The Investigation of the Relationship between Cash Holding and Working Capital with Abnormal Stock Return in the Companies Listed in Tehran Stock Exchange

Hossein Hosseini, Mohammad Ramezan Ahmadi and Sirus Korahi Moqadam

1MA of accounting, Science and Research Branch, Islamic Azad University, Khuzestan, Iran.
2Assistant Professor, Department Of Accounting, Shahid Chamran University, Khuzestan, Iran.
3Assistant Professor, Department Of Accounting, Islamic Azad University, Masjed Soleiman, Iran.

ABSTRACT

The changes of stock price of the companies are influenced by various political, economic factors. One of the effective factors on stock price of a company is the sign and symbol being reflected as varied information in the company and it should be presented to the investors. The basic financial statements and declaration of earnings forecast per share for future fiscal year are issued from the companies. This information plays an important role in decision making of the investors about purchase, sale and holding stock. The present study investigated the relation between cash holding and working capital with abnormal stock return in the companies listed in Tehran Stock Exchange (TSE). The cash, working capital variables were applied to evaluate the abnormal stock return of the companies and operating profit variables, interest cost, financial leverage and company size were applied as control variable. The study period was 2006-2011 and the sample size was 130 companies. The present study applied panel data technique by Eview software to test the hypothesis. The results of hypotheses test showed that there is a significant relation between cash holding and net operating working capital with abnormal stock return. Also, the independent variables in the study explained 69% of the changes in abnormal stock return.

INTRODUCTION

The aim of the investors of investment is attaining profit and increasing their wealth. To fulfill this aim, the investors invest in the assets with high return and low risk. If the return rate of an investment is more than the expected return rate, the value of the asset is increased and their wealth is also increased. In current decades, the investors and financial decision makers were more inclined to cash information and it showed the great importance of this information item. The researchers applied various approaches in evaluation of information content of it and the related components and various models were applied to prove their claims. One of the most applied models is the abnormal stock return-based models. The researchers use these researches to test the effect of accounting variables on abnormal stock return and usefulness of accounting information for financial analysts and investors. The important point in these models is the calculation of abnormal stock return being dependent upon an active and efficient market, the market in which the stock trading is continuous and it is sensitive to information and responds accordingly.

Theoretical basics of the study:
Cash holding and the related theories:
Significance of cash:

The access of each business enterprise to cash is the basis of many decision making and judgments about the institution. In other words, the information of cash inflows and outflows in a business enterprise is the basis of many decision making and judgments of investors, credit providers and some other groups using the financial information. On the other hand, the cash should be as it can be flowed by high efficiency in the institution. High or low cash flow means inefficiency. The shortage of cash means nothing should be done and high cash means waste. Thus, optimizing the cash and efficiency of cash flow are the issues that are considered in cash flow management or liquidity management [1].
Cash functions:
The economists believe that money is used for exchanging. Transferring business operation is consisting of wide scope of trading ranging money, goods, services or money to establishing credit condition. An investor who invests his asset in a factory expects to attain profit and cash. A factory owner produces or sells for making money. But it is said that money is unproductive asset and the money transfers wealth from the organization to the stock holders. Asking for goods or services from the customers brings much money to the organization. Money is used for exchange and other fields.

Four duties of money are as following:
1- It is used for exchange
2- A criterion for value
3- Reserving value
4- Measuring debt

The term “cash assets” is used to describe cash and asset expected to be converted into cash easily. Various cash asset determines various liquidity degrees. Money is one of the cash assets and other kinds of assets have different liquidity degree based on the easy conversion into cash.

Liquidity is based on two aspects for other assets except cash:
1- The time required to convert them into cash, 2- The certainty to convert them into cash or the price by which the asset should be sold [33]. Historical information of cash flow can help the judgments of the price, time and certainty of the research of future cash flow to the users of financial statements. The required information showed the relation between profitability of business institution and its capability to create cash flow and defines the profit acquired by business institution. In addition, the analysts and other users of financial information applied formally or informally some models for evaluation and compared the present value of future cash flows of business institutions. The historical information of cash flow can be useful to control the accuracy of the past evaluations and it shows the relation between business institution activities, receiving items and payments [6].

The effective factors on company liquidity:
The current assets and liabilities in each company are affected by specific factors. It is obvious that due to the weakness and strength of these factors in companies, the need to working capital (the difference of current asset and current liabilities) in companies is different. Some of the factors are as:
1- The nature of the company activity: If the companies are divided into three groups in terms of the nature of their activities: a. Financial companies, b. Industrial companies, c. Business and service companies, their required working capital is different from each other. The financial and business companies need more working capital, the service companies are in the range of the least in need and industrial companies are at the middle of these two groups.
2- The size of the company activity: The smaller the company size, the less the need to working capital and vice versa. The short-term liabilities of this period should be paid through current assets in this period. The ability of the company in paying the debts on time shows the power of the liquidity of the company [13].

The theories of cash holding:
Information asymmetry theory:
Based on the mentioned theory, one of the parties has information advantage. Such condition is called information asymmetry in economic. Based on the mentioned theory, the effects of the difference of public and confidential information in financial markets are observed. Totally, information asymmetry plays an important role in foreign financing costs [41].

Agency theory:
Agency problems are one of the most important factors of cash holding in the companies. Agency costs can be used in justification of cash holding behavior by the management. Regarding the company size, it can be said that the bigger the company, the more the power of the management. Thus, the possibility to excess cash hold is increased. In addition, in companies by low debt, more cash is maintained because low debt causes that the companies are controlled by market capitals and in this way, the management has full authority. It is expected that the companies with valuable investment opportunities with high foreign financial resources costs maintain more cash assets. Because in case of low cash, the company will lose more valuable plans [11].

Balance theory:
Based on the mentioned theory, the companies provide the good amount of cash by balancing between the cash holding costs and benefits [21]. Cash holding reduces the financial crisis possibility and it is reliable reserve in case of unexpected loss. Cash holding causes that in case of financial limitation, good investment policies are provided and financial resources collection costs or changing the assets into cash are declined [31].
The important factors of cash based on balance theory:

According to balance theory, the important factors of cash of the companies are as:

Investment opportunities:

The costs of insufficiencies of cash in the companies with more investment opportunities are considerable due to the costs of the opportunity of giving up the valuable investment. It is expected that there is a positive relation between investment opportunities and cash holding. Also, it is predicted that the companies with more investment opportunities have more financial crisis costs because during bankruptcy, the net current positive value of the mentioned plans is eliminated. The companies with more investment opportunities maintain more cash to avoid financial crisis [31].

The liquidity amount of the current assets:

When the companies are encountered with the insufficiency of cash, the amount of changing the current assets to cash can be replaced with cash. It is expected that the companies with high liquidity power maintain little cash [31].

Financial leverage:

Financial leverage can lead into bankruptcy and it is expected that leverage companies maintain much cash to reduce financial risk. The financial leverage ratio is considered as a factor to determine the company ability to issue new debt securities. If the payout of financing costs is increased in a company, it leads into more financial flexibility and it is possible they maintain little cash. Thus, the relation between financial leverage and cash is not determined accurately [15].

Company size:

Based on balance theory, the expected relation between company size and cash holding is negative. As the big companies have high flexibility, more flexible cash flow is expected for them. Thus, they are encountered less with bankruptcy and they will have easy access to the financial financing compared to small companies [18].

Cash flow:

According to Kim, Mauer and Sherman (1998) as cash flow provides an available liquidity source, it can be considered as a good alternative for cash. It is expected that based on this theory, there is a negative relation between cash flow and cash holding [25].

Cash flow uncertainty:

The companies with more cash fluctuation are mostly faced with cash flow insufficiencies because cash flow may decline unexpectedly. It is expected that there is a negative relation between cash flow uncertainty and cash holding [21].

Debt maturity:

The effect of debt maturity on cash holding is not determined. The companies relying on short-term debt should continue each period and if there is any limitation of extending the credit contract, they will face with financial crisis. Thus, by controlling other factors, it can be expected that early maturity is associated with cash holding. However, Barsly and Smith (1995) showed that the companies with high credit due to easy creation of debt use short-term debts and maintain little cash making this relation positive [4].

Financial crisis:

Cash holding declines financial crisis and is considered as safe reserve in case of unexpected loss. Thus, the companies faced with financial crisis maintain much cash [31].

Payment stock dividend:

The company that pays the stock dividend can finance the resources with the lowest costs via declining Payment stock dividend. It is expected that the companies paying out stock dividend maintain low cash holding compared to the companies not paying out stock dividend [15].

Financing hierarchy theory:

Based on the mentioned theory, the companies prefer financing from the internal resources to foreign resources financing sensitive to information [12]. Thus, regarding financing, the companies provide the investment resources from the accumulated profit and then by low-risk debt and then with high-risk debts and finally by stock issuance try to provide financial resources. Thus, as the management prefers internal resources
of financing to the foreign resources, it is inclined to accumulate cash to finance from inside the company and
don’t refer to the outside of the company [15].

The important factors of cash from hierarchy view:
Investment opportunities:
More investment opportunities create demand for more accumulation of cash because cash insufficiencies
cause that the company loses its profitable investment opportunities unless it attains the costly foreign financing.
Thus, it is expected that there is a positive relation between investment opportunities and cash holding [12].

Financial leverage:
Regarding the financing hierarchy issue, when the investor exceeds the accumulated profit, the debt is
increased and when the investment is lower than accumulated profit, the debt is declined and cash holding
follows the inverse model of this process, when the investment is higher than accumulated profit, the cash
holding is declined and when the investment is lower than accumulated profit, the cash holding is increased. The
predicted relation between this factor and cash holding is inverse based on financing hierarchy theory [12].

Cash flow:
By controlling other variables, it is expected that the companies with more cash flow have more cash.

Company size:
By controlling investment factor, the bigger company is more successful and it has more cash.

Free cash flow theory:
According to Jensen and Meckling (1976) free cash flow hypothesis, internal cash allow the managers to
avoid controlling the market. Thus, they don’t need the approval of shareholders and they are free to take
decisions on investments. The managers are not inclined to pay cash for stock earnings; they have motivations
for investment even when there is no net investment of positive current value [23]. Based on the mentioned
theory, the managers are motivated to accumulate cash to increase the controlled resources and use their
judgment regarding the investment decision making. Thus, they work with the cash of the company that they are
not obliged to present explained information to capital market. The managers can do some investments with
negative effect on the wealth of stock holders [15].

The factors determining cash from the view of free cash flow theory:
Financial leverage:
By creating debts, the managers are obliged to pay future cash flows and the accessible cash flow can be
managed and be used to decline the cash flow agency costs and it has controlling effect. Thus, the companies
with weak financial leverage are less controlled and this gives freedom to the management. It is expected that
financial leverage is inversely associated with cash holding [24].

Investment opportunities:
It is expected of the managers of the companies with low investment opportunities to maintain more cash to
be sure of the availability of cash for investment in the plans. Even if net current value of the investment is
negative, the company value and the wealth of stock holders will be declined and finally there is low market-to-
book value ratio. By market-to-book value ratio as a factor for investment opportunities, it is expected that the
relation between investment opportunities and cash holding is negative [18].

Company size:
The managers normally are inclined to greater company growth because the company growth increases the
power of the management by increasing the controlled resources [23]. Also, the bigger companies are more
inclined to the distribution of the ownership of the stock holders and this gives more freedom to the
management. In addition, the companies with great financial resources are less encountered with unwanted
ownership and it is expected that the manager of the big companies have more freedom regarding the investment
and financial policies and this increases cash holding in the company [15].

Working capital management:
The nature of working capital:
The working capital of a company is the sum of the investment being invested in the current assets. If the
current debt is deducted of the current assets of a company, the net working capital is obtained. The working
capital management is determining the volume of working capital resources as the wealth of the stock holders is
increased [35].
The significance of working capital management:

The increasing importance of working capital management caused that this is turned into financial management major. In very big companies, there are specialized executive managers dedicating all their time and energy to working capital management.

The reasons of the significance of this topic are as

1- The real and the best levels of current assets (it is occurred based on the changes in real and predicted sale) are changed permanently. This causes that some decisions are made about the goods or predicted level of the current assets as daily.

2- Based on the changes made in the current assets, the managers are obliged to change the decisions made already for financing. For example, if short-term loan heavy amounts are used for financing the current assets, obtaining extra loans and continuing the due loans takes more time and energy of the management.

3- The resources and cash flows assigned to the working capital should be determined. The current assets are 75% of total assets of the company and current liabilities consisting of 60% of capital structure.

4- If the working capital management is not true, it is possible that sale and earnings are declined and the company will not be able to pay the liabilities on time.

5- The role of working capital on the increase of the wealth of stock holders requires special consideration due to relation with operational activities.

6- Continuance of activity, success and failure of profit organizations depend upon the management of working capital. Because by correct working capital management, the return is increased and the risk is declined [30].

Different kinds of working capital:

The current assets are defined as the assets be converted into cash during the current accounting period or over one year in common business operation flow. Thus, these assets are cash or quasi-cash resources. The value being shown by these assets is among some accounts in working balance sheet. Cash flow is used to purchase raw materials and paying the wage and other manufacturing costs to produce goods and then it is shown as goods inventory. When the goods are sold, the receivable accounts are created and claims payment brings the cash flow to the institution and this process is started again.

Perpetual working capital:

The perpetual working capital is the assets being required during whole year. The perpetual working capital shows the cash amounts, accounts receivable and inventory being maintained as minimum for operation any time.

Limited working capital:

The limited working capital shows the excess assets being required at specific time during the year. For the periods in which the sale is increased (maximum), the excess should be maintained. After the period in which the sale is increased, the receivable accounts are increased and they should be financed. To pay the excess requirements costs, excess cash is required [13].

The calculation of the changes in working capital:

The changes in working capital are calculated by two methods:

First method: Using current items

\[ \Delta NWC_{it} = \Delta CA - \Delta CL \]

- \( \Delta NWC \) = The change in working capital
- \( \Delta CA \) = the change in current assets
- \( \Delta CL \) = The change in current liabilities

Second method: Using non-current items

\[ \Delta NWC_{it} = \Delta SE - \Delta LTA + \Delta LTL \]

- \( \Delta NWC \) = The change in working capital
- \( \Delta SE \) = The change in stock holders equity
- \( \Delta LTA \) = The change in long-term liabilities
- \( \Delta LTL \) = The change in long-term liabilities

How much working capital is required?:

To determine the working capital amount required by the institution, some of the factors can be used in the analysis:
Institution size:
Maybe the size of an institution affects the need to working capital in terms of assets and sale. A small institution can use excess current assets as a protection against the probable stop in cash flows. The small institutions have low resources for cash inflows than the bigger institutions. Thus, they are affected in case of the disability of some of the customers in paying their debts on time and the bigger institutions with more resources of cash need less working capital compared to total assets or sale [13].

Activities of the institution:
If an institution is obliged to store great amount of its inventory or sell the goods by credit condition (75 days), this institution needs much working capital compared to the institutions selling their goods in cash [13].

Having access to credit:
The institution that can attain credit via the banks, with less working capital can continue its activity compared to the institution without such credit [13].

Inclination to earnings:
As all the amounts consist of costs, high amount of assets reduce the profit of an institution, some of the institutions require excess working capital and they are inclined to spend low costs. Other institutions to achieve all the profit from operation maintain minimum working capital all time [13].

Inclination to risk:
The higher the working capital namely cash and selling securities, the lower the liquidity problems. The institutions that don’t want to tolerate low risks of liquidity insufficiency, maintain excess cash. Other institutions accept the risk for attaining profit and to pay the accounts on time, they don’t maintain excess cash. Other institutions to meet their demands of liquidity without blocking the unnecessary cashes, they are inclined to maintain adequate working capital. To fulfill this aim, many institutions emphasized on minimizing the risk of inadequate liquidity. If the institution has adequate financing for cash, claims and inventory, the management can focus on earnings but the primary aim of working capital management is avoiding the risks of insufficient liquidity [13].

The policies of working capital and financial performance of the companies:
The companies can reduce the working capital investment - take aggressive policy or select a conservative policy. Thus, the management of the company is obliged to takes decision about risk and returns balance before selecting working capital policy. Minimizing investment in working capital (aggressive policy) has positive effect on profitability of the company. On the other hand, heavy investment in working capital (conservative policy) leads into profitability as for example, maintaining more goods inventory, the costs of probable stop in production process and the loss of production insufficiency is reduced and the financing costs are reduced and the price fluctuations support the company [17].

The benefits of an aggressive policy are the declining costs and increasing earnings. Some costs are reduced by an aggressive policy as:
1- Low inventory costs and low maintenance of the inventory and rapid flow of inventories.
2- The costs of low claims payment by aggressive credit policy
3- Reduction of budgeting costs due to high application of short-term liabilities
   For small companies due to the use of debts compared to the bigger companies, capital policy in aggressive flow can increase their profitability considerably. It should be considered that capital policies in aggressive policy increase inability risk in fulfilling the obligations [5].

It can be said that aggressive working capital policies have high risks but they have more profitability compared to conservative policies and the companies via risk balance and return as basis of all financial decisions take good working capital policies.

The optimal working capital management:
The optimal working capital management is the optimal combination of working capital items, the current assets and liabilities as the wealth of investors is increased [36]. The managers of profit institutions under various conditions based on the internal and external factors and by considering the risk and return should select the best strategies for working capital management of the related organization as it leads into the increase of return, liquidity ability, debt payment and finally the continuance of the profit organization activities.

The working capital is one of the financing resources namely for small and average companies. Financial managers of business organizations are encountered with the decisions of “working capital management” daily. For example, maintaining high amount of inventory reduces the probable stoppage costs in product cycle or business losses of the insufficient products, the reduction of offering costs and protection against the prices
fluctuation. On the other hand, it gives good business credit to the company sale. Although the high investment of the companies in the inventory and attaining business credit reduces risk, profitability is also reduced. One of the management concerns is the investment in current assets and working capital management as it keeps the market share and business credit achieved between the customers and providers and on the other hand increases its profitability. Thus, the management of the assets and short-term debts should be considered as the working capital management plays an important role in profitability and liquidity of the companies, risk and return. The final aim of each company is creating value for the beneficiaries and profitability is one of the main components of this purpose. Also, keeping liquidity is one of the important aims of business organizations. The increase in the company earnings doesn’t lead into the increase of liquidity and these two strategic aims are not consistent always. If the increase of earnings depends upon the consumption of liquidity, it brings many problems. Thus, there should be a difference between two strategic aims and one aim should not be ignored for the other one. If we don’t consider earnings, we cannot work for a long term period and if we don’t consider liquidity, we are faced with the problems as inability in paying the debts and bankruptcy [27].

Abnormal return:
Abnormal return is the excess return over expected return of the investors to the real return at definite period. Before dealing with the detailed explanation of the concept of abnormal return and its calculation, at first the basic concepts, the return and different types are raised as briefly to clarify the concept of abnormal return.

Return:
The return of investment or internal return rate is the discount rate making the current value of cash outflows with the current value of cash inflows

\[ \sum_{t=0}^{n} \left[ \frac{A_t}{(1+r)^t} \right] = 0 \]

- \( A_t \) = Cash flow at time t (cash inflow or outflow).
- \( n \) = the final period that cash flow is expected to continue to that period.
- \( \sum \) indicates the sum of discounted cash flows at the end of zero to \( n \) years.
If the primary cash outflow or investment cost is at zero time, the following formula is as:

\[ A_0 = \frac{A_1}{(1+r)} + \frac{A_2}{(1+r)^2} + \cdots + \frac{A_n}{(1+r)^n} \]

Thus, if \( r \) is discount rate making the future cash flows (\( A_1 \) to \( A_n \)) equal to the primary cost of investment at time zero (\( A \)). It was assumed implicitly that cash inflows of investment are invested again to obtain return rate equal \( r \) [9].

Required rate of return:
The minimum rate of return an investor needs based on the risk imposed from investment to say that investment is valuable is required return rate as:
The required rate of return = Risk -free return + Risk premium
The expected return rate can be equal or opposite to the required rate of return. If the expected rate is higher than the required rate of return, the investment can be useful unless the investment is not useful [9].
Normally, the required rate of return is consisting of three components as:
1- Real rate of return
2- Predicted inflation factor,
3- Risk premium
The real rate of return is the return the investors try to receive ignoring the inflation and risk to give the money for definite time to others. By adding predicted inflation rate to real rate of return, the required rate of return is obtained before considering risk or risk-free rate of return being calculated as:
Risk-free rate of return = \((1+\text{real rate of return})(1+\text{expected rate of return})-1\)
Real rate and inflation rate are changed over time. Thus, risk-free rate of return is changed also. Risk premium is changed depending upon the type of investment and investment view. Risk premium is the excess return above the risk-free rate that investors require [28].

Investment return:
As we don’t know what will happen in future, the investors cannot determine their consumption model surely as the return of an investment and scheduling such return is uncertain. Thus, the lack of good conditions,
by higher expected return should be compensated. But what forms the normal stock return? In maintaining the stock for one year, the benefits are including cash stock profit being paid over the year plus any change in the market price or the capital benefits at the end of the year. In other words, Annual return is as:

\[ r = \frac{\text{Investment earnings} + (\text{begining price of the investment} - \text{ending price of the investment})}{\text{Begining cost of the investment}} \]

The parenthesis is consisting of any profit (loss) of the capital being obtained over one year [9].

Investment return is divided into two types of return and is measured by positive or negative cash flows.

1- Real return
2- Expected return

**Real return:**

Real return is related to the past and obtaining it is easier than the expected return. In calculation of the real return of the data, there are historical data and we informed about them while determining the expected return is difficult because we deal with future and future is uncertain.

The real return is obtained from the following equation:

\[ r_t = \frac{(V_t - V_{t-1}) + CF_t}{V_{t-1}} \]

Where

- \( r_t \) = Real rate of return in period
- \( V_t \) = Asset value (stock price) in period
- \( V_{t-1} \) = Asset value (stock price) in period
- \( CF_t \) = Cash flow of investment in period t-1 to t

In financial issues, we calculate the return over one year. If the period is lower or higher than one year, this period is changed into year [9].

**Expected return:**

The expected return is the one with high probability and it is measured by the future expected cash flow. The expected return is the best estimation of the investors of the future return of investment. Besides the above definition, the expected return is defined as:

The weighted average of the existing returns as the weight of each return is the probability of the return and the sum of probabilities is equal to one. The related equation is as following:

\[ E( r ) = r_1P \left( r_1 \right) + r_2P \left( r_2 \right) + \ldots + r_nP \left( r_n \right) \]

Where

- \( r_i \) = Probable return rate
- \( P_{r_1} \) = Probability of return I
- \( n \) = The number of the probable return [9]

To calculate the expected return, various models are used. The financial and investment researchers proposed special models based on special conditions. One of the most important models is the calculation of the expected return as the following models:

- The model of adjusted return of the market
- The model of pricing the capital assets
- Market model

According to market adjusted return, it is assumed that the expected return for all securities is similar and the return of each security is similar to market return. In other words:

\[ E \left( R_j \right) = E \left( R_m \right) \]

Where

- \( E \left( R_j \right) \) = Expected return
- \( E \left( R_m \right) \) = Market return

The market return is calculated as following in this model:

\[ R_m = \frac{I_1 - I_0}{I_0} \]

Where

- \( I_0 \) = is total market price index at the beginning of the year and
- \( I_1 \) = is the total market price at the end of year.

In the pricing model of capital assets, the expected return is calculated as:

\[ E \left( R_j \right) = 1 + (R_m - i) \beta \]
Where
- $E(R)$ = Expected return
- $i$ = Risk-free rate of return
- $R_m$ = The expected rate of return of the market of risky assets
- $\beta$ = Systematic risk of the company

In market model, the expected stock return is calculated as:

$$R_i = a_i + b_i R_m + e_i$$

Where,
- $R_i$ = Return of stock $i$ in period $t$
- $R_m$ = Market return in period $t$
- $a_i$ = Return without the risk of share $i$ (fixed return)
- $b_i$ = Systematic risk (sensitivity of the share $i$ return to market return).
- $e_i$ = The residual error in period $t$ (the difference between the real return and expected return for determined period or abnormal return)

The most important hypothesis of market model is that the changes in a separated stock are due to the factors affecting the total market. Based on the above explanations, the calculation of abnormal return is explained:

$$AR_i = R_i - R_j$$

Where
- $AR_i$ = Abnormal return
- $R_i$ = Real return
- $R_j$ = The expected return

It can be said that abnormal return is called also excess risk-adjusted return. Excess risk-adjusted return is the difference between real return of an asset and the return of market fluctuations of the asset, excess risk-adjusted return is called also alpha [40].

**Literature Review:**

Wan Eaton (1999) investigated abnormal stock return after and before three years of cash dividend declaration and its changes during 1971-1999. The study population was including the existing companies in USA stock market. The most important results of the study showed that the highest responses and price changes were dedicated to the companies that reduced or eliminated payout. These results are consistent with the previous study results [44].

Aksu (2003) in a study reviewed the effect of company size, book-to-market value and abnormal stock return on information content of the financial statements in Turkey stock market. The results showed that the information of financial statements of the companies had information content and if the companies were small, their financial statements had more information content [2].

Ozkan Aydin and ozkan Neslihan (2004) investigated sample English companies during 1984-1999 and showed that ownership of management in the companies had significant relation with cash of the company and totally, growth opportunities, cash flow, movable assets, financial leverage and bank debt were important factors in determining the cash flow of the company [32].

Guney et al. (2009) in their study “The international evidences about the non-linear effect of leverage on cash holding investigated the company behavior regarding cash holding in France, Germany, Japan, England and America. They used the information of 4069 companies during 1996-2000. They focused on cash holding and financial leverage. Their results provided stable evidences regarding the non-linear relation between leverage and cash holding. In additions, the results showed that the effect of leverage on cash holding depended upon the features specific for the country including the support of creditors and support of the stock holders and supervision of the owners [19].

Yang et al. (2009) reviewed the relation between abnormal return and financing methods, company size and cash payments. The results showed that among these criteria, only cash payment had significant relation with abnormal return [45].

Polet and Wilson (2010) studied the relation between average correlation and stock market return. They found that the changes of stock market return are less associated with the accumulated risk and abnormal stock return. By average correlation between daily market return of stock, the four-month abnormal return is predicted [34].

Cameron Truong (2011) in a study evaluated the relation between abnormal return and income per share by company size criteria, trading costs and P/E ratio. The results showed that these criteria affected the company performance [7].
Autokaite and Molay (2012) in a study reviewed the relation between cash holding, working capital and firm value with abnormal return in France stock market. The results of the study showed that there was a positive and significant relation between cash holding, accounting earnings and dividend with abnormal return. Also, there was a negative and significant relation between financial leverage, market leverage, interest costs and net cash assets with abnormal return [38].

Sajadi (1998) investigated the relation between unexpected earnings and abnormal future stock return of the companies listed in TSE. The results of the study showed that there is a positive and significant relation between unexpected changes of earnings and abnormal future stock return [39].

Qaemi (2006) in a study “The investigation of short-term return of the stock of the firms newly listed in TSE” investigated the offered stock volume variables, company size, market conditions, ownership conditions and the similar companies with abnormal return of new stock. The results of 153 sample companies showed the relation between market conditions variables and the similar companies with abnormal stock market [42].

Khani (2007) in a study “The relation between the accounting earnings figure and abnormal stock return in TSE tested information content of accounting earnings and its effect during earnings declaration on the behavior of the stock holders. The results of the study showed that during the profit declaration and in the study period, averagely for the sum of the selected companies, the abnormal return performance index was increased considerably. This result was consistent with the features of new markets as TSE in which stock price, accounting earnings and dividend were increasing in the transition period. In addition, during the accounting earnings declaration, the mentioned index for the study sample was including the companies with positive change of accounting earnings being increased considerably [24].

Ashtab (2007) in a study “The investigation of the relation between earnings forecast accuracy and abnormal stock return of the firms newly listed in TSE” investigated the stock of the firms newly listed during 1999-2005. The results of the study showed that there is a significant difference between forecast earnings and real stock earnings. Also, there is a negative relation between the earnings forecast accuracy and abnormal stock return [3].

Jabarzade Kangarluyi et al. (2010) in a study “The identification of the effective factors on abnormal stock return during the initial public offering of the companies listed in TSE showed that among the applied independent variables, the forecast error per share, public conditions of the market before stock offering, debt to equity ratio, net profit margin and equity return, only forecast error per share had positive relation and public conditions of the market before the offering and net earnings margin had inverse relation with abnormal return during 12 months. In addition, none of the other independent variables had relation with abnormal return during 24 months [20].

Qorbani and Adili (2012) investigated the relation between cash holding, firm value and information asymmetry in TSE by 105 companies during 2003-2008. The results of the study showed that in case of information asymmetry, there was an inverse and significant relation between cash holding and firm value. The results emphasized on free cash flow [43].

MATERIALS AND METHODS

The present study was scientific-applied in terms of aim and it was descriptive-correlation in terms of nature and type and execution facilities. The study was conducted based on semi-empirical design by ex post facto approach. The study population was all the companies listed in TSE during 2006-2010. These companies are selected as study population for easy access to audited financial statements at different times. Due to the extension of study population and some inconsistencies among the population members, the following criteria were considered for selection of study sample and the sampling was done by systematic elimination. The criteria were as following:

1. At least before 2006 was listed in TSE.
2. The financial period of the companies lead into Esfand 29.
3. The stock of the mentioned companies is traded at the beginning and end of fiscal year.
4. The fiscal statements of the end of fiscal year are delivered to stock market for the studied period.
5. It is not one of the financing, investment and insurance companies.
6. The required information of the companies namely the notes with financial statements are available for extracting the required data.

After applying these limitations, 130 companies were included in the study. All 130 companies were selected for hypothesis test and another sampling was not used.

The model of Faulkender and Wang (2006) is a basis for this study. This model was also used in the working paper of Kieschnick Laplant and moussawi (2009).

Model 1:

\[ r_{it} - R_{it} = \beta_0 + \beta_1 \Delta C_{it} + \beta_2 C_{it-1} + \beta_3 \Delta E_{it} + \beta_4 \Delta L_{it} + \beta_5 \log SIZE_{it} + \beta_6 \Delta C_{it} \times C_{it-1} + \epsilon_{it} \]
Model 2:
Where
\[ r_a - R = \beta_0 + \beta_1 NWC_{t-1} + \beta_2 NWC_{t-1} + \beta_3 E_{t-1} + \beta_4 L_{t-1} + \beta_5 NWC_{t-1} \times SIZE_{t-1} + \beta_6 \log SIZE_{t-1} + \epsilon_a \]

<table>
<thead>
<tr>
<th>( r_a - R )</th>
<th>Abnormal stock return</th>
</tr>
</thead>
<tbody>
<tr>
<td>( C )</td>
<td>Cash holding</td>
</tr>
<tr>
<td>( NWC )</td>
<td>Net working capital</td>
</tr>
<tr>
<td>( SIZE )</td>
<td>Company size</td>
</tr>
<tr>
<td>( L )</td>
<td>Financial leverage</td>
</tr>
<tr>
<td>( I )</td>
<td>Interest cost</td>
</tr>
<tr>
<td>( E )</td>
<td>Operating earnings</td>
</tr>
</tbody>
</table>

Study hypotheses:
Hypothesis 1: There was a significant relation between cash holding and abnormal stock return.
Hypothesis 2: There was a significant relation between net working capital and abnormal stock return.

Study variables:
Independent variables:
Cash (\( C \)):
The access of any business institution to cash is the basis of many decisions and judgments about the institution. In other words, the information of cash inflow or outflow in an institution is the basis of many decisions and judgment of investors, credit providers and some other groups using the financial information. On the other hand, the level cash should be as it can be flowed by high efficiency in the institution. High or low cash means inefficiency. The shortage of cash means nothing should be done and high cash means waste. Thus, optimizing the cash and efficiency of cash flow are the issues that are considered in cash flow management or liquidity management [1].

Net Working Capital (\( NWC \)):
The definition of working capital in accounting is current assets minus current liabilities and it indicates the investment of the company in cash flow, securities, accounts receivable and inventory of goods minus the current liabilities. Some of the authors defined working capital by the sum of current assets and current liabilities and its difference is considered as net working capital. In other words, working capital indicates that part of current assets exceeding the current liabilities and is supported via long-term loan and stock holder’s equity [14].

Based on Autokaite and Molay study (2012), liquidity cycle formula is used as the followings to calculate the working capital [38].
\[
NWC = \text{accounts receivable} + \text{inventory - accounts payable}
\]

Dependent variable:
Abnormal return:
Return is the quantity criterion of the performance of investment indicated the percentage of the increase of the wealth of investors due to his investment. The real return per share is determined as:
\[ R_{j.t} = \frac{P_{j.t}}{P_{0} + a(1000)} - D - \left[ P_0 + a(1000) \right] \]

Where
- \( R_{j.t} \) = Real return of company j in year t
- \( P_0 \) = The stock market price of company j at the end of year t
- \( a \) = Capital increase percentage
- \( \Delta \) = The benefits of rights issue
The calculation method of the benefits of rights issue ($D_{jt}$)

$$D_{jt} = PPR(RAM_j - 1000)$$

Where
- $PPR$: The percent of capital increase of the cash and claims resources (rights issue)
- $PAM_j$: The first market price of the company $j$ after extraordinary general meeting.
- $1000$: Nominal price per share of the firms listed in TSE [29].

To calculate the abnormal return, the adjusted model of the market is used. It is assumed that the market return ($r_m$) is the result of the expected process of stock return of the companies in each period. Thus, the difference of real returns of company $i$ in period $t$ with the market return in the same period showed the abnormal return of company $i$ in period $t$.

In the present study inspired by Ritter methodology [37], Coli and Sort [8], Derabtes [10] and Fert and Lonkani [16], adjusted return of share $i$ in year $t$ is calculated as:

$$AR_i = R_m - R_{it}$$

$$R_i = \frac{P_{it} + D_{it} - P_{it-1}}{P_{it-1}}$$

$$R_{MT} = \frac{I_{MT} - I_{MO}}{I_{MO}}$$

Where
- $a_t$: Abnormal rate of return of stock in year $t$
- $R_i$: The real rate of return in year $t$
- $R_{it}$: The market rate of return in year $t$
- $P_{it}$: The mean of stock price at the end of year $t$
- $P_{it-1}$: The mean stock price at the beginning of year $t$
- $D_{it}$: Dividend paid in year $t$
- $I_{MO}$: Total stock index at the beginning of year $t$
- $I_{MT}$: Total stock index at the end of year $t$

**Control variables:**

**Company size:**
Company size is calculated via the sum of company sale at the end of fiscal year. To increase the ability of this variable in the model, natural logarithm of total sale is used.

$$Size_{it} = \log(sale_{it})$$

**Interest cost ($I$):**
The direct interest cost is extracted of profit and loss statement.

**Operating earnings ($E$):**
It is net annual earnings before tax and non-operating items [26].

**Financial leverage of company ($L$):**
Financial leverage increases bankruptcy and it is expected that the leverage companies maintain more cash to reduce financial risk. The financial leverage ratio is a factor to determine the ability of the company to issue new debt securities. Thus, if the payment ability of financing costs is increased in a company, it is with more financial flexibility and it is possible they maintain less cash [15].

Financial leverage is the sum of total debts of the company divided by the sum of liabilities and market value of equity of company in the required year:

$$L = \frac{TOTAL\text{debt}}{total(\text{debt + marketequity})}$$

4-4 The model estimation stages by pooled data:
Before the hypothesis test, at first the models estimation method is used. To estimate the study models, pooled data was used. This technique combining the time series and cross section data is mostly due to the increase of the number of observations, increasing degree of freedom, reduction of variance inconsistency and reduction of linearity between the variables. Thus, estimation of the equations by cumulative data and for all sample companies during 2006 to 2011 was done. Then, based on the estimations and t-statistics, the p-value and the mean absolute percentage error (MAPE), each of the hypotheses are evaluated.
The main question being raised in the applied studies is that is there any evidence of pooling the data, or the model is different for all the cross section units. To do this, at first it can be said that is there any heterogeneity or individual difference between the sections or not? In case of heterogeneity, panel data is used otherwise; panel data methods with Ordinary Least Squares (OLS) are used for model estimation. The individual differences are evaluated by F Limer test.

**F-Limer test (Study of consistency of crossing intercepts):**

F-Limer test was used to select among the panel and pooled data. In F-Limer test, $H_0$ hypothesis showed the equal intercepts (pooled data) and $H_1$, inconsistency of intercepts (panel data). The result of the study showed that in all the hypotheses, the sections were not heterogeneous and panel data method was good.

**Hausman test (selecting between fixed and random effects):**

Various methods as fixed effects method and random effects were used to estimate the model based on panel data. In fixed effects method, it is assumed that the coefficients of variables (slopes) are fixed and the difference between the units can be used as the difference of the intercepts but in random fixed method, it is assumed that the fixed component determining the various sections is distributed randomly between the units and sections. To define that which method is good for the estimation, Hausman test is used. Null hypothesis means that there is no relation between disturbance intercept and explanatory variables and they are independent. The $H_1$ means that there is a correlation between the disturbance terms and explanatory variables and as in case of correlation between disturbance terms and explanatory variables, we are faced with inconsistency and bias and it is better in case of supporting $H_1$, fixed effects method is used [22].

As is shown in Table (1), in the study hypotheses, F-Limer test was used and as p-value was less than 5%, panel data and Hausman tests were applied. The results of Hausman test showed that in the first model as p-value was lower than 5%, fixed effects method was used and in the second model, due to high p-value, random effects method was used.

**Table 1:** The results of testF-Limer and Hausman.

<table>
<thead>
<tr>
<th>Test type</th>
<th>Results test</th>
<th>Hypothesis $H_0$</th>
<th>p-value</th>
<th>DF</th>
<th>T.statistic</th>
<th>F-Limer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Panel data</td>
<td>Rejection</td>
<td>Inconsistency of intercepts</td>
<td>0.000</td>
<td>5.73</td>
<td>28.77</td>
<td>Model 1</td>
</tr>
<tr>
<td>Panel data</td>
<td>Rejection</td>
<td>Inconsistency of intercepts</td>
<td>0.000</td>
<td>5.48</td>
<td>27.29</td>
<td>Model 2</td>
</tr>
<tr>
<td>Method type</td>
<td>Results test</td>
<td>Hypothesis $H_0$</td>
<td>p-value</td>
<td>df</td>
<td>T.statistic</td>
<td>Hausman</td>
</tr>
<tr>
<td>Fixed effects</td>
<td>Rejection</td>
<td>no relation between disturbance intercept and explanatory variables</td>
<td>0.02</td>
<td>7</td>
<td>16.10</td>
<td>Model 1</td>
</tr>
<tr>
<td>Random effects</td>
<td>Accept</td>
<td>relation between disturbance intercept and explanatory variables</td>
<td>0.055</td>
<td>9</td>
<td>13.74</td>
<td>Model 2</td>
</tr>
</tbody>
</table>

**The study of regression classic assumptions:**

The present study also evaluated the classic assumptions of linear regression. To determine the presence of correlation between disturbance terms, Durbin-Watson statistics method (DW) was used and the results of DW statistics are presented in the tables of the results of hypotheses. Regarding the linearity, it can be said that the combination of cross section and time series data in the present study is one of the methods to avoid linearity.

**The hypotheses analysis by pooled data:**

Two hypotheses of the study were used to review the relation between cash holding, working capital with abnormal return. To test the mentioned hypotheses and analysis of supporting or rejection, the following models are used.
Abnormal return \((r_{it} - R_{it})\) is dependent variable. The independent variables were: C: Cash, NWC: working capital and control variables were: I: Interest cost, L: Financial leverage, E: Operating earnings, Size: Company size.

There are two criteria to accept or reject the study hypotheses. The significance of the test (sig or p-value) was less than 5% and absolute value of t-student at confidence interval 95% was above 2.

In each of the above cases, the test statistics rejected \(H_0\) and accepted \(H_1\). For hypothesis test, t-student statistics was used. If the significance coefficient is less than 0.05, \(H_0\) is rejected and \(H_1\) is accepted. accepting \(H_1\) means the significant linear relation between the independent variables and dependent variables in the designed model for study hypotheses. The study hypotheses are as following:

- \(H_0\): There is no correlation between independent variables and abnormal return.
- \(H_1\): There is a correlation between independent variables and abnormal return.

If \(\text{Sig (P-Value)} < 0.05\), then \(H_0\) is rejected and \(H_1\) is accepted. Based on the multivariate model, if the coefficient of each of independent variables \(\beta_i\) is positive, the mentioned independent variables have direct relation with dependent variable, abnormal rate and if the coefficient is negative, it will have inverse relation. To study the significance of the model, F-statistics was used and to investigate the relation between each of independent variables with dependent variable, t-statistics was used. Durbin-Watson test was used to review the autocorrelation between regression error residuals. If the statistics of this test is close to 2, it shows the non-correlation between the residuals.

### Study hypotheses test:

**First hypothesis:**

There is a significant relation between cash holding and abnormal return.

The study hypotheses are as:

- \(H_0\): There is no significant relation between cash holding and abnormal return.
- \(H_1\): There is a significant relation between cash holding and abnormal return.

Based on Table (2), the results of the study showed that p-value statistics for cash holding variable was less than 5%. As the error level in the present study was 0.05, \(H_0\) is rejected and \(H_1\) is accepted. Based on the above table, the coefficient of determination is 69%. This shows that almost 69% of the changes of abnormal return (dependent variable) are dedicated to independent and control variables. The bigger this index, the higher the distribution of the points around regression line. As is shown in the above table, F-statistics with confidence interval 99% (\(p\)-value: 0.000) is significant. Thus, the study model was significant totally and independent and control variables can explain the dependent variable. The values of Durbin-Watson showed that there is no correlation between disturbance terms, because these values are in the range 1.5 to 2.5. Based on the results of the test, the coefficients of the study models are as following:

\[
r_{it} - R_{it} = \beta_0 + \beta_1 \Delta C_{it} + \beta_2 C_{it-1} + \beta_3 \Delta E_{it} + \beta_4 \Delta I_{it} + \beta_5 L_{it} + \beta_6 \log SIZE_{it} + \beta_7 C_{it-1} + \epsilon_{it}
\]

\[
r_{it} - R_{it} = \beta_0 + \beta_1 \Delta NWC_{it} + \beta_2 NWC_{it-1} + \beta_3 \Delta E_{it} + \beta_4 \Delta I_{it} + \beta_5 L_{it} + \beta_6 \Delta NWC_{it-1} + \beta_7 \log SIZE_{it} + \epsilon_{it}
\]

### Table 2: The results of data analysis to test the first hypothesis.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>t-Statistic</th>
<th>F-statistic</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>(c)</td>
<td>5.99</td>
<td>2.56</td>
<td>35</td>
<td>0.000</td>
</tr>
<tr>
<td>(\Delta c)</td>
<td>6.85</td>
<td>2.48</td>
<td>0.02</td>
<td></td>
</tr>
<tr>
<td>(ct-1)</td>
<td>3.24</td>
<td>1.14</td>
<td>0.000</td>
<td></td>
</tr>
<tr>
<td>(\Delta ct-1)</td>
<td>1.32</td>
<td>3.12</td>
<td>0.01</td>
<td></td>
</tr>
<tr>
<td>(\Delta E)</td>
<td>7.33</td>
<td>-2.24</td>
<td>0.02</td>
<td></td>
</tr>
<tr>
<td>(\Delta I)</td>
<td>9.9</td>
<td>4.6</td>
<td>0.000</td>
<td></td>
</tr>
<tr>
<td>(L)</td>
<td>1.47</td>
<td>2.15</td>
<td>0.000</td>
<td></td>
</tr>
<tr>
<td>(size)</td>
<td>-0.01</td>
<td>-2.47</td>
<td>2.35</td>
<td></td>
</tr>
<tr>
<td>(Durbin\ -\watson)</td>
<td>Total panel observ</td>
<td>780</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Second hypothesis:
There is a significant relation between operating working capital and abnormal return.

The study hypotheses are as:
H0: There is no significant relation between operating working capital and abnormal return.
H1: There is a significant relation between operating working capital and abnormal return.

\[ r_{it} - R_{jt} = 4.07 + 4.14 \Delta NWC_{jt} + 5.37 NWC_{jt-1} + 1.23 \Delta E_{jt} - 4.02 \Delta I + 5.96 L_{jt} + 5.98 \Delta NWC_{jt} \ast NWC_{jt-1} + 0.04 \log SIZE_{jt} + \epsilon_{jt} \]

Based on Table (3), the results of the study showed that p-value statistics for operating working capital variable was less than 5%. As the error level in the present study was 0.05, it can be said that there is a positive and significant relation between operating working capital and abnormal return. The second hypothesis is supported at confidence interval 99%. Also, according to the above table, the coefficient of determination is 61%. This shows that almost 61% of the changes of abnormal return (dependent variable) are dedicated to independent and control variables. The bigger this index, the higher the distribution of the points around regression line. As is shown in the above table, F-statistics with confidence interval 99% (p-value: 0.000) is significant. Thus, the study model was significant totally and independent and control variables can explain the dependent variable. The values of Durbin-Watson showed that there is no correlation between disturbance terms, because these values are in the range 1.5 to 2.5. Based on the results of the test, the coefficients of the study models are as following:

Table 3: The results of data analysis for second hypothesis test.

<table>
<thead>
<tr>
<th>F-statistic Prob (F-statistic)</th>
<th>Adjusted R-squared</th>
<th>Method</th>
<th>p-value</th>
<th>T.Statistic</th>
<th>Coefficient</th>
<th>Variable</th>
</tr>
</thead>
<tbody>
<tr>
<td>15 0.000</td>
<td>0.61</td>
<td>Panel data</td>
<td>0.000</td>
<td>4.12</td>
<td>4.07</td>
<td>( c )</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>0.000</td>
<td>2.23</td>
<td>4.14</td>
<td>( \Delta NWC_{jt} )</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>0.000</td>
<td>3.25</td>
<td>5.37</td>
<td>( NWC_{jt-1} )</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>0.000</td>
<td>2.35</td>
<td>5.98</td>
<td>( \Delta NWC_{jt} \ast NWC_{jt-1} )</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>0.000</td>
<td>-2.54</td>
<td>1.23</td>
<td>( \Delta I )</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>0.000</td>
<td>1.88</td>
<td>-4.02</td>
<td>( L )</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>0.000</td>
<td>-3.12</td>
<td>5.96</td>
<td>( \Delta E )</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>0.000</td>
<td>1.23</td>
<td>0.04</td>
<td>( size )</td>
</tr>
<tr>
<td></td>
<td>2.09</td>
<td>Durbin - watson</td>
<td>780</td>
<td>Total panel observ</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The summary of hypotheses table:

Table 4: The hypotheses test and the results are in the following table.

<table>
<thead>
<tr>
<th>Relation Type</th>
<th>Results test</th>
<th>Coefficient</th>
<th>T.Statistic p-value</th>
<th>Method</th>
<th>Hypotheses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct</td>
<td>Hypothesis Accept</td>
<td>1.32</td>
<td>3.12</td>
<td>panel data</td>
<td>There is a significant relation between cash holding and abnormal return.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0.01</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Direct</td>
<td>Hypothesis Accept</td>
<td>5.98</td>
<td>2.35</td>
<td>panel data</td>
<td>There is a significant relation between operating working capital and abnormal return.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0.000</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3- Conclusion:
The major advantage of cash holding in inefficient capital markets is increasing the ability of the company to use the valuable investment opportunities and avoiding the costly foreign financing. But cash holding has some costs. For example, the controlling managers and stock holders have motivation to cash holding to fulfill their aims not consistent with the goals of company. In efficient capital markets, there is no reason to maintain liquidity in the companies. In such environment, there is no good cash level and if the internal cash is not sufficient in the new projects, a company can use the external financing and this is done with fair rate. The personal benefits of the managers are required to maintain much cash holding to lose the benefits of the stock holders. Cash holding can prevent the companies to use costly foreign financing for investment opportunities. The results of the study showed that in Iranian companies, based on agency theory and free cash flow hypothesis, the managers try to accumulate their cash as they can cash holding in the company. Based on agency theory in big companies, much cash is maintained and based on the results of the study, this theory is consistent with the Iranian companies.
**Recommendations:**

Based on the results of the study, the managers of Iranian companies should consider earnings quality and financial reporting from the viewpoint of the role in reducing information asymmetry in liquidity management in order to reduce return-free cash holding. The investors and creditors can use this element as an important factor in decision making process to determine the expected rates and contracts terms well. Namely when the capital market is enriched and various financial resources are created in Iran capital market. Based on these results, it can be said that accounting quality is one of the challenging issues that can be used in further studies about liquidity management. Based on the fact that ownership concentration of the companies in Iran is high and the protection against the investors is weak, observing the quality of financial reporting and its improvement can be attractive for stock market policy makers.

**REFERENCES**


