Full Length Research Paper

The impact of administration efficiency on financial reporting quality (FRQ) in small sized companies listed in the Tehran Stock Exchange: Evidence from Iran

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In this study, the effect of administration efficiency (AE) on financial reporting quality (FRQ) in small size companies listed in Tehran Stock Exchanges (TSE) has been surveyed in order to evaluate financial reporting quality used from the expected cash flow from operations. To this end, we chose 80 firms (as example) from companies listed in Tehran Stock Exchanges during the period 2001 to 2008. To test the hypothesis, correlation analysis, homogeneity of variance, and independence of Residual, scatter and NORMAL P-P diagrams have been used. This inductive research is based on real information of the audited financial statements. The results show that the impact of AE on FRQ in the small size companies is little.

Key words: Efficiency, firm size, quality of reporting, corporate governance, AE, TSE.

INTRODUCTION

Capital market circulates based on information. In this market, correct stream of information led to correct and logical decision making by participants and also to economic development and improvement of social welfare (Badavar Nahandy, 2008). Such information helps government in policy making and planning in economic affairs and administration of operations of business units while providing field of work activities and effectiveness of capital markets. When the information is relevant for economic decisions, the firm and the economy move towards efficiency and optimality. This will be created only when the information is useful for predicting the future and controlling economic activities, and when managers of commercial units give information to the users timely.

On the other hand, users can rely on information of financial reports when they are accurate and impartial in representation of events and can be substantiated. The general purpose of financial reporting is to provide information that expresses financial effects and operations and financial events affecting the financial condition and the results of operations of a business unit and through it help internal and external users, investors in decision making and judgment. Consequently, FRQ is important. So it is natural that the factors influencing the quality of financial reporting be examined. One of these factors is management. It is one of the components of corporate governance whose efficiency (or non efficiency) can be investigated. In fact, management is a category that should be considered for growth and excellence culturally, economically, industrially and politically in society.

Today, due to the globalization of economy, particularly globalization of capital markets and new technologies entering the field of telecommunications, and in comparison with the past, remarkably we see that the role of managers and the efficiency of their management have been different.

Also our country is trying to attract international capital with development of capital market and is preparing for globalization.

The indicators measuring the firm size

Size is a criterion used for the diagnosis of large or small company. It is identified by several indicators, including...
assets value, sales, market value of shares and number of shares. The research measures the size of company from different aspects as follows:

i. Leftwich (1981) says that firm size may be a general variable. Firm size can be proxy of company leverage. Operational leverage relies on fixed costs of operating companies (all fixed costs except interest and liabilities) and financial leverage relies on financial fixed costs of companies. Operational and financial leverage can be instrument for achieving higher profits.

ii. Firth (1979) expressed that firm size can be proxy of competitive superiority.

iii. Belkqoai (1978) expressed that it can be proxy of management ability and quality of accounting plans. Development of firm size is indicator of strong management.

iv. Butter and Nilan (1949) said that it can be an indicator of information efficiency. Larger companies usually have more attention from analysts and investors.

v. Moses (1978) expressed that firm size can be proxy of company overall risk. Higher financial power can reduce overall risk in larger companies (Pahlevan, 2007) and so on.

**Indicators measuring the quality of financial reporting**

Many studies have been performed in this field. This research measures the quality of financial reporting from different aspects as follows:

**Dechow and Dichew model (2002)**

\[
\text{TCA}_{it} = \alpha_0 + \alpha_1 \text{CFO}_{it-1} + \alpha_2 \text{CFO}_{it} + \alpha_3 \text{CFO}_{it+1} + V_{it}
\]

This model is used to measure earnings quality measurement that deviated from operational accruals current year estimates.

**Francis et al. model (2005)**

\[
\text{TCA}_{it} = \beta_0 + \beta_1 \text{CFO}_{it} + \beta_2 \text{CFO}_{it} + \beta_3 \text{CFO}_{it+1} + \beta_4 \text{ΔRE}_{it} + \beta_5 \text{PPPE}_{it} + V_{it}
\]

Francis et al. (2005) developed the models, and expressed that with controlling earnings, growth and property, and equipment rate of machine tools can improve the model.

**Bharath et al. model (2001)**

\[
\text{CFO}_{it} = \alpha_0 + \beta_1 \text{CFO}_{it} + \beta_2 \text{ΔAR}_{it} + \beta_3 \text{ΔINV}_{it} + \beta_4 \text{ΔAP}_{it} + \beta_5 \text{ΔPR}_{it} + \beta_6 \text{ΔOTHER}_{it} + \varepsilon_{it+1}
\]

Accuracy of financial information is considered as a criterion for measuring quality and the capability of forecasting the expected cash flows from operating income accounting component. We used this model in this paper.

**Zmijewski and Stone model (1989)**

Using these criteria, we assess the quality of earnings subject to the stock market response to earnings information.

**Leuz et al. model (2003)**

\[
\text{Accruals} = \Delta (\text{Accounts Receivable} + \text{Inventory} + \text{Other Current Assets}) - \Delta (\text{Accounts Payable} + \text{Other Current Liabilities}) - \text{Deprecition}
\]

Other models include Hand (1984), Collins (1989), Kormandi and Lipe (1990) and Leuze and Zarowin (1996). These models measure the quality of financial reporting based on time series of profit feature.

**Different approaches to evaluate the quality of financial reporting**

Different approaches exist for evaluating quality of financial reporting quality. These approaches can be divided into two groups: 1) user needs approach; 2) approach to protecting investors / shareholders. One approach focuses on relevant issues of evaluation. In this group, the quality of financial reporting is determined based on the usefulness of financial information for users. This approach contains the following models:

i. FASB conceptual framework

ii. Profit continuation model

iii. Suggestion of Jenkins Committee

Second approach lays emphasis on relevant issues of company administration and stewardship. This approach contains the following models:

i. SAS No. 61 (revised)

ii. SEC Model

iii. Suggestion of Committee Kirk

iv. Suggestion of Blue Ribbon Committee

**LITERATURE REVIEW**

Today, business operations and financial position reporting influence directly or indirectly the individual's decisions, which is very important. In fact, financial reports provide a picture of how the company is run and
can also be a way to monitor business unit and its activities from the perspective of management and the board. External financial reporting should be able to present such a view to individuals (shareholders, creditors and...)

As we know, the accuracy of the financial information increases the quality, for example, relevance and reliability comparability. So, stakeholder such as investors and creditors can make better decisions based on qualified financial reporting information.

Many researches have been done in the context of financial reporting quality and each selected a criterion for evaluating the quality of financial reporting. Some of such researches have considered the quality of profit (Shoorvarzy, 2008) and some accruals (Talebian, 2008; Bharath, 2006; Francis and Shipper, 2005).

Financial reports are an important source of information for stakeholders, who use them for investing, contracting, and regulating decisions. Low quality reporting can lead to suboptimal decisions and potential misallocation of resources (Yatman, 2008). So, financial reporting quality is important.

Rather than defining "quality of financial reporting," prior literature has focused on factors such as earnings management, financial restatements, and fraud that clearly inhibit the attainment of high quality financial reports and have used the presence of these factors as evidence of a breakdown in the financial reporting process.

Based on the literature, we can divide two altitudes toward earnings quality: decision usefulness and Hicksian attitude toward earnings definition. Based on the first view different users should assess the quality of earnings before making decisions. On the other hand "quality for whom" and the "quality for what" is the main subject in the first view.

But in the second view earnings quality is assessed by comparing earnings and Hicksian definition for earnings. As much as the definition matches the Hicksian, it is assumed that quality of earnings is higher than before (Schipper and Vincent, 2003).

Management efficiency, defined as the management’s capability of minimizing input usage in the production of output (or vice versa), was determined relative to this efficient (Best practice) frontier (Hahn, 2008).

Also, the management efficiency is manager’s ability in managing its limited resources in order to achieve company’s goals (Badavar Nahandy, 2008).

**Domestic evidence**

Based on domestic studies, Pahlevan (2007) studied the relationship between size firm and income smoothing. The findings of this study showed there is significant direct relationship between two variables. Also large size companies smoothed their profits more than the smaller companies.


Result indicated that there is a significant relationship between financial reporting quality and number of qualified accountants.

Badavar Nahandy (2008) has identified and evaluated quality of financial reporting in Iran. Results showed that the quality of financial reporting is positively related with management efficiency and company’s profitability and it is negatively related with competition in product market, management conservative, size, capital of the activity, operating cycle of activity and environmental complexity of companies.

Ahmadpour and Ahmadi (2008) and also Shoorvarzy (2008) found evidences that earnings response coefficient is higher in higher earnings quality portfolios established based on qualitative characteristics of financial statements. Talebian (2008) found evidences that cost of capital (cost of debt and equity costs) in companies with lower quality accruals is higher than cost of capital companies with high quality accruals.

Musavishiry (1999) has shown that audit report is influential in enhancing the quality of reporting. Tuzandehjani and Shoorvarzy (2010) studied the relationship between management performance and financial reporting quality in companies listed in Tehran Stock Exchange. Result indicated that there is a significant relationship between these two variables.

**International evidence**

The following researches cover a part of present research: research results conducted by Gloston and Milgrom (1985), Amihud and Mandelson (1986), Diamond and Verruchia (1991), show that increasing the quality of financial information reduces information asymmetry and thus, reduces the cost of equity. Welker (1995) and Healy et al.’s (1999) show that the quality of financial reporting has direct relation with advantages of proper evaluation of capital markets. The investigation conducted by Haley, Palepu and Hatton (1999) indicated that improving the quality of financial reporting increases stock performance (Badavar Nahandy 2008).

Cohen (2002) did a study entitled "The quality of financial reporting and cost assets". In this study the ability of forecasting the expected cash flow has been used as proxy. Results of this study indicate negative relationship between these two variables. In another research, Cohen (2003) found that the reporting quality choice is positively associated with capital markets benefits and negatively associated with proprietary cost proxies. Francis (2004, 2005) seeks to provide evidence...
DATA AND METHODOLOGY

This study is inductive and makes use of past information and historical financial statements. This experimental research is based on real information of the audited financial statements. This study is also a correlative study since it seeks to investigate the relation between dependent and independent factors. It is a periodic study based on the following conditions: 8 companies qualified and were selected based on the following conditions:

1- The entities should be listed before 2000.
2- Date of financial firms should be at the end of March of each year.
3- The entities should be activated during 2001-2008.
4- The entities should not change their financial periods.
5- The availability of entities’ information is required.
6- The entities’ activity should be manufacturing (no investment).

Based on these conditions, 80 companies qualified and were chosen as the samples in this study. Among the 80 firms, rest among 42 firms with small size.

RESULTS AND FINDINGS

In order to analyze the hypothesis, dependent and independent variables were studied and measured at first. Then, the ability of each independent variable in explaining QRP was analyzed. (in regression model). To do this, in order to correlation analyze between AE and FRQ Pierson’s model were used.

Testing hypothesis

“In small size firms, Administration Efficiency is influential on QRP”.

Table 1 shows that coefficient of determination between dependent variable (FRQ) and independent variable is equal to 0.935. It means that approximately 0.93% of changes in quality of financial reporting are explained by independent variables. We reported the ANOVA in Table 2.
Table 1. Regression statistics.

<table>
<thead>
<tr>
<th>Durbin Watson</th>
<th>Standard error</th>
<th>Adj. $R^2$</th>
<th>$R^2$</th>
<th>$R$</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.86</td>
<td>5929.1461</td>
<td>0.851</td>
<td>0.874</td>
<td>0.935</td>
</tr>
</tbody>
</table>

Table 2. ANOVA.

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of squares</th>
<th>df</th>
<th>Mean square</th>
<th>$F$</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>7836515729.3</td>
<td>6</td>
<td>1306085955</td>
<td>37.152</td>
<td>0.000</td>
</tr>
<tr>
<td>Residual</td>
<td>1124952740.5</td>
<td>32</td>
<td>35154773.14</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>8961468469.83</td>
<td>38</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 3. The estimation of coefficients.

<table>
<thead>
<tr>
<th>Coefficient</th>
<th>Estimation</th>
<th>Standard error</th>
<th>T-value</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>-650.768</td>
<td>2246.212</td>
<td>-2.290</td>
<td>0.774</td>
</tr>
<tr>
<td>CFO$_{it}$</td>
<td>0.994</td>
<td>0.087</td>
<td>11.443</td>
<td>0.000</td>
</tr>
<tr>
<td>AR$_{it}$</td>
<td>-0.275</td>
<td>0.128</td>
<td>4.567</td>
<td>0.039</td>
</tr>
<tr>
<td>INV$_{it}$</td>
<td>0.124</td>
<td>0.151</td>
<td>-0.247</td>
<td>0.417</td>
</tr>
<tr>
<td>AP$_{it}$</td>
<td>0.23</td>
<td>0.174</td>
<td>0.822</td>
<td>0.197</td>
</tr>
<tr>
<td>DEPRO$_{it}$</td>
<td>0.656</td>
<td>0.496</td>
<td>1.319</td>
<td>0.195</td>
</tr>
<tr>
<td>OTHER$_{it}$</td>
<td>-0.535</td>
<td>0.125</td>
<td>-4.264</td>
<td>0.000</td>
</tr>
</tbody>
</table>

1% of the significant level.

Table 4. Kolmogorov-Smirnov test.

<table>
<thead>
<tr>
<th>Un-standard residual</th>
<th>Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of observations</td>
<td>39</td>
</tr>
<tr>
<td>Standard deviation</td>
<td>544095</td>
</tr>
<tr>
<td>Kolmogorov-Smirnov Z</td>
<td>0.544</td>
</tr>
<tr>
<td>P-value</td>
<td>0.939</td>
</tr>
</tbody>
</table>

The sig. is equal to 0, which is less than 0.01. It means that the lack of correlation between dependent variable and independent variables is rejected (with 99% certainty). Subsequently, we reported the coefficients in Table 3. According to the table, Regression model fitted into the data:

$$CFO_{it} = -650.768 + 0.994CFO_{it} - 0.275\Delta AR_{it} - 0.535\text{OTHER}_{it}$$

Survey assumptions of linear regression model

In Table 4, the data can be accepted as normal according to Kolmogorov-Smirnov test > 0.05. Based on Figure1, the data can be accepted as normal. Also based on runs test > 0.05, the independency of residuals in Table 5 is accepted.

Also in the residual statistic of this model, it is shown that there are no remote observations (Table 6 and Figure 2). Additionally, based on 3 > residuals statistics test > -3, we accept that there are no remote observations.

Correlation analysis

According to Table 7, in order to test the connection between variables in the hypothesis Pearson correlation coefficients were used. The correlation coefficient between administration efficiency and quality of financial reporting is equal to 0.169 and the probability value is equal to 0.304 that is higher than 0.05.

So we are 95% certainty there are no correlation between variables. In other words, the impact of AE on FRQ in the small size companies is little small size companies is little. It means that hypothesis (H$_1$) is not confirmed.
Figure 1. Normal p-p plot of regression standardized residual.

Table 5. Run test.

<table>
<thead>
<tr>
<th>Un-standard residuals</th>
<th>Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>T-value</td>
</tr>
<tr>
<td></td>
<td>z</td>
</tr>
<tr>
<td></td>
<td>P-value</td>
</tr>
<tr>
<td>T-value</td>
<td>0</td>
</tr>
<tr>
<td>z</td>
<td>0.654</td>
</tr>
<tr>
<td>P-value</td>
<td>0.513</td>
</tr>
</tbody>
</table>

Table 6. Residuals statistics.

<table>
<thead>
<tr>
<th>Statistics</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Predicted value</td>
<td>-6931.38</td>
<td>55817.64</td>
<td>149437</td>
<td>14360.50</td>
</tr>
<tr>
<td>Residual</td>
<td>-11325.5</td>
<td>12422.55</td>
<td>0</td>
<td>5440.9576</td>
</tr>
<tr>
<td>Std. predicted value</td>
<td>-1.982</td>
<td>2.388</td>
<td>0</td>
<td>1.000</td>
</tr>
<tr>
<td>Std. residual</td>
<td>-1.91</td>
<td>2.095</td>
<td>0</td>
<td>0.918</td>
</tr>
</tbody>
</table>

**DISCUSSION AND CONCLUSION**

This study indicates that the impact of AE on FRQ in the small size companies is little. The expected operating cash flow has been used for evaluating the quality of financial reporting.

The research is carried out on 80 companies accepted in Tehran’s stock market in a Seven-year period (2001 to 2008), and the coefficient of determination of 93% showed that 0.93% of changes in quality of financial reporting are explained by independent variables (in regression model).

Also in Pearson correlation, p-value is higher than 0.05. So 95% certainly there aren’t correlation between AE and
Table 7. Correlation analysis.

<table>
<thead>
<tr>
<th>Variable</th>
<th>QRP</th>
<th>Efficiency management</th>
</tr>
</thead>
<tbody>
<tr>
<td>QRP</td>
<td>Correlation analysis</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>P-value</td>
<td>0.169</td>
</tr>
<tr>
<td></td>
<td>number</td>
<td>39</td>
</tr>
<tr>
<td>Efficiency administration</td>
<td>Correlation analysis</td>
<td>0.169</td>
</tr>
<tr>
<td></td>
<td>P-value</td>
<td>0.304</td>
</tr>
<tr>
<td></td>
<td>number</td>
<td>39</td>
</tr>
</tbody>
</table>

Table 8. Summary of the result of test of hypothesis.

<table>
<thead>
<tr>
<th>Testing hypothesis</th>
<th>Dependent variable</th>
<th>Independent variable</th>
<th>Regression model</th>
<th>Model's coefficient determination</th>
<th>Modified coefficient determination</th>
<th>Null hypothesis</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>QFR</td>
<td>AE</td>
<td>CFO_{i,t} = -650.768 + 0.994CFO_{i,t} - 0.275\Delta AR_{i,t} - 0.535\text{OTHER}_{i,t}</td>
<td>0.935</td>
<td>0.93</td>
<td>Confirmed</td>
</tr>
</tbody>
</table>

Figure 2. Scattering of standardized residuals against standardized predictions.

FRQ. Also, this test method was performed for large-sized companies but result was reverse. In the large-sized companies, AE influenced quality of financial reporting and the relationship was positive. Nonetheless, we reported the summary of the result of test of hypothesis in Table 8. These results indicated that in the Tehran Stock Exchange markets, administration efficiency is not important factor in increasing the quality of financial reporting. And the impact of AE on FRQ in the firms with
small size is little.

REFERENCES


