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The Effect of Surplus Free Cash Flow and Audit Quality on Earnings Management

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ABSTRACT

One of the most important management tool is the abuse of free cash flows in those companies with low growth opportunities, companies in which there are lots of free cash flows and moreover there are not much investment opportunities and the corporate governance structure and also the audit quality (AQ) are not appropriate, rate of using free cash flows increases in order to manage the earnings. So the goal of present investigation is to check the excess effect of free cash flows and AQ on the earnings management. The period of the present survey is from 2010 to 2014, in which 102 companies have been checked. In this research to test the investigation's hypothesis, multiple linear regression model and panel data have been used. The analysis results of the first hypothesis free cash flow have positive and significant effect on earnings management. The analysis results of the second hypothesis AQ have negative and significant effect on the earnings management. The third hypothesis finding, in this research shows that the AQ has a significant on both surplus free cash flow and earnings management.

Keywords: Free Cash Flow, Surplus Free Cash Flow, Earnings Management, Audit Quality
JEL Classifications: M4

1. INTRODUCTION

Following the bankruptcy happened/occurred at the beginning of the recent century, earnings quality and financial reporting have been the focus for standardizers financial statements users (Myers et al., 2003). Standardizers in America are on the lookout to recognize the arisen problems. One of those areas which are considered among all is the audit. To that point that they attribute some of the occurred failures to the audit that it low quality. Independence is an important issue in auditing career (Chi and Hung, 2005). Free cash flows are those cashes that after covering the investing and working capital needs and also by the lack/absence of debt assumption will be available for/in the company. The company free cash flow is a factor to measure the company's value and function and it indicates the cash which the company has it and it's distributable among the investors (Paykani, 2012).

Companies which own free positive cash flows, have higher performance, so that the management tends to decrease the profit because of financial expenses/costs, since the company's high function/operation grabs the governmental organizations' attention (Tax office), that's why they are trying to decrease or hide their high performance by using the earnings management. But those companies with free negative cash flow, are unable to support the profit growth and earnings. Insufficient free cash flow, can force the company to increase the level of their debts. Therefore management tends to show a better performance by increasing earnings management (Yudianti, 2008). For this reason, in this investigation we are trying to consider the audit quality (AQ) and free cash flows' effect on the earnings management, and also consider the AQ affect on the relation between the free cash flows and earnings management.

2. THE STATEMENT OF THE PROBLEM

The earnings management is one of the important aspects of financial report quality and the main issue among all the company's shareholders. Since the profit is considered to be the important criteria in performance evaluation, any kinds of interference that cause the report accuracy to be tarnished can be effective on the financial report user's decision making procedure (Zengin and Serdar, 2010). So we can say that the stockholders care about the quantitative and quantitative dimensions a lot. The profit quantitative elements can be considered the same as the obligatory discretionary items, in this way that the more obligatory discretionary items are in the profit, shows the more earnings managements (Talebi and Boulou, 2010). Possibility audit is an important part of powerful corporate governance that can be considered as a controller tool that limits the management motives in manipulating the profit. As a result, it's expected that somewhere in which there is even low opportunity for earnings management the AQ will be increased (Ebrahim, 2010). From the auditors' point of view, the audit institution's size is one of the characteristic that affects the AQ. DeAngelo (1981) believes that bigger audit institutions, deliver audit services with higher quality, because they are interested in gaining better fame in the business market and because the number of their customers is high, they are not worried about losing their clients (Mehrani and Bagheri, 2009). The previous investigation's results show that great audit institutions in order to keep their credit and fame, try more to identify the managers' use of obligatory discretionary items and consequently prevent using these items, so by increasing the AQ the expectation is that the probability of preventing earnings management and dishonest reporting increase and financial reports' quality improves (Rusmin et al., 2014).

According to the representation theory/theory of representation, since the managers seek to maximize their fortune, this context is provided that they can have the benefit of free cash flows on their own. Free cash flow, is the surplus cashes due to the implementation of all projects by a positive net present value that is run during a period by the company. (Jones and Sharma, 2001) Jensen defines the free cash flow as operating profit after the taxes plus non-cash costs after the investing deduction (increase in change) in the working capital, properties, machines/machineries, equipments and other assets (Jensen and Meckling, 1976). Jensen believes that managers because of conflict in their interests may invest the cash flows in those projects with a negative net present value in order to provide some of their personal interests in short-term and to hide the negative effects of these kinds of investing, managers will probably benefit from manipulating the profit/earnings. This kind of manipulating has been resulted to an incorrect image of the company's financial situation moreover it's paved the way for an inefficient market in which financial support is done better, more cash and non-cash benefits will be followed by the managers (Chung et al., 2005).

Surplus free cash flow (SFCF) is a combination of two free cash flow variables and the growth opportunities that simultaneously show the surplus cash and growth opportunities' effect in performing the earnings management, this variable is determined according to 2 variables of cash flow and companies' clerical value and demonstrate that although a company has SFCF, it possesses low growth opportunities (Rusmin et al., 2014).

Therefore checking the relation between SFCF and also the auditors' regulatory role in identifying the obligatory discretionary items can have beneficial results. The present survey, by the goal of determining the SFCF effect and AQ on the earnings management and also an effect that the AQ can have on the relation between free cash flow and earnings management, can provide new fields of studies related to the earnings management. So, the main question of the present survey is this: Do SFCF and AQ have a significant effect on the earnings management and can AQ have influence on the relationship between SFCF and earnings managements?

3. THE RESEARCH VARIABLES

3.1. The Earnings Management

The earnings management occurs when managers use their own judgments in their financial reports and manipulate the transaction structure to change the financial reporting. This goal is as an intention to mislead some of the earnings owners regarding to the economic performance or is the impact on some contracts' results that their conclusion is dependent on acquiring personal profits (Etemadi and Shfakheibari, 2011).

3.2. The AQ

A common definition of AQ is presented by DeAngelo (1981). He has defined the AQ as the market evaluation and perception of the probability of the author's ability to detect significant distortions in financial or the owner's accounting systems and reporting the discovered significant distortions (Sajadi et al., 2013).

3.3. Free Cash Flow

Free cash flow, is the surplus cashes due to the implementation of all projects by a positive net present value that is run during a period by the company (Jones and Shamer, 2001). Jensen and Meckling (1976) defines the free cash flow as operating profit after the taxes plus non-cash costs after the investing deduction (increase in changes) in the working capital, properties, machines/machineries, equipments and other assets (Etemadi and Shfakheibari, 2011).

3.4. The SFCF

SFCF is a combination of two free cash flow variables and the growth opportunities that simultaneously show the surplus cash and growth opportunities' effect in performing the earnings management (Rusmin et al., 2014).

4. RESEARCH BACKGROUND

Mohammdjani and Sadeghi (2015) did a research with the title the impact of SFCF on earnings management and role of audit committee by using the data of 87 great research companies, through Pireson t-test.

The results of this research show that there is a direct and significant relation between earnings management and SFCF. In other words, the companies' SFCF can be counted as a trigger for earnings management. Also, the finding show that those companies which have audit committee, own better earnings management than other companies and also there couldn't be found any significant relation between the audit committee, SFCF and earnings management.

But there is a direct significant relationship between SFCF, the company's size and all of the obligatory items.

Moradi and et al. (2014) did a research with the title The auditor's assessment and earnings management with emphasis on ambiguity in the activity's permanence. The research samples were the accepted companies in Tehran stock exchange between the years 2007 and 2013. The research findings explain that although there is a direct relation between earnings management and the auditor's provided assessment due to the ambiguity in the company's continuity, there haven't been seen any relations between the earnings management and the auditor's provided ambiguity in the continuity. These findings indicate that the ambiguity in the manufacturer company continuity increases the auditor's innate risk and also increases the possibility of provided report sending if there is earnings management.

Vichitsarawong and Pornupatham (2015) studied that if the auditors' assessment is the reflector of the earnings stability. The period of the survey were the years between 2004 and 2008 and in this period 305 companies in Thailand were studied by them. They checked the research hypothesis results showed that those companies which receive justified assessment have less profit stability than those companies which receive acceptable assessment. Also the kind of justified assessment has different effects on the earnings stability. Companies which get provided or rejected assessment have less earnings stability than the companies that receive acceptable assessment with emphasis on a specific subject.

Rusmin et al. (2014) in a research with the title "The impact of the surplus free cash and AQ on the earnings management, evidences from 3 developed countries," studied these variables during the years 2005-2010 and also extracted their information from the exchange of 3 countries: Indonesia, Malaysia and Singapore. Their research results showed that the AQ has a negative relation with the earnings management, surplus free cash has a positive relation with the v earnings management, also the results showed that AQ doesn't have a significant impact on the relation between SFCF and earnings management.

Tsipouridou and Spathis (2014) indicate that the auditor's assessment doesn't have a significant relation with the earnings management. Also the owner company's financial characteristics like making profit, the company's size, in the auditor's decision making about justifying his/her report regarding to the ambiguity in the activity's permanence are more effective than the earnings management. In other words, the earnings management doesn't have any role in this relationship.

5. RESEARCH MODEL

5.1. The Model for the First Hypothesis

$DAC_{it} = \alpha_0 + \alpha_1 SFCF_{it} + \alpha_2 FSIZE_{it} + \alpha_3 TAC_{it-1} + \alpha_4 LEV_{it} + \alpha_5 RelCFO_{it} + \varepsilon_{it}$

DAC discretionary accruals (earnings management) company i in year t

SFCF excess free cash flow the company i in year t

FSIZE size of the company i in year t

TAC total accruals now i year t−1

LEV leverage the company i in year t

RelCFO changes in the company's operating cash flow in year t i.

5.2. The Model for the Second Hypothesis

$DAC_{it} = \alpha_0 + \alpha_1 AQ_{it} + \alpha_2 FSIZE_{it} + \alpha_3 TAC_{it-1} + \alpha_4 LEV_{it} + \alpha_5 RelCFO_{it} + \varepsilon_{it}$

DAC discretionary accruals company i in year t

Quality AQ audit of company i in year t

FSIZE size of the company i in year t

TAC total accruals now i year t−1

LEV leverage the company i in year t

RelCFO difference between operating cash current period from the previous period the company i in year t.

5.3. The Model for the Second Hypothesis

$DAC_{it} = \alpha_0 + \alpha_1 SFCF_{it} + \alpha_2 AQ_{it} + \alpha_3 AQ_{it} \times SFCF_{it} + \alpha_4 FSIZE_{it} + \alpha_5 TAC_{it-1} + \alpha_6 LEV_{it} + \alpha_7 RelCFO_{it} + \varepsilon_{it}$

DAC discretionary accruals company i in year t

SFCF excess free cash flow the company i in year t

Quality AQ audit of company i in year t

Free cash flow in excess of AQ product company i in year t

FSIZE size of the company i in year t

TAC total accruals now i year t−1

LEV leverage the company i in year t

RelCFO difference between operating cash current period from the previous period the company i in year t.

6. RESEARCH HYPOTHESES

H_1: SFCF has significant effect on earnings management.

H_2: AQ has significant effect on earnings management.

H_3: AQ has significant effect on relationship between SFCF and earnings management.

7. RESEARCH METHODOLOGY

The methodology in this research is correlation type, it means that considering the relation and correlation between the variables through multivariate linear regression and the research methodology is of after event (by using the past information). The statistical society of this research is the accepted companies in Tehran stock exchange. This research according to the time type is a cross-sectional study, because it's occurred in a time limit and 5-years period data from 2010 to 2014 will be considered.

8. THE RESULTS OF HYPOTHESIS TESTING

8.1. The Results of the First Hypothesis Testing

Due to the possibility of static calculated F in the Table 1 (meaningful model 0/0000) and the 0.05 error level, the H_0 hypothesis won't be acceptable, it means that the model is meaningful and one of the coefficients regression model should be at least against zero. To consider the establishment in the lack of self correlation in the obtained results from regression equation, Watson far sight test was used. The amount of the Watson far sight is equal to 1.763 in the above chart, and due to the fact that the computed amount is around 1.5-2.5, so this amount indicated this case that there isn't the first type of self-correlation among the remaining.

Due to the fact that the significant independent variable SFCF is equal to 0.0092 that its amount is <0.05, so that the results of this pattern indicates that on the assurance level, 95% of SFCF has a significant effect on the independent variable earnings management and according to the fact that the coefficient in independence variable is positive and equal to 0.044, this specifies that the SFCF has a positive and significant effect with the independent variable in earnings management, we can conclude that when the company SFCF increase, the amount of using the obligatory accrual items will increase and the company earnings management will increase, therefore those companies in which there are more SFCF, the earnings management is also on the higher level, that's why the first hypothesis in research is accepted, generally it can be concluded from the first hypothesis that the hypothesis zero will be rejected and the hypothesis 1 will be acceptable and the SFCF has a significant effect on the earnings management.

H_2: AQ has significant effect on earnings management.

H_3: AQ has significant effect on relationship between SFCF and earnings management.

8.2. The Results of the Second Hypothesis Testing

Due to the fact that the significant independent variable AQ in Table 2 is equal to 0.0198 that its amount is <0.05, so that the results of this pattern indicates that on the assurance level, 95% AQ has a significant effect on the independent variable earnings management and according to the fact that the coefficient in independence variable is negative and equal to 0.374, this specifies that the AQ has a negative and significant effect with the independent variable earnings management, we can conclude that when the AQ increase, the amount of using the obligatory accrual items will decrease and the company earnings management will decrease, therefore those companies in which there are more AQ, the earnings management is also on the lower level, that's why the first hypothesis in research is accepted, generally it can be concluded from the first hypothesis that the hypothesis zero will be rejected and the hypothesis 1 will be acceptable and the AQ has significant effect on earnings management.

8.3. The Results of the Third Hypothesis Testing

Due to the fact that the significant independent variable SFCF in Table 3 is equal to 0.0007 that its amount is <0.05, so that the results of this pattern indicates that on the assurance level, 95% of SFCF has a significant effect on the independent variable in earnings management and according to the fact that the coefficient in independence variable is positive and equal to 0.076, this specifies that the SFCF has a positive and significant effect with the independent variable in earnings management. Due to the fact that the significant independent variable AQ is equal to 0.0189 that its amount is <0.05, so that the results of this pattern indicates that on the assurance level, 95% AQ has a significant

Table 1: The first hypothesis regression test results significant

Variable	Coefficients	t	Significant
Constant	−0.021	−0.140	0.885
SFCF	0.044	2.614	0.0092
FSIZE	0.006	1.192	0.2335
TAC_{t-1}	0.771	14.084	0.0000
LEV	−0.105	−3.424	0.0007
RelCFO	−0.928	−17.371	0.0000
R^2	0.456	Sig. Model	0.0000
Adjusted R^2	0.451	Durbin-Watson	1.763
F	84.138	Observations	506

SFCF: Surplus free cash flow

Table 2: The second hypothesis regression test results significant

Variable	Coefficients	T	Significant
Constant	−0.121	−0.776	0.438
AQ	−0.374	−2.338	0.0198
FSIZE	0.010	1.927	0.0545
TAC_{t-1}	0.763	13.880	0.0000
LEV	−0.097	−3.151	0.00117
RelCFO	−0.925	−17.261	0.0000
R^2	0.455	Significant model	0.0000
Adjusted R^2	0.450	Durbin-Watson	1.782
F	83.641	Observations	506

AQ: Audit quality

Table 3: The third hypothesis regression test results significant

Variable	Coefficients	t	Significant
Constant	−0.686	−2.319	0.0208
SFCF	0.076	3.397	0.0007
AQ	−0.088	−2.357	0.0189
AQ*SFCF	−0.084	−2.107	0.0357
FSIZE	0.032	3.108	0.0020
TAC_{t-1}	0.526	7.806	0.0000
LEV	−0.131	−2.127	0.0340
RelCFO	−0.832	−14768	0.0000
R^2	0.597	Significant model	0.0000
Adjusted R^2	0.487	Durbin-Watson	2.072
F	5.448	Observations	506

SFCF: Surplus free cash flow, AQ: Audit quality effect on the independent variable earnings management and according to the fact that the coefficient in independence variable is negative and equal to 0.088, this specifies that the AQ has a negative and significant effect with the independent variable earnings management.

9. DISCUSSION AND CONCLUSION

According to the results of the first hypothesis, the meaningful level of dependent variable is <0/05 and the independent variable factor is positive, so it can be concluded that the SFCF has a significant and positive effect on the earnings management, in other words, companies which have the SFCF, choose higher level of obligatory discretionary items and as a result, the earnings management, level in these companies will increase, so the companies' SFCF can be regarded as a motive for the earnings management. The reason of this matter is that companies which have SFCF, are those companies that from one side have surplus free cash and on the other hand have less growth opportunities, in these companies according to the representation theory, the managers may take action to choose some projects that lack value added for the company and don't increase the stockholder's wealth. In other words in these companies because of the profit contrast between the managers and the owners, interests some projects are chosen that include the managers' personal interests but they don't make any value to the company, the managers to hide the relevant results to these kinds of projects, simultaneously manage the companies' profit through obligatory discretionary items and they apparently reach their considerable profit, but in long-term the stock holders' wealth will be decreased.

According to the second hypothesis results the significant level of independent. Variable is <0.05 and the independent variable factor is negative, so we can conclude that the AQ has negative and significant effect other earnings management, in other words, companies which have higher AQ, choose less obligatory discretionary will increase and the reports' quality will improve. The results of the second hypothesis in this research confirm this issue in Iran's capital market and show that by increasing the AQ, the rate of using earnings managements in accepted companies of Tehran's stock exchange has been decreased.

Due to the results of the third hypothesis independent coefficient in the SFCF is affirmative and equal to 0/076, though independent variable factor is the product of AQ and the SFCF is negative and equal to 0/084, therefore it can be concluded that when only the effect of SFCF variable on the earnings management is being considered, there is a positive and significant relation between the SFCF and earnings management, and by the SFCF increase, because of the low growth opportunities and representation contrast, some projects are chosen that include the managers' personal interests and they prevent having value for the company, that's why managers increase the level of using obligatory discretionary items and earnings management. When the effect of AQ on the SFCF and earnings management is considered, the type of relation will be negative, (−0/084) so that of a company has surplus free cash flow and is considered by qualified and great auditors, the level of using obligatory discretionary items will decrease and the AQ can have a positive relation between SFCF and the earnings management. Generally the result of third hypothesis indicates that the AQ has significant and positive effect on the relation between the SFCF and earnings management.

10. THE RESEARCH PROPOSAL

The result of the first hypothesis analysis demonstrate the positive and significant effect of the SFCF on the earnings management in Tehran's stock exchange accepted companies, so it is suggested to the audit committees and also audit institution that before investigating the companies' financial statements, first of all they should meet the amount of free cash flow and the companies' low growth opportunities that while considering the accounts and financial statements of those companies that have higher free cash flow and at the same time have less opportunities to grow, they should be more careful and increase their level of consideration since in these companies the rate of using obligatory discretionary and consequently there is higher rate of earnings management. Moreover it is suggested to stock holders and financial analysts that pay attention to the SFCF during the profit evaluation and before buying the companies' stocks, because the SFCF has a positive effect on the companies' earnings management.

The result of the second hypothesis analysis represent the negative and meaningful effect of AQ on the companies' earnings management, so it is suggested to the stock holders and financial analysts that pay attention to the audit companies' type, especially when buying the stocks of those companies which are investigated by some small audit institutions. They should be sure whether the level of earnings management in these companies is more than those that are pioneered by great audit companies or not. It's suggested to stock exchange organization and regulatory bodies that while selecting the trustworthy auditors pay attention to this point and consider the size of audit institute as a measure to reduce the intended earnings management.

It's suggested to the audit corporate that by explaining the standards and relevant functions increase the possibility to identify, discover the obligatory discretionary items and earnings management criteria that reduce financial reporting.

The result of the analysis of the third hypothesis represent that the AQ can decrease the positive relation between the SFCF and earnings management, so it's suggested to the institutional stock holders in those companies which have the SFCF, that choose the great auditors in public that through this can prevent the managers' incorrect investments.

11. RESEARCH LIMITATIONS

1. In this research, the systematic deletion method has been used for sampling, and some of the industries have been deleted from the sample, so in generalizing the obtained results, it should be acted carefully to all the industries.
2. The present time domain is from 2010 to 2014. Therefore in generalizing the research result should be careful about the past years.

3. One of the most important limitations in this research is the lack of similar researches especially to the research third hypothesis, so the researcher has faced with the lack of similar investigations for comparing the relevant findings to his/her research hypothesis.
4. The existence of inflation causes the financial statements not to show the accurate financial status and the company functions therefore, by considering the inflation effect, it may have different results.

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