

Investigating the Effectiveness of Comparison of Financial Statements on Cash Holdings (Case Study: Tehran Stock Exchange Companies)

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ABSTRACT

This research seeks to answer the question of whether the ability to compare financial statements with cash holdings is affected. In order to find this answer, one hypothesis was raised in general terms. The innovation of this research, the relationship between the three variables and the interactive relationship between them, has so far not been investigated in any research in this area. The 6-year period from 2011 to 2016 was used to test the assumptions for companies admitted to the Tehran Stock Exchange. To test the hypotheses, the pre-test and combined and finalized tests for 110 companies have been used in the form of a model's main model. Also, Jarco's statistics are used for Pearson correlation test. The results of the research show that the correlation coefficient and the program's ability to compare with cash holdings in companies selected as the sample of this research has a positive significant relationship and shows that 1% change in the independent variable causes 32% direct change in the dependent variable. According to the above description, the research hypothesis is confirmed.

KEYWORDS

Financial statements, cash holdings, market value, financial leverage

INTRODUCTION

One of the main ways financial analysts use their financial statements in evaluating companies. The financial statements analyst of a selected company, with the intent to compare, analyzes financial statements. The stakeholders of the company, including shareholders, creditors, and parties to the deal with the company, can put themselves in the right position by using the analysis done on the company's financial statements. If the company's financial risk is high, shareholders may sell their stocks, or

creditors try to take less credit, or demand more returns to their credit standing.

But one way of analyzing financial statements is to compare these figures. Comparison of financial statements allows financial analysts to compute the absolute change in financial statement figures and the percentage change from one year to another by analyzing information in two periods of finance.

It also has the ability to compare, which is one of the crucial qualities of financial information that empowers users to recognize and understand similarities. As far as comparability is possible, it reflects similarities as well as financial reporting practices with other institutions in the operational environment.

PROBLEM STATEMENT

The ability to compare is generally determined by the usual economic factors and specific corporate factors (Zhang, 2013). While common economic factors affect institutions within the same industry in the same way, or at least in the same way. Therefore, it increases the comparability, but specific corporate factors such as functional or financial characteristics and disclosure systems may reduce the comparability.

Corporate financial crises that shadow the intrinsic risk of dealing with affiliated individuals as a powerful tool in financial fraud and stockholding of shareholders, reveal the curtains to reveal the legal evolution that affects the existing disclosure requirements.

The effect of the convergence of financial statements on stock companies' cash flows is clear. The stock exchange theory states that there is an optimal level of cash stock, which balances the perceived benefits and cost of maintaining liquidity and increasing the benefits, especially for companies, with problems in accessing external financial information. Because the convergence function of financial statements increases the quality and quantity of information available to the company's users. Companies with

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comparable financial statements should be confronted with lower financial constraints and hence need less liquidity. Although transportation and liquidity can be costly. Previous studies have shown that holding cash assets for companies is more expensive with asymmetric information (Habiba et al., 2017). Therefore, in these companies, managers tend to withdraw cash instead of holding them. If comparable financial statements can reduce information asymmetry between companies and investors, a positive relationship between these forms and cash stocks can be expected (Daske & Hail., 2016). A negative relationship between the convergence of financial statements and cash stocks can be explained from the perspective of representation theory. This theory states that opportunistic managers save money and invest in projects with NPV or invest in information. If our accumulated liquidity is part of the weak output of the shareholder support process, there is a negative relationship between this accumulation of liquidity and the financial convergence of financial statements. Because these forms make it possible for investors to evaluate corporate performance and management control over the use of capital (Bahar Moghadam, 2015). The negative relationship between the deductible capability and the company's cash reserves is based on studies, and suggests that investors rely on financial statements to make investment decisions (Zhang, 2014). The convergence function of financial statements is recognized as one of the most important characteristics of accounting information and assists investors in the field of decision-making. The high degree of financial convergence capabilities reduces the cost of acquiring information (Izadinia, 2014). Reduces uncertainty associated with performance evaluation and improves the overall quantity and quality of information available to corporate users. Despite the evidence that the convergence capability reduces information asymmetry and improves the quality of financial reporting, and provides easy access to external financing opportunities. There is no direct empirical evidence of the relationship between financial capability and corporate cash flow. Regarding this issue, in this research, we intend to investigate the effect of the comparability of financial statements on corporate cash holdings, which is a case study in Tehran Stock Exchange companies. The main question we are trying to answer in this research is whether the ability to compare financial statements is effective on the company's cash holdings.

THE NECESSITY OF DOING RESEARCH

Information about the past financial period is provided in either of the following ways:

- Comparative information means amounts and other historical information presented as part of the financial statements for use in connection with the amounts and disclosures of the current period of "current period items". Comparative information is not a complete financial statement and can not be provided on its own. This information is an integral part of the current period financial statements, which

is only read in conjunction with items in the current period.

- Comparative financial items, sums and other information relating to the past period presented for comparison with the current period financial statements. The comparative financial statements (including the underlying financial statements and explanatory notes) are not part of the current financial statements and can be presented on its own.

The fundamental differences in the auditor's report with regard to the information about the past financial period are as follows:

- In the case of comparative presentation, the auditor's report refers only to the current year's financial statements.
- In the case of presentation of comparative financial statements, the auditor reports to each of the periods in which the financial statements are presented.

BACKGROUND RESEARCH

Gumbala (2016) examines the effect of financial leverage and cash management on income and capital management. This study examines the effect of leverage and liquidity on earnings behavior and capital management in US commercial banks during the period 1999-2013. If the income exceeds the financial leverage, the liquidity policy will come to the fore. It should be expected that there will be a negative relationship between earnings management and capital measures, and the negative relationship between earnings management and liquidity measures. The results show a positive and significant relationship between capital management and capital ratio, and has a negative and significant relation with liquidity ratios. These results showed that it is not possible to set all management behavioral errors. There is also evidence of a crisis of excess market regulation, coupled with a positive and significant relationship between liquidity and profit management.

Saljugh and Abedini (2016) investigated the relationship between the growth of return on assets and net cash flow from systematic risk operations. The purpose of this study is to examine the relationship between cash flows from operating activities and the growth of return on assets with the systematic risk of companies admitted to the Tehran Stock Exchange. In this research, the relationship between systematic risk and asset growth with cash from operational activities from 2005 to 2011 was investigated. The hypotheses were tested with OLS and GIS statistics at a significance level of 95% and analyzed by SPSS software. For the first hypothesis, the relationship between cash flow from company operating activities and systematic risk, it was shown that there is a meaningful relationship. Also, for the second hypothesis, there was a significant relationship between asset return and systematic risk. But for the third hypothesis it was shown that there is no significant relationship between the growth of return on assets and systematic risk.

Gowl et al. (2015) examined the liquidity factor and the financial leverage. The factor of liquidity and financial

leverage are two important aspects of the overall management of the company. This paper analyzes the impact of leverage on various liquidity measures. In addition, the effect of both liquidity factors and financial leverage has been examined by the company. A sample of 151 Indian machinery companies in the years 2014 to 2004 has been investigated.

The analyzes are performed based on the panel regression model. The results indicate the effect of the financial leverage on various liquidity measures. Liquidity of the largest factor and financial leverage has had a significant impact on the performance of Indian machinery companies.

Asem and Alem (2015) examined the impact of changes in the outlook for the investment market with the approach of paying and non-paying dividends considering the theory of surplus cash. When the market is in recession, it has a negative effect on non-payment of dividend payments, and the difference in focus is on surplus cash. When the market is booming, it has a positive effect on non-payment of dividend payments and a difference in focus on the high amount of cash surplus.

Mohammad Bell Khayr (2014) has reviewed the ownership of the board of directors in cash surplus funds. Large corporate documents are government literature, which allows shareholders to foreclose more often the possibility of ownership control. However, little has been heard about foreclosure activities. The present study was conducted to examine the region by focusing on the corporate cash flow of a typical channel for extracting revenue from the BGA management system. It has been evaluated using the internal budget at the best level of production and, as far as possible, external financing may be used because of lower costs.

Yerevan and others (2014) have been reviewing competition, cash holdings and financial decisions. The results of the research indicate that the competition in the market affects the cash holdings and financial decisions of the companies.

HYPOTHESES

- There is a significant relationship between the comparability of financial statements and cash holdings.

SOCIETY AND STATISTICAL SAMPLE

For this research, the companies listed in the Tehran Stock Exchange were considered as statistical population and a sample of companies were extracted from the companies under the following conditions.

The statistical population includes all companies accepted in Tehran Stock Exchange between 2011 and 2016.

The sample includes companies admitted to the Tehran Stock Exchange, which firstly have their financial year ending in March, and secondly, their information is available from the beginning of fiscal year 2011 to the end of fiscal year 2016 (6 years), and thirdly, sample members are not investment companies. To select the statistical sample, all the bourse companies adapted to the criteria set for the family firms, and after selecting these companies,

they were put in a group. After dividing these companies into industry, the share of each industry, other companies was selected by simple random sampling method and placed in the non-family group. By applying all of the above limitations, the sample size was 110.

• Research Methodology:

This research is categorized as research based on the purpose of the applied research. An applied research is a research that applies theories, rules, principles, and techniques to solve real and actual problems. The present study is an applied study with an emphasis on correlation and analytic relationships.

In multiple regression research, it is sought to find independent variables that predict the variables of the dependent variable both alone or jointly (Bazargan, 2005)

• Research Tool:

Financial statements of companies including balance sheet, cash flow statement and notes accompanying financial statements at the end of each fiscal year are used as a research tool. In this research, Eviews7 and Excel have been used for processing, categorizing and preparing data for entering the statistical software.

Also, using statistical tests, we try to examine the relationship between independent variables and dependent variables as determined in the multivariate regression model. After calculating the tilt coefficients for testing the hypothesis of the research and the significance of these coefficients, the t-student test will be used for regression model.

MODEL AND VARIABLES

In this research, the following model is used to compare the financial statements with cash holdings:

$$\begin{aligned} CASH/LNCASH_{i,t} \\ = \alpha_0 + \beta_1 COM_{i,t} + \beta_2 SIZE_{i,t} + \beta_3 MB_{i,t} \\ + \beta_4 R\&D_{i,t} + \beta_5 LEV_{i,t} + \varepsilon_{i,t} \end{aligned}$$

• Dependent Variable:

$CASH/LNCASH_{i,t}$ = Cash hold; we hold for this variable from cash or use the natural logarithm of cash kept.

• Independent Variable:

$COM_{i,t}$ = Comparison of financial statements

To calculate the comparability of financial statements, the model presented by De Franco et al. (2011) is used. His model is as follows:

$$\begin{aligned} COMPACCT_{ijt} = - \frac{1}{16} \\ * \sum_{t=15}^t |E(Earning)_{iit} - E(Earning)_{ijt}| \end{aligned}$$

$COMPACCT_{ijt}$ = higher rate of $COMPACCT_{ijt}$ represents less difference between $|E(Earning)_{iit}|$ And $|E(Earning)_{ijt}|$ Which indicates a higher likelihood of comparing the company i and j to the comparison.

- **Control Variables:**

Market Value to Book Value:

Ratio of market value to book value = $(\text{Stock price} \times \text{stock number}) / (\text{Total equity holders})$

Company size: Includes logarithmic sales of the company.

Financial Leverage (LEVRG): According to the hierarchical theory of a company, when faced with a lack of money, it tends to increase capital inside before issuing new stocks or borrowing money from abroad. The company therefore keeps its capital, if any, for domestic consumption or debt repayment. More debt means that less capital is available for internal operations that increases this risk. The ratio of debt to market value is expected to be negative. This may create the capacity to raise money and increase profitability. (Heshmati, 2013)

Financial leverage: Total corporate debt i divided by total assets of company i at the end of year t . It is obtained from the following equation:

$$\text{Financial Leverage} = (\text{Total debt}) / (\text{Total assets})$$

DESCRIPTIVE STATISTICS

In this section, information is provided on the calculated variables of the research. It is necessary to describe this data before analyzing the statistical data. It also describes the statistical data in order to identify the dominant model and the basis for explaining the relationships between the variables used in the research.

The first step in data analysis, description and knowledge of the characteristics and characteristics of the studied units is research and familiarity with their changes in the sample. Knowledge of frequency distribution and central criteria and the distribution of key variables can serve as complementary information to play an effective role in determining the findings of the research. Therefore, before examining research hypotheses, the research variables are briefly summarized in Table 1. These variables include dependent and independent variables, in which the mean, mean, skewness and elongation of these variables are expressed in the research period in the following table.

Tab.1.Descriptive statistics of the research variables

Variables	Number	Minimum	Maximum	Average	Median	Standard deviation	Skidning	Elongation
Keeping cash	660	0.91	6.35	3.68	3.67	1.59	0.01	-1.18
Comparability	660	0.57	4.02	2.25	2.25	0.98	0.03	-1.17
size of the company	660	8.02	14.02	11.06	11.04	1.74	-0.03	-1.16
Market value to book	660	0.75	3.02	1.88	1.88	0.65	0.01	-1.14

value								
Financial Leverage	660	0.10	0.70	0.39	0.38	0.17	0.07	-1.16

- **Checking Normality:**

One of the things that is usually considered in the data review is the normalization of the data. When the study is based on real data and there are limitations to sample selection, this may result in data not being normalized. Of course, when the number of observations is high, the normalization of data through the central limit theorem can be justified. The Jarco-Bera (JB) test has been used to check the normality of the data. The statistical hypothesis of this test is presented below:

$$\begin{cases} H_0: \text{The distribution of the variable is normal} \\ H_1: \text{The distribution of the variable is not normal} \end{cases}$$

If the significance level of the test statistic is more than 0.05 (significance level ≥ 0.05), the hypothesis is based on the normal distribution of the dependent variable and vice versa. Table 2 shows the results of this test for the capital expenditure variable.

Tab.2.Results of the Jarco-Statistic

Variables	Test statistic	Significance level
Keeping cash	41.84	0.0000
Comparability	7.32	0.0000
Size of the company	19.55	0.0000
Market value to book value	47.31	0.0000
Financial Leverage	80.21	0.0000

As shown in the table above, the data are not normal, which is resolved through the central limit theorem. Because in this case, the data assumes that the number of observations in it is higher than 30 is normal.

- **F Limer statistics:**

Considering that observations in this research have been exploited at different levels, the question most often used in applied studies is whether there is evidence of data integration capabilities or that the model is different for all sectional units. Therefore, it should first be examined whether there are any differences between levels, heterogeneity, or individual differences.

In case of heterogeneity of the panel data method, otherwise, the least square method is used to estimate the model. For this purpose, the F-Limer statistic is used. In this test, the assumption H_0 of the same width of origin (combined data) against the opposite hypothesis H_1 is used, the inaccuracy of the width from the origin (panel data method) is used. The results of F Limer statistics are as follows:

Tab.3.Limiter statistics

Description	Amount	Possibility
Period F	0.1735	0.4991
Period Chi-square	5.9134	0.0972

As shown in Table 3, the results of the Chow test show that the probability obtained for the F statistic is more than 5%, so the zero hypothesis that the model data is compilation is accepted.

- **Autocorrelation Test (Durbin-Watson):**

One of the assumptions that are considered in the regression is the independence of the errors (the difference between the actual values and the predicted values by the regression model) of each other. If the independence hypothesis of errors is rejected and the errors are correlated, regression is not possible. In order to be independent of each other, the Durbin- Watson statistics are used. If the value is in the range of 2.5 to 1.5, a lack of correlation between the errors is accepted, otherwise the correlation between the errors is present. With respect to the values obtained for the first, second and third models, the Durbin- Watson statistics is 1.85, so a lack of correlation between errors is accepted.

- **Least Squares Model (OLS Regression):**

Tab.4.Results of the regression test of the first model

Variable	Coefficient t	Standard deviation	T Statistics	The significance level
Width from source	12.2543	0.9179	13.3500	0.0000
Comparability	32.1284	0.6149	52.2540	0.0000
size of the company	1.4658	0.3946	3.7149	0.0324
Market value to book value	0.0021	0.0893	0.0235	0.8994
Financial Leverage	0.0861	0.7459	0.1155	0.7891
The coefficient of determination	0.4273	Significant level of F statistics		0.0000
Adjusted coefficient of determination	0.3912	F statistics		15.18
Durbin-Watson Statistics	1.8543			

The coefficient of determination of 0.3912 means that 39.12% of the variation of the variable dependent on the regression tool is explained. The significance level of the F-000 statistic also shows that the zero assumption is rejected, and the F-statistic is significant at the 99% confidence level, that is, variables that are defined as independent are suitable predictor variables.

CONCLUSION

As you can see in the table above, the level of significance is the comparability ratio of 0.0000. Since this number is less than 0.05, it can be concluded that the zero assumption is rejected and the assumption is verified. According to the coefficient of this variable (32.1284), it can be stated that the program compares the ability to compare with cash holdings in companies selected as the sample of this study has a positive significant relationship and shows that 1% change in the independent variable causes 32% direct change in the dependent variable. According to the above description, the research hypothesis is confirmed.

- **Suggestions for Future Research:**

Whatever the research, though comprehensively, in terms of some material and material constraints, both temporally and temporally, can not cover all aspects of the subject and deal with it in various ways. This research has not been an exception to this, so to do some research in line with this topic as well as its development, the following suggestions are provided for further research and future researchers:

1. In order to determine the index of cash holdings in this study, the comparison of corporate profits has been used. Therefore, for future research, it is recommended to use other definitions of cash holdings in order to achieve a comprehensive benchmark, different and possibly more reliable results. It is also suggested that the present study model be implemented with other definitions of comparability variables to achieve the best definition for the above variables.
2. It is suggested that this study be compared with the number of years-more companies to achieve more reliable results, because the results appear to be directly related to the sample size used.
3. Finally, it is suggested that research be carried out in the areas referred to below:
 - Investigating the effect of comparability on earnings management of corporate accruals.
 - Investigating the Interaction and Interaction Relationships of Different Types of Ownership on the Relationship between Two Variables.
 - Investigating the Impact of Social Responsibility on the Company's Comparability.
 - Comparison of the relationship between the two variables of the company's profits management and the company's accruals-based profit management on the company's financial reporting quality and the risk of fraud and comparability.
 - A sudden stock price risk assessment on the company's ability to compare.
 - Investigating the effect of financial performance on the relationship between debt financing and earnings management based on accruals.
 - The relationship between cash flow cycle and profitability and comparability.

- **Research Limitations:**

Always on the path to research, the researcher faces challenges. Addressing these challenges can lead to better work and provide accurate and reliable research. Some of these challenges are sometimes not easily solvable, as we mention them as constraints that we face with research. In the following, we will mention some of the limitations of this study so that users will be familiar with the shortcomings and limitations of this research when using the results of this research and consider them in the direction of using this research.

1. Due to the limited statistical society of the companies admitted to the Tehran Stock Exchange, the results of other companies should be carried out with caution.
2. The effects of differences in accounting methods in measuring and reporting financial events may affect the results that there has been no adjustment to this due to lack of access to information. In other words, companies may use the change in accounting procedures to influence the reported figures.
3. Given the stock market situation in 2013, which indicates an increase in the stock prices of most companies and subsequent increase in stock returns, the results of the research may be affected by the change in economic conditions.
4. Two-digit inflation in recent years, Iran's macroeconomic indicators have affected the figures of corporate financial statements. Due to the lack of required accounting standards for adjusting financial statements, the existence of such inflation and the lack of necessary adjustments in this regard may undermine the results of this research, which are based on historical cost estimates.

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