EXPLORING THE RELATIONSHIP AMONG PROFIT MANAGEMENT AND SHARED PROFIT OF COMPANIES RECORDED IN TEHRAN STOCK MARKET

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Abstract

Present paper is an attempt for collecting evidences for managing profit and its contribution to change in shared profit. Dependent variable of this research is the ratio of profit of company equity, discretionary accruals and representative of profit management for computation of which model of Decho et.al based on annual step-wise regression is used. For testing research hypotheses, historical data corresponding to 2009-13 for 97 companies listed in Tehran Stock Market and regression analysis is used. Results reveal that more discretionary accruals lead to lower shared profits. In fact, managers of these companies decide to pay for or increase shared profits when they feel that their profit is not considerably affected by manipulation of accounting method and decrease of shared profit in future is improbable.

Keywords: profit, profit management, shared profit, policy of profit sharing

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Introduction

Due to inherent flexibility available in some of the accounting standards and since interpretation and application of these procedures in most of the cases depends upon the assessment and opinion of managers, this opportunity is provided for them to manage profit through various techniques such as manipulation of accounting accruals. Such profit management style increases the accuracy of signaling and informing profit and increases external confidences. In addition, it potentiallyleads to informational eccentricity among internal users and reduces the efficiency of investments. Lack of sufficient information causes the confusion of investors in predicting future profits and provides wrong values for equities.

Attention of money equities and cash return of equities is of great meaning for some of the companies' beneficiaries in arrears to subjectivity and being tangible.Certainty, potential and actual utilizers of financial information intend to be aware of potential of creating cash and its distribution amongstockholders; since this information not only provides a clear picture of the current state of the company, but also enables the evaluation of future of the company which is undoubtedly of great importance in the process of decision making. Importance of this subject for company managers is both for using information obtained from the procedure of company management as well as their presentation assessment by market. Hence, this research stressed on management of profit and its role in changing the viewpoint of managers about the amount of paid interest.

Theoretical basis of research

Profit

Profit is the excess of revenues over costs for a certain accounting period which represents the net increase in salaries of stockholders and is the result of continuous profiting activities of commercial unit as well as secondary operations, casual events and other operations, events and conditions contributing to commercial unit which are recognized and measured according to accepted principles of accounting.

Profit management

It is the purposeful intervention in the process of financial reporting outside organization for the sake of attaining desired benefits. In fact, profit management occurs when managers apply their personal assessments in financial reporting and manipulate the structure of transactions for changing financial reporting.

Shared interest

It is a part of profit shared among stockholders and another part is deposited.

Policy of sharing profits

In general, the relationship between shared interest and interest of equities illustrate the policy of each company for sharing profits. The method taken by companies according to which they distribute profits among stockholders, cash profit and or following either a constant, increasing or decreasing trend convers the policy of interest sharing by company.

Literature review

Variable	Year	Author	Findings
Ownership structure, composition of managerial board and policy of sharing interest	2010	Setayesh and Kazem Nejad	There is no significant relationship between management ownership and concentration of ownership with policy of sharing profits
Factors contributing to policy of sharing interest	2006	JahanKhani and Ghorbani	Size, investment opportunities, financial structures, financial risk and leverage of companies are other issues which contribute to explanation of policy
Profit, interest sharing and policy	2004	Mehrani	Profit and interest sharing of previous year are not good important factors in decision making and investment policies are independent of interest sharing policies
Ownership concentration, company performance and policy of interest sharing	2011	Mashyekh and Abdullahi	Performance improvement can lead to increase of shared interest. Meanwhile, no significant relationship was observed between ownership concentration and ratio of shared interest
Profit and interest sharing policies	2012	Orangzeb and Delaware	There is a negative relationship between policies of interest sharing
Policies of interest sharing and profit management	2012	Heydar et.al	There is a negative and significant relationship between policies of interest sharing
Policies of interest sharing and profit quality	2011	Hey et.al	Companies paying interest have less accrual and consequently, higher profit quality
Profits divided by accounting manipulations	2011	Caskey and Hutton	Companies paying profits are less probable to lean toward accounting manipulations
Policies of interest sharing and profit management	2010	Hu Yang et.al	There is no significant relationship between policies of interest sharing and profit management
Corporate governance and shared interest	2008	Protzit et.al	There is a positive relationship between corporate governance and shared interest

Research hypothesisa

Profit management has a significant relationship with shared interest.

Research variable

Independent variable

Independent variable of this research is discretionary accruals, representative of profit management which is computed as follows:

$$\text{Discretionary Accrual} = \frac{\text{Shared Cash Interest}}{\text{Revenue of Regular Acvitities}}$$

In this work, for measuring accruals, a moderated version of Jones model is used.

Dependent variables

Dependent variable of this work is the ratio of interest payment to revenue of company. In general, relationship between shared interest and revenue of equities represents the policy of company for sharing profits. Therefore, in this work, ratio of shared profits to revenue of regular activities is used for measuring dependent variable.

Control variable

According to literature, in this research, some of the variables are used for controlling their effects on the relationship between management of profits and shared profits.

ROE: is the return of interest of stockholders which is computed by dividing net profit by official value of stockholders equities.

SIZE: natural logarithm of official value of assets

LEV: another control variable is financial leverage which is measured as follows:

Research methodology

Statistical population and sample

Subject domain: this research studies all issues corresponding to policies of sharing profits and profit management as well as the effects of profit manipulation on shared profit.

Spatial domain: includes all companies listed in Tehran Stock Makret.

Temporal domain: refers to 2009-13 for aforesaid companies.

Data collection method

To select sample, eliminatory sampling is used. In this way, from all available companies, those which lack the following characteristics will be eliminated and others will be chosen as sample:

1. To homogenize statistical sample in study period, they have been active in Stock Market before 2009.
2. Withrespect to capability increase, their financial period ends by March 20.
3. During intended financial years, thy have no activity or change in financial year.
4. Their data is accessible.
5. Some of the listed companies such as banks and financial institutions whose financial disclosures and structures of leadership principles differ will be eliminated from sample.

Table 1: Descriptive statistics of research variables

Variables	No.	Min.	Max.	Mean	Standard deviation
Ratio of profit payment	**485**	**-1.704**	**1.821**	**0.294**	**0.285**
Accruals	**485**	**-0.674**	**0.853**	**0.020**	**0.215**
Return of equity of stockholders	**485**	**-0.902**	**0.922**	**0.296**	**3.889**
Size	**485**	**21.574**	**32.253**	**27.423**	**1.332**
Self-financing rate	**485**	**-11.399**	**9.795**	**-1.533**	**34.751**
Financial leverage	**485**	**0.032**	**2.156**	**0.171**	**9.834**

Data analysis and hypothesis testing method

To analyze data, regression analysis is used. In this work, to calculate independent variable of accruals, annual stepwise multivariate linear regression and for testing hypothesis, multivariate linear regression using combined data are used. Regression method includes normal least squares method.

Analysis of results

Descriptive analysis

One of the statistical methods is descriptive statistics whose purpose is to collect, summarize and classification of data.

As can be seen, average of profit payment is 0.294 which shows the average payment to stockholders in study period. Changes range is from -1.704 to 1.821 and standard deviation is 0.285. Results reveal that fluctuations in payment of profit are higher compared to accruals.

Research hypothesis test

Research hypothesis is as follows:

Profit management has a significant relationship with shared profit which can be stated in the form of statistical hypotheses as follows:

H_0: there is no significant relationship between profit management and shared profit.

H_1: there is a significant relationship between profit management and shared profit.

This hypothesis intends to investigate the significance of the effect of profit management on shared profit. To test this hypothesis, regression analysis is used.

Regression analysis

As stated earlier, to study and understand the role of profit management in paid profit and to test research hypothesis, following linear regression model is used and for estimation of its parameters, method of least squares with combined data are used:

$$DPO_{it} = \beta_0 + \beta_1 DACC_{it} + \beta_2 ROE_{it} + \beta_3 Ln\ Asset_{it} + \beta_4 SFR_{it} + \beta_5 LEV_{it} + \varepsilon_{it}$$

DPO_{it} is the dependent variable corresponding to ratio of shared profit to revenue of normal activities.

$DACC_{it}$ is discretionary accruals which are a representative for accruals used by managers for achieving objectives of financial reporting.

ROE_{it} is the return of equity of stockholders which is an important ratio for profitability.

$LnAsset_{it}$ is the natural logarithm of overall assets as representative of company size. It is expected that bigger company will have more shared profit.

SFR_{it} is the rate of company self-finance which represents profit deposition as one of the financing resources.

LEV_{it} is financial leverage which is effective for revenues sharing policies withrespect to reducing costs of financing and credit conditions.

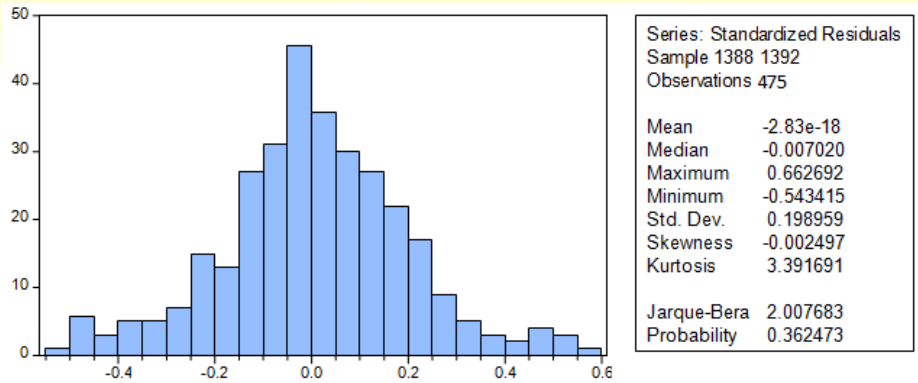
Data analysis

First of all, to be able to use regression analysis and obtain reliable results, we must assure that whether our data are normal. To test normality of data, Jark-Bra Test is used. This is one of the most important tests which are used for normality of regression components. JB statistic follows Chi-Square distribution asymptotically. If model residuals are significantly skewed, extended or wide, null hypothesis about normality of data will be rejected.

According to abnormality of data, since fundamental hypothesis of using regression is normality of data, deviated values will be discarded from the model and finally 475 companies will remain on which data regression analysis is performed.

Table 4-3 presents results of the test.

Table 4-2: results of JB test



As stated in chapter 3, in this test, if the probability computed by software is more than α=5%, H_0 hypothesis is accepted. Probability corresponding to JB test is as much as 0.362 which is higher than 5%. Therefore, hypothesis of data normality is accepted with 95% confidence.

After investigation of data normality, we study the independence of data as well as collinearity of independent variables to ensure results of regression which are explained as follows:

a. To investigate the independence of data, Durbin – Watson statistic is used. As can be seen in table 5-4, value of DW test is 1.623 which is within the acceptable range of [1.5-2.5] and we can accept independence of variables.
b. To investigate the collinearity of variables, variance inflation factor is used. Results of this test are presented in table 6-4. Since the value of this statistic is less than 5, there is no collinearity among independent variables.

According to confirmation of above assumptions, we can rely upon the results of fitted model.

Chao test

First of all, to recognize that whether tabulated data must be used, Chao test isused. Results of this test are summarized in table 4-4.

Table 4-3: results of Chao Test

P-value	F-test
0.0827	**8.253987**

As can be seen, P-value and level of significance of the test is 0.05. Therefore, according to what stated in earlier chapter, intercept and slope are constant by time and position and using pooled instead of panel regression is confirmed. Hence, there is no need to Haussmann test.

Analysis of results of regression model

Results of hypothesis test are summarized in tables 4-5 and 4-6.

Table 4-4: results of variance analysis

R^2	DW test	Sum of error squares	F-test	p-value
0.04	1.623	52.041	2.582	0.015

Table 4-5: results of regression analysis

Variable	Beta	Standard error	t-test	p-value	VIF
Intercept	**-0.259**	**0.296**	**-0.875**	**0.381**	
Accruals	**-0.200**	**0.059**	**-3.412**	**0.001**	**2.221**

Return of equity of stockholders	**0.004**	**0.003**	**1.106**	**0.269**	**2.715**
Size	**0.020**	**0.010**	**1.861**	**0.063**	**3.425**
Self-financing rate	**-0.021**	**0.010**	**-2.056**	**0.043**	**1.029**
Financial leverage	**-0.039**	**0.009**	**16.800**	**0.000**	**1.763**

Value of F-test and its significance level illustrate model significance in 95% confidence level. Coefficient of fitted model reveals that about 4% of changes in shared profit in studied sample of research are explained by independent variables.

Now, according to p-values of each of the independent and control variables, we investigate the significance of each of the variables.

Coefficient of accruals is -0.200 and its level of significance is 0.001 which is less than 5%. This means that if accruals change one unit, shared profits change by 0.2. Therefore, coefficient of discretionary accruals is negative and significant. That is, increase in accruals leads to reduction of shared profit. Therefore, research hypothesis is accepted in 95% confidence level.

As a result, it can be concluded that managers of these companies decide to pay for or increase shared profits when they feel that their profit is not considerably affected by manipulation of accounting method and decrease of shared profit in future is improbable. On the other hand, management announces shared profit when there is an increase in profit. However, in this case, when there are considerable investment opportunities, it is expected that management maintains and deposits a high level of profit. Otherwise, profits are not enough and company will try to provide external finances while for the sake of saving and avoiding usage of a more expensive resource, management is forced to avoid profit sharing policies.

Coefficient of return of equity of stockholders is as much as 0.004 and its significance level is 0.269 which is more than 5%. Hence, coefficient of return of equity is not significant and cannot have a significant effect on the level of shared profits. Therefore, it can be inferred that other factors such as manipulating profits of stock market can affect the profitability of profit sharing and performance measures not based on profit can better explain the relationship between company performance and shared profit.

Coefficient of size variable is 0.02 and its significance level is as much as 0.063 which is more than 5%. Consequently, this coefficient is not significant and cannot have a significant effect on shared profit. Therefore, it can be concluded that bigger companies invest their profit in development opportunities instead of paying to stockholders.

Coefficient of self-finance variable is -0.021 and its significance level is as much as 0.043 which is less than 5% and it means that this coefficient is significant and can have a significant effect on shared profit. Therefore, it can be concluded that more reliance of companies upon

accumulated profit will bring about less tendency toward paying cash profit and in case of facing profitable projects;they use non-shared profit as finance.

Coefficient of financial leverage is -0.039 and its level of significance is 0.000 which is less than 5%. Therefore, this coefficient is significant and reveals that financial leverage can have a significant effect on value of shared profits. This means that a company with debts can maintain higher percent of profits to pay its debts. On the other hand, by increase in the level of financial leverage, financial risk of companies increases accordingly and to reduce risks, they must reduce shared profits.

According to regression analysis results and obtained coefficients, following model is fitted:

$$DPO_{it} = -0.259 - 0.200\ DACC_{it} + 0.004\ ROE_{it} + 0.020\ Ln\ Asset_{it} - 0.021\ SFR_{it} - 0.039\ LEV_{it} + \varepsilon_{it}$$

Conclusion

Profit manipulation prompted managers to changes their view about decision making about the value of shared profit and investment and leads to undesired trend of investment and development of companies. It seems that in some cases, there is not only no profit sharing, but also they were forced to finance their debts through profits. This change in policies induces the sense of insecurity in stockholders and results in dissatisfaction of them as well as negative effects on the price of equities.

In general, results of performed tests for confirmation of research hypothesis confirm the fact that more discretionary accruals reduce the level of shared profits. Indeed, managers of companies listed in Tehran Stock Market decide to pay for or increase shared profits when they feel that their profit is not considerably affected by manipulation of accounting method and decrease of shared profit in future is improbable. Consequently, for the sake of avoiding usage a more expensive resource along with investment opportunities, they avoid profit sharing policies.

Results are in agreement with that of Orangzeb and Delaware (2012), Heydar et.al (2012) and Sawoo (2006) which illustrate that there is a negative and significant relationship between profit management and profit sharing policies. Results are in contradiction with that of Hu Yang et.al.

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