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Auditing firm reputation and the post-issue operating performance in an emerging market: evidence from Turkish IPO firms

Abstract

It is a priori belief that the auditing firm reputation provides information about the issuing firm's true value in the initial public offering (IPO) markets. We analyze the auditing firm reputational role in the Istanbul Stock Exchange (ISE). We, in the course of doing so, basically compare the post-issue operating performance of high-reputable auditing firm-backed and low-reputable auditing firm-backed IPOs. We also investigate the relationship between the auditing firm reputation and the post-issue operating performance with regard to underpricing, the management ownership level, and investment banker reputation. In the last section of the study, we explore whether the market recognizes the third party reputational role of the auditing firm in the ISE.

Keywords: auditing firm reputation, post-issue operating performance, underpricing, management ownership.
JEL Classification: M40, M42, M49.

Introduction

Making an initial public offering, a company must choose an auditing firm to examine the firm's financial statements and an investment banker to market the firm's securities. It is commonly believed that these choices may have an effect on the issue price of the issuing firm. We, in this study, claim that these choices may also affect the post-issue operating performances of the IPOs.

Third party certification has a value whenever securities are being issued in IPO markets where owners of the issuing firm and investors have different information sets concerning the value of the offering firm. Disclosure regulation could discourage flagrant lying and material omissions (Tinic, 1988). However, it is unlikely to be completely effective in forcing disclosure of all relevant information (Megginson and Weiss, 1991). Megginson and Weiss insist that in the absence of effective signalling mechanisms in IPOs, outside investors are likely to be convinced that accurate information disclosure has occured only if a third party, with reputational capital at stake, has asserted such and will be adversely and materially be affected if that assertion proves false.

Reputation arguments suggest that large auditing firms face a greater loss of rents as a result of inaccurate reporting (DeAngelo, 1981). DeAngelo sugested that Big Eight auditors were assumed to provide higher quality and, thus, should have provided a more precise estimate of earnings. In the Healy and Lys (1986) theory, investors would have been more certain of the concracted quality because of the Big Eight auditor's higher potential of reputational loss. Lennox (1999)'s results are in line with the reputation and deep pockets theories, which predict that large auditors have more incentive to exert effort in order to avoid issuing inaccurate reports. Moreover, the greater is the litigation penalty that is suffered for inaccuracy, the more incentive auditors have to give accurate reports (Dye, 1993). In a similar vein, Beatty (1989) argues that auditing firms that have invested more in reputation capital have greater incentives to reduce application errors, thus, the information disclosed in the accounting reports audited by these firms will be more precise. So this reduction in measurement error will allow uninformed investors to estimate more precisely the distribution of firm value.

It is claimed that reputation is an important success factor for auditors (Wilson and Grimlund, 1990; Brozovsky and Richardson, 1998). Auditors' decisions and actions should be influenced by reputational concerns (McCracken, 2003). Michaely and Shaw (1995) look at the relationship between auditor reputation and the characteristics of the IPOs that auditors take to the market to investigate the effect of reputation on auditor business decision. Their findings are consistent with the hypothesis that reputable audit firms screen prospective IPOs and select for the market those that are less risky. IPOs associated with prestigious auditing firms are less risky because prestigious auditors who wish to protect their reputation will screen the prospective IPOs and choose the less risky ones (Michaely and Shaw, 1995).

Moreover, issuing firms can signal their private information about future earnings in their choice of auditor because audit quality affects the quality of financial reports (Balvers et al., 1988; Beatty, 1989; Titman and Trueman, 1986; Michaely and Shaw, 1995). Theories on auditor selection have argued that a company has more incentive to hire an accurate auditor to give useful information to investors in assessing the value of a company making an IPO when it has favorable information and when agency

costs are high (Balvers et al., 1988; Beatty, 1989; Titman and Trueman, 1986; Michaely and Shaw, 1995; Lennox, 1999). They show that an entrepreneur has the incentive to choose the level of auditor quality that correctly reveals the entrepreneur's private information about the company reports. Kinney (1988), likewise, claims that one means of reducing the ex ante uncertainty about the issuing firm's earnings is to hire an agent who can credibly attest to the assertions contained in the audited financial statements. According to Palmrose (1988), auditing firms have an incentive to investigate and report deviations in application of accounting principles since their reputation capital is reduced by ex post revelation of errors or misstatements. Feltham et al. (1991) tried to show that as the riskiness of a company selling shares to the public increases, an entrepreneur seeking to signal his or her private information about future cash flows is motivated to increase the quality of auditing purchased. Beatty and Ritter (1986) provided evidence consistent with Simunic and Stein (1987) that larger and less risky IPO clients tended to hire Big Eight auditing firms.

On the other hand, investors are able to infer that an entrepreneur who chooses a higher-quality auditor must have favorable private information since such a choice cannot be profitably mimicked by an entrepreneur with less favorable information (Titman and Trueman, 1986; Moizer, 1997). In other words, while it is worthwhile for the entrepreneur with more favorable information to select a high-quality auditor who will confirm that the firm really has a high value, it is not profitable for an entrepreneur with less favorable information to do so.

A large number of studies have tested the hypothesis that the quality of the reporting and auditors has an effect on the level of initial returns at the IPOs (Beatty, 1986; Titman and Trueman, 1986; Simunic and Stein, 1987; Michaely and Shaw, 1995; Balvers et al., 1988; Beatty, 1989; Lennox; Datar et al., 1991; Feltham et al., 1991; Moizer, 1997). This is because, according to researchers, the presence of a reputable auditor may serve as an effective vehicle to reduce uncertainty about future cash flows of the firm making an IPO. The higher the quality is, the more favorable will investors infer the information to be and so the higher will be the price at which the new issue can be sold. Thus, it is a common belief that the

market recognizes that an association with reputable accounting firms conveys some information about the IPO riskiness.

In this study, contrary to the works examining the relation between the auditing firm reputation and investment performances in the IPO markets, our aim is basically to investigate the post-issue operating performance with regard to auditing firm reputation in the Turkish IPO market. Besides, we also examine the relation between auditing firm reputation and underpricing. Information asymmetry is more severe in developing markets. ISE as a developing market also carries same features. However, the market does not recognize the third party certification role of either auditor or investment banker in the ISE. For instance, Güner et al. (1999) did not find any significant relation between the underwriter reputation and initial returns at IPOs in the ISE. Bulut (2008) also did not reach any evidence indicating any relation between investment banking reputation and the post-issue operating performance at the IPOs in ISE. Our results are in line with those of Güner et al. (1999) and Bulut (2008).

1. Data description and methodology

This study is based on the IPOs taken to the public between 1992 and 2000 at the ISE. There were only seven IPOs during the years of 2000, 2001, and 2003 due to 2001 financial crisis in Turkey. We did not include the IPOs taken to the public during the mentioned years in the sample because of both a few IPOs and the significant effect of the financial crisis on financial tables. Our initial sample of IPOs consists of 205 issues for the period of 1992-2000 as reported in Table 1.

Financial tables used in this analysis are collected from the ISE publications. Investment banks and closed-end mutual funds are excluded from the data set due to the lack of data. There were 175 issues left from the 205 IPOs after the exclusion of 30 investment banks and closed-end mutual fund issues for the analysis. Furthermore, data for some firms were unobtainable, so the final sample consists of 130 IPOs. The year of 1999, in which issues were mostly investment banks and closed-end mutual funds, is the least representative year of the sample period. The year of 2000 is the most representative year of the study.

Table 1. Sample summary statistics

Year	Number of issues	Number of investment banks	Number of issues measuring performance	High reputable auditing firms	Low reputable auditing firms
1992	14	1	8	3	5
1993	16	-	11	6	5

Table 1 (cont.). Sample summary statistics

Year	Number of issues	Number of investment banks	Number of issues measuring performance	High reputable auditing firms	Low reputable auditing firms
1994	25	1	24	10	14
1995	29	6	22	10	12
1996	27	7	18	6	12
1997	29	2	27	12	15
1998	20	5	14	6	8
1999	10	7	3	1	2
2000	35	1	30	13	17
Total	205	30	157	67	90

1.1. Measuring auditing firm reputation. We use two reputation measures for auditing firms based on their underwriting activity levels of 130 issues in the ISE. Activity level, in this study, is based on either the dollar amount of and/or the number of the IPOs of the underwriting coalition during the study period. The first measure is taken as the ratio of the dollar amount of IPOs taken to the public by a given underwriting coalition to the total dollar amount of all IPOs in the sample. The second measure ignores the offer size but takes into account only the number of IPOs. This measure is calculated by taking the ratio of the number of IPOs undewritten by a given underwriting coalition to the total number of IPOs during the sample period.

To examine the relationship between the two reputation measures, we calculate the Pearson and Spearman rank correlation. The correlation is positive and 0.939. We decided using the reputation measure based only on one method would be appropriate since the correlation is high. To determine if the auditing firm of an IPO is high-reputable or low-reputable, 130 IPOs are sorted by the market share of the auditing firm based on activity level of the dollar amount of underwriting coalition. An IPO with a "high-reputation" auditing firm is then defined as one where the audit firm has a market share greater than the median observation. By definition, the remainder of the IPOs are handled by "low-reputation" auditing firms. King and Peng (2006) measured the auditing firm reputation in terms of the dollar amount of issues taken to the public in the Hong Kong IPO market. This method is commonly used to measure reputation for both auditing firms and investment banks (Megginson and Weiss, 1991; King and Peng, 2006).

Measuring auditing firm reputation, we used the data collected from the ISE publications. 39 auditing firms were employed for the underwriting coalition of our final sample of 130 IPOs. Out of 39 auditing firms, 7 took place in the high-reputation group and 32 took place in the low-reputation group.

1.2. Measuring operating performance. Comparing the operating performances of the IPO firms, we used six different measures. The first one is the operating return on assets which is the income before interests and taxes deflated by total assets. The second operating measure we employed is the operating profit divided by total assets. The third measure is the operating profit margin which is the operating income divided by net sales. The next measure is equity capital turnover which is equity capital divided by net sales. Then we used asset turnover as a fifth measure. The final measure employed is the operating cash flows deflated by total assets.

The change in the operating performance is measured as the median change in either one of our two performance measures or each of the six different measures. For instance, the change in the operating return on assets of the Year -1 and Year +1 is the median change in operating return on assets between the pre-IPO year and the first year after the IPO. In the study, all the comparisons except market performance are made with respect to the pre-IPO year.

2. Operating performance of IPOs audited by high-reputable and low-reputable auditing firms

In this section, we investigate reputational effects of auditing firms in the operating performance of IPOs in the Turkish market. In so doing, first, we compared the changes in the operating performances of IPOs audited by high-reputable and low-reputable audit firms. We used the Mann-Whitney U test to see the differences between the two groups. Second, we analyze the relation between the auditing firm reputation and the changes in the operating performances of IPOs with respect to the management retention after the IPO. Finally, in this section, we investigate the relation between auditing firm reputation and underpricing relative to the changes in the operating performances.

2.1. Characteristics of IPO firms audited by high-reputable and low-reputable auditing firms. Table 2 provides the characteristics of IPO firms-audited by high-reputable and low-reputable audit-

ing firms. The high-reputable auditing firms audited-IPOs exhibit better pre-IPO asset turnover and operating profit margin in comparison to low-reputable auditing firms audited-IPO firms. For instance, asset turnover for the high-reputable auditing firms audited-IPOs is 109.2% compared to -15.2% for the low-reputable auditing firms audited-IPOs. The operating profit margin is 20.8% for the high-reputable auditing firms audited-IPOs and 14.6% for the low-reputable auditing firms audited-IPOs. IPOs audited by high-reputable auditing firms have larger IPO proceeds and management retention after the IPO (83.33% versus 81.77%) compared to IPO firms audited by low-reputable auditing firms.

However, low-reputable auditing firms audited-IPOs exhibited better pre-IPO operating return on assets (24.9% versus 23.9%), operating cash flows deflated by total assets (32.9% versus 24.3%), equity capital turnover (367.2% versus 276.1%), and operating income divided by total assets (22.5% versus 21.7%) in comparison to the high-reputable auditing firms audited-IPOs.

It might be expected that IPOs audited by high-reputable auditing firms should have better post-IPO operating performances relative to pre-IPO year in comparison to IPOs audited by low-reputable auditing firms. It is thought so because auditing firms take into consideration their reputation when they audit and certify the financial tables of IPO firms. Wanting to preserve their reputation, high-reputable auditing firms choose to audit high quality issues. High-reputable auditing firms examine more deeply and more truely the financial tables, thus IPOs audited by high-reputable auditing firms should cause operating performance decreases less. However, it is not the case for the Turkish IPO market. The results in Table 2 can be taken as an ex ante indication of the changes in the post-issue operating performance. However, Table 2 does not include precise results showing whether IPO firms made window-dressing of accounting numbers. To arrive a trustworthy conclusion, it is more important to examine the changes in the post-issue operating performances for the years after the IPOs. So the changes in the operating performances for the years following IPO year should be examined deeply.

Table 2. Summary statistics of high and low reputable audit firm-backed IPOs

Description	High-reputable auditing firm-backed	Low-reputable auditing firm-backed	Mann-Whitney U test Z-statistic (p value)
Median size of issue ($ million) Number of observations	7.974 66	7.720 90	-1.704[c] (0.088)
Median alpha (%) Number of observations	83.33 66	81.77 90	-2.167[b] (0.030)
Median operating return on assets -1 Number of observations	0.239 66	0.249 90	-2.663[a] (0.008)
Median operating cash flows/Total assets -1 Number of observations	0.243 58	0.329 81	-2.023[b] (0.043)
Median asset turnover -1 Number of observations	1.092 59	-0.152 73	-8.937[a] (0.000)
Median equity capital turnover (t-1) Number of observations	2.761 59	3.672 80	-2.653[a] (0.008)
Median operating profit margin (t-1) Number of observations	0.208 59	0.146 81	-1.960[b] (0.050)
Median operating profit /Total assets (t-1) Number of observations	0.217 59	0.225 83	-1.796[c] (0.072)

Notes: [a] Significant at 1 percent, [b] significant at 5 percent, [c] significant at 10 percent.

2.2. Comparison of operating performances of IPOs audited by high-reputable and low-reputable auditing firms. Table 3 indicates the median changes for three years after the IPO relative to pre-IPO year in the post-issue operating performances of the IPOs audited by high-reputable and low-reputable auditing firms. Jain and Kini (1995) investigated the role of venture capitalists participation effect in the post-issue operating performance for the US market. They found that venture capitalists-backed IPOs have better post-issue operating performance in comparison to non-venture capitalists-backed IPOs. Following Jain and Kini (1995), we, in this study, take auditing firm as a third party

in the IPO process. In a similar vein, we expect that IPOs audited by high-reputable auditing firms should have better post-issue operating performance compared to the IPOs audited by low-reputable auditing firms in the Turkish IPO market.

However, our findings do not support the claim for the Turkish market. Besides, IPOs audited by high-reputable auditing firms usually have greater decreases in the post-issue operating performances in comparison to the IPOs audited by low-reputable auditing firms.

In panel A of Table 3, the changes in the post-issue operating return on assets are reported. The changes

in the operating return on assets for the Years 0, +1, +2, and +3 after the IPO relative to the year before the IPO are -10.9%, -18.6%, -31.4%, and -19.6% for the IPOs audited by high-reputable auditing firms. The mentioned changes are -7.2%, -16.0%, -26.0%, and -42.7% for the IPOs audited by low-reputable auditing firms. There is a similar pattern for the changes in the operating cash flows deflated by total assets as provided in panel E. The changes in this measure for three-year period after the IPO relative to the pre-IPO year are -6.6%, -12.3%, -12.7%, and -21.4% for the IPOs audited by high-reputable auditing firms while those changes are -6.3%, -14.6%, -13.7%, and 5.7% for the IPOs audited by low-reputable auditing firms. The changes are significant at 0.10 level. The other measures in Table 3 display a similar pattern as is the case of the operating return on assets and also of operating cash flows deflated by total assets.

Figures 1 and 2 compare the changes in the operating return on assets and operating cash flows deflated by total assets. IPOs audited by high-reputable and low-reputable auditing firms and the entire sample of IPOs as well. The changes in the operating return on assets are reported in Figure 1. The changes in the operating return on assets during the Year +1, Year +2, and Year +3 are high for some years and low for some other years for the IPOs audited by high-reputable auditing firms in comparison to the IPOs audited by low-reputable auditing firms. There is a similar pattern but less severe for the changes in the operating cash flows deflated by total assets for both IPO groups as provided in Figure 2. In addition, a similar pattern is evident for all the other measures considered as reported in panels B, C, D, and E of Table 3. Thus, we can claim that it is hard to arrive a conclusion demonstrating whether auditing firm reputation has either positive or negative role in the post-issue operating performances in the Turkish IPO market.

Fig. 1. Comparison of the post-issue operating performance of high reputable AF-backed and a matched sample of low-reputable AF-backed IPOs: operating return on assets
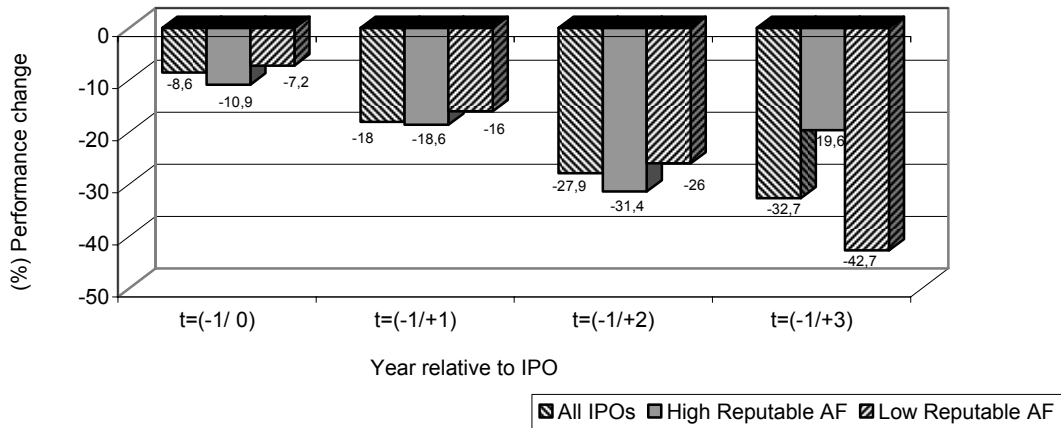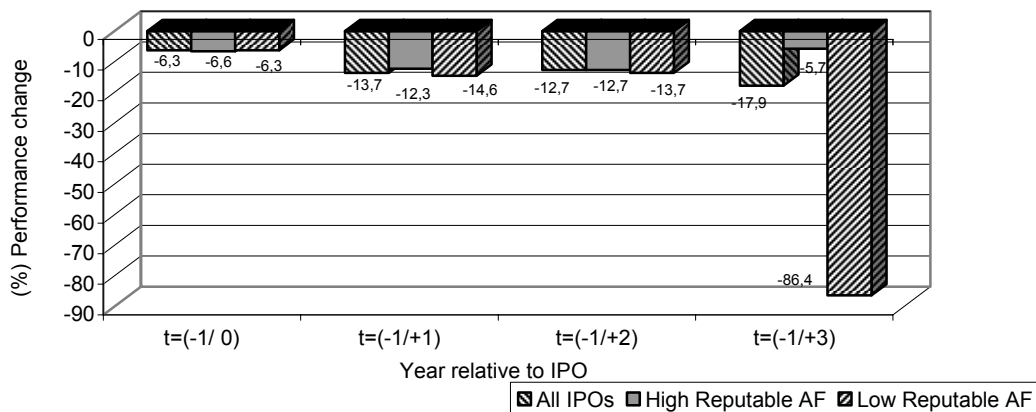

Fig. 2. Comparison of the post-issue operating performance of high-reputable AF-backed and a matched sample of low-reputable AF-backed IPOs: operating cash flows/assets

Table 3. Comparison of the post-issue operating performance of high-reputable AF-backed and a matched sample of low-reputable AF-backed IPOs

| | Years relative to completion of IPO | | | | | | | | | | | |
| Measure of operating performance | -1 to 0 | | | -1 to +1 | | | -1 to +2 | | | -1 to +3 | | |
	High-reputable AF	Low-reputable AF	Z statistic (p-value)	High-reputable AF	Low-reputable AF	Z statistic (p-value)	High-reputable AF	Low-reputable AF	Z statistic (p-value)	High-reputable AF	Low-reputable AF	Z statistic (p-value)
Panel A: Operating return on assets (EBIT / Total assets)												
Median change	-0.109^c	-0.072	-0.671 (0.502)	-0.186^b	-0.160	-1.247 (0.212)	-0.314^a	-0.260^a	-0.044 (0.965)	-0.196^a	-0.427^a	-0.700 (0.484)
Number of observations	66	90		66	90		64	90		62	86	
Panel B: Operating Profit / Total assets												
Median change	-0.211^a	-0.045^b	-2.321^b (0.020)	-0.383^a	-0.206^a	-0.796 (0.426)	-0.555^a	0.581^a	-2.264^b (0.024)	-0.515^a	-0.516^a	-1.407 (0.159)
Number of observations	60	83		59	83		58	83		57	79	
Panel C: Operating profit margin												
Median change	-0.133^a	-0.034	-2.091^b (0.037)	-0.380^a	-0.211^a	-1.099 (0.272)	-0.314^a	-0.376^a	-0.445 (0.656)	-0.378^a	-0.352^a	-0.322 (0.747)
Number of observations	59	81		59	81		57	81		54	75	
Panel D: Capital turnover												
Median change	-0.184^a	-0.254^a	-1.276 (0.202)	-0.189^b	-0.229^a	-0.731 (0.465)	-0.052	-0.315^a	-3.216^a (0.001)	0.150	-0.274^a	-3.431^a (0.001)
Number of observations	59	79		59	80		56	79		55	74	
Panel E: Asset turnover												
Median change	-0.072^c	-0.052^b	-0.009 (0.993)	-0.105	-0.075^a	-0.416 (0.677)	-0.091	-0.050^b	-0.938 (0.348)	-0.058	-0.152^a	-1.911^c (0.056)
Number of observations	59	78		58	79		56	78		55	73	
Panel F: Operating cash flows / Total assets												
Median change	-0.066	-0.063	-0.130 (0.896)	-0.123	-0.146^b	-0.357 (0.721)	-0.127	-0.137^b	-0.244 (0.807)	-0.214^b	-0.057	-0.864 (0.388)
Number of observations	58	81		58	81		57	81		53	75	

Notes: *AF: Auditing firm, [a] significant at 1 percent, [b] significant at 5 percent, [c] significant at 10 percent.

3. Auditing firm reputation, management ownership and operating performance

We also examine the ownership structure conditional on the auditing firm employed. It has been suggested that higher fraction held by insiders reduces the uncertainty about the IPO value (Leland and Pyle, 1977; Grinblatt and Hwang, 1989). However, Michaely and Shaw (1995) did not find any significant difference in ownership between issues associated with prestigious auditors and the ones associated with less prestigious auditors.

It is commonly known that ownership structure affects the operating performances of the firms. Management ownership levels change when firms make the transition from private to public ownership through IPOs. A common positive relation between managerial ownership level after the IPO and post-issue operating performance is consistent with both the agency hypothesis of Jensen and Meckling (1976) and the signaling hypothesis of Leland and Pyle (1977). The agency hypothesis implies that higher ownership level after the IPO reduces management incentives to undertake non-value maximizing projects. The signaling hypothesis suggests that retaining high management ownership after the IPO, management can signal project quality since false representation can be costly. So both hypotheses predict relatively superior operating performance of IPO firms with higher management ownership. Consistent with the predictions of both the agency theory and the signaling hypothesis, Jain and Kini (1994) found a positive relation between management ownership level after the IPO and post-issue operating performance for the US IPO market. However, Mikkelson et al. (1997) found no relation between managerial ownership level after the IPO and post-issue operating performance for the US IPO market.

Management ownership level also plays a very important role in corporate finance in developing markets (LaPorta et al., 1999). This role in developing countries is much more severe than that in developed countries. There is a greater information asymmetry in developing markets due to underdeveloped market structure (Kim et al., 2004). Higher information asymmetry can lead management to undertake nonvalue maximizing projects.

In this study, to investigate the role of the management ownership level on the post-issue operating performance, we examine the relation between our six operating measures and the management ownership level after the IPO. In so doing, we split the sample into two groups based on the median alpha. Alpha is the management ownership level after the IPO. Henceforth, the IPOs above the median alpha will be referred to as the high-ownership IPO group and the IPOs below the median alpha will be referred to as the low-ownership IPO group. In Table 4, the post-issue operating performance is reported for the high-ownership IPOs audited by high-reputable and low-reputable auditing firms and for the low-ownership IPOs audited by high-reputable and low-reputable auditing firms. So we make four subgroups as follows:

1. First Group: The high-ownership IPO group audited by high-reputable auditing firms;
2. Second Group: The high-ownership IPO group audited by low-reputable auditing firms;
3. Third Group: The low-ownership IPO group audited by high-reputable auditing firms; and
4. Fourth Group: The low-ownership IPO group audited by low-reputable auditing firms.

According to both the agency theory and the signaling hypothesis, we can predict relatively superior post-issue operating performance of the high-ownership IPO group audited by high-reputable auditing firms in comparison to the low-ownership IPO group audited by low-reputable auditing firms for the Turkish market. The changes in the operating return on assets and operating cash flows deflated by total assets are illustrated in Figures 3 and 4. Taking into account Table 4 and both Figures 3 and 4 together, it is hard to reach a conclusion that there is a reflection consistent with both the agency and signaling hypotheses in the Turkish IPO market. It should be expected that the low-ownership IPO group audited by low-reputable auditing firms demonstrate relatively worse post-issue operating performance in comparison to other three groups. However, this group demonstrates better operating performance for some years compared to other three groups as displayed in Figures 3 and 4. For instance, the change in the operating return on assets is 1.1% for this group while it is -6%, -16.4%, and -20.7% for the first group, the second group, and the third group, respectively. The change operating cash flows deflated by total assets for the Year +3 relative to pre-IPO year is -0.6% for the low-ownership IPO group audited by low-reputable auditing firms. It is 2.3%, -12.1%, and -35.5% for the first group, the second group, and the third group respectively.

Table 4. Auditing firm reputation and the operating performance of IPO firms split by median proportion of the firm retained after the IPO (alpha)

| Measure of operating performance	Years relative to completion of IPO															
	-1 to 0				-1 to +1				-1 to +2				-1 to +3			
	Alpha ≥ %83.33		Alpha < %83.33		Alpha ≥ %83.33		Alpha < %83.33		Alpha ≥ %83.33		Alpha < %83.33		Alpha ≥ %83.33		Alpha < %83.33	
	High-reputable AF*	Low-reputable AF	High-reputable AF	Low-reputable AF	High-reputable AF	Low-reputable AF	High-reputable AF	Low-reputable AF	High-reputable AF	Low-reputable AF	High-reputable AF	Low-reputable AF	High-reputable AF	Low-reputable AF	High-reputable AF	Low-reputable AF
Panel A: Operating return on assets (EBIT / Total assets)																
Median change	-0.060	-0.164	-0.207	0.011	-0.059	-0.211	-0.209	-0.108	-0.169	-0.186	-0.457	-0.360	-0.153	-0.400	-0.308	-0.434
Number of observations	36	44	31	46	36	44	31	46	36	44	29	46	35	43	28	43
Panel B: Operating profit / Total assets																
Median change	-0.203	-0.177	-0.251	0.090	-0.352	-0.211	-0.386	-0.198	-0.300	-0.580	-0.512	-0.592	-0.489	-0.510	-0.619	-0.526
Number of observations	33	37	26	46	32	37	26	46	31	37	26	46	31	36	25	43
Panel C: Operating profit margin																
Median change	-0.108	-0.171	-0.215	0.202	-0.305	-0.182	-0.423	-0.335	-0.218	-0.198	-0.377	-0.482	-0.355	-0.322	-0.492	-0.374
Number of observations	29	40	30	41	29	40	30	41	29	40	28	41	27	39	27	36
Panel D: Capital turnover																
Median change	-0.148	-0.192	-0.232	-0.408	-0.189	-0.085	-0.191	-0.289	-0.090	-0.199	-0.009	-0.458	-0.180	-0.135	0.474	-0.457
Number of observations	35	39	24	41	35	39	24	41	35	39	22	40	35	39	22	36
Panel E: Asset turnover																
Median change	-0.096	-0.060	-0.072	-0.042	-0.071	-0.028	-0.125	-0.092	-0.106	-0.054	-0.079	-0.046	-0.058	-0.124	-0.063	-0.154
Number of observations	30	39	29	40	29	39	29	40	29	39	27	39	29	39	26	34
Panel F: Operating cash flows / Total assets																
Median change	-0.088	-0.075	0.012	-0.056	-0.150	-0.097	-0.103	-0.204	-0.047	-0.115	-0.155	-0.205	0.023	-0.121	-0.355	-0.006
Number of observations	31	39	27	42	31	39	27	42	31	39	26	42	28	37	25	38

Note: *AF: Auditing firm.
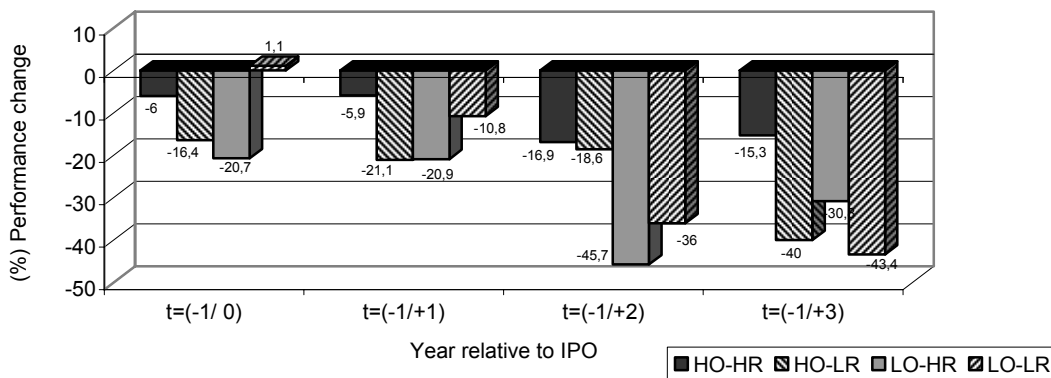
Note: HO: High ownership, HR: High reputation, LO: Low ownership, LR: Low reputation.

Fig. 3. Operating performance of IPO firms split by median proportion of the firm retained after the IPO and auditing firm reputation: operating return on assets
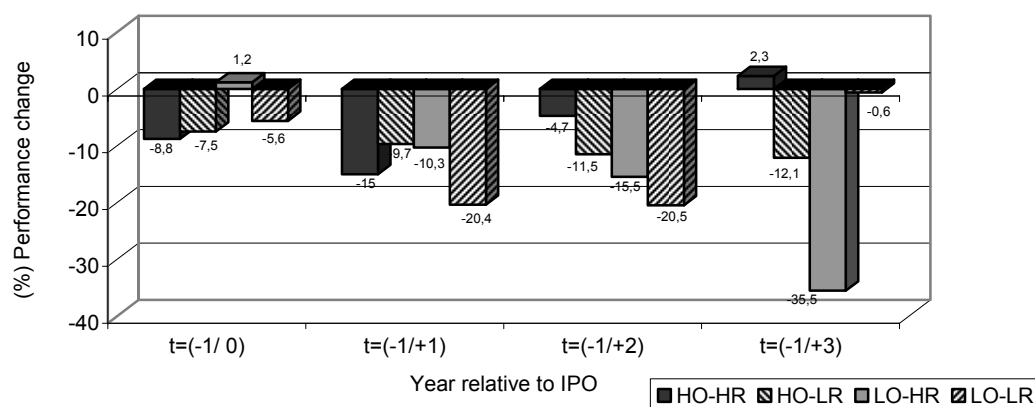
Note: HO: High ownership, HR: High reputation, LO: Low ownership, LR: Low reputation.

Fig. 4. Operating performance of IPO firms split by median proportion of the firm retained after the IPO and auditing firm reputation: operating cash flows/assets

Since almost all of the results we reached are insignificant, we did not report Z and p values in Table 4. As mentioned before it is hard to reach a conclusion indicating that auditing firm reputation has either positive or negative role in the post-issue operating performance in the Turkish IPO market from Table 3. Thus, the basic evidence we arrived in our analysis is not a result of auditing firm reputation.

4. Auditing firm reputation, underpricing, and operating performance

The firm's existing owners have an incentive to minimize underpricing since it transfers wealth from them to the new investors at the IPOs. The literature suggests a direct relation between ex ante uncertainty and underpricing level of the IPO (Rock, 1986; Beatty and Ritter, 1986). The presence of a reputable auditor may serve as an effective vehicle to reduce uncertainty about future cash

flows of newly issuing firms and cosequently undepricing (Titman and Trueman, 1986; Beatty and Ritter, 1986; Simunic ve Stein, 1987; Balvers et al, 1988; Beatty, 1989; Michaely and Shaw, 1995). Consistent with this hypothesis, they find that IPOs associated with reputable auditors perform better. In other words, it can be said that there is an inverse relation between underpricing level and the auditor reputation.

Moreover, Firth and Smith (1992), and Holland and Horton (1993) found a relationship between the underpricing and the auditing firm reputation at the IPOs for the New Zeland market and the UK market respectively. However, Ng et al. (1994) did not reach any relation between underpricing and the auditing firm reputation for the Hong Kong IPO market. Ng et al. claimed that such a finding should be due to market features of Hong Kong market.

Table 5. Underpricing-related values by year of listing[1]

Years and median changes		All IPOs				High-reputable auditing firm-backed IPOs				Low-reputable auditing firm-backed IPOs			
		Opening price	Issuing price	Initial return	Under-pricing	Opening price	Issuing price	Initial return	Under-pricing	Opening price	Issuing price	Initial return	Under-pricing
1992	Median value	7 400	7 000	200	0.050	8 200	8 000	50	0.025	6 550	6 300	425	0.083
	Number of observ.	7	7	7	7	3	3	3	3	4	4	4	4
1993	Median value	6 225	5 625	600	0.108	4 475	4 200	375	0.103	9 875	7 375	2 500	0.321
	Number of observ.	11	11	11	11	4	4	4	4	7	7	7	7
1994	Median value	14 000	12 250	900	0.117	16 250	15 500	575	0.050	11 750	9 000	1 100	0.178
	Number of observ.	19	19	19	19	8	8	8	8	11	11	11	11
1995	Median value	11 750	11 500	700	0.103	8 000	7 000	700	0.103	14 375	11 750	925	0.118
	Number of observ.	19	19	19	19	7	7	7	7	12	12	12	12
1996	Median value	10 625	8 700	900	0.161	8 000	7 900	600	0.115	10 625	7 250	1 725	0.213
	Number of observ.	13	13	13	13	3	3	3	3	10	10	10	10
1997	Median value	8 650	9 500	325	0.064	10 800	11 000	775	0.093	8 700	9 000	250	0.026
	Number of observ.	20	20	20	20	8	8	8	8	12	12	12	12
1998	Median value	8 900	8 500	700	0.122	10 400	9 200	650	0.081	8 100	7 000	1 100	0.168
	Number of observ.	11	11	11	11	7	7	7	7	4	4	4	4
1999	Median value	20 125	16 500	3 625	0.222	3 500	3 350	150	0.045	20 125	16 500	3 625	0.222
	Number of observ.	3	3	3	3	1	1	1	1	2	2	2	2
2000	Median value	16 250	16 000	800	0.073	23 750	23 500	1 500	0.073	17 000	15 500	875	0.088
	Number of observ.	27	27	27	27	11	11	11	11	16	16	16	16

Note: [1] The data used in this table are taken from Cankaya and Er (2007).

From Table 5, we can claim that high-reputable auditing firms care more about issue price and auditing financial tables of issuing firm. Thus, we can conclude that they try to help come up with a true issue price in the Turkish IPO market. So our findings are consistent with those of Beatty (1989), Mennon and Williams (1991), Firth and Smith (1992), and Holland and Horton (1993).

In Table 6, the post-issue operating performance with regard to underpricing and auditing firm reputation is reported. The IPO sample is split into two subsamples based on the median underpricing. The median underpricing is 9.20% for the sample. Henceforth, the above median underpricing subsample will be referred to as the high-underpriced IPO group and the below median underpriced subsample as the low-underpriced IPO group. Then, we further split each group into two subsamples based on the reputation of auditing firms employed in the underwriting coalition. Our final grouping is as follows:

1. First Group: The low-underpriced IPO group, audited by high-reputatable auditing firms;
2. Second Group: The high-underpriced IPO group, audited by high-reputable auditing firms;
3. Third Group: The low-underpriced IPO group, audited by low-reputable auditing firms;
4. Fourth Group: The high-underpriced IPO group, audited by low-reputable auditing firms.

For the same token, in this study, we expect not only a better investment performance but also a better post-issue operating performance for the IPOs associated with a reputable auditing in the Turkish IPO market. In this section, we first analyze the relation between auditing firm reputation and the initial returns of the IPOs at the ISE. In Table 5, the underpricing level and underpricing values are reported for the entire sample of IPOs and for the IPOs issued by high-reputable and low-reputable auditing firms for the period between 1992 and 2000. IPOs audited by high-reputable auditing firms demonstrate less underpricing for the entire sample period except the year of 1997 in comparison to the IPOs audited by low-reputable auditing firms. The underpricing for the IPOs audited by high-reputable auditing firms is 2.5%, 10.3%, 5.0%, 10.3%, 11.5%, 9.3%, 8.1%, 4.5%, and 7.3% while it is 8.3%, 32.1%, 17.8%, 11.8%, 21.3%, 2.6%, 16.8%, 22.2%, and 8.8% for the IPOs audited by low-reputable auditing firms for the 1992-2000 period. The underpricing levels for the entire sample are somewhere between the underpricing of high-reputable auditing firms au-

dited-IPOs and of low-reputable audit firms audited-IPOs.

As mentioned above, high-reputable auditing firms certify the financial information of the issues more truely. Thus, IPOs audited by high-reputable auditing firms should display less underpricing and better post-issue operating performance in comparison to the IPOs audited by low-reputable auditing firms. So lesser decreases in the post-issue operating performance should be expected from the first group while greater decreases should be expected from the fourth group. However, our evidence for the Turkish IPO market is not in line with those claims.

To demonstrate the change in the post-issue operating performance of each group, we take into consideration operating cash flows as an operating measure. Reported in Panel A, the changes in the operating return on assets are -6.9%, -19.7%, -34.5%, and 37.7% for the first group IPO firms. The findings for the mentioned measure are -7.2%, -22.4%, -23.2%, and -43.1% for the fourth group IPO firms. Operating cash flows deflated by total assets is displayed in Panel F of Table 6. The changes in the operating cash flows deflated by total assests are -4.7%, -17.2%, -5.7%, and -17.4% for the first group IPO firms and -4.8%, -7.9%, -11.5%, and -22.4% for the fourth group IPO firms. There are no obvious differences among the IPO firms in each of the four groups for the measures of operating return on assets and operating cash flows deflated by total assets in the Turkish market. Thus, we conclude that there is no clear relation between auditing firm reputation and the post-issue operating performance in the Turkish IPO market even though we find some evidence showing that auditing firm reputation has an influence on underpricing.

5. Auditing firm reputation and investment bank reputation[1] in the underwriting coalition

The theory suggests that high reputable investment bankers will more frequently use high reputable auditors, and that both investment banker and auditor reputation help to reduce underpricing (Balvers et al., 1988). When agency costs are high, management and the underwriters are likely to desire a higher quality audit in order to add more credibility to the financial statements and the prospectus (Firth and Smith, 1992). The investment banker, wanting to preserve its reputational capital, prefers a high quality auditor to assimilate and verify financial information in the issuance process and, thus, help prevent mispricing of the issue (Balvers et al., 1988).

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[1] In this study, we used Bulut (2008)'s investment bank reputation measure for the Turkish-IPO market. His measurement is based on the dollar amount of the underwriting activity level of investment bankers.

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Table 6. Auditing firm reputation and the operating performance of IPO firms split by median underpricing

	Years relative to completion of IPO															
	-1 to 0				-1 to +1				-1 to +2				-1 to +3			
	Underpricing ≤9.20%		Underpricing ≤9.20%		Underpricing ≤9.20%		Underpricing ≤9.20%		Underpricing ≤9.20%		Underpricing ≤9.20%		Underpricing ≤9.20%		Underpricing ≤9.20%	
Measure of Operating Performance	High-reputable AF*	Low-reputable AF	High-reputable AF	Low-reputable AF	High-reputable AF	Low-reputable AF	High-reputable AF	Low-reputable AF	High-reputable AF	Low-reputable AF	High-reputable AF	Low-reputable AF	High-reputable AF	Low-reputable AF	High-reputable AF	Low-reputable AF
Panel A: Operating return on assets (EBIT / Total assets)																
Median change	-0.069	-0.116	-0.176	-0.072	-0.197	-0.145	-0.004	-0.224	-0.345	-0.316	-0.161	-0.232	-0.377	-0.531	-0.194	-0.431
Number of observations	28	37	23	42	28	37	23	42	28	37	22	42	28	37	21	41
Panel B: Operating profit / Total assets																
Median change	-0.201	-0.056	-0.150	-0.023	-0.413	-0.204	-0.031	-0.265	-0.546	-0.496	-0.136	-0.626	-0.695	-0.641	-0.273	-0.526
Number of observations	25	33	23	38	25	33	22	38	25	33	22	38	25	32	22	37
Panel C: Operating profit margin																
Median change	-0.091	-0.043	-0.133	-0.077	-0.390	-0.221	-0.161	-0.247	-0.433	-0.300	-0.170	-0.376	-0.590	-0.568	-0.266	-0.324
Number of observations	26	34	21	39	26	34	21	39	26	34	20	39	26	33	18	35
Panel D: Capital turnover																
Median change	-0.232	-0.305	-0.111	-0.258	-0.226	-0.063	-0.071	-0.222	-0.091	-0.199	0.010	-0.323	0.125	-0.183	0.150	-0.366
Number of observations	26	33	21	36	26	33	20	37	26	33	19	36	26	31	19	35
Panel E: Asset turnover																
Median change	-0.094	-0.051	-0.008	-0.044	-0.139	-0.057	-0.037	-0.082	-0.116	-0.046	-0.040	-0.028	-0.117	-0.091	-0.047	-0.183
Number of observations	26	33	21	36	26	33	20	37	26	33	19	36	26	33	19	35
Panel F: Operating cash flows / Total assets																
Median change	-0.047	-0.034	-0.051	-0.048	-0.172	-0.063	-0.120	-0.079	-0.057	-0.158	-0.128	-0.115	-0.174	-0.019	-0.253	-0.244
Number of observations	26	34	22	37	26	34	22	37	26	34	21	37	25	32	18	35

Note: *AF: Auditing firm.

They found evidence that provides strong empirical support for the tendency of high reputation investment bankers to select high reputation auditors.

Moizer (1997) stated that new issues which were handled by prestigious investment bankers tended to be more likely to have a Big Eight auditing firms associated with the new issue. Moizer also claimed that financial statement credibility, which is enhanced by association with a reputable auditor, reduces monitoring costs. Michaely and Shaw (1995) find that the more prestigious auditing firms attempt to associate themselves with IPOs that are larger and have more tangible assets; whose underwriters are more reputable. In this section, we investigate the effects of auditing firm and investment banker reputation on the post-issue operating performance. In the course of doing so, we split the sample into four groups as follows:

1. First group: High-reputable investment bankers-backed group audited by high reputable auditing firms;
2. Second Group: High-reputable investment bankers-backed group audited by low reputable auditing firms;
3. Third Group: Low-reputable investment bankers-backed group audited by high reputable auditing firms; and
4. Fourth Group: Low-reputable investment bankers-backed group audited by low reputable auditing firms.

Balvers et al. (1988) develop a signaling model where investment bankers can signal their reputation through the reputation of the auditing firm participating in the underwriting coalition. This signal will, in turn, affect the equilibrium level of underpricing.

Megginson and Weiss (1991) take venture capitalists as a third party in IPO markets and they provide support for the certification role of venture capitalists in bringing new issues to market. Likewise, Jain and Kini (1995) examine the participation effect of venture capitalists on the post-issue operating performance by comparing the post-issue operating performance of venture capitalist-backed IPOs with a matched sample of non-venture capitalist-backed IPO firms. They find that venture capitalist-backed IPO firms exhibit relatively superior post-issue operating performance compared to non-venture capital-backed IPO firms.

In a similar vein, we expect a better post-issue operating performance from the high-reputable investment banker-backed IPOs audited by high reputable auditing firms in comparison to low-reputable investment bankers-backed IPOs audited by low reputable

auditing firms. However, our results in Table 7 do not support this claim for the Turkish IPO market.

This inconsistency is so obvious in Table 7 from the cash flows measures of our operating measures. The changes in the income before interests and taxes deflated by total assets for the first group are -9.0%, -17.4%, -23.8%, and 19.6% for the years 0, +1, +2, and +3 relative to the pre-IPO year as displayed in Panel A. The same performance measure for the fourth group is -3.2%, -15.4%, -18.6%, and -31.8% for three years period after the IPO relative to pre-IPO year. In Panel F, the changes in the operating cash flows deflated by total assets are displayed. These changes in this operating measure for the first group are -4.1%, 2.7%, -6.2%, and -17.9% for the Years 0, +1, +2, and +3 relative to the pre-IPO year. This measure for the fourth group are -8.2%, -17.1%, -18.1%, and -14.4% for the same period. The reputation role does not reflect a significant difference between the first group and the second group for the operating performance. A similar pattern is observed for other performance measures between the two groups as demonstrated in Table 7.

6. Cross-sectional regression analysis

A cross-sectional regression analysis can be used to test whether auditing firm reputation carries any effect in the post-issue operating performance in the IPOs. To address this issue, we conduct a cross-sectional regression analysis examining whether the change in operating performance is related to auditing firm reputation after controlling for the factors such as investment bank reputation, management retention after the IPO, issue size, and the changes in the capital expenditures for tangibles.

To examine the effects of the auditing firm reputation and of other variables, the following three equations are used.

$$PER_1 = \beta_{01} + \beta_1 REPAF_1 + \beta_2 REPIB_1 + \beta_3 DALPHA_1 + \beta_4 LSIZE_1 + \beta_5 CAP_1 + \alpha_1,$$

$$PER_2 = \beta_{02} + \beta_1 REPAF_2 + \beta_2 REPIB_2 + \beta_3 DALPHA_2 + \beta_4 LSIZE_2 + \beta_5 CAP_2 + \alpha_2,$$

$$PER_3 = \beta_{03} + \beta_1 REPAF_3 + \beta_2 REPIB_3 + \beta_3 DALPHA_3 + \beta_4 LSIZE_3 + \beta_5 CAP_3 + \alpha_3,$$

In this regression analysis, the independent variables include auditing firm reputation (REPAF), investment bank reputation (REPIB), the fraction of the firm retained by management after the IPO (DALPHA), the natural logarithm of IPO offer amount (LSIZE) and the net capital expenditures for the tangible assets (CAP).

Table 7. Comparison of the post-issue operating performance of high-reputable IB and AF-backed and a matched sample of low-reputable IB and AF-backed IPOs

	Years relative to completion of IPO															
	-1 to 0				-1 to +1				-1 to +2				-1 to +3			
	High-reputable IB		Low-reputable IB		High-reputable IB		Low-reputable IB		High-reputable IB		Low-reputable IB		High-reputable IB		Low-reputable IB	
Measure of operating performance	High-reputable AF	Low-reputable AF	High-reputable AF	Low-reputable AF	High-reputable AF	Low-reputable AF	High-reputable AF	Low-reputable AF	High-reputable AF	Low-reputable AF	High-reputable AF	Low-reputable AF	High-reputable AF	Low-reputable AF	High-reputable AF	Low-reputable AF
Panel A: Operating return on assets																
Median change	-0.090	-0.086	-0.143	-0.032	-0.174	-0.173	-0.393	-0.154	-0.238	-0.303	-0.351	-0.186	-0.196	-0.431	-0.201	-0.318
Number of observations	38	36	28	54	38	36	28	54	36	44	26	54	38	35	24	51
Panel B: Operating profit/Total assets																
Median change	-0.160	-0.043	-0.430	-0.045	-0.266	-0.276	-0.479	-0.190	-0.370	-0.598	-0.499	-0.496	-0.489	-0.553	-0.546	-0.456
Number of obsevations	37	32	22	51	37	32	21	51	37	32	19	51	37	31	18	48
Panel C: Operating profit margin																
Median change	-0.107	-0.074	-0.319	-0.015	-0.281	-0.191	-0.407	-0.254	-0.313	-0.343	-0.367	-0.408	-0.296	-0.324	-0.446	-0.354
Number of observations	36	32	23	49	36	32	23	49	36	32	21	49	34	29	20	46
Panel D: Capital turnover																
Median change	-0.188	-0.229	-0.125	-0.264	-0.207	-0.218	-0.081	-0.315	-0.085	-0.321	0.186	-0.283	-0.082	-0.283	0.394	-0.266
Number of observations	39	45	20	34	38	46	20	34	38	45	18	34	38	43	17	31
Panel E: Asset turnover																
Median change	-0.075	-0.092	-0.072	-0.032	-0.125	-0.156	-0.051	-0.054	-0.092	-0.183	-0.012	-0.034	-0.106	-0.183	0.169	-0.108
Number of observations	36	32	23	47	35	32	23	47	35	32	21	46	35	31	20	43
Panel F: Operating cash flows/Total assets																
Median change	-0.041	0.020	-0.140	-0.082	0.027	-0.079	-0.237	-0.171	-0.062	-0.127	-0.301	-0.181	-0.179	-0.057	-0.355	-0.144
Number of observations	37	31	21	50	37	31	21	50	37	31	20	50	34	29	19	46

The variable REPAF is a dummy variable which is equal to 1 indicating high-reputable auditing firm participation, and zero otherwise. REPIB is a dummy variable which is equal to 1 when there is a high-reputable investment banks participation and is zero otherwise. DALPHA is a dummy variable taking the value 1 if the fraction of the firm retained by management is above the median alpha of 0,83

and 0 otherwise. Jain and Kini (1994) find DALPHA and LSIZE to be significant explanatory variables in explaining post-issue operating performances of IPOs. Holthausen and Larcker (1996) find a significant positive relation between changes in capital expenditures and post-issue operating performance changes of reverse levereged buy-outs, a special class of IPOs.

Table 8. Cross-sectional regression analysis

	Change in operating return on assets from year -1 to average of year +1 to +3	Change in operating cash flows/total assets from year -1 to average of years +1 to +3	Change in operating profit margin from year -1 to average of years +1 to +3
Intercept	0,581 (5,343)[a]	0,466 (2,001)[b]	1,292 (4,021)[a]
REPAF	0,033 (-0,367)	-0,038 (-0,886)	0,0196 (0,328)
REPIB	0,0332 (1,421)	-0,007 (-0,180)	0,055 (0,916)
DALPHA	0,048 (2,043)[b]	0,176 (4,248)[a]	0,073 (1,240)
LSIZE	-0,055 (-4,054)[a]	-0,029 (-0,951)	-0,157 (-3,986)[a]
CAP	0,003 (0,980)	3,758 (0,246)	0,002 (2,178)[b]
R^2	16,9	18,2	21,2
F-value	6,069	4,765	5,421
N	154	154	154

Note: [a] Significant at 1 percent level, [b] significant at 5 percent level.

Our cross-sectional regression analysis indicating the auditing reputation effect in the post-issue operating performance for the IPOs taken to the public between 1992 and 2000 is presented in Table 8. The change in operating performance is measured between year -1 and the average of years +1 to +3. The year -1 is reported as the year before the IPO. SPSS statistical program is used in the analysis. The t values for each coefficient are reported in the parentheses and the significance levels are also reported. Three ratios are used as performance measures. The first one is operating return on assets (PER$_1$) which is operating income before the interests and taxes divided by total assets. The second ratio is operating cash flows deflated by total assets (PER$_2$). Operating cash flows is equal to operating income before interest and taxes plus depreciation less taxes. The last one is operating profit magrin (PER$_3$) which is operating profit divided by total assets.

The coefficients of the equations for each of the three performance measures are statistically significant at the 0,05 level. Our analysis indicates that auditing firm reputation does not carry any effect in the post-issue operating performances of operating return on assets, operating cash flows deflated by total assets and operating profit margin. Since our finding for the coefficient associated with the variable auditing firm reputation is insignificant, it can be said that auditing firm reputation does not carry any significant effect in the post-issue operating results. In addition to auditing firm reputation, investment bank reputation also does not carry any

effect in the post-issue operating performances of operating return on assets, operating cash flows deflated by total assets and operating profit margin.

To analyze the effects of management ownership level in the operating performance, we look at the two performance measures. The operating return on assets and operating cash flows deflated by total assets increase if the management retention after the IPO is higher than the median management ownership level of 83%. It seems that the management ownership level does not carry any effect in the post-issue operating performance when operating profit margin is taken into consideration.

The coefficients for the variable offer amount are statistically significant at the 0,01 level for both the operating return on assets and the operating profit margin. When the offer amount increases, the operating performance of both the operating return on assets and the operating profit margin decreases. Thus, we arrived at a conclusion that the effect of the offer amount in the operating performance is insignificant according to the measure of operating cash flows deflated by total assets.

The coefficient associated with the variable capital expenditures is significant for only operating profit margin. Operating profit margin as a measure of operating performance increases as the firm increases its net capital expenditures. However, Jain and Kini (1995) find the coefficient of the changes of the capital expenditure variable is negative and significant.

Table 9. Market expectations of operating performance of high-reputable AF-backed
and a matched sample of low-reputable AF-backed IPOs

Description	Year 0			Year +1			Year +1			Year +1		
	High reputable AF*	Low reputable AF	Z statistic (p-value)	High reputable AF	Low reputable AF	Z statistic (p-value)	High reputable AF	Low reputable AF	Z statistic (p-value)	High reputable AF	Low reputable AF	Z statistic (p-value)
Market to book ratio	3.15	2.94	-0.381	2.84	2.90	-0.781	2.32	2.57	-2.111[b]	1.85	2.38	-1.924[c]
Number of observations	62	82	(0.703)	59	76	(0.435)	56	70	(0.035)	50	64	(0.054)
Price/earnings (P/E) ratio	11.45	13.62	-1.680[c]	7.69	9.83	-2.827[a]	7.11	9.81	-0.884	7	5.33	-2.236[b]
Number of observations	62	82	(0.093)	59	74	(0.005)	56	68	(0.377)	51	65	(0.025)

Notes: *AF: Auditing firm, [a] significant at 1 percent, [b] significant at 5 percent, [c] significant at 10 percent.

7. Does the market recognize the quality of auditing?

Michaely and Shaw (1995) examine whether the market indeed perceives as less risky the IPOs that are associated with more reputable auditors. They find that the market-to-book values of IPOs associated with less reputable auditors are significantly higher than those that are associated with the more reputable auditors. Balvers et al. (1988) made an assumption that high-reputable auditing firms serve to reduce ex ante uncertainty about the issuing firm's earnings. Thus, in this study, we also claim that it is a natural consequence to expect better earnings performance from the IPOs audited by high-reputable auditing firms in the Turkish market.

In this section, we investigate the market expectation from the value addition of auditing firm reputation. In so doing, we analyze whether the market has higher expectations of future earnings performance from the IPOs audited by high-reputable auditing firms relative to the IPOs audited by low-reputable auditing firms. It is a general claim that IPO firms audited by high-reputable auditing firms go public at higher price/earnings (P/E) ratios relative to IPO firms audited by low-reputable auditing firms (Titman and Trueman, 1986). To test this contention, we, in Table 9, compare the median levels of the market-to-book ratio and P/E ratio for the IPOs audited by high-reputable and low-reputable auditing firms for a three-year period after the IPO.

IPO firms audited by low-reputable auditing firms display higher P/E ratios, smaller the market to book ratio at the IPO year. In terms of P/E ratios, IPOs audited by low-reputable auditing firms demonstrate better earnings performances for the all years except for the Year +3. The median P/E ratios for the IPOs audited by low-reputable auditing firms are 9.83, 9.81, and 5.33 for the years +1, +2, and +3. The median P/E ratios for the IPOs audited by high-reputable auditing firms are, 7.69, 7%.11, and 7.0 for the years +1, +2, and +3. Besides, our evidences do not support the claim that IPOs audited by high-reputable auditing firms go to public at higher P/E ratios in comparison to the IPOs audited by low-reputable auditing firms in the

Turkish IPO market. For instance, the median P/E ratios for the IPO year are 11.45 and 13.62 for the IPOs audited by high-reputable auditing firms and the IPOs audited by low-reputable auditing firms, respectively.

Contrary to P/E ratios, the IPO firms audited by high-reputable auditing firms demonstrate higher market-to-book ratios (3.15 versus 2.94) compared to the IPOs audited by low-reputable auditing firms at the IPO year. However, for years after the IPO year, the IPOs audited by low-reputable auditing firms carry higher the market-to-book ratios compared to the IPOs audited by high-reputable auditing firms. Some of, but not all, the differences for the P/E ratios and the market-to-book ratios between the two groups are significant at 0.10 level.

It is expected that audit firm reputation carries an effect on the earning performances of the IPO firms. So the market should recognize this effect by reflecting it in the higher valuations at the time of the IPOs audited by high-reputable auditing firms. However, our findings do not support this contention for the Turkish IPO market.

Conclusion

We try to examine the auditing firm reputational role in the IPO markets in the ISE. It is hypothesized that auditing firm reputation is inversely related to the initial return earned by IPO investors. The overall conclusion that can be drawn from the IPO studies investigating the relation between auditing firm reputation and IPO initial returns is that IPO firms which employ reputable auditing firm display better investment performance.

In a similar vein, we could expect a better post-issue operating performance from the IPO firms which are taken to the public with an underwriting coalition associated with a reputable auditing firm. However, our evidence does not support this claim for the Turkish IPO firms. It seems that the market does not recognize the third party reputational role of the auditing firm in the ISE even if information asymmetry is high between the insiders of the firms and outside investors.

References

1. Balvers, R.J., McDonald, B., and Miller, R.E., 1988, Underpricing of New Issues and the Choice of Auditor as a Signal of Investment Banker Reputation. *Accounting Review* 63, 605-622.
2. Beatty, R.P., and Ritter, J.R., 1986. Investment Banking, Reputation, and the Underpricing of the Initial Public Offerings, *Journal of Financial Economics* 15, 213-232.
3. Beatty, R.P., 1989. Auditor Reputation and the Pricing of Initial Public Offerings, *The Accounting Review* 64, 693-709.
4. Brozovsky, J.A., and Richardson, F.M., 1998. The Effect of Information Availability on the Benefits Accured from Enhancing Audit-Firm Reputation, *Accounting, Organizations and Society* 23, 767-779.

5. Bulut, H.I., 2008. Investment Bank Reputation and The Post-IPO Operating Performance: The Case of the Istanbul Stock Exchange, *Istanbul Stock Exchange Journal* 10, 17-40.
6. Cankaya, F., and Er, B., 2007. Auditing Firm Reputation, Underpricing and the Post-Issue Operating Performance: A Case of İstanbul Stock Exchange, The Turkish Foundation for Collaboration of Accounting Academician, *The World of Accounting Science* 9, 51-74.
7. Datar, S.M., Feltham, G.A., and Hughes, J.S., 1991. The Role of Audits and Audit Quality in Valuing New Issues, *Journal of Accounting and Economics* 14, 3-49.
8. DeAngelo, L.E., 1981. Auditor Size and Audit Quality, *Journal of Accounting and Economics* 3, 183-199.
9. Dye, R., 1993. Auditing Standards, Legal Liability and Auditor Wealth, *Journal of Political Economy* 101, 887-914.
10. Feltham, G., Hughes, J., and Simunic, D., 1991, Empirical Assessment of the Impact of Audit Quality on the Valuation of New Issues, *Journal of Accounting and Economics* 14, 375-399.
11. Firth, M., and Smith, A., 1992. Selection of Auditor Firms by Companies in The New Issue Market, *Applied Economics* 24, 247-256.
12. Grinblatt, M., and Hwang, J.Y, 1989. Signalling and the Pricing of New Issues, *The Journal of Finance* 44, 393-420.
13. Guner, N., Onder, Z., and Rhoades, S.D, 1999. Underwriter Reputation and Short-Run IPO Returns: An Evaluation for an Emerging Market, *The ISE Finance Award Series* 1, 85-112.
14. Holthausen, R.W., and Larcker, D.F., 1996. The Financial Performance of Reverse Leveraged Buyouts, *Journal of Financial Economics* 42, 293-332.
15. Healy, P., and Lys, T., 1986. Auditor Changes Following Big Eight Mergers with Non-Big Eight Audit Firms, *Journal of Accounting and Public Policy* 5, 251-265.
16. Holland, K.M., and Horton, J.G., 1993. Initial Public Offerings on The Unlisted Securities Market: The Impact of Professional Advisers, *Accounting and Business Research* 24, 19-34.
17. Jain, B.A., and Kini, O., 1994. The Post-Issue Operating Performance of IPO Firms, *Journal of Finance* 49, 1699-1726.
18. Jain, B.A., and Kini, O., 1995. Venture Capitalist Participation and the Post-Issue Operating Performance of IPO Firms, *Managerial and Decision Economics* 16, 593-606.
19. Jensen, M.C., and Meckling, W.H., 1976. Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure, *Journal of Financial Economics* 3, 305-360.
20. Kim, K., Kitsabunnarat, P., and Nofsinger, J., 2004. Ownership and Operating Performance in an Emerging Market: Evidence from Thai IPO Firms, *Journal of Corporate Finance* 10, 355-381.
21. King, R., and Peng, W.Q., 2006. Does the Reputation of Independent Non-Executive Directors Matter: Evidence from Hong Kong, Unpublished Ph.D. Thesis Hong Kong University of Science and Technology.
22. Kinney, W.R., 1988. Attestation Research Opportunities: 1987, *Contemporary Accounting Research* 4, 416-425.
23. La Porta, R., Silane, F.L., and Shleifer, A., 1999. Corporate Ownership Around the World, *Journal of Finance* 54, 471-517.
24. Leland, H., and Pyle, D., 1977. Information Asymmetries, Financial Structure and Financial Intermediation, *Journal of Finance* 32, 371-387.
25. Lennox, C.S., 1999. Audit Quality and Auditor Size: An Evaluationof Reputation and Deep Pockets Hypotheses, *Journal of Business Finance and Accounting* 26, 779-805.
26. McCracken, S.A., 2003. Auditor's Strategies to Protect Their Litigation Reputation: A Research Note, *Auditing: A Journal of Practice and Theory* 22, 165-179.
27. Megginson, W., and Weiss, K., 1991. Venture Capitalist Certification in Initial Public Offerings. *Journal of Finance* 46, 879-904.
28. Menon, K., and Williams, D.D., 1991. Auditor Credibility and Initial Public Offerings, *The Accounting Review* 66, 313-332.
29. Michaely, R., and Shaw, W.H., 1995. Does the Choice of Auditor Convey Quality in an Initial Public Offering?, *Financial Management* 24, 15-30.
30. Mikkelson, W., Partch, M., and Shah, K., 1997. Ownership and Operating Performance of Companies that go Public, *Journal of Financial Economics* 44, 281-307.
31. Moizer, P., 1997. Auditor Reputation: The International Empirical Evidence, *International Journal of Auditing* 1, 61-74.
32. Ng, P.P.H., Fung, S.M., and Tai, B.Y.K., 1994. Auditing Firm Reputation and the Underpricing of Initial Public Offerings in Hong Kong: 1989-1991, *International Journal of Accounting* 29, 220-233.
33. Palmrose, Z., 1988. An Analysis of Auditor Litigation and Auditor Service Quality, *The Accounting Review* 63, 55-73.
34. Rock, K., 1986. Why New Issuers are Underpriced, *Journal of Financial Economics* 15, 187-212.
35. Simunic, D.A., and Stein, M., 1987. Product Differentation in Auditing: Auditor Choice in the Market for Unseasoned New Issues, Monograph Prepared for the Canadian Certified General Accountant Research Foundation.
36. Tinic, S.M., 1988. Anatomy of Initial Public Offerings of Common Stock, *Journal of Finance* 43, 789-822.
37. Titman, S., and Trueman, B., 1986. Information Quality and the Valuation of New Issues, *Journal of Accounting and Economics* 8, 159-172.
38. Wilson, T., and Grimlund, R., 1990. An Examination of the Importance of an Auditor's Reputation, *Auditing: A Journal of Practice and Theory* 9, 43-59.