant in explaining the level of disclosure compliance with IFRS.

4. Research methodology

Like previous studies, we used a survey to explore perceptions of IFRS implementation. As stated by many researchers (Graham *et al.*, 2005; Navarro-Garcia & Bastida 2010), this methodology enables us to investigate, in a comprehensive approach, specific and qualitative questions that could not been studied with an archival research. We evaluate preparers' perceptions regarding IFRS implementation through their motivations and opinions. Based on the literature review, we asked companies 35 questions about IFRS implementation. We used a closed questionnaire with a 5-point Likert scale was used, where 1 is "totally disagree," and 5 is "totally agree". The questionnaire consisted of the following parts:

- Comparison of perceptions of Turkish GAAP and IFRS
- Factors contributing to a high-quality accounting system
- Major challenges to implementing IFRS
- Expected benefits and costs of conversion to IFRS

Questionnaires were mailed to Turkish listed companies during the last quarter of 2012. The questionnaire was addressed to chief accountants and financial managers

who are directly involved in the preparation of financial reports. The initial sample comprised 404 firms listed in Istanbul Stock Exchange. After mailing questionnaires to chief accountants and financial managers, we asked them by phone to send the questionnaire. The final sample comprises 90 firms (response rate 22.27%). Table 1 shows companies by sectors and the number of employees working in the sample companies.

Table 2. Sample companies by sector and the number of employees working in the sample companies

Number of working people	Frequency	Percentage %	Cumulative percentage %
0-10	13	14,44	14,44
10-50	27	30,00	44,44
50-250	15	16,67	61,11
250-1000	16	17,78	78,89
1000-10000	12	13,33	92,22
10000+	7	7,78	100,00
Total	90	100	
Sample of companies by sector	Frequency	Percentage %	
Manufacturing Industry	42	46,66	
Financial institutions	5	5,55	
Wholesale and retail trade, hotels and restaurants	25	27,78	
Transportation, telecommunication and storage	7	7,78	
Education, health, sports and other social services	6	6,67	
Renting and business activities	3	3,34	
Technology, professional, scientific and technical activities	2	2,22	
Administrative support service activities	-		
Real estate activities	-		
Miscelaneous	-		
Total	90	100	

5. Results

5.1 Evaluation of Turkish GAAP in relation to IFRS

The first part of the questionnaire consisted of questions about the respondents' perceptions of IFRS. We also asked the same questions regarding their perceptions of Turkish GAAP. We applied the t-test for each variable pair that are dependent samples, in order to examine whether there is a statistically significant difference

between the averages in terms of the Turkish GAAP and the IFRS. However, the t-test is a parametric test sample taken in order to comply with the assumed normal distribution of the population and as the data was collected through a survey and measured in ordinal scale, it was not possible to provide this assumption. Without having the assumption that the population complies with normal distribution, the data can be examined with the Wilcoxon two-sample paired test which is a non-parametric test of whether the sampling averages differ from each other (Freund, 2002: 551).

Using the Wilcoxon method, we tested separately for each variable pair to see if there is a significant difference between Turkish GAAP and IFRS for firms that have completed the transition to IFRS. The null hypothesis is that there is no difference between the Turkish GAAP and IFRS for each variable pair. In Table 3, the p-values of the concerned test are given. It is possible to say that for the variable values of $p<0.05$, there is a significant difference. For the 5th variable "appropriate for limiting creative accounting," the value of p is greater than 0.05 - which shows there is no significant difference between the traditional regulation and IFRS. The variables "complex," "detailed," and "flexible" are in a significance level of 0.05 and all the other variables are in a significance level of 0.01. This shows that there is a significant difference between these two accounting systems. The results obtained with this test justify the argument of there is a significant difference between the Turkish GAAP and IFRS.

Table 3 presents respondents' views of the Turkish accounting system compared to IFRS. According to the results, respondents perceive a difference in the achievement of true and fair view as well as accountability. Respondents believe that IFRS based financial statements rather than Turkish GAAP based financial statements provide a true and fair view and accountability (questions 1 and 2). This finding is consistent with the results of the survey carried out by Jermakowicz and Gornik-Tomaszewski (2006), which reveal that the adoption of IFRS resulted in greater transparency and comparability with other businesses.

IFRS are deemed to be more appropriate for decision-making, both for managers and users (questions 3 and 4). Moreover, respondents think that IFRS are more effective in limiting creative accounting (question 5). These results support the idea that the adoption of IFRS in code-law countries improves both investor protection and financial information comprehensiveness (Hope *et al.*, 2006; Navarro-Garcia & Bastida, 2010). Respondents also think that IFRS are more complex than Turkish GAAP (question 6). Complexity is the main issue concerning IFRS, which may negatively prejudice their overall opinion about IFRS. In addition, IFRS are deemed more detailed and flexible than Turkish GAAP (questions 7 and 8, respectively).

Table 3. Comparison of perceptions of Turkish GAAP and IFRS

	Obs.	Turkish GAAP mean (chi-square)	Obs.	IFRS Mean (chi-square)	Wilcoxon test statistics Z	p-value
1. Appropriate for achieving a true and fair view	89	3.03	89	4.19	-6.246**	0.000000**
2. Appropriate for accountability	90	3.03	90	4.07	-5.705**	0.000000**
3. Appropriate for managers' decision-making	90	3.02	90	3.97	-5.347**	0.000000**
4. Appropriate for users' decision-making	90	2.98	90	4.09	-5.897**	0.000000**
5. Appropriate for limiting creative accounting	89	2.78	89	2.82	-0.496	0.620108
6. Complex	90	2.58	90	2.88	-2.161*	0.030696*
7. Detailed	90	2.87	90	3.79	-5.231*	0.000000*
8. Flexible	90	2.57	90	3.18	-4.020*	0.000058*

** significant at 0.01 level * significant at 0.05 level

5.2 Factors contributing to a high-quality accounting system

The main objective of IASB is to develop a single set of high quality, understandable, enforceable and globally accepted financial reporting standards based upon clearly articulated principles (IASB, 2009). While there is no consensus as to what constitutes high-quality accounting standards, IFRS are perceived to result in better accounting quality than previously under local GAAP. Previous research supports this idea by indicating that the pensiveness of earnings management by way of smoothing is reduced, while the timeliness of loss recognition is improved after the adoption of IFRS (Chua *et al.*, 2012; Barth *et al.*, 2008; Jeanjean & Stolowy, 2008). Additionally, there is an empirical evidence that the value relevance of financial statement information improved post adoption period of IFRS (Chua *et al.*, 2012; Barth *et al.*, 2008).

The second part of our questionnaire determined factors contributing to a high-quality accounting system from the respondents' view; Table 4 summarizes the results. As seen in the table, respondents believe that reliability (question 4), transparency (question 3), relevancy (question 5) and strong penalties in case of accounting fraud (question 9) are the four most important factors that contribute to

a high quality accounting system. Respondents indicated that efficient oversight bodies (question 8) are the fifth most important factor, while efficient control mechanisms implemented by companies' corporate governments (question 7), detailed and flexible accounting standards (questions 1 and 2) and relevancy (question 6) are ranked as sixth, seventh, and eighth most important factors.

Table 4. Factors contributing to a high quality accounting system

	Obs.	Mean	Rank	p-value
1. Detailed accounting standards	89	3.79	6	0.0000**
2. Flexible accounting standards	89	3.27	7	0.0166**
3. Transparent accounting information	89	4.34	2	0.0000**
4. Reliable accounting information	89	4.46	1	0.0000**
5. Relevant accounting information	89	4.33	3	0.0000**
6. Limiting creative accounting	88	3.20	8	0.1121
7. Companies' corporate governments implement efficient control mechanisms.	89	4.12	5	0.0000**
8. Efficient oversight bodies	88	4.24	4	0.0000**
9. Strong penalties in case of accounting fraud	89	4.33	3	0.0000**

** significant at 0.01 level * significant at 0.05 level

5.3 Major challenges to implementing IFRS

Table 5 explores the perceptions of respondents concerning the aspects of IFRS implementation that may be problematic. This information can be of importance to other companies implementing IFRS, as well as to standard-setters and regulators around the world (Jermakowicz & Gornik-Tomaszewski, 2006). Respondents believe that the lack of IFRS implementation guidance (question 1), the lack of sufficient sector-adopted regulations (question 4) and the difficulty in applying fair value (question 3) are key challenges in IFRS adoption. Our results are consistent with prior studies such as Navarro-Garcia and Bastida (2010), Jermakowicz and Gornik-Tomaszewski (2006), Larson and Street (2004), and Schipper (2005) which find that lack of IFRS implementation guidance is a key challenge in IFRS adoption. The widespread changes relating to deferred taxes, property, plant and equipment measurement and unquestionably the increased disclosure requirements are not easy for Turkish companies to learn, especially those with no relevant prior experience. Thus, a lack of IFRS implementation guidance is one of the major challenges for Turkish companies wishing to adopt IFRS. On the other hand, respondents' view that fair value accounting of IFRS is difficult to apply may be explained by their previous practices. As stated in Table 1, as an accounting regime

of a code-law country, Turkish GAAP requires the use of cost model rather than fair value accounting for the measurement of assets. Therefore, it can be inferred that the fair value concept of IFRS is still problematic for Turkish companies.

Respondents also think that IFRS are too subjective (question 7), require the disclosure of too much information (question 2), and are too extensive (question 6). These results confirm our expectations. Contrary to the principles-based system of IFRS, the Turkish GAAP provides specific dictates for reporting financial information and does not allow the exercise of professional judgement in accounting treatment of financial transactions. In addition, certain complex issues such as hedge accounting and deferred tax are not recognized in Turkish GAAP and detailled disclosure information is not needed. Because of these factors, participants may evaluate the new accounting regime as subjective, detailed and extensive.

Table 5. Evaluation of troublesome aspects of IFRS

	Obs.	Mean	Rank	p-value
1. IFRS need more guidance for their application	90	3.64	1	0.0000**
2.IFRS require the disclosure of too much information	90	2.80	5	0.1092
3. Fair value is generally difficult to apply	90	3.08	3	0.4976
4. IFRS do not have enough sector-adapted regulations	90	3.38	2	0.0009**
5. IFRS allow too many accounting-recognition options	90	2.66	7	0.0007**
6. IFRS are too extensive	89	2.71	6	0.0107*
7. IFRS are too subjective for their application	90	3.01	4	0.9143

** significant at 0.01 level * significant at 0.05 level

5.4 Expected benefits and costs of conversion to IFRS

Prior research suggests that firms using IFRS generally exhibit higher accounting quality than firms using local GAAP (Barth *et al.*, 2008). The increase in quality enhances comparability of accounting amounts with local GAAP amounts after firms adopt IFRS. For example, the results of the study carried out by Jermakowicz and Gornik-Tomaszewski (2006) and Ballas *et al.* (2010) revealed that the respondents agreed with the proposition that the adoption of IFRS resulted in better comparability among companies and greater transparency. The findings of our

survey seem consistent with such a conclusion. Table 6 presents the perceptions of respondents concerning the benefits of conversion to IFRS. Respondents strongly believe that comparability among companies will improve with IFRS adoption (question 4). Navarro-Garcia and Bastida (2010) indicate that Spanish companies are neutral concerning the comparability among national enterprises. They note that this may be because of the skeptical attitude of Spanish companies towards the simultaneous existence of Spanish GAAP and IFRS. While Turkish GAAP and IFRS will be simultaneously applied as well, Turkish companies may think that Turkish GAAP will harmonize with IFRS in the near future and this will improve comparability among companies.

Table 6. Expected benefits of conversion to IFRS

	Obs.	Mean	Rank	p-value
1. Greater access to capital	90	3.68	6	0.0000**
2. Lower cost of capital	90	3.40	7	0.0002**
3.Increased cross-border listings and investment opportunities	90	3.83	5	0.0000**
4. Better comparability with other businesses	90	4.11	1	0.0000**
5. Greater reporting transparency	90	4.07	3	0.0000**
6. Improved quality and timeliness of management information	90	3.92	4	0.0000**
7. Harmonization and streamlining of internal and external reporting	90	4.08	2	0.0000**
	** significant at 0.01 level			* significant at 0.05 level

The respondents agree that adoption of IFRS leads to harmonization and streamlining of internal and external reporting (question 7) and improves reporting transparency (question 5). Respondents also expect that IFRS adoption will improve the quality and timeliness of management information. Our results confirm the conclusions of Jermakowicz and Gornik-Tomaszewski (2006), Ionaşcu *et al.* (2007) and Ballas *et al.* (2010) that IFRS are not only relevant to external parties but are useful for management decision-making as well.

It has been argued that investors would react positively to IFRS adoption if, they expected the application of IFRS to result in higher quality financial reporting relative to application of domestic standards, thereby enhancing financial reporting transparency, reducing information asymmetry and information risk, thereby lowering the cost of capital. Empirical evidence supports this argument. Barth *et al.* (2008), Barth *et al.* (2009) and Armstrong *et al.* (2010) find that higher quality financial reporting provided by the application of IFRS is associated with lower cost of capital. In our survey, however, among the expected benefits of the adoption of IFRS, a significant portion of respondents does not agree that IFRS facilitates access to capital and lower cost of capital.

Table 7. Expected costs of conversion to IFRS

	Obs.	Mean	Rank	p-value
1. High cost of transition	90.00	3.12	4	0.2664
2. Increased volatility of earnings and balance sheet items	90.00	3.27	2	0.0135**
3. Change in dividend policy as an effect of IFRS adoption	90.00	3.26	3	0.0174**
4. Significant enhancements to support the IFRS financial statements	90.00	4.00	1	0.0000**

**significant at 0.01 level *significant at 0.05 level

Table 7 explores the perceptions of respondents concerning the cost of conversion to IFRS. IFRS implementation problems are aggravated by the fact that most firms have to prepare a different set of accounts for tax purposes and that appears to be the case for most of the EU countries (Street and Larson, 2004). Furthermore, IFRS implementation also demands alterations of the information systems, as financial reporting in accordance with IFRS does not coincide with Turkish GAAP. As a result, respondents strongly agree that significant enhancements are needed to support the IFRS financial statements (question 4). Empirical evidence of previous studies also supports this finding. For example, the survey of Ballas *et al.* (2010) indicates that financial managers of Greek companies considered insufficient computer support and the required adjustments of software applications to support IFRS financial statements as major impediments to IFRS implementation.

Another possible implication of IFRS implementation may be the increased volatility of earnings and balance sheet items. Landsman *et al.* (2012) examine whether information content of earnings announcements (abnormal return volatility and abnormal trading volume) increases in countries following mandatory IFRS adoption, and the conditions and mechanisms through which these increases occur. Their results indicate that firms in IFRS adopting countries experienced a greater increase in abnormal return volatility and abnormal trading volume than firms from non-IFRS adopting countries. Similar results are obtained by Ballas *et al.* (2010) which reveal that IFRS is expected to result in an increase in their firm's earnings volatility. Moreover, Iatridis (2010) provides empirical evidence that IFRS adoption is likely to introduce volatility in income statement and balance sheet figures. Our results support previous research; respondents believe that volatility of earnings and balance sheet items increases after IFRS implementation (question 2).

6. Conclusions

This study investigates the problems and possible consequences of IFRS adoption in a code-law country such as Turkey. We use a survey to explore preparers' perceptions of IFRS implementation. The responses indicate that despite the challenges and costs associated with IFRS implementation, there appeared to be a positive stance towards IFRS by Turkish companies. Most respondents believe that IFRS-based financial statements, rather than Turkish GAAP-based financial statements, provide an accurate and balanced view and accountability. As a result, the change in accounting and reporting under IFRS is deemed to improve comparability among companies and result in better greater transparency. In addition, IFRS are deemed to be more appropriate for decision-making and more effective in limiting creative accounting.

There is a general consensus that the transition to IFRS is a costly, complex and burdensome process (Jermakowicz & Gornik-Tomaszewski, 2006). Our respondents believe that the lack of implementation guidance, the lack of sector-adapted regulations, and the difficulty in applying fair value are major challenges to IFRS implementation. Furthermore, respondents believe that IFRS will result in an increase in their firm's earnings volatility and that IFRS implementation demands significant enhancements of information systems. Although respondents acknowledge an improvement in financial reporting transparency and a decrease in information asymmetry and information risk with IFRS implementation, a significant portion does not agree that IFRS will facilitate access to capital and lower the cost of capital.

It should be noted that the survey results reflect only the views of a single manager at each company and therefore can not be considered as the final word on the subject of IFRS implementation in Turkey. Furthermore, the view of managers is just one perspective on the effects of IFRS implementation in Turkey. The findings, however, should be useful to regulators, who must be aware of the factors that may affect IFRS application and compliance.

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References

Albu, C. N., Albu, N. Pali-Pista, Szilveszter F., Gırbina, M. M., Kardes Selimoglu, S., Kovacs, D. M., Lukacs, J., *et al.* (2013) "Implementation of IFRS for SMEs in emerging economies: Stakeholder perceptions in the Czech Republic, Hungary, Romania and Turkey", *Journal of International Financial Management & Accounting*, vol. 24(2): 141-175

Alkan, G.I. & Dogan, O. (2012) "Uluslararasi Finansal Raporlama Standartlarinin Finansal Rasyolara Kisa ve Uzun Donemli Etkileri: IMKB'de bir Arastirma" [Incipient and long term impact of International Financial Reporting Standards on financial ratios: A study on Istanbul Stock Exchange], *The Journal of Accounting and Finance MUFAD*, April: 87-100

Armstrong, C. S., Barth, M. E. & Jagolinzer, A. D. (2010) "Market reaction to the adoption of IFRS in Europe", *The Accounting Review,* vol. 85(1): 31-61

Atmaca, M. & Celenk, H. (2011) "Uluslararası Muhasebe Ve Finansal Raporlama Standartlarının Finansal Analize Etkilerinin Regresyon Analizi ile Olculmesine Yonelik Bir Arastırma" [A research intended to assess the effects of International Accounting and Financial Reporting Standards to financial analysis using regression analysis], *The Journal of Accounting and Finance MUFAD*, vol. 49: 87-100

Ballas, A. A., Skoutela, D. & Tzovas, C.A. (2010) "The relevance of IFRS to an emerging market: evidence from Greece", *Managerial Finance*, vol. 36(11): 931-948

Balsarı, C. K. & Varan, S. (2014) "IFRS implementation and studies in Turkey", *Accounting and Management Information Systems*, vol. 13 (2): 373-399

Balsari, C. K., Ozkan, S. & Secer, C. (2009) "Financial statement effects of adopting IFRS in Turkey: The mediating effect of inflation accounting", *Journal of International Finance and Economics*, vol. 9(5): 55-68

Barth, M. E., Clinch G. & Shibano, T. (1999) "International accounting harmonization and global equity markets", *Journal of Accounting and Economics,* vol. 26: 201–235

Barth, M.E., Landsman, W.R. & Lang M. (2008) "International accounting standards and accounting quality", *Journal of Accounting Research,* vol. 46: 467–498

Barth, M.E., Konchitchki, Y. & Landsman, W. R. (2009) "Cost of capital and earnings transparency", Working paper, Graduate School of Business, Stanford University

Brüggemann, U., Hitz, J. M. & Sellhorn, T. (2013) "Intended and unintended consequences of mandatory IFRS adoption: A review of extant evidence and suggestions for future research", *European Accounting Review*, vol. 22 (1): 1-37

Chua, Y. L., Cheong, C. S. & Gould, G. (2012) “The impact of mandatory IFRS adoption on accounting quality: Evidence from Australia”, *Journal of International Accounting Research,* vol. 11(1): 119-146

Daske, H. (2006) “Economic benefits of adopting IFRS or US-GAAP - Have the expected costs of equity capital really decreased?”, *Journal of Business & Finance*, vol. 33(3): 329-373

Demir, V. & Bahadir O. (2013) “An investigation of compliance with International Financial Reporting Standards by listed companies in Turkey”, *Accounting and Management Information Systems*, vol. 13 (1): 4-34

Demir, V., Bahadır, O. & Öncel, A.G. (2013) “What is the best measure of financial performance? Comprehensive income versus net income: Evidence from Turkey”, *İktisat İşletme ve Finans*, vol. 28 (323): 119-136

Dykxhoorn, H. J & Sinning K.E. (2010) “A review and analysis of international accounting research in JIAAT: 2002–2010”, *Journal of International Accounting, Auditing and Taxation*, vol. 19: 137-153

Elitas, C. (2010) “Türkiye Muhasebe Standartları / Türkiye Finansal Raporlama Standartlarının Benimsenmesinin Bazı Temel Finansal Oranlar Üzerindeki Etkisi Üzerine Uygulamalı Bir Değerlendirme” [The impact of Turkish Accounting Standards/ Turkish Financial Reporting Standards adoption on some important financial ratios: an application], *Muhasebe ve Denetime Bakış [Accounting and Auditing Review]*, vol. 30: 57-68

Freund, J. E. & Perles, B. M. (2005) *Modern Elementary Statistics*, NewYork, NY: Pearson.

Graham, J. R., Campbell, R. H. & Rajgopal, S. (2005) “The economic implications of corporate financial reporting”, *Journal of Accounting and Economics*, vol. 40: 3–73

Hail, L., Leuz, C. & Wysocki, P. (2010) “Global accounting convergence and the potential of adoption of IFRS by the U.S. (Part I): Conceptual underpinnings and economic analysis”, *Accounting Horizons,* vol. 24(3): 335-394

Hope, O.-K., Jin, J. & Kang, T. (2006) “Empirical evidence on jurisdictions that adopt IFRS”, *Journal of International Accounting Research*, vol. 5(2): 1–20

Iatridis, G. (2010) “IFRS adoption and financial statement effects: The UK case”, *International Research Journal of Finance and Economics*, vol. 38: 165-172

ICAEW (2015) *The effects of mandatory IFRS adoption in the EU: a review of empirical research*, ICAEW Report

International Accounting Standards Board (IASB) (2009) *Who we are and what we do. London*, UK: IASB.

Ionaşcu, I., Ionaşcu, M., Olimid, L. & Calu, D.A. (2007) “An empirical evaluation of the costs of harmonizing Romanian accounting with international regulations (EU directives and IAS/IFRS)”, Accounting *in Europe*, vol. 4: 169-206

Jeanjean, T. & Stolowy, H. (2008) "Do accounting standards matter? An exploratory analysis of earnings management before and after IFRS adoption", *Journal of Accounting and Public Policy*, vol. 27: 480-494

Jermakowicz, E.K. (2004) "Effects of adoption of International Financial Reporting Standards in Belgium: The evidence from BEL-20 companies", *Accounting in Europe*, vol. 1(1): 51-70

Jermakowicz, E.K. & Gornik-Tomaszewski, S.G. (2006) "Implementing IFRS from the perspective of EU publicly traded companies", *Journal of International Accounting, Auditing and Taxation,* vol. 15(2): 170–196

Landsman, W. R., Maydew, E. L. & Thornock, J. R. (2012) "The information content of annual earnings announcements and mandatory adoption of IFRS", *Journal of Accounting and Economics*, vol. 53(1/2): 34-54

Larson, K.L. & Street, D.L. (2004) "Convergence with IFRS in an expanding Europe: Progress and obstacles identified by large accounting firms' survey", *Journal of International Accounting, Auditing and Taxation*, vol. 13: 89-119

Navarro-García, J. T. & Bastida, F. (2010) "An empirical insight on Spanish listed companies' perceptions of International Financial Reporting Standards", *Journal of International Accounting, Auditing and Taxation*, vol. 19(1): 110–120

Regulation (EC) No. 1606/2002 of the European Parliament and of the Council of July 19, 2002 on the Application of International Accounting Standards, O. J. No. L 243 (September 9).

Schipper, K. (2005) "The introduction of International Accounting Standards in Europe: Implications for international convergence", *European Accounting Review*, vol. 14(1): 101–126

Taylor, D. W. (2009) "Costs-benefits of adoption of IFRSs in countries with different harmonization histories", *The Asian Review of Accounting*, vol. 17(1): 40-58

Terzi, S., Oktem, R. & Kiymetli Sen, I. (2013) "Impact of Adopting International Financial Reporting Standards: Empirical evidence from Turkey", *International Business Research*, vol. 6 (4): 55-66

Tsalavoutas, I. & Evans, L. (2010) "The transition to IFRS in Greece: Financial statement effects and auditor size", *Managerial Auditing Journal*, vol. 25(8): 814-842

Tyrrall, D., Woodward, D. & Rakhimbekova, A. (2007) "The relevance of International Financial Reporting Standards to a developing country: Evidence from Kazakhstan", *The International Journal of Accounting*, vol. 42(1): 82-110