IFRS Adoption & Market Reaction: Istanbul Stock Exchange Case

Şevin GÜRARDA*
Gediz University, Faculty of Economics and Administrative Sciences, Izmir, Turkey

Abstract

Most of the countries began to revise, adopt or harmonize their national accounting and reporting standards with International Accounting Standards (IAS) and International Financial Reporting Standards (IFRS) to eliminate differences between international and national accounting regimes. One the main motivation for adopting IAS and IFRS is to standardize reporting formats and to satisfy willingness of investors to invest across national borders. In 2003, Capital Markets Board of Turkey (CMB) declared a communiqué serial IX, No: 25. With this communiqué, CMB has announced that firms listed on Istanbul Stock Exchange (ISE) should report their financial statements according to IAS and IFRS starting from the year 2005. The firms adopting IAS and IFRS in 2005 were also required to prepare their 2004 financial statements according to IAS and IFRS for comparable financial statements. So two financial statements affected from same economic activities and conditions were prepared for 2004 year-end but they show accounting figures according to two different accounting regimes. In this paper, Reaction of ISE to the announcement of financial statements prepared as per IAS and IFRS for the first time about the firms listed on the ISE-30 are analyzed by employing event study method.

JEL Codes*: G14, G15, M41.*

Keywords*: Adoption of IAS and IFRS, event study method, Turkey*

1. INTRODUCTION

The practices of companies about financial reporting vary immensely between different countries. These cause complications while preparing, auditing and interpreting announced financial statements. To contend with these complications, regulators of the most countries are involved in act for harmonizing or to standardize national accounting practices in line with international standards.

Users of financial statements according to International Accounting Standards Board Framework approved in 1989 are defined as present and potential investors, employees, lenders, suppliers and other trade creditors, customers, governments and their agencies and lastly the public. One of the most important users of financial statements, present and potential investors, are attracted to the markets that they understand, trust and have confidence in. Undoubtedly, investors want to compare publicly announced information of the company with its competitors in the same country or other countries. So, countries which adopt internationally accepted accounting standards for financial reporting will be getting a significant advantage to those who do not. So international accounting standards creating a unique language for the accounts are one of the main sources of potential investors for evaluating performances of firms.

The advantages of IFRS for investors are numerous. According to Ball (2006), the advantages of International Financial Reporting Standards (IFRS) for investors are as follows;

i) More accurate, comprehensive and timely information compared to the national standards they replace in the countries adopting them.
ii) Increase in the quality of financial reporting that allows decrease in the risk.
iii) Elimination of many international differences in accounting standards and a standard reporting formats - which makes a company's financial statements more internationally comparable.
iv) Reducing the cost of processing financial information and increasing the stock market efficiency by reflecting this information on prices.
v) With the decrease in international differences, removing barriers for potential cross-border acquisitions and mergers, thereby providing investors with increased takeover advantages

In general, IFRS offer advantage for comparability and decrease information costs and information risk to investors.

In 2003, CMB declared a communiqué serial XI, No: 25. With this communiqué, CMB announced that firms listed on the ISE should announce financial statements prepared according to IAS/IFRS starting from 2005. The adoption of IAS/IFRS was discretionary starting from 2003 but in 2005 it became mandatory. Then IFRS was enforced in Turkey for the listed companies on the ISE with reporting periods of January 2005 onward.

*Gediz University, Faculty of Economics and Administrative Sciences, Department of Business Administration, Seyrek, 35665 Izmir, Turkey, sevin.gurarda@gediz.edu.tr, phone: +90 (232) 355 00 00, fax: +90 (232) 355 00

2. LITERATURE SURVEY

Many studies investigate the IAS and IFRS adoption in recent years especially after 2005. Most of them focus on adoption of IAS and IFRS by comparing with national accounting standards. One of the main objectives of firms using IFRS is to report comparable, transparent information in financial statements so an increase in accounting information quality is also expected in line with this aim. This motivates many researchers for investigating the perception of investors after the adoption of IAS and IFRS for financial statements. In this part the literature survey related with value relevance of adoption of IAS and IFRS has been summarized.

Harris and Muller (1999) investigate the earnings and book value of the market amounts prepared under IAS and US-GAAP (General Accepted Accounting Principles) for the years 1992-1996. They find that the US-GAAP earnings reconciliation amounts are value-relevant. They also report that earnings reconciliation amounts under IAS are more highly associated with price-per-share than US-GAAP amounts, and US-GAAP amounts are more highly associated with security returns than IAS amounts.

Bartov et al. (2005) analyze value relevance of earnings prepared and announced according to US-GAAP, German GAAP and IFRS by taking 417 firms listed on German Stock Markets for the years 1998 - 2000. They find that value relevance of US-GAAP based earnings is higher than that of IFRS based earnings, which in turn is more relevant than the German GAAP based earnings.

Lin and Chen (2005) investigate the incremental value relevance of the reconciliation reported while converting the Chinese Accounting Standards to the International Accounting Standards by Chinese listed companies issuing A shares and B shares[1] for the period 1995-2000. According to this study, accounting figures based on Chinese Stock Market Rules are more value-relevant compared to accounting numbers produced for IAS and IFRS reporting.

Focusing on adoption of IAS and IFRS in United Kingdom, Horton and Serafeim (2006) analyze the market reaction to reconciliation adjustments done for converting accounts from UK-GAAP to IAS and IFRS of UK companies in 2005. The event study methodology followed by market value model is employed by researchers. They find that adjustments reported and booked for the reconciliation for converting UK GAAP to IAS and IFRS are value relevant for earnings. They also observe negative abnormal returns for firms reporting a negative reconciliation adjustment on UK GAAP earnings.

In Turkey, Çankaya (2007) analyzes 3 companies listed in NYSE and also listed in Russian, Chinese and Turkish Stock Exchanges and he finds similarities between local accounting standards applied in Turkey and China. He also finds that Turkish Accounting System and Chinese Accounting System are more conservative than IFRS.

The research on the effect of IFRS on accounting numbers in Turkey is still new. There is no study in Turkey which focuses on market reaction to financial statements prepared according to IFRS. So this study will be the first paper about market reaction to financial statements prepared according to IAS and IFRS. This paper may help regulators, standard setters while improving the process of reforming the General Chart of Accounts and accounting rules for the convergence of Turkish accounting standards to IAS and IFRS for the local companies not listed on the ISE. It may also help countries which are planning to adopt IFRS and provide international evidence about IFRS adoption and market reaction in developing markets.

3. METHODOLOGY, DATA AND HYPOTHESIS

The aim of the study is to evaluate price reaction in the ISE[2] while the announcement of financial statements reported according to IAS and IFRS for the first time. "Stock prices reflect any published value relevant information in a semi-strong efficient market" (Fama 1991) is expected. For this reason, an event study methodology is used.

The sample consists of the firms included in ISE-30. The total of free float market value of ISE -30 is referring %75, 1 of the Istanbul Stock Exchange as of 31 March 2005.[3] These are the firms with the highest stock market capitalization on the continuous market and, therefore, they are representative of the behavior and evolution of the Turkish stock market over a given period. Financial institutions and insurance companies are eliminated from the total ISE-30 firms due to their specific regulations according to Banking Regulation and Supervision Agency of Turkey.

The data was hand collected by analyzing annual reports of each company in the sample. The actual event day was obtained by finding the announcement of each company by looking announcement module on the Istanbul Stock Exchange and files sent to Istanbul Stock Exchange Market. Data of daily return of firms are obtained from İş Yatırım and ISE website. In Turkey there is no published reconciliation statements prepared during

[1] A-shares are issued in China under Chinese law,B-shares are foreign invested shares issued domestically by PRC's companies according to International Standards.

[2] As of December 30,2012 the name of stock exchange market in Turkey is changed as Borsa Istanbul (BIST) according to Capital Markets Board Law No. 6362. In this paper it is used as ISE because the study covers the period 2004 and 2005 and to use ISE may help international researchers while searching for comparable studies.

[3] Data Used in Index Calculation: Flotation Ratios, Index Divisor and Weight of Equities Report announced on the website of BIST is used for percentage calculation.

converting accounts to IAS and IFRS for the reporting period of 2005.So calculation for negative and positive earnings adjustments are done by comparing each company's financial statements prepared at the end of 2004 and at the end of first quarter of 2005.

H_1: The restated earnings calculated for IAS and IFRS reporting are associated with abnormal returns.

In order to test hypothesis, the daily abnormal returns (DARs) and cumulative abnormal returns (CARs) for an 11 day event window, (i.e. 5 days prior to and 5 days after the announcement) are employed like Horton and Serafeim (2006). Event day means the day that firm publicly announced first quarter of 2005 financial statements according to IAS and IFRS and restated 2004 financial statements according to IAS and IFRS. The market-adjusted model is used in this study is as follows:

$$AR_{it} = R_{it} - R_{mt} \quad (1)$$

Where AR_{it} is the abnormal return on security *i* in period *t*; R_{it} is the return on stock *i* in period *t*; R_{mt} is the market return in period *t*.

The total return for stock *i* in the period *t* is calculated as in Equation (2) where $P_{i,t}$ is the price of stock *i* at time *t*.

$$R_{i,t} = \frac{P_{i,t}}{P_{i,0}} - 1 \quad (2)$$

The Market Return is calculated as follows:

$$R_{m,t} = \frac{P_{m,t}}{P_{m,0}} - 1 \quad (3)$$

Where $P_{m,t}$ is the market return value at time *t* .

Adjusted Return for *n* stock at time *t* is calculated as:

$$AR = \frac{\sum AR_{i,t}}{n} \quad (4)$$

The following *t*-statistics is used to test whether or not Adjusted Return (AR) is statistically significant:

$$t = \frac{\overline{AR}}{\bar{\sigma} AR_t} \quad (5)$$

Where $\bar{\sigma} AR_t$ is the standard deviation of stock *i* at the month *t* and formulated as;

$$\bar{\sigma} AR_t = \sigma(AR_t)\sqrt{n} \quad (6)$$

where (AR_t) is cross-sectional standard deviation of adjusted returns for initial day.

4. RESULTS OF THE EVENT STUDY

Table 1: Firms listed on the ISE-30 (n=24)

Event Day	DARs
event day-5	-0,002
event day-4	0,00161
event day-3	-0,0027
event day-2	0,00032
event day-1	0,00056
event day	0,00299
event day+1	-0,0042
event day+2	-0,0061***
event day+3	-0,0018
event day+4	-0,0142*
event day+5	-0,0057

Note: *,**,*** denote statistical significance at 1%, 5%, and 10%, respectively.

As seen in table 1, the results for the full sample using the market-adjusted model indicate that the *DAR*s for the event day are positive, but not statistically significant. *CAR*s are positive for the event day, although again not significant according to Table 2. Statistically significant *DAR*s are seen in event day +2 and event day + 4. In CAR statistically significant values are started to observe with event day +2.

Table 2: Firms listed on the ISE-30 (n=24)

Event Day	CARs
event day-5	-0,002
event day-4	-0,0004
event day-3	-0,0031
event day-2	-0,0028
event day-1	-0,0023
event day	0,00069
event day+1	-0,0035
event day+2	-0,0096*
event day+3	-0,0114**
event day+4	-0,0257***
event day+5	-0,0314***

Note: *,**,*** denote statistical significance at 1%, 5%, and 10%, respectively.

Table 3: Firms with positive IFRS adjustment to their earnings (n=9)

Event Day	DARs
event day-5	-0,0029
event day-4	0,00571
event day-3	0,00395
event day-2	-0,0012
event day-1	0,00622
event day	-0,0005
event day+1	-0,0019
event day+2	-0,0054
event day+3	-0,0069**
event day+4	-0,0353*
event day+5	-0,0172

Note: *,**,*** denote statistical significance at 1%, 5%, and 10%, respectively.

Table 4: Firms with positive IFRS adjustment to their earnings (n=9)

Event Day	CARs
event day-5	-0,0029*
event day-4	0,00274
event day-3	0,00670*
event day-2	0,00544
event day-1	0,01167**
event day	0,01107**
event day+1	0,00912*
event day+2	0,00366
event day+3	-0,0033
event day+4	-0,0387**
event day+5	-0,0559***

Note: *,**,*** denote statistical significance at 1%, 5%, and 10%, respectively

Segmenting the sample based on the sign of the firms' IFRS earnings adjustment provides us with statistically significant results for the event day as CAR.
Firms representing approximately 37, 5% of the whole that booked positive sign adjustment for IFRS[4] the *DAR*s for the event day are negative but statistically insignificant although cumulative abnormal returns are statistically significant at %1 level and positive for the event day according to table 4.

[4] Difference means difference in earnings between 2004 financial statements according to IFRS and legislation before adoption of IFRS. Positive sign means the amount of earnings according to IAS and IFRS is higher than the the earnings according to earning calculated per ex-accounting regime.

Table 5: Firms with negative IFRS adjustment to their earnings (n=15)

Event Day	DAR
event day-5	-0,0015
event day-4	-0,0008
event day-3	-0,0067
event day-2	0,00126
event day-1	-0,0028
event day	0,00515
event day+1	-0,0055
event day+2	-0,0065**
event day+3	0,00127
event day+4	-0,0015
event day+5	0,00118

Note: *,**,*** denote statistical significance at 1%, 5%, and 10%, respectively.

Table 6: Firms with negative IFRS adjustment to their earnings (n=15)

Event Day	CARs
event day-5	-0,0015
event day-4	-0,0023
event day-3	-0,0091**
event day-2	-0,0078
event day-1	-0,0106**
event day	-0,0055
event day+1	-0,0111*
event day+2	-0,0176**
event day+3	-0,0163**
event day+4	-0,0179**
event day+5	-0,0167**

Note: *,**,*** denote statistical significance at 1%, 5%, and 10%, respectively.

The *DAR*s for the event day calculated for the firms representing 62, 5% of the sample with negative IFRS earnings adjustment is positive but statistically insignificant although cumulative abnormal returns are statistically significant at %10 level and negative for the event day +1. Statistically significant values are observed also in event day +2, event day +3, event day +4 and event day +5 as seen in table 5 and table 6.

Briefly, for firms who have negative earning adjustments, the market appeared to react unfavorably to the announcements starting at event day +1, therefore the hypothesis cannot be rejected for this sub-sample of firms. On the other hand the market appeared to react favorably to the announcements that have positive earning adjustments starting at event day.

5. CONCLUSIONS

The practices of companies about financial reporting vary immensely between different countries. This causes complications while preparing, auditing and interpreting announced financial statements. To contend with this complication, regulators of the most countries are involved in act for harmonizing or to standardize accounting practices.

In Turkey, in 2003, CMB declared a communiqué serial XI, No: 25. With this communiqué, CMB announced that firms listed on the ISE should announce financial statements prepared according to IAS and IFRS starting from 2005. The adoption of IAS and IFRS was discretionary starting from 2003 but in 2005 it became mandatory. Then IAS and IFRS was enforced in Turkey for the listed companies on the ISE with reporting periods of January 2005 onward.

In this paper adjusted earnings prepared as per IAS and IFRS with communiqué serial IX, No: 25 and adjusted earnings prepared as per the legislation before this communiqué are investigated. For this study firms listed in ISE-30 are taken as sample.

“Stock prices are value relevant with published information” is expected for this study. For this reason, an event study methodology is used.

The sample consists of the firms included in ISE-30 with wide market capitalization. The total of free float market value of ISE -30 is referring %75,10 of the Istanbul stock Exchange as of 31 March 2005. So companies in the sample data of this study are representative of the behavior and evolution of the Turkish stock market over a given period.

For firms who have negative earning adjustments, the market appeared to react unfavorably to the announcements starting at event day +1; therefore the hypothesis cannot be rejected for this sub-sample of firms. On the other hand the market appeared to react favorably to the announcements that have positive earning adjustments starting at event day.

This study by analyzing market reaction to the change of earnings after adopting IAS and IFRS in Turkey by employing event study method may shed a light for further studies on this issue. New Turkish Commercial Code required financial statements of all enterprises, regardless of whether they are public or not, be prepared in conformity with Turkish Accounting Standards (TAS) and Turkish Financial Reporting Standards (TFRS) published by the Turkish Accounting Standard Board. These standards are the Turkish translation of IAS and IFRS. Later a new amendment was announced and for the enterprises which are not listed on the stock exchange. According to latest regulation if firms are accomplied two of three conditions listed as i) carring with total assets at least 150.000.000 TL total assets ii) earning at least 200.000.000 TL iii)to have at least 500 employees, they should also report according to TAS and TFRS for the auditing purposes as of 1st of January, 2013. In the log-term it is believed tha Turkey will apply TAS and TFRS for all enterprises. So this study may help Turkish standard setters improve the process of reforming the General Chart of Accounts in order to ensure convergence of national accounting standards to TAS/TFRS for all companies. It may also help countries which are planning to adopt IFRS and provide international evidence about IFRS adoption and market reaction in emerging markets.

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