Investigating Studying the Relationship between Dividend and Stock Liquidity in Firms Accepted in Tehran Stock Exchange

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ABSTRACT

We have studied the relationship between dividend and stock liquidation in this research. There are several proxies for stock liquidity and 5 of them have been used in this paper. Our primary expectation was that there is a negative relationship between stocks liquidity and dividend. We have used Pearson's test in this research and we didn't observe any strong relationship between stocks liquidity and dividend. Also we tested the percentage of institutional ownership. To do so, we divided the companies into two groups. Companies' percentage of institutional ownership was considered to be our criterion. The findings of Pearson's test for both groups were compared with each other and it was concluded that percentage of institutional ownership doesn't have significant effects on the test results.

KEYWORDS: cash dividend, stock market Liquidity, flowing stock, institutional ownership, stockholders' analysis

1. INTRODUCTION

Dividend policy is one of the most topical issues in financial management because the dividend shows the main cash payments of the companies and it is one of the most important alternatives and decision-making which managers encounter. The manager should decide about how much of the company's profits to be distributed, and how much should be reinvestigated in the company in the form of accumulated profit. Although dividend payment directly benefits the stockholders, it affects the ability of the company in profit accumulation to make benefits of the growth opportunities (setayesh, kazemnejad, 2010, p. 30).

Thus, future profits and stock value will be affected by it, too. Gordon concluded in his theory of "dividend policy effectiveness" that the investors disagree with risk-based behavior and thus believe that future cash distribution entails a higher risk compared with the present time (vafadar, gulami,1998, p. 14). Thus, the investors are more opt to invest in stocks which entail lower risks and distribute more cash. Also Miller & Rook (1985) believe that the profit reinvestment approach will result in economic growth of an economic entity, and cash distribution approach will absorb the potential stockholders (Miller, Rock, 1985,p.5).

Thus, we can conclude that the stocks of companies with better cash distribution will be demanded more in stock market and this means the higher Liquidity of the stocks.

Cash distribution decisions are important for the investors because the liquidity status of the investors will always be affected by them. The distribution of cash among the stockholders will increase their cash and reduce their cash-related pressures (Carroll,2010, p.8). Sueman Banreji & et al. (2005) state in an article entitled: "stock market Liquidity and dividend policy" that the owners of less (more) liquid common stock are more (less) likely to receive cash dividends (Banerjee-Vladimir,2005,p 5).

In a report by the newly emerged markets' committee in international organization of securities' commissions, it is implied that the stocks of those companies which distribute more cash are favored more by investors. But they reject the liquidation capability of this and reason that stocks with higher cash dividend will be purchased and retained by the investors and thus their transactions occur less (emerged markets' committee,2007,p12).

A company's dividend policy and its change may contain information for stockholders. The amount of proposed profit by board of directors is usually accompanied with some information about the expectations of the managers about company's future profitability. Researchers believe that the unprecedented change in the dividends entails important information. Especially where the dividend decreases or is not paid at all. Usually management applies this method when wants to give this message to the stockholders and investors that, the future years' profits will decrease.

The recent experimental researches notice the effect of profit announcement on the proposed purchase and selling price range on the whole. According to studies done by Morse & et al. (1983) about 25 companies, they found out about the price range change of stock exchange in profit announcement time. Wenkatesh & et al. (1986)

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also observed important changes in stock exchange's proposed price range after profit announcement when any important information is not revealed during 30 days before profit announcement. Also researchers such as Lee & et al. (1993), Krisinsky & et al. (1996), and Ahmad Ahmadpour & et al. in Iran achieved similar results.

In all researches mentioned above, proposed price range for exchanges has been utilized which is one of the main proxy in cash liquidation. We can deduce from the results of these researches that a relationship between stock liquidation and profit distribution can be imagined.

Another theory about this states that: investors have two perspectives to attain cash with the stocks they have purchased, first they want to sell their stocks and secondly, they want to receive cash profits. In markets where stocks can be liquidated and investors can sell their stocks easily to gain cash, they sell their stocks. But where there is less stock liquidation, the investors press the management to distribute the profits. Also management will choose profit distribution approach to make companies' stocks desirable (Banerjee-Vladimir.2005,p10)Regarding the notes above and considering the ambiguities, we will try to clarify this relationship in Tehran Stock Exchange.

2. stock market Liquidity:

Liquidity is a quality in an asset to be sold without changing the price and reduction in value even if it is low. These assets are financed easily and are more sustainable in price. Also the expenses for the transaction of these items are less (Xiaopeng, Huang. Tzung., 2012,p3). This definition is applied to both physical assets and financial assets. The Liquidity degree for an investment is low when a fair price is not rapidly assigned to that.

An asset is not liquidated if: there is no market for that asset which results in lower price when someone is forced to exchange it (e.g. he sells it for less than the real value of an asset) or a time period should be spent to search for a desirable transaction in addition to other transaction expenses which result in the increase of asset’s price. Also when the asset's value is not determined for the purchasers, e.g. there is no organized market for the special assets.

If the asset can not be liquidated, there would be high and frequent fluctuations. The main reason of these fluctuations is the existence of a high risk which is incurred by the individual because it is possible not to achieve a suitable price for the asset when he refers to the market as a purchaser or a seller.

In financial literature, Liquidity has been referred to two separate concepts. The first concept refers to company assets' liquidation. In this view a company benefits Liquidity when there is relatively high amount of cash assets. Such value is referred to liquidation value of company's assets such as cash amounts in balance sheet. The second concept is company's financed stocks' Liquidity. When the stocks of a company are liquidated, the company can benefit liquidation. That is it will be sold more rapidly and by less expense and a more appropriate price.

The less Liquidity characteristics in a share, there would be the less attraction of investors for it, unless more yields is achieved by the owner. The experimental evidences show that not-liquidation factor in decision-makings can play an important role. In other words, some investors may need their investing resources very soon and in this case liquidation will be more important (sheykh, safarpur. 2007,p.)

Market Liquidity is a concept which is close to stock Liquidity and sometimes they are used as synonyms in financial literature. But we can state that market Liquidity is an overall view towards stock Liquidity. In other words a market is entitled to be liquidated which has liquidated stocks. In another description, the capability of a market in great transactions' attraction without creating large fluctuations in prices is liquidation (Najjar ,Taylor, 2008,p.8).

Market Liquidity affects market efficiency as an important factor. Market price is determined by discovering effectiveness and efficiency of the performance. For example, lack of reliance is less in administering transactions in cash markets. This does not require the equal administration price and proposed prices for average exchanges, but it means that the deviation between these two should be predictable and the least possible. Practically this accompanies close and sustainable supply and demand prices.

Thus, cash markets should supply the possibility of entering and outflow in a way that the least interventions occur. That is, the least reduction at face value should be implemented to incur small transaction expenses and in short time. The more liquidation in market, there would be the more undone orders and thus the probability of desirable adjustment of orders will increase. Investors refer to those markets which apply more liquidation. Thus, liquidation is considered to be an important factor in growth and development of the markets(emerged markets' committee.2007,p3)

3. dividend policy:

The most important decision-makings in entities are investing decisions, financial supply decisions, and decisions related to stock dividend distribution (vafadar, gulami,1998, p. 10). cash distribution policy is one of the most important issues in companies' financial literature. A lot of researchers have presented theoretical and experimental evidences of cash distribution proxy. However, cash distribution policy has not yet been resolved and there is no definite guideline about optimized profit distribution policy (setayesh, kazemnejad , 2010 .p. 18).

So far no body has responded to this issue that, why do the companies distribute their profit or why do the investors pay attention to dividends. This is known as " dividend puzzle" in financial issues.
There are two hypotheses in agency-based model about the justification of profit distribution behavior in financial literature. First: result hypothesis & second: alternation hypothesis. Result hypothesis is based on free cash flow hypothesis. According to free cash flow hypothesis, opportunistic managers, use free cashes in order to invest in projects and issues which enhance the prestige and prosperity and fame of their companies.

According to result hypothesis, cash dividend is a result of joint authority. In fact opportunistic management occurs in those companies where the rights of stockholders are not observed because the managers benefit broad authorities and face very little control on the part of stockholders. In this case, managers try to maintain cash in the company instead of distributing it among the stockholders. Thus, less cash distribution is a result of weaker authority, but if stockholders have had enough power, they could affect profit distribution.

Alternation hypothesis is another theory in cash dividend justification. According to this theory, cash distribution is altered by owners' equity; that is, companies with weaker authority pay more dividends to compensate their weak management. This issue also focuses on the company's need to financial supply through external capital markets. In order to be financially supported by external resources, companies should have an acceptable credibility and stock profit distribution is a way to create this credibility. Good treatment with stockholders in companies with weaker owners’ equity will result in credibility. Thus, stock profit payment is the greatest achievement for these companies. Of course, if the companies have a stronger authority, the need to have a credibility mechanism and also paying the stock profits by them fades away (fakhari, yusefizadada, 2010,p. 11).

4. STOCKHOLDERS’ ANALYSIS

Stockholders are those who own part of a system or company. Generally the documentation for this is provided by stocks. Stockholders can include groups of people, organizations, institutions, or individuals. The type, number, and even thoughts of stockholders are important for the company because stockholders have different interests in investing in company's stocks. They can enforce company management to realize their wants and determine the policies of the company.

Stockholders’ analysis was first used in management to understand and determine the different interests of stockholders. Interests and goals and activity type varieties of stockholders differentiate them. Some of them are active stockholders, some passive, some key, and some others player stockholders.

Classifications are not limited to the above items and regarding the other characteristics and research goals, researchers have proposed different classifications. In most cases the terms including stockholders and ownership have been utilized instead of stockholders' type; for example, management ownership, external ownership, relatives' ownership, private ownership, and institutional ownership. The items above are self-evident to some extent and do not need any extra descriptions, but institutional ownership which is relatively broader than others needs some clarifications. Institutional investors are the main activists in financial markets. Since their penetration in joint ownership has increased due to privatization policies accepted in different countries, we can conclude that institutional investors are highly important in most joint ownerships (Najjar, Taylor, 2008, p. 9).

By institutional investors, we mean insurance companies, investing foundations, financial entities, banks and corporations which invest in other companies. Thus, institutional investors are the greatest stockholders in corporations (Pound, 1988, p. 3) Institutional investors are not convergent groups ([Pound, 1988, p.7]).

they may have different goals and due to their own goals, they have different time spans for their investments in a certain company, regarding other investing institutions. In the review of literature, institutional investors are divided into two groups of long-term and short-term investors. In another classification, the investing institutions are divided into pressure sensitive and pressure insensitive investors. Regarding pressure sensitive investors, it is said that they react to the new information and may purchase or sell stocks with the least announcement or release of information. Also dynamic and static investors have been used to identify the types of institutional investors and their presence time period among stockholders.

The concepts of long-term, dynamic and insensitive to pressure are used synonymously to refer to institutional investors and they are those investors who follow long-term goals by investing in companies’ stocks. These institutional owners try to penetrate in the management of investment-collecting companies. The presence of institutional owners’ agents in board of directors and overseeing the management in these companies have led to the formation of some discussions about the improvement of joint ownership and increasing their value and performances. But we should not ignore that the presence of these investors in board of directors of companies will result in their access to data which are not accessible to other investors or their accessibility to them is prior or later than them. This is known as data asymmetry in the field literature.
5. REVIEW OF RELATED LITERATURE

No studies have been carried out about the study field of the present research (Liquidity and cash dividend) and the information related to this field is not broad in other countries, either. There are limited numbers of studies which will be briefly mentioned below:

Fama & Frenj showed that the increase in Liquidity of stock market of USA is one of the most important factors in reduction of proponents of stockholders to receive cash. And stock liquidity greatly affects dividend policy.

Suemen Barenji & et al (2005) collected evidences to recognize the relationship between Liquidity and dividend policy in an article entitled: "Stock market liquidity and firm dividend policy". They found out that investors in companies which have less liquidations need more cash distributions in and concluded that there is a strong relationship between dividend policy and liquidity. They pointed out further that investors consider cash dividend and liquidity as alternates for each other (Banerjee-Vladimir,2005,p5).

Carol Howard (2010) tried to find out the relationship between dividend policy and liquidity regarding Miller & Modiani’s theory. He studied the data related to Stock Exchange in some countries and concluded that those companies which distribute cash satisfy their investors. Cash distribution, especially in companies with less liquidity is highly important. Howard’s research approved the relationship between dividend policy and Liquidity (Carroll, Griffin, 2010, p.14).

Deniz & et al. (2010) studied the relationship between dividend policy stock Liquidity in a research paper entitled: "liquidity and dividend policy". They showed that those companies which distribute profits more have more liquidated stocks. They also showed that this relationship is stronger in companies with more effective stockholders (Igan, Deniz, 2006, p.11).

6. Research Hypotheses:

As it was noted in the Gordon’s hypothesis of "dividend policy Effectiveness", and the newly emerged markets’ committee in international organization of securities’ commissions, the dollar amount of cash profit is favored by investors and affects their activities and decision makings towards retaining the investment. Investors retain those stocks which distribute more cash and thus they extract them from the transaction cycle. Here we can propose this hypothesis that the amount of cash dividend is negatively related to stock Liquidity. Thus, we will test our first hypothesis as follows:

First hypotheses (the relationship between cash dividend and liquidity):

1. There is a meaningful relationship between the amount of cash distribution of stocks and Float stock.
2. There is a meaningful relationship between the amount of cash distribution of stocks and the number of Trading days.
3. There is a meaningful relationship between the amount of cash distribution of stocks and transaction waiting time.
4. There is a meaningful relationship between the amount of cash distribution of stocks and Trading Volum.
5. There is a meaningful relationship between the amount of cash distribution of stocks and Stock turnover.

The second discussion posed is related to investors’ pressure to distribute cash. To meet their needs for cash, the investors have two choices. Either they can leave their capital or use the cash which is distributed by the company. When liquidation of stocks is less, the investors will encounter problems to leave their capital and thus they will enforce pressures on the management to distribute a high amount of the dividends.

Our second hypothesis is that there is an imaginable relationship between the ratio of dividends per share to earnings per share and stock liquidity. In other words, the less liquidity of each share, there would be the more pressure to distribute more cash in comparison to each share’s earnings. Also management should distribute more ratios to satisfy stockholders. Thus, the second hypothesis will be as follows:

Second hypothesis (the relationship of the ratio of each profit to the profit of each share and liquidation):

1. There is a meaningful relationship between the ratio of DPS/EPS and Float stock.
2. There is a meaningful relationship between the ratio of DPS/EPS and the number of Trading days.
3. There is a meaningful relationship between the ratio DPS/EPS and waiting time period for transaction.
4. There is a meaningful relationship between the ratio DPS/EPS and Trading Volum.
5. There is a meaningful relationship between the ratio DPS/EPS and Stock turnover.

Investors are not convergent groups and they often have different or contradicting profits in the company. Also they have different pressure enforcement powers. Thus, in second type of hypotheses we will include the type of investors. More clearly, we want to study whether the type of investor is affective on the second hypothesis' relationship or not?
7. RESEARCH METHOD

The research method in this paper is applied regarding the goal and it is descriptive and correlative due to the research method. In correlation, the main goal is to identify the relationship between two or more variables, size and amount of this relationship and … . the research hypotheses were tested by using correlation statistical methods. The variables used in this research are as follows:

8. Dependent variables:

Float stock percentage: it is a percent of the whole capital of the company which should be accessible in order to exchange in stock market. Or it is a part of the stock of a company which can be exchanged without any limitations. The percentage of free flowing stocks is calculated by Stock Exchange (Bourse) and published as seasonal reports. To calculate the free flowing stock annually, the average of seasonal flowing stocks’ percentage is used by Stock Exchange (Bourse).

Trading days: It is the number of days which have been located in a time period which has been used to exchange stocks. This criterion is calculated annually.

Waiting time period for transaction: It is the time difference between the two subsequent transactions for each share. Often its average amount is used during a definite time period. Waiting time for transaction is calculated according to the average expected time to carry out a transaction in a company. Since this criterion occurs during one year, 240 days will be announced to be days with transactions taking place.

\[ \text{WAIT} = \frac{240}{\text{the number of transaction times}} \]

Trading Volume: the number of exchanged stocks during a time period.

Stock turnover: the amount of stocks exchanged divided by the number of stocks issued by the company in a specified time period shows stock flow. This criterion is calculated annually in the following way:

\[ \text{turnover} = \frac{\text{the number of exchanged stocks}}{\text{the number of stocks issued}}. \]

9. Independent variables:

Dividends per share (DPS): it is calculated by dividing net profit to the issued stocks of a company.

The ratio of dividends per share to earnings per share (DPS/EPS): to achieve this, first we calculate dividend for each share and then divide it into each share's earning.

9. Statistical society and sampling method:

The time period of this research includes 2006 to 2010 and it is 5 years. The spatial limitation for this research includes all firms accepted in Tehran Stock Exchange. The selection method for the companies under investigation in this research to test the hypotheses of this research, is sifting based on the following filters:

1- The companies should have identical fiscal years which end on 29th of Esfand (19th of March).
2- The companies should not have changed their fiscal year during the research period.
3- The companies should have been accepted in Stock Exchange before 2002.
4- The companies should not be from among investing or intermediary and monetary and banking institutions.
5- The companies should not have incurred losses in 3 successive years.

Regarding the filters above, the number of companies under investigation in this research is 63.

10. The descriptive statistics of the data:

| The descriptive statistics of dependent and independent variables to test research hypotheses are shown in figure 1 (Descriptive Statistics) |
|---|---|---|---|---|---|---|
| **N** | **median** | **Minimum** | **Maximum** | **Mean** | **Std. Deviation** |
| Float stock | 315 | 25 | .00 | 91.25 | 26.3570 | 17.01240 |
| Trading days | 315 | 93.5 | .00 | 289.00 | 99.9299 | 68.69199 |
| Wait | 315 | 0.332206819 | .00 | 60.00 | 2.07028757794 | 6.296790875735 |
| Trading Volume | 315 | 2734890 | .00 | 48125581.49156960.940 | 9915690.940 | 2.99887 |
| Stock turnover | 315 | 0.042781926 | .00 | 1.023493243 | .09797767810 | .147866480890 |
| Dps | 315 | 279 | .00 | 7300.00 | 544.0850 | 936.88811 |
| dps/eps | 315 | .711608455 | .00 | 1.929824561 | .60758990096 | .391739893621 |
11. Testing first hypotheses: (the relationship between cash dividend and Liquidity proxy)

The first hypotheses show a meaningful relationship between cash amount distributed and stocks' Liquidity. To test the hypotheses we used Pearson's correlation test. The estimated error was considered to be 0.05 and estimation error was compared with Pearson test's sig to reject or accept null hypotheses.

Regarding the newly emerged markets' committee, our primary expectation was that firms which distribute more cash are purchased by investors and for this reason they retain those stocks for longer time periods. This behavior by investors results in outflow of the stocks of these companies from exchange markets. Thus, they benefit from less Float stock and after that they will encounter less Trading days, less Trading Volum and less Stock turnover. Regarding the tables above, we couldn't achieve enough evidences to reject null hypotheses in hypotheses 2, 3, 4, and 5. Thus, we cannot defend the presence of a relationship in hypotheses above. But in hypotheses 1, null hypotheses were rejected. Thus, we can claim that there is a relationship between Float stocks and dollar amount of distributed cash. Regarding the r-value in the above relationship, which equals -.156, the correlation between cash profit and flowing stock is negative. This result accords with the opinion posed by the newly emerged markets' committee, even though this relationship is low.

12. Testing second hypotheses: (the relationship between the ratio of cash Dividend to each share's profit and Liquidity proxy)

In these hypotheses we want to study the relationship between the ratio of dividends per share to earnings per share and liquidity proxy. The difference between this hypothesis and the previous one lies in the fact that the effect of the difference in earnings per share for different companies is ignored. And this results to make the more cash distribution in these companies ineffective. Besides that the high amount of this ratio is considered to be the reason to enforce pressures by stockholders to distribute cash.

We cannot reject null hypotheses for third and fourth hypotheses in testing the relationship between ratio of dividends per share to earnings per share and liquidity proxy, but null hypotheses were rejected in hypotheses 1, 2, and 5. Thus, we could observe the imagined relationship in hypotheses 1, 2, and 5. Regarding r-value in the above hypotheses, we can conclude that the correlation in hypothesis 2 is more than hypothesis 5, and it higher in hypothesis 5 compared with hypothesis 3. Besides that, the first hypothesis shows a negative relationship between Float stocks and Dps/Eps. Meanwhile second and fifth hypotheses have a direct relationship, i.e. by increasing the ratio of Dps/Eps, Float stocks and the number of Trading days will increase.

After testing the hypothesis above, the effect of ownership in this relationship was studied. First we calculated the amount of institutional ownership and then divided the companies into two groups. Companies which had institutional stockholders higher than the average were categorized in group one and the others were classified into the second group. Then to identify the effects of institutional investors on the relationship between ratio of dividends per share to earnings per share and liquidity, we applied second hypotheses for each group of companies.
The comparison of tables above can reveal the effect of the type of institutional stockholders on the relationship between the ratio of dividends per share to earnings per share and liquidity proxy. While in table 2, the flowing stock's relationship is rejected, in table 1 which is related to companies with high percentage of institutional ownership, the existence of this relationship is approved and r-value equals -.170. Hypothesis 5 approves this relationship in low institutional ownership and it is rejected in other companies.

13. Conclusions

In this research we studied the relationship between dividend and the ratio of dps/eps and 5 stock Liquidity proxy and found out:

i) There is a low level negative relationship between flowing stocks and dollar amount of cash dividend and the ratio of dps/eps. This relationship is observed among those companies which have a higher percentage of institutional ownership and such a relationship can not be perceived among other companies.

ii) There is no relationship between trading day and amount of cash. But there isn't any effective relationship between trading days and the ratio of dps/eps and the ownership percentage in this relationship.

iii) There were no relationships found between waiting time for trading and the dollar amount of cash profit and also between trade volume and dollar amount and the ratio of dps/eps. Also the percentage of institutional ownership didn't make any changes in the relationships above.

iv) There weren't any meaningful relationships between stock turnover and the Rial amount of cash profit. A low level of relationship was observed between stock turnover and the ratio of dps/eps. In this relationship the percentage of institutional ownership didn't have any significant effect on the relationship, too.

Different stock liquidity criteria have different tendencies. Thus, the researchers should use several criteria in their researches. In Iran the percentage of institutional ownership is high and institutional owners tend towards profit reinvestment approaches. Thus, it is differently effective on the relationship between liquidation and cash profit in comparison to other countries.

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