

The Relation between the Firm's Characteristics and the Quality of Profit Accrual Items

Mehdi Habibi¹, Shaer Biyabani², Mehdi Meshki², Morteza Malekpour²

¹Masters in business Management, Islamic Azad University, Rasht Branch,
²Department of Management & business, Islamic Azad University, Rasht Branch, Iran

ABSTRACT

In this article the existed relation between firm's characteristics and the accrual items' quality and the profit has been examined; the statistic population of the research includes 88 accepted firms in Tehran stock exchange during the years 2006-2010.

To select the sample, the omissive method has been chosen so that those firms with the expected characteristics would be used. To examine the variables of present research the Dechow-Dichev approach (DD) has been used. The standard measure of the accrual items' quality in this research is the remained items of the working capital change regression on the cash flows operations in the past period, present period and future period; as the high position of remained items' standard deviation indicates low quality of the accrual items. This research's results indicate that firm's characteristics (such as firm's operation cycle, firm's size, sale swing, the number of time losses are reported during different periods and accrual items' size) can be used as a tool for evaluating the quality of accrual items and profit. According to the obtained results from this research, the quality of accrual items has a significant relation with the operational period, firm's size, the number of time losses are reported and the accrual items' size while it has nit any significant relation with sale swing.

KEYWORDS: the quality of accrual items, estimation error, firm's characteristics.

INTRODUCTION

One of the main reasons for providing financial lists is to represent useful and beneficial information for a majority of consumers inside and outside the organization and for making wise economical decisions. One of the items in financial lists is the NET profit and it is expected that the NET profit indicates the result of an economical unit's turnover over a financial period. Due to the importance of a firm's NET profit for the consumers of financial lists the management tries to improve the representation of the amount and firm's profit. One of the ways for improving the representation of firm's profit is using the accrual items. According to the accounting texts, the accrual items' prediction error is one of the things which may cause profit deviation from the actual performance outcomes of the economic unit. Therefore it seems that it would be necessary performing a research for examining the existed relation between the anticipating errors of the accrual items (the standard of the accrual items' quality) with the firm's characteristics which affect on the accrual items' quality systematically and without management's interfering and manipulating.

The main product of accounting system as an information system and a subset of management information system is the financial reports that their main aim is providing the necessary information for performance appraisal and profitability of the economical institute. One of the accounting items which is provided and represented in financial reports is the NET profit which has different usages. Profit, usually, is considered as a base for tax evaluation, a factor for codifying the dividend policies and a guide for investment and making right decisions and finally a factor for anticipating. NET profit calculation of the economical institute is due to accounting methods and estimations so according to it the manipulating of the profit can be done by the management. The existence of appropriate ground for making changes in the reported profit is due to the existence of interests' conflict and some innate limitations of accounting such as:

- The exited inadequacies in accounting estimations process;
- The possibility of using several accounting methods;

Beside the aforesaid factors which affect the accounting reported profit it also should be noticed that in profit measuring process the accrual system is used which affects the accounting profit's reporting and measurement process; as the accrual items moderate the recognition of the cash flow during the period so that the moderated numbers would measure the economical unit's turnover better (Dastgir and Rastgar, 2010). For instance, registering

***Corresponding Author:** Mehdi Habibi, Masters in business Management, Islamic Azad University, Rasht Branch,
Email: Mehdi_1498@yahoo.com Tel:09111311776

of a receivable account would speed the recognition of the future cash flow and makes the recognition of accounting profit and sale resultant economic revenues concurrent. According to Barth and et al (2005) using estimations in financial lists affects profit and it could cause a different profit with real turnover result of trading unit. The said accrual items are based on estimations that if are wrong they should be correct in next periods in the future accrual items and future profits. The estimation error and its consequence correcting will reduce the accrual items' benefit (Noravesh and Mashayekhi, 2009).

The aforesaid reasons have caused the real economical institute's profit to be different from the reported profit in the financial lists. Therefore the consumers who use the financial information should notice the quality of profit besides its quantity in their appraisals. The aim of this research is to examine the existed relation between some features of different firms with the accrual items' quality so that we could determine that which feature of a firm has significant relation with the accrual items and profit's quality.

1- Materials and methods

2-1- The role of accrual items and their importance

The accrual items explain the differences between the accounting profit and the operation's resulted cash flow; as the huge positive accrual items show the excess of the reported profit in proportion to the produced cash flows by the firm and this difference in result is due to using the accrual accounting system.

The accrual items can be divided into two parts:

- Optional components that are those accrual items on which the management can apply some controls.
- The non-optional components that are those accrual items on which the management cannot apply controls.

One of the main roles of accrual items is transferring or moderating the recognition of cash flows during the time; as the moderated numbers of the cash flows (profit) can appraise the firm's turnover better. For instance, registering a receivable account can cause early recognition of the future cash flows in profit and early conformity of happenings recognition timing form accounting point of view with the sale result economical revenues. Anyhow, the future accrual items are often based on information and estimations that must be corrected in profit and future accrual items if they are wrong. For instance, if the proceeds from a receivable account are lower than the initial estimation then the next registration would register the estimation error; while the theorists believe that the estimation error and consequence correcting reduces the beneficial role of the accrual items. Therefore the accrual items' quality and the profit's quality would decrease while facing the estimation error. For example, from Palepu's (2000) viewpoint the estimation error is a factor which reduces the accounting quality. He believes that estimation's accuracy and exactness depends on firm's characteristics such as exchanging complexity and firm's environment anticipating ability.

2-2- The quality of accrual items

Generally there are lots of reasons that reduce the profitability of accrual items. One of these factors is the estimation. For example, Palepu et al (2000) believe that the estimation error is one of the main factors that reduce accounting quality and the estimation error depends on the firm's characteristics such as exchanges complexity and the firm's environment anticipating ability. If the profit management doesn't exist the accrual items' quality will be affected by the trading and industrial unit's characteristics and those characteristics are usually visible and repeatable. For instance, the possibility of estimation error occurrence increases with the operation swing and in opposite the profit management factors are not usually visible and are temporary (Dechow-Dichev, 2002). The aim of this research like Dechow-Dichev's is the division of the intentional estimation error from the unintentional estimation error because any kind of error causes reduction in accrual items' quality and profit's quality.

2-3- The existing models of examining the accrual items' quality

The accrual system is one of the main parts in financial accounting. The accrual items moderate the cash flows for the reported profit and make the basis of the balance sheet. Despite the importance of accrual items in financial accounting, there are a few models in accounting literature for studying the accrual system (Guay, 2006). Initial studies used to use simple standards such as total accrual items (Healy, 1985) and changes in total accrual items (DeAngelo, 1986) for measuring the quality of accrual items (the larger the standard the lower the quality of accrual items). Much recent studies use the regression of accrual items and specific financial variables which are related to common accrual items such as income changes, operational profit or operational cash flows for estimating the common level of the accrual items; as that regression's remainder indicates the uncommon accrual items. Generally the uncommon accrual items are considered as an indicator for estimating the quality of accrual items. Researchers such as Dechow, Sloan and Sweeney (1995), Dechow, Kothari and Watts (1998) use the regression remainder for estimating the uncommon accrual items. They placed the total accrual items as a function of sale and fixed assets

changes in a model for estimating the accrual items (Johns, 1991). And in another model the working capital's accrual items were considered as a function of the trading unit's sale activities and operational cash flows of the past, present and future (Dechow, Kothari and Watts models, 1998).

Johns' accrual items' model was created in 1991. The aim of Johns' model is to examining management's intentional estimation error. Today it is used for estimating the quality of accrual items. This model as it was said before is as below:

$$Jonesmodel : Acc_t = \alpha_0 + \alpha_1 \Delta REV_t + \alpha_2 GPPE_t + \beta_t \tag{Equation (1)}$$

It expected that in above equation the income changes' coefficient (α_1) would be positive and the fixed assets' coefficient (α_2) would be negative. It means that Johns believes hat accrual items have positive relation with income changes and negative relation with fixed assets. Johns' model divides the total accrual items into common items (accrual items' common components have relation with income changes and fixed assets changes) and uncommon components (the difference between accrual items' set and common accrual items). This model is used for management appraisal profit; as it examines the uncommon accrual items' behavior in the range of an event (for instance, while stock proposal), in this model the more the specified uncommon components of accrual items the lower the quality of accrual items would be (Guay, 2006).

Dechow-Dichev's models and the cash flows (CF) emphasize on the relation between accrual items and past, present and future cash flows which are as below:

$$CF\ model : Acc_t = \alpha_0 + \alpha_1 CF_t + \varepsilon_t \tag{Equation (2)}$$

$$DD\ model : ACC_t = \alpha_0 + \alpha_1 CF_{t-1} + \alpha_2 CF_t + \alpha_3 CF_{t+1} + \varepsilon_t \tag{Equation (3)}$$

ACC_t Is the total accrual item and CF_{T-1} , CF_T , CF_{T+1} are respectively the cash flow in past, present and future period.

Johns, DD and CF models have this similar idea that accrual items increase the profit's benefit by smoothing the temporary swings of the cash flows. For instance, consider the previous period's commodities' balance increase which has been sold as a credit in the present period and its cash would be received in the next period so as a result the cash flow in the previous period would be negative and in present period that the profit obtaining has been completed it would be zero and positive in the next period. This temporary swing reduces the benefit of cash flows for the firm's performance appraisal toward the profit. Accrual items are a function of the trading unit's real turnover and the trading unit's real turnover is impressed by its sale. Johns spots the sale changes directly in his model, but in DD and FC models the current cash flow is only used.

The used accrual items' model in DD research is for accrual items related to the working capital accrual items. The reason to this is that the cash flow related to the working capital occurs during a year and makes the empirical and practical examination simple and possible. Despite that we know the estimation error includes all the accrual items but we only use short term accrual items in (DD) model due to great interval between non-current accrual items and their cash flow realization. To calculate the quality of working capital accrual items, the introduced equation by DD can be used that is as below:

$$\Delta WC_t = b_0 + b_1 \times CFO_{t-1} + b_2 \times CFO_t + b_3 \times CFO_{t+1} + \varepsilon_t \tag{Equation (4)}$$

In the research by Dechow-Dichev it is calculated by below formula:

$$\Delta WC = \Delta AR + \Delta Inventory - \Delta AP - \Delta TP + \Delta OtherAssets(net) \tag{Equation (5)}$$

In above formula we have:

ΔWC = Working capital changes;

ΔAR = Receivable accounts changes;

$\Delta Inventory$ = commodities' balance changes;

ΔAP = Payable accounts changes;

ΔTP = Payable tax changes;

$\Delta OtherAssets(net)$ = Other current non-cash assets changes;

The remainder from the equation (4) indicates those accrual items which don't have adhesion to the realization of the cash flow; as the standard deviation of the error factor (ε) is the introducer of accrual items' quality. The more the standard deviation of the error factor the lower the accrual items' quality would be.

In this research the main model of (DD) would be used. (DD) have used the accrual items of working capital as the general agent of accrual items and operational cash flow in their study in the field of accrual items' quality. Because the accrual items of working capital and the operational cash flow are more checkable and usually the creation and omission period of such accrual items is one year long. They suppose that the weak relation of accrual items of the working capital with the operational cash flow indicate the low quality of accrual items. In the model in this research (DD model) the estimation error of accrual items is calculated by the aid of the last year, present year and future year's working capital changes' regression remainder and operational cash flow. The remainder of this regression introduces the accrual items' estimation error; the larger the error factor's standard deviation the lower the quality of accrual items. From the viewpoint of Dechow-Dichev (2002) the quality of accrual items decreases by the accrual items' estimation error increasing. The quality of accrual items has positive relation with the profit stability and the profit stability is one of the tools for profit quality evaluation; the lesser the profit stability the lower the profit quality. The reduction in profit quality means that the reported NET profit is different from the economical unit's turnover result. In such situation the reduced profit's information contain and lesser consumers can rely on this main element of financial lists in making decisions.

Francis et al (2003) concluded that the quality of accrual items affects the financial security's cost. Moreover they conclude that the capital cost of firms with low quality accrual items is more. Ashbaugh and Lafond (2003) examine the quality of accrual items of working capital in international level. Their results indicate that the quality of working capital's accrual items is higher in those countries which their financial and taxing reporting are partly similar. The results of Ecker, Francis, Olsson and Schipper's (2005) research indicate that non-current accrual items have lower quality that the current accrual items. According to their results the quality of current accrual items can be a reliable tool for estimating the total accrual items' quality. Their practical result is that although the estimation of the total accrual items' quality is possible for some limited firms but such estimation is not necessary because the current accrual items quality is an appropriate tool and a substitute for the total accrual items' quality.

In the research by Dastgir and Rastgar (2010) the relation between firms' financial and non-financial features with the quality of accrual items has been examined. Therefore 95 firms had been examining out of all the accepted firms in Tehran stock exchange during 2000-2007. The selection approach is for hypotheses examination using cross sectional data. The measuring standard of the quality of accrual items in this research is the remainder items of working capital's regression changes based on the operational cash flows in the past, present and future periods. The results of this research indicate that measurable financial and non-financial characteristics of a firm (such as firm's operational cycle, firm's size, cash flows swing, accrual items' swing, profit swing and the number of reported losses during different periods) can be used as a tool for evaluating the quality of accrual items and the profit. According to results of this research the quality of accrual items has positive relation with the firm's size and negative relation with other examining characteristics.

2-4- Research Method

The population of this research includes the accepted firms in Tehran stock exchange during the years 2006-2010; among which those firms were selected which possessed the following characteristics . Therefore the sampling method is omission method. The characteristics are:

- The firm must be accepted in Tehran stock exchange before the year 2006. Because statistic samples' number must be equal in examining years.
- For having comparable items the financial periods of the firms should ends on March 19.
- Those industries should be examined which have at least 25 firms activating in them.
- There should be at least 250 data for each firm.
- Firms' exchanging symbol shouldn't be stopped more than 4 months.
- The firms should not be among investment and financial intermediation firms.
- Research's necessary information about the firms should be reachable.

Finally, according to filters and firm's characteristics, 88 firms were selected according to the rules above.

And also according to the examinations taken place in the literature and empirical basis, the following five hypotheses were selected for the research:

Research's main hypothesis: there is a significant relation between firm's characteristics and the quality of accrual items.

The following five hypotheses were selected for this research:

- 1- There is a significant relation between firm's operational cycle and the quality of accrual items.
- 2- There is a significant relation between firm's size and the quality of accrual items.
- 3- There is a significant relation between sale swing and the quality of accrual items.

- 4- There is a significant relation between the number of reported losses during different periods and the quality of accrual items.
- 5- There is a significant relation between accrual items' size and the quality of accrual items.

3-Analysis

In this research, firm's characteristics (firm's operational cycle – firm's size – sale swing – the number of reported losses during different periods and accrual items' size) have been examined as independent variables of research and the quality of accrual items has been examined as dependent variable of the research; as the regression analysis has been used for examining the hypotheses. At first the normality of final samples was examined using Kolmogorov–Smirnov test which its results can be seen in Diagram (1). In the table (1) there are represented descriptive statistics (average, standard deviation, first quarter, middle and the last quarter).

Table (1) – descriptive statistics data

Variables	Average	Standard Deviation	First Quarter	Middle	Last Quarter
<i>CFO_t</i>	0.097549	0.1879	0.125	0.478	0.592
ΔWC	0.865	0.1654	-0.234	0.164	0.278
Assets	5327307	2168911.48	307835	820246	2236030
Sale	0.6605	0.269	0.201	0.365	0.421
Accruals	-0.0158	0.1876	-0.110	-0.0730	0.068

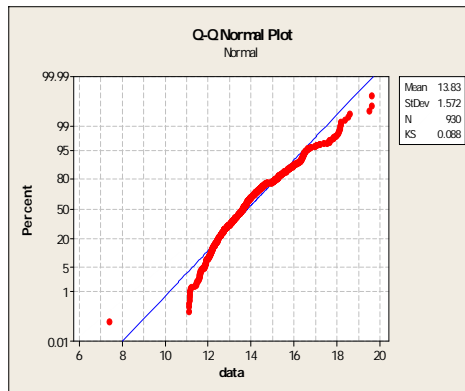


Figure (1)

For examining the hypotheses of the research and answering the questions, the relation between the quality of accrual items with 1- operational cycle, 2- firm's size, 3- sale swing, 4- the number of reported losses by the firm, 5- accrual items' size has been examined. For calculating accrual items' quality standard it is necessary obtaining the remainder items of the following regression model (6) for each firm and then the mentioned standard deviation of the regression remainder items should be calculated for each firm so the obtained standard deviation would be the quality standard for accrual items as each firm which has lower standard deviation of remainder items would possess higher accrual items quality and vice versa.

$$\Delta WC_t = b_0 + b_1 CFO_{t-1} + b_2 CFO_t + b_3 CFO_{t+1} + \varepsilon_t \quad \text{Regression Equation (6)}$$

Using the existed data, above model has been estimated for the time period of 2006-2010 (the first and final year has been used for accessing the variables of CFO_{t-1} and CFO_{t+1}) and finally 88 firms were estimated for a 5 year period as synthetic data in the model above that this estimation's results have been briefed in tables (3) and (4). As it was mentioned before, for estimating the (6) regression, synthetic data has been used. In this method time series and cross sectional data will be synthesized and will be used when it isn't possible to examine problems in time series and cross sectional form or when numbers of data are a few. Synthetic data are used due to increase the observation times, to enhance the freedom degree, to decrease variance dissimilarity and variables dynamic study (Aflatouni and Nikbakht, 2010, p288). There are three models for estimating the models:

- 1- The common effects model;
- 2- The fixed effects model;
- 3- The random effects model;

While using the regression model it should be determined that among the synthetic and cross sectional data which data could define the existed relation between independent and dependent variables better; so Chov's test (the bound F test) would be used in which the hypotheses will be regulated as below:

H₀: (Synthetic Method)

H₁: The fixed effects model

Table (2)

	Statistics	Prob
F	1/879	0/342

Table (3)

Coefficient	b ₀	b ₁	b ₂	b ₃
Estimation	0/08*	0/29*	-0/66*	0/21*
t – Statistic	9/37	13/16	-26/12	9/53
Pr op	0/00	0/00	0/00	0/00

* Significant at the level of 0/01

Table (4)

F – statistic	Prob(F – statistic)	R ²	R ² Adjusted	Durbin – Watson
182/72	0/00	0/55	0/55	1/50

It is done if the results from Chov's test indicate the supreme of the synthetic model but if the fixed effects model turned out to be supreme it must be examined in opposite of the random effects model so that we can select the more appropriate model for the estimation and this examination will be done using Hussmann's test. The results are mentioned in table (2) and they indicate that H₀ has been accepted. Therefore the synthetic model is supreme and there is no need using Hussmann's test.

As it was expected the b₂ coefficient in model is negative significantly (t – Statistic = -26/12 and b₂ = -0/66) because according to equation (7) which was described in 2nd chapter the more the realized cash in present period the lower the size of accrual items would be but it is opposite about the cash flows of past and future periods.

$$A_t = CF_{t-1}^t - (CF_t^{t+1} + CF_t^{t-1}) + CF_{t+1}^t + \varepsilon_{t+1}^t - \varepsilon_t^{t-1} \quad \text{Equation (7)}$$

The results from regression in each firm's level also support the results from synthetic regression (the above results) but as it was pointed out in 3rd chapter the synthetic regression has been used to make sure that a non-diagonal estimation is used due to each firm's short time series. The results from the regression in firm's level are as table (5).

Table (5)

Coefficient	b ₀	b ₁	b ₂	b ₃
Estimation	0/067	0/355	-0/823	0/168

As the data from table (5) indicate the coefficients are conformed to the theory and also to the data from table (3). Pierson correlation between working capital changes (ΔWC_t) and the present cash flows (CFO_t), past period's cash flows (CFO_{t-1}) and the future cash flows (CFO_{t+1}) also support above results.

Table (6) pearson Correlations

	CFO _{t-1}	CFO _t	CFO _{t+1}
ΔWC_t	0/215* (0/000)	-0/118* (0/007)	0/104** (0/002)

* Correlation is significant at the level of 0/01

** Correlation is significant at the level of 0/05

After the quality standard of accrual items was calculated using the remainder items of regression model (6) for each firm in fact the dependent variables for next models have been calculated through which we examine research's hypotheses.

Equation (8) $Std.resid = b_0 + b_1 AVcycle + b_2 LOGassets + b_3 Std.sale + b_4 Pr op.loss + b_5 AV|\Delta WC| + \varepsilon$

H₁: there is a significant relation between firm's operational cycle and the quality of accrual items.

$$H_0 : b_1 \leq 0$$

$$H_1 : b_1 > 0$$

H₂: there is a significant relation between firm's size and the quality of accrual items.

$$H_0 : b_2 \geq 0$$

$$H_1 : b_2 < 0$$

H₃: there is a significant relation between the amount of sale swing and the quality of accrual items.

$$H_0 : b_3 \leq 0$$

$$H_1 : b_3 > 0$$

H₄: there is a significant relation between the reported loss times during different periods and the quality of accrual items.

$$H_0 : b_4 \leq 0$$

$$H_1 : b_4 > 0$$

H₅: there is a significant relation between the size of accrual items and the quality of accrual items.

$$H_0 : b_5 \leq 0$$

$$H_1 : b_5 > 0$$

The results from model (8) estimation are described in tables (7) and (8).

Table (7)

Coefficient	b_0	b_1	b_2	b_3	b_4	b_5
Estimation	0/12*	8/42*	-0/05**	0/02*	0/11*	0/19*
t – Statistic	2/44	3/56	-2/71	0/017	4/50	2/52
Pr op	0/01	0/000	0/02	0/98	0/000	0/01

* Significant at the level of 0/01

** Significant at the level of 0/05

Table (8)

F – statistic	Pr ob(F – statistic)	R ²	R ² Adjusted	Durbin – Watson
7/75	0/000	0/48	0/41	2/21

The results of regression estimation which have been represented in table (7) indicate that b_1 coefficient is significantly positive ($t - Statistic = 3.56$ and $b_1 = 8.42$) therefore there aren't enough evidences for acceptance of H_0 so it will be rejected. According to the second hypothesis' test the calculated coefficient amount for *LOGassets*, namely b_2 , has been represented in table (7). The mentioned coefficient's mark ($t - Statistic = -2.71$ and $b_2 = -0.05$) indicates that with the firm's size become larger the quality of accrual items would increase. Therefore there aren't enough evidences for supporting the H_0 and it will be rejected. According to research's third hypothesis the results of regression estimation indicate that *Std.sale* coefficient ($t - statistic = 0.017$ and $b_3 = 0.02$) is positive. But it isn't significant in significant level of 95%, therefore there aren't enough evidences for rejecting the H_0 and it will be accepted. According to the fourth hypothesis, the results from regression estimation model (8) indicate that the coefficient of *Pr ob.loss* which is b_4 is significantly positive ($t - statistic = 4.50$ and $b_4 = 0.11$) therefore there isn't enough evidences for accepting the H_0 and it will be rejected. According to the fifth hypothesis the results from regression estimation model (8) indicate that the coefficient of $AV|\Delta WC|$ which is b_5

is significantly positive (t -statistic = 2.52 and $b_5 = 0.19$). Therefore there aren't enough evidences for accepting the H_0 and it will be rejected.

4- Conclusion

Accounting profit is one of the main items provided by the accounting system which is used by both internal organization and external organization consumers for making economical decisions. Performance appraisal of the economical unit, management retention or deposition, stock price changes, purchasing, sale and preserving the trading unit's stock, development, reduction or suspension of one or several segments' activity are samples of those matters which taking decisions about them is due to the trading unit's profit amount. The importance that the accounting profit has for the internal and external organization consumers has caused that the trading unit's management dedicates a special notice to the profit price and its providing and presenting way. As it was said before, according to the accrual accounting system whether the cash is received or paid, the income would be recognized as soon as the process is completed, therefore a part of reported profit will be represented accrual items form and since the cash amount of an item is concrete and unchangeable, the managers focus on the profit's accrual items for achieving their goals in profit providing and its representing methods. Due to this reason noticing to accrual items is very important. In the present research we have focused on examining the relation between a firm's characteristics with the quality of profit's accrual items. In this research Dechow-Dichev's approach (DD) has been used for evaluating the quality of accrual items. The approach (DD) is based on that accrual items are a realization of future cash flows; as the quality of accrual items and profit is a function to the exactness of these estimations. The structural reasons and special characteristics of the trading unit and also the economical factors can affect the exactness of these estimations, without noticing to the existence or inexistence of management's interferes in the financial reporting process.

Research's five hypotheses have been done to examine the relation between firm's characteristics and the quality of accrual items which its results are as below:

- The results from first hypothesis test indicate that the more the operational cycle the more the quality of accrual items would reduce.
- The results from second hypothesis test indicate that the larger the firm's size the more the quality of accrual items would increase.
- The results from the third hypothesis test indicate that there isn't any significant relation between sale swing and the quality of accrual items.
- The results from the forth hypothesis test indicate that the more the loss reported times during different periods the more the quality of accrual items would reduces.
- The results from the fifth hypothesis test indicate that the larger the size of accrual items the more the quality of accrual items reduces.

Therefore, except for the third hypothesis which indicates that there isn't any significant relation between the sale swing and the quality of accrual items, the tests of forth other hypotheses indicate the existence of a significant relation between firms' mentioned characteristics and their accrual items' quality.

REFERENCES

1. Aflatouni, A., Nikbakht, L., (2010), "The Usage of econometric in accounting research, Financial Management and Economic Science", 1st Edition, Termeh Publications.
2. Dechow, P., Sloan, R., & Sweeney A. (1995). "Detecting earnings management". *The Accounting Review*, 70, 193-226.
3. Ashbaugh, H.&LaFond, R.(2003)". Reporting incentives and the quality of non-U.S firm's Working capital accruals ".Working paper, University of Wisconsin. Retrieved March 14, 2006, from <http://www.ebsco.com>
4. Dastgir, M, Khodadadi and Rastgar, M., (2010), "The survey of relation between financial and non-financial characteristics of the firm with its accrual items' quality and profit", quarterly of stock exchange. No. 10.

5. DeAngelo, L., (1986), "Accounting numbers as market valuation substitutes: A study of management buyout of public stock holders". *The Accounting Review*, 61, 400-420.
6. Dechow, P. & Dichev, I. (2002). The quality of accruals and earnings: The role of accrual estimation errors". *The Accounting Review*. 77, 35-59.
7. Dechow, P., Kothari, S., & Watts, R. (1998). "The relation between earnings and cash flows". *Journal of Accounting and Economics* 25, 133-168 Dechow, P., Sloan, R., & Sweeney, A. (1995). "Detecting earnings management". *The Accounting Review*, 70, 193-226.
8. Ecker, F., Francis, J., Kim, T., Olsson, P., & Schipper, K., (2005). "A returns-based representation of earnings quality", Duke University working paper, Retrieved March 14, 2006, from <http://www.ebsco.com>.
9. Francis, J., LaFond, R., Olsson, P., & Schipper, K. (2003). "Earnings Quality and the Pricing Affects of Earnings Patterns". Working paper, Duke University, University Of Wisconsin and the FASB. Retrieved March 14, 2006, from <http://www.ebsco.com>
10. Guay, W., (2006), "Discussion of the role of accruals in asymmetrically timely gain and loss recognition". *Journal of Accounting Research*, 44(2).
11. Healy, P., (1985), "The effect of bonus schemes on accounting decision". *Journal of Accounting and Economics*, 7, 85-107.
12. Jones, J., (1991), "Earnings management during import relief investigation", *Journal of Accounting Research*, 29, 193-228
13. Noravesh, A., Mashayekhi, B., Borghe'ee, Z., (2009). "The survey of accrual items' effects on the profit quality in accepted firms in Tehran stock exchange", *quarterly of financial accounting*, No. 3.
14. Palepu, K., Healy, P., & Bernard, V., (2000). "Business Analysis and Valuation", 2nd edition, South-western college Publishing.
15. Barth, M., Beaver, W., Hand, J., Landsman, W., (2005), "Accruals, accounting-based valuation models, and the prediction of equity values. *Journal of Accounting, Auditing & Finance* 20: 311-345.