RELATIONSHIP BETWEEN INFORMATION ASYMMETRY AND DIVIDEND POLICY OF COMPANIES LISTED IN TSE

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***Abstract**: The present study explains the relationship between information asymmetry and dividend policy among shareholders in TSE. This study claims that dividend distribution can be used to reduce conflicts of interest between managers and shareholders as a means to prevent consumption of revenues for inefficient projects under information asymmetry. Information asymmetry is measured byannual ask-bid spread based on the last daily prices. Dividend policy is measured by dividend per share to earnings per share, which is the most common indicator. This study is an applied research using descriptive correlational methodology. The studied population include companies listed in TSEin 2008-2014; using systematic sampling, 126 companies are selected as samples. Data panel is used to test the formulated hypothesis. Results show no significant relationship between information asymmetry and dividend policy. It can be concluded that majority of companies listed in TSE useconstant dividend policy. Therefore, dividend policy does not change by changing information asymmetry.*

Keywords: *information asymmetry, dividend policy, ask-bid spread, dividend*

1. INTRODUCTION

Participantsinthesecuritiesmarketsmakedecisionsbasedoninformationpublished by stock exchanges, issuers of securities listed in stock exchanges and intermediaries operating in these markets. Taking advantage of this informationor making the correct decision in the stock exchanges is feasible when this information is timely, relevant, significant, complete and understandable. On the other hand, distribution of this information is also important. Unequal and asymmetric distribution of information can lead to different outcomesfor a single issue(Khodamipour & Ghadiri, 2009).

Different professional references always formulate rules concerning disclosure of financial information. By developing the efficient market theory, some advocates claimed that securities prices reflect all information with zero cost of transactions and information in efficient markets. Therefore, there is no need for

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financial reporting and consequently disclosure regulations. However, even with the assumption of market efficiency, some experts have reasoned about necessity of disclosure regulations. Many of these reasons agree that investors and stock market cannot distinguish between efficient and inefficient companies. These reasons include exclusive control of information by management, uniform dealing with figures, diversity of accounting methods, lack of impartiality in development of financial information and meaningless figures reported.

Considering information asymmetry between shareholders and management, management can manipulate firm value by manipulating accounting information. As agency theory claims, since management is representative of shareholders in managing the firm; thus,they sometimes use dividend policy to control management. By forcing to pay dividend, they make the management refer to capital markets for financing. In this case, managers must provide additional information to the capital marketsfor financing to reduce information asymmetry. Based on signaling theory, dividend payout policy contains useful information on reducing information asymmetry. Therefore, a different dividend policy isadopted under higher information asymmetry, which influences dividend.

Dividend policy is one of the aspects of financial management. Dividend represents major cash payments of companies and one of the most important options and decisions of managers. The manager must decide how much profit to distribute and how much to reinvest in the form of retained earnings. Although dividend payout directly benefits the shareholders, it influences firm's ability to retainearnings in order to take advantage of growth opportunities.

Considering the above, this study examines the relationship between information asymmetry and dividend policy in TSE.

2. LITERATURE AND THEORETICAL FRAMEWORK

2.1 Dividend Policy

Dividend policy is an important aspect of financial management, by which managers decide how much of the outcome, ie profit, to distribute among shareholders and how much to retain in the form of annual profit. Overall return of the shareholder also results from factors of these decisions, namely the received share of profits and capital gains (increase in stock price during a certain period).

Information Asymmetry: Information asymmetry refers to a situation in which one of the two parties have more information than the other party. This is due to several reasons including the existence of transactions and confidential information. In his Financial Accounting, William Scott definesinformation asymmetry as information advantage of some parties to others in a business transaction.

2.1 Relationship between Information Asymmetry and Dividend Policy

Information asymmetry arises when a person has more knowledge about risk, transactions or a contract with another person or persons (Frank et al., 2002).

According to signaling theory,managers have more information about real firm value than investors and usedividendto transfer information to the market. In other words, they show a positive relationship between information asymmetry and dividend policy.

3.   THEORETICAL BACKGROUND

Bachtiar (2008) examined the relationship between accruals and information asymmetry. The results showed a positive and significant relationship between accruals and information asymmetry. The results also showed a significant positive relationship between discretionary accruals and information asymmetry.

Bhattacharya et al (2008) examined the relationship between earnings quality and information asymmetry in companies listed in New York Stock Exchange. Their findings showed that information asymmetry increases by reducing earnings quality. They also found that information asymmetry increases the risk of incorrect selection for liquidity providers. This could reduce announced prices and thus liquidity. They also found that companies with poor earnings quality experience higher information asymmetryat the time of earnings announcements.

Gonzales et al (2010) examined the relationship between dividend payout and ownership structure for companies of five Latin American countries. They considered ownership control important for decision topay dividends. Their findings showed a U-shaped relationship between ownership concentration and dividend payout. Lower ownership concentration negatively influencesdividend payout. Higher ownership concentration positively influences dividend payout.

Cindy (2012)examined the relationship between information asymmetry and dividend policy. Disclosure quality was used to express information asymmetry. Given that management and shareholders have asymmetric information,management can manipulate accounting information to increase firm value. Findings showed that dividend policy had no effect on financial reporting.

Noravesh et al (2005) examined the relationship between legal shareholders and asymmetric information. Their findings show that stock prices of firms with higher legal ownership encompass higher future profits than firms with lower legal ownership. According to the evidence suggesting positive role of legal shareholders, the results are consistent with efficient monitoring theory.

Bararnia (2004)addressed effective factorson dividend policy of companies listed in TSE for 1997-2001. It was concluded that investment opportunities, firm

size and dividend of the previous year are effective on dividend policy, while leverage is not effective on dividend policy.

Khodadadiet al (2005)examined the effect of corporate governance structure (effectiveness of institutional shareholders and legal shareholders) on dividend policies adopted by them. This effect was tested by using least square regression models and logistic model at 5% error level. The former showed a positive significant relationship between ownership structure and dividend policy. The latter showed that ownership structure had a significant effect on dividend policy.

KhodamipourandGhadiri(2009) examined the relationship between accruals and information asymmetry between investors in Iran Stock Exchange. The results showed a positive significant relationship between abnormal accruals and information asymmetry,so that,information asymmetry increases by increasing abnormal accruals. Findings also showed a significant negative relationship between stock liquidity, firm size and institutional ownership to information asymmetry ratio.

Ghorbani and Adili (2010)examined the relationship between cash holdings, firm value and information asymmetry. The results showed an inverse significant relationship between cash holdings and firm value underinformation asymmetry. The results supported free cash flow theory.

Poorheydari and Deldar (2010) examined the effect of business groups on dividend policy, based on main theories of dividend distribution such as signaling theory, agency theory, hierarchy theory and corporate life-cycle theory. They used Tobit model to test hypotheses. The results showed that dividendis lower in firms affiliated to business groups compared with independent firms. They also found that dividend is higher in firms affiliated to diverse and large business groups compared with firms affiliated to other groups. Other findings also showed a significant negative relationship between information asymmetry and external financial affiliation and dividend policy. Dividend policy of the firms affiliated to business groups are less sensitive to information asymmetry and external affiliation compared to independent firms.

Rahimian et al (2010)examined the relationship between earnings quality and information asymmetry in companies listed in TSE. They usedeffective spread and effect of price to measure information asymmetry. The results showed a significant relationship between earnings quality and information asymmetry. Reduced earnings quality increased information asymmetry. They also concluded that information asymmetry is higher in the period before announcement than in the period after announcement.

Hypotheses

In any scientific study, the researcher has to find an answer for the question

raised in the study. To examine the relationship between information asymmetry and dividend policy in companies listed in TSE,a hypothesis is formulated as follows:

There is a significant relationship betweeninformation asymmetry and dividend policy.

The data required is extracted from financial information related to performance of the firms listed in TSE for fiscal years 2008 to 2014.

Population and Samples

A systematic elimination method is used for sampling; the criteria applied for selection of the samples are as follows:

1. The selected firms are listed in TSE.

2. The selected firms must be listed in TSE before 2008.

3. The information required must be available for the period from 2008 to 2014.

4. For consistency of reporting dateand removal of seasonal effects, the fiscal period must ended in March 19.

5. The selected firms must not be active inbankingindustry and financial institutions (investment firms, financial intermediaries, holding and leasing).

6. The selected firms must not have more than 6 months of trading gaps.

By applying above constraints, 126 companies are selected as samples.

4. MATERIALS AND METHODS

This study is a correlational research. This type of research is done to learn about the relationship between variables;however, they are not necessarily intended to explore the relationship between cause and effect. In correlationalresearch, the researcher wants to know whether there is a correlation between two groups of information. That is, whether a change in one variable is associated with change in other.If this relationship exists, the researcher wants to know the nature and extent of the relationship. Different methods are used to measure coefficient of correlation considering the type of values and parameters.

4.1 Variables and Measurements

Dependent Variable: Dividend Policy

Dividend policy is an important aspect of financial management, by which managers decide how much of the outcome, i.e. profit, to distribute among shareholders and how much to retain in the form of annual profit. Overall return

of the shareholder also results from factors of these decisions, namely the received share of profits and capital gains (increase in stock price during a certain period).

In this study, dividend policy is the dependent variable. In general, the relationship between dividend and earnings per share reflects dividend policy adopted by the firm. Among all criteriaof dividend policy, dividend per share to earnings per share is the most common criterion used. Following Rozeff(1992), Guland Kealey(1999), Mancinelliand Ozkan(2006) as well as Setayesh and Kazemnejad (2010),this criterion is used as follows:

$$DRi = \frac{DPS}{EPS}$$

where, represents dividend payout ratio; represents dividend per share; and represents earnings per share.

Independent Variable:Information Asymmetry

Information asymmetry is the independent variable. Several measures have been proposed to measure information asymmetry in the market. Level of information asymmetry is not directly visible;hence, some indicator variables (representatives) are used to measure information asymmetry. One of these criteria is ask-bid spread;followingAmihud andMendelson(1986), Atiget al (2006), Jayaraman (2007), Cindy (2012), and Kashanipoor and Momeni (2012), ask-bid spread for 21 days before and after the earnings announcement is used as follows:

$$SPREAD_{i,t} = \frac{2}{D_{i,t}} \sum_{1}^{D_{i,t}} \frac{(ASK_i - BID_i)}{(ASK_i + BID_i)/2}$$

where, $SPREAD_{i,t}$ represents ask-bid spread for the firm *i* in year *t*; represents the lastdaily ask price of the firm i;represents the last daily bid price of the firm i;BID_i represents the number of days in year tin which the last bid price and the last ask price of the firm *i* is available; ∂ shows error.

Control Variables: Firm Size (SIZE); Leverage (LEV)

A control variable is used in this model to control the effect of known and unknown factors in the relationship between dependent variable and independent variables. Several studies have shown that larger firm size increases the likelihood of further dividend. Large companies tend to maintain their credibility by maintaining their stock prices. Thus, they usually use a uniform dividend policy. Firm size is measured by natural logarithm of assets.

$$Size = Log\ (asset)$$

Previous studies have shown that higher leverage reduces the likelihood of dividend.In this case, as suggested byhierarchy theory, the first priority is to payout debtsrather thandividend. DR_{it-1} represents dividends of the last year.In this study,dividend payout ratio with a pause is measured by:

$$\frac{DPSit-1}{EPSit-1}$$

Note that the following model is used to test the hypothesis:

Hypothesis	Model
1	$DR_{it} = \alpha_t + \beta_1 Spread_{it} + \beta_1 DR_{it-1} + \beta_1 Lev_{it} + \beta_1 size_{it} + \varepsilon$

where, DR_i represents dividend payout ratio, $\frac{DPS}{EPS}$; represents dividend payment ratio with a pause, $\frac{DPSit-1}{EPSit-1}$ where DPS represents dividend per share; $Spread_{it}$ and represents earnings per share; represents ask-bid spread of the firm i in the previous Lev_{it} year; representsleverage of the firm i; $size_{it}$ represents the natural logarithm of assets; ∂ is error.

5. RESULTS

5.1 Descriptive Statistics

In descriptive analysis, the collected data is described by using descriptive statistical tables and indicators such as central tendency and variation. This helps to transparency and explanation of data. Table 1 lists the results of descriptive analysis. Mean, standard deviation, variance, minimum and maximum are calculated for dependent, independent and control variables.

Table 1.
Descriptive Analysis of Data

Variable	Observation	minimum	maximum	Mean	SD	Variance	Skewness	Elongation
Information asymmetry	750	0.00	3.75	0.2664	0.40437	0.164	3.711	19.955
Dividend policy	750	0.00	0.99	0.4675	0.35032	0.123	-0.179	-1.520
Firm size	750	4.26	8.26	5.9666	0.70585	0.498	0.711	0.917
Financial Leverage	750	0.07	3.06	0.6509	0.29859	0.089	2.470	14.225
Dividend policy of the previous year	750	0.00	0.55	0.0850	0.07723	0.006	1.666	4.076

Normality Test

In order to use parametric tests and procedures,data should be normal; otherwise, nonparametric methods are used to analyze and test hypotheses. Given that parametric methods are more accurate than nonparametric methods, they arepreferred in these studies.Accordingly, the first step to begin hypothesis testing is to test normality of data.

Table 2.
Kolmogorov-Smirnov test

Variable	N	Z-value	Sig.
Dividend policy	756	0.048	0.052

Since normality of dependent variable is considered in the regression analysis, it can be concluded that dividend policy is normally distributed (P-value>0.05).

Hypothesis Testing

The hypothesis suggests that there is a significant relationship between information asymmetry and dividend policy.

Before fitting the model, Limertest is used to choosebetween panel data. Table 3 showsthat panel data is more suitable for examining this hypothesis (P-value<0.05). Then, the test is done by using randomeffects and fixed effects. Hausman test is used to decide whether a test is used. In this hypothesis, the fixed effects are accepted (P-value<0.05).

Reliability of panel data estimates will beaccepted if one of the main topics of classical and basic assumptions(lack of variance inconsistency) is accepted. In this section, variance inconsistency is examined for the model. Results of estimate are tested by LR method with and without inconsistency. As shown in the table below, variance inconsistency is less than 0.05. It can be concluded that there is no variance inconsistency. Therefore, the final solution is as follows:

Table 3.
regression analysis

Variable	Coefficients	t-Statistic	Prob.
Constant	0.397275	3.130835	0.0018
Information asymmetry	-0.003777	-0.279784	0.7797
Firm size	0.048635	2.458520	0.0142
Financial Leverage	-0.399753	-7.721894	0.0000
Dividend policy of the previous year	0.825566	4.572413	0.0000

Table 3 contd...

Durbin-Watson	Durbin-Watson stat	1.146
F statistic	26.08906	Prob. 0.000
Variance inconsistency	3.782035	Prob. 0.000
H statistics	29.189755	Prob. 0.000
F-limer statistics	2.397691	Prob. 0.0000

As the results show, there is no significant relationship between information asymmetry and dividend policy (P-value>0.05).

6. DISCUSSION AND CONCLUSION

Results of hypothesis testing suggest that there is no significant relationship between information asymmetry and dividend policy. This findingis inconsistent with Deldar and Moradi (2012) and Kordestaniet al(2010)who found a relationship between information asymmetry and dividend policy and consistent withPoorheydariand Deldar (2012) who foundno relationship between information asymmetry and dividend policy. This relationship suggests that dividend payout ratio does not change by increasing information asymmetry in the market.

According to agency theory, dividend distribution can be used to reduce conflicts of interest between managers and shareholders as a means to prevent consumption of revenues for inefficient projects under information asymmetry, because dividend payoutreduces the financial resources controlled by managers and will be followed by reduced power of managers(Rezaei & Torkzadeh, 2010). According to theoretical background, an inverse relationship was expected between information asymmetry and dividend policy, while this relationship was rejected in this study. However, data analysis showed an inverse and significant relationship between information asymmetry and dividend policy at 90% level.

6.1 Implications

By reviewing literature, complex and ambiguous points were found by phased implementation of the research and analysis of the results obtained by hypothesis testing. Some of these points are related to the Stock Exchange and some are related to investors in TSE. Based on current findings,implications are made for future studiesand explained separately below:

(A) Management: Since this study found no significant relationship between information asymmetry and dividend policy,management is recommended to reconsider its dividend policies.

(B) Creditorsand Investors: Since this study found no significant relationship between information asymmetry and dividend policy, shareholders and creditors are recommended to consider other factors in purchasing stocks to ensure their investments.

(C) Iran Stock Exchange: It is recommended to formulate strict regulations in order to reduce information asymmetry. One of the main problems in TSE is the lack of strong analysts to interpret the news and new information brought to the market. Therefore, it is recommendedto establish financial analyst institutions for interpretation and analysis of new information and correct reflection on prices of securities.

To reduce information asymmetry, TSE is recommended to focus on the part of financial information which can be managed and manipulated further and standards which are more exposed to this manipulationto prevent information asymmetry in the stock market and,consequently, help ultimate goal of the capital market which is fair distribution through correct assessment.

Implications for Future Works

According to the results, it is recommended to consider followings for future works:

Many efforts have been made to choose better methods for calculation of variables. Considering this, it is recommended to repeat the study using modified estimated profit per share as a cause of information asymmetry.

According to the findings,theoretical background can be expanded byevaluating the effect of corporate governance on the relationship between information asymmetry and dividend policy.

Limitations

Naturally, any research suffers some limitations which should be eliminated to conduct the study correctly and accurately. Like other studies, this study also suffered limitations which make it difficult to generalize the results. These limitations can be eliminated hopefully by modifications and efforts of researchers. Limitations of this study includethe potential effects of inflation on financial information which increase value of the studied variables and influence the results.

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