

*Full Length Research Paper*

# **A survey of the effect of management performance on financial reporting quality: Evidence from Iran**

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Accepted 8 February, 2011

**In the capital market, the information for economic decision must have necessary quality. So it is natural that the factors influencing the quality of financial reporting should be examined. In this study, a trial was made to examine the effect of management efficiency (as the internal factor) on the quality of financial reporting (QFR). With regards to this, the expected operating cash flow was used for evaluating the quality of financial reporting. To this end, 100 companies with regard to conditions in the Tehran stock exchange during the period of 2001 to 2008 are considered. This experimental research is based on real information of the audited financial statements. After collecting information through the stock exchange official website and compact disc, to test the hypothesis, regression model, descriptive and inferential statistical techniques (including normality, homogeneity of variance, and independence of residual) are used and finally, the correlation analysis between these two variables was performed. The results indicate that management efficiency is influential on financial reporting quality in firms.**

**Key words:** Management efficiency, financial reporting, reporting quality, Tehran Stock Exchange (TSE).

## **INTRODUCTION**

Today, business operations and financial position reporting have a direct or indirect influence on the individual's decisions and it is important for them. In fact, financial reports provide a picture of how the company is run and can also be a way to monitor the 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 it is known, the accuracy of the financial information increases the qualities (for example, relevance and reliability comparability). So, stakeholders such as investors and creditors can make better decisions based on qualified financial reporting information.

The general purpose of financial reporting is to provide information that expresses financial effects, operations and financial events affecting the financial condition and the results of operations of a business unit; thus, factors

which affect the quality of financial reporting is important. Among the factors, we can point to management efficiency. In addition, managers have authority to use accounting methods and estimates, and they can affect the quality of financial reporting. On the one hand, because of greater awareness of managers from business units, it is expected that information is prepared in a way that it can reflect the status of business units in the best way. On the other hand, for some reasons such as retention in the business units, receiving bonuses and other factors, the unwanted (or wanted) management shows the company's situation well (Shoorvarzy, 2008: 2). So, the QFR of business units is affected by managers' efficiency and discretion. With this interpretation, the impact of management efficiency on the quality of financial reporting in companies was examined in this study.

Most of the researches investigated the effect of external guidelines (accounting standards) on the quality of financial reporting, but in this study, an examination was done on the effect of management efficiency (as the internal factor) on financial reporting quality.

This paper is organized as follows: Firstly, a brief review

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is done on the indicators measuring the quality of financial reporting. Then, the literature review is presented, followed by the methodology of the research hypotheses, after which the proposed model deals with data analysis. Results and findings are presented. Finally, discussion and conclusions are derived from this research.

## **THE INDICATORS MEASURING THE QUALITY OF FINANCIAL REPORTING**

Many studies have been performed in this field. These researches measure the quality of financial reporting from different aspects as follows:

### **Dechow and Dichev (2002) Model**

This model is used to measure the quality of earnings that deviated from the operational commitments in the current year's estimates.

### **Francis et al. (2005) Model**

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

### **Barath et al. (2001) Model**

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

### **Zmijewski and Stone (1989) Model**

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

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

## **LITERATURE REVIEW**

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 (Yetman, 2008) and as such, financial reporting quality is important. Rather than define the "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.

Many researches are done in the context of financial reporting quality and each selects a criterion to evaluate the quality of financial reporting. Some of the researches have considered the quality of profit (Shoorvarzy, 2008) and some have considered accruals (Talebian, 2008; Bharath, 2006; Francis and Shipper, 2005).

Based on the literature, earnings quality can be divided into two altitudes: decision usefulness and Hicksian altitude geared towards defining earnings. 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 of 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). Additionally, the management efficiency is the manager's ability to manage its limited resources in order to achieve company goals (BadavarNahandy, 2008).

## **Domestic evidence**

Based on domestic studies, Zalghi (1996) studied the relationship between financial reporting quality and the number of qualified accountants in companies listed in Tehran stock exchange. As such, the result indicated that there is a significant relationship between financial reporting quality and the number of qualified accountants.

BadavarNahandy (2008) has identified and evaluated the quality of financial reporting in Iran. The results showed that the quality of financial reporting is positively related with efficiency management and company profitability and it is negatively related with competition in the 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 the 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 the cost of capital in companies with high quality accruals. Musavishiry (1999) has shown that audit report is influential in enhancing the quality of reporting.

## International evidence

The following researches cover a part of the present research: 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 the capital markets benefits and negatively associated with proprietary cost proxies. Francis (2004, 2005) seeks to provide evidence consistent with the pricing effects of information quality and claim that accrual quality is a systematic priced risk factor. The evidence documented in Francis suggests that information seems to affect the cost of capital. Verdi (2006) studies the relation between financial reporting quality and investment efficiency. He has shown that financial reporting quality has economic consequences such as increased liquidity, lower costs of capital, and higher firm growth.

Biddle (2009) found that higher financial reporting quality is associated with higher investment among firms that are cash constrained and highly levered, and lower investment among firms that are cash rich and unlevered. In addition, firms with high financial reporting quality invest less when aggregate investment is high, and invest more when aggregate investment level is low.

The results of the research conducted by Gloston and Milgrom (1985), Amihud and Mandelson (1986), Diamond and Verrchicca (1991) and O'Hara and Easley show that increasing the quality of financial information reduce information asymmetry and thus, reduce the cost of equity. Welker (1995) and Healy et al. (1999) show that the quality of financial reporting have a direct relation with advantages of proper evaluation of capital markets. The investigation conducted by Haley et al. (1999) indicated that improving the quality of financial reporting increased stock performance (Badavar Nahandy, 2008: 4-5).

## DATA AND METHODOLOGY

This study is inductive and it makes use of past information and historical 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 because it studies a specific period of time and it can be an applied research. In order to gather theoretical information, library research was selected and the books in the libraries, together with articles found in the internet, were used. An empirical research was used to describe the events in Tehran stock exchange (TSE) and investigate the correlation of variable by regression analysis. The TSE listed companies were chosen as a population and then some samples were selected based on the following conditions:

- 1) The entities should be listed before 2000.
- 2) Date financial firms should lead to the end of March each year.
- 3) The entities should be activated during 2001 to 2008.
- 4) The entities should not change their financial periods.
- 5) The entities availability of information is required.

6) The entities' activity should be that of manufacturing (no investment).

Based on these conditions, 100 companies qualified and were chosen as the samples in this study.

## Data analyses

In order to investigate the effect of management efficiency on financial reporting quality, we use the following multiple regressions (to calculate financial reporting quality):

$$CFO_{i,t+1} = \alpha_0 + \beta_1 CFO_{i,t} + \beta_2 \Delta AR_{i,t} + \beta_3 \Delta INV_{i,t} + \beta_4 \Delta AP_{i,t} + \beta_5 DEPR_{i,t} + \beta_6 OTHER_{i,t} + \varepsilon_{i,t+1} \quad (1)$$

Where:

$CFO_{i,t}$ : Cash flow from operations for firm  $i$  at year  $t$ .

$\Delta AR_{i,t}$ : Change in accounts receivable per the statement of cash flows firm  $i$  at year  $t$ .

$\Delta INV_{i,t}$ : Change in inventory account per the statement of cash flow.

$\Delta AP_{i,t}$ : Change in accounts payable and accrued liabilities account per the statement of cash flows.

$DEPR_{i,t}$ : Depreciation and amortization expense.

$OTHER_{i,t}$ : Net of all other accruals, calculated as  $OP_{i,t} - (CFO_{i,t} + \Delta AR_{i,t} + \Delta INV_{i,t} - \Delta AP_{i,t} - DEPR_{i,t})$

$OP_{i,t}$ : Operating income  $\varepsilon_{i,t+1}$ : Error term assumed to have zero mean and constant variance.

All variables are deflated by average total assets.

To measure the level of precision empirically, we focus on the residuals obtained from top regression of future operating cash flows on previous period earnings components.

Based on an accrual reporting system, the model estimated in Equation (1) suggests that future operating cash flows are predicted by current disaggregated earnings. The evidence presented in Barth et al. (2001) emphasizes the importance of disaggregating accruals, given the different information each major accrual reflects about future cash flows. By focusing on aggregate earnings rather than on the specification identified in Equation (1), one places the same weight on each earnings component, and may disregard any information relevant to predicting future cash flows. We focus on the residuals obtained from estimating Equation (1). The empirical measure of reporting quality is the absolute value of these residuals:

$$RES = |e_{i,t+1}|$$

These residuals reflect the magnitude of future operating cash flows unrelated to current disaggregated earnings. In the empirical analysis that follows, lower absolute value is interpreted as representing a higher quality of financial reporting and this corresponds to a higher level of cash flow predictability.

Also, management efficiency was calculated by the following model:

$$MAEF_{i,t} = [SALE_{i,t} / (COGS_{i,t} + SG\&A_{i,t} + DEPR_{i,t} + R \& D_{i,t})]$$

Where:

$SALE_{i,t}$ : Sales revenue of company  $i$  in year  $t$ .

$COGS_{i,t}$ : Cost of company  $i$  in year  $t$ .

$SG \& A_{i,t}$ : General costs, administrative and sales costs of company  $i$  in year  $t$ .

$DEPR_{i,t}$ : Depreciation and amortization expense of company  $i$  in year  $t$ .

$R \& D_{i,t}$ : Research and development expenses of company  $i$  in year  $t$ .

**Table 1.** Regression statistics.

Durbin Watson	Standard error	Adj. R <sup>2</sup>	R <sup>2</sup>	R
2.151	16586.602	0.97	0.973	0.986

**Table 2.** ANOVA

Model	Sum of squares	df	Mean square	F	Sig.
Regression	6.49E+11	6	1.0809E+11	392.878	.000
Residual	1.82E+10	66	275115373.9		
Total	6.67E+11	77			

**Table 3.** The estimation of coefficients.

Coefficient	Estimation	Standard error	T-value	P-value
<b>Constant</b>	-6866.441	2894.901	-2.372	0.021
CFO <sub>i,t</sub>	1.068	0.031	34.971	0.000
AR <sub>i,t</sub>	0.418	0.092	4.567	0.000
INV <sub>i,t</sub>	-0.399	0.119	-3.344	0.001
AP <sub>i,t</sub>	0.503	0.120	4.203	0.000
DEPRO <sub>i,t</sub>	-0.244	0.270	-0.903	0.370
OTHER <sub>i,t</sub>	-0.0101	0.077	-0.143	0.887

\*Within 1% of the significant level.

**Table 4.** Kolmogorov-Smirnov test.

Un-standard residual	Statistic
Number of observations	73
Standard deviation	15880.46
Kolmogorov-Smirnov Z	0.731
P- value	.0659

## RESULTS AND FINDINGS

In order to analyze the hypothesis, the dependent and independent variables were studied and measured at first. Then, the ability of each independent variable in explaining QRP was analyzed. To do this, Pearson's model and simple regression were used.

In testing the hypothesis: "management efficiency is influential on financial reporting quality in firms", Table 1 shows that the coefficient of determination between management efficiency and financial reporting quality is equal to 0.973. This means that approximately 0.97% of changes in quality of financial reporting are explained by independent variables (management efficiency) and the hypothesis is thus confirmed.

Fundamentally, ANOVA was reported in Table 2. As it is shown by the study that sig. is equal to 0 (less than 0.01), it means that the lack of correlation between the dependent and independent variables is rejected (with 99% certainty).

Subsequently, the coefficients are reported in Table 3 and the regression model used for these data is thus:

$$\text{CFO}_{t+1} = -6866.441 + 1.068\text{CFO}_t + 0.418\Delta\text{AR}_t - 0.399\Delta\text{INV}_t + 0.503\Delta\text{AP}_t$$

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

**Table 5.** Runs test.

Un-standard residual	Statistic
T value	0
z	-0.945
P- value	0.345

**Table 6.** Residuals statistics.

	Minimum	Maximum	Mean std.	Deviation
Predicted value	-5117.4692	435654.84	74321.6	94906.44
Residual	-43229.4180	52365.82	0	15880.46
Std. predicted value	-0.837	3.807	0	1.000
Std. residual	-2.606	3.157	0	0.957

**Table 7.** Correlation analysis.

		QRP	Efficiency management
QRP	Correlation analysis	1	0.703
	P value		0
	number	65	65
Efficiency management	Correlation analysis	0.703	1
	P value	0	
	number	65	65

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

Testing hypothesis	Dependent variable	Independent variable	Regression model	Model's coefficients determination	Modified coefficients determination	Null hypothesis
1	QFR	Efficiency management	$CFO_{t+1} = -6866.441 + 1.068CFO_t + 0.418\Delta AR_t - 0.399\Delta INV_t + 0.503\Delta AP_t$	0.973	0.97	Confirmed

model shows that there are no remote observations (Table 6). Additionally, based on 3 > residual statistics test > -3, it was accepted that there were no remote observations in this study.

### 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 management efficiency and quality of financial reporting was equal to 0.703 and the probability value was equal to 0, which was smaller than 0.01. So, there was 99% certainty that there were correlations between variables. In other words, higher management efficiency led to higher quality financial reporting.

### DISCUSSION AND CONCLUSION

This study indicates that the management efficiency has a strong connection in explaining QRP. It was considered that the expected operating cash flow has been used for evaluating the quality of financial reporting, in that this research was carried out on 100 companies accepted in Tehran's stock market in a seven-year period (2001 to 2008). However, the coefficient of determination of 97% showed that approximately 0.97% of changes in the quality of financial reporting were explained by independent variables (management efficiency).

The evidence provided by this study is consistent with that of Nahandy (2008). The results of the research indicate that management efficiency is influential on financial reporting quality in firms. Nonetheless, the summary of the result of the test of hypothesis is reported in Table 8.

These results indicate that in Tehran stock exchange markets, management efficiency is an important factor in increasing the quality of financial reporting. As such, managers of firms should consider it.

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