# Investigating the Relationship between Earnings and Stock Prices in Companies Accepted in the Stock Exchange: A Case Study in Iran (2000-2010)

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**Abstract**

The importance of investment for economic and social development is to the extent that paying attention to it causes to fall in a positive round leading to the economic growth and prosperity and its neglect can lead to the economic loss and falling into a descending trend and the negative round. The present study aims to investigate the relationship between earnings per share and earnings predicted for each share with stock price and the relationship between earnings per share and dividends per share and also the deviation of predicted earnings of share from actual earnings or prediction error. This study is a descriptive-survey type in which library method is used to collect the information related to the theoretical foundations of study and the existing data in Iran Stock Exchange is used to collect information for analyzing and testing the research hypotheses and, correlation and regression statistical methods and binomial test are used for analyzing and testing research hypotheses. The results of this study indicated that earnings per share and predicted earnings of per share had a positive relationship with stock price and there is a relationship between earnings per share and dividends per share and most of accepted companies in the Stock Exchange anticipate their own earnings per share more than the actual value.

**Keywords:** earnings per share, predicted earnings of per share, stock dividends, stock price.

## Introduction

The development of investment, on one hand, attracts efficient capital and leads them to productive sectors of the economy and on the other hand, with respect to the direction of investors (based on the risk and return), investments will be led in industries with more profit and less risk, and this will lead to efficient allocation in resources. Stock Exchange has a significant role in the economic growth and prosperity of country because it collects the stagnant and scattered savings to finance long-term investment projects. But one of the most important components of this market is shareholders. Stakeholders can play a major role in the boom and bust of the market by their own behaviors. Earning per share (EPS) is one of the most important financial statistics that is considered by investors and financial analysts. Earnings per share represent the profit that is gained for per ordinary share and often is used to evaluate the profitability and the risk associated with profits and making judgments about stock prices. Also, information about earnings per share is widely used in evaluating the executive operations of companies. Earnings per share compared to the previous period and the process of earnings per share are all important measures of the success or failure of a company. This study examines the relationship between earnings per share and predicted earnings of per share with stock price and the relationship between earnings per share and dividends per share and also the deviation of predicted earnings of share from actual earnings or prediction error of companies accepted in the Stock Exchange and after a brief review of the literature, tests the hypotheses and results of this study. Finally, the recommendations will be presented to the Stock Exchange and the relevant authorities.

### The comprehensive concept of profit in financial reporting

Financial reporting and accounting plays a major and vital role in an efficient capital market. The purpose of financial accounting and reporting is to provide financial statement for users that is helpful for effective and efficient decision making (Shamy and Kayed, 2005). According to the Statement of Financial Accounting Concept (SFACI), financial reporting should provide information which is rationally useful for potential investors, creditors and other users in making investment decisions and accreditation (FASB, 1978). The comprehensive concept of earnings that broadly includes all the items constituting profit is defined as "Total changes in ownership (capital) of the company by registration of transactions and commercial events or re-assessment of company during a specified period, with exception of activities relating to the division of earnings among shareholders or reinvestment by shareholders."

### Accounting Earnings

Accounting earning is the excess of revenues compared to the expenses for a specific accounting period which represents a net increase in shareholders' equity and caused by ongoing profit activities of commercial unit and subsidiary operations, accidental events and other operations, events and circumstances affecting the commercial unit except the shareholders source (Aziz Alivar, 2002) and is considered as one of the main components of financial performance report (Accounting Standards Developing Committee, 2005)

### Profits and its importance as a tool for predicting

Profit is one of the best indicators to measure an economy unit's activities. Thinking about the recognition of earnings behavior is an issue which is shaped based on the spread of quantitative techniques of management and the necessity of paying attention to the needs of financial statements users and by passing from the restrictive perspective of measuring the past activities results makes accounting more capable in order to help the decision-makers. This area of accounting is important because provides the expansion bed of an important part of experimental accounting and finance researches (Beaver, 1970)

### Connection loops of profits and stock price

A logical relationship between accounting earnings and ordinary stock price can be developed by introducing three basic communication loops

1 - The relationship between stock exchange price and future payable earnings
2 - The relationship between future payable earnings and future earnings
3 - The relationship between future earnings and current earnings

### Costs and future payable earnings

Costs and future payable earnings are connected to each other through an evaluation model. Typically, the evaluation model will depend on the amount of future receivable earnings in each state, and any specific time period, investors' beliefs regarding the probability of incidence of each state and the value of a receivable Rial in the state of s and at time period of t. In this case, the price depends on the expected value of future receivable earnings.

Prices may depend on information that is not relevant to profit, (i.e., information about future payable earnings that have been transferred by accounting earnings). However, if it is assumed that the earnings and payable earnings are dependent (for example, the existence of a specified rate of earnings payment), it can be said that prices depend on the expected future earnings.

### The future payable earnings and future accounting earnings

If profits contain high information content, there should be a relationship between profits and those parameters that influence the stock price.

Future profits depend on the future payable earnings to the extent that it is statistically felt. This is an interpretation of this statement; profits are a criterion of ability to pay dividends.

Although, this term is normally used, the concept of the ability to pay dividends in the future is not yet well defined.

In a perfect and actual market, the prices of securities should be a criterion for future ability to pay dividends and also profits that are determined based on the price, should be a criterion of this ability by itself.

In an incomplete or unreal market, the concept of future ability to pay dividends is not necessarily reflected in the market. The concept of future ability to pay dividends and also the relationship between profits and payable profits are the basic assumptions in this market.

Fama, Babiack and Wattas showed that earnings changes are correlated with changes in payable earnings. So, the assumption of statistical dependence between future earnings and future payable earnings is a plausible assumption. One of the most common and simplest assumptions is that future earnings and future payable earnings are linked together by profit payment ratio which is constant over time.

However, only relying on empirical findings, without deeper rationale base for this relationship is insignificant. It may be intuitively interesting to conclude that the observed dependence is due to the inferences of management from profit's ability in reflecting the profit payment ability. Nevertheless, this leads to a deeper question and is a poor basis for relevance of profit. But, the main problem is that, there is no general theory about managing priorities in the incomplete and unreal market. (For example, maximization of market value)

### *Future accounting earnings and current accounting earnings*

The relationship between past earnings and future earnings is expressed in terms of variable process that describes earnings over the time. Hence, the events that occur within a specified period may be temporary and would not be expected to have the same effect on future periods of earnings. Tragic events and strikes are two examples of these incidents.

Accounting earnings due to the reflection of events that alter beliefs about the ability to pay future dividends will be included in the relevant data. Earning forecast is a part of an extensive analytical process in which the final attention is paid to predicting and evaluating the future flows of cash earnings. Earning is an important source of information about the future ability to pay earnings. Relevance of accounting earnings is because of its apparent relation with the ability to pay future earnings.

Profit analysis consists of two parts:

1 - What is the relationship between earnings and future ability to pay earnings under the different accounting methods?

2 - What is the relationship between current visible data and future earnings?

There are specific factors regarding the first issue that may permanently affect the earnings level, but not in a way which implies the different profit payment power. One of the main factors is the nature of the financial reporting system. Consider unpredictable inflation. Revenues and some costs increase by inflation. However, some expenses such as depreciation, which are historical cost, will not change. The result will be an increase in the net profit which is higher than inflation, even if nothing has changed in real condition. Therefore, a portion of the change will be in accounting earnings that may not be associated with a change in the ability to pay earnings.

In relation to the second issue, future profits can be described through the components of revenue and cost that create profit. The prediction of profit can include predicting all components of profit invoice and loss. Anticipated profit is the sum of the prediction of all components. From this perspective, the prediction of future accounting earnings includes the following:

1- Evaluation of the distribution: a) the number of future output b) future price of output c) The number of future inputs d) Future price of inputs

2 - The accounting method used to convert the raw data into earnings numbers.

**Predicting the future earnings from the current earnings**

Obviously, predicting through the above method has so ideal state and typically, the major problem of predicting profit has so moderate state. In a more restrictive environment, the question is how to use the past and current earnings to predict the future earnings. Information content of current and past earnings for the future expected profits depends on how much the current and past earnings are expected to be continued. There is always the possibility of incidence of some unexpected events. The effects of these shocks on permanent accounting earnings depend on the understandable process that expresses the time series behavior of profit. In other words, the importance of these shocks depends on the amount of expected effect that has on the future earnings. The importance of short-term changes is mostly due to the nature of the profit process. Some of these processes are unimportant, but some have an important role, because the recent earnings variations (such as current profit) can have significant implications for permanent earnings, the future payable earnings and the current price of stock (variations in current period of earnings may be permanent, and have a one to one relationship with changes of the expected future profits, etc.).

*Prices and profits*

According to the description of the three connection loops, a relationship between current earnings and current prices of stock exchange can be assumed. This connection depends on the nature of each of the three connection loops and the process which leads to the determination of current profit. If variation is because of a permanent effect, undoubtedly has an effect on the stock price. It's really a process of judgment and even a proper case, may be different for other companies, or even may vary for a company over time (Beaver, 1970).

Several studies, including Ball and Brown and Chare have shown that stock prices positively associated with the announcement of increase in profits and negatively with the announcement of reduction in profits for American companies. (Dong Wie Su, 2003)

In theory, if the stock market to be a semi strong efficient market, namely, no one can gain the abnormal return by trading based on the general information, and then stock prices will reflect the changes in the amount of company's profits. These indicate that: 1) stock market correctly predicts profits variations before to be announced to the public and effects on the price. Therefore, companies will face to the reduction in their profits, a few days before the actual profits to be announced, they are encountered to the reduction in their stock prices. (Dong Wie Su, 2003)

This assumption is the infrastructure of the cost - earnings evaluation models that the earnings are effectively the signs of future cash flows and stock prices are determined under the rational expectations. Therefore, earnings can explain the prices (Balsam &Lipka, 1998).

*The nature of dividend decisions*

The company's dividend policy effect on how earnings divided after-tax through the following two ways:

1 - Investments financing for long-term growth of the company, these funds are shown in the no divided earnings account in the balance sheet. No divided earnings usually provide ½ to 2/3 of required cash for company's long-term investment and remaining is sponsored through debt and the dissemination of common stock or preferred stock.

2 - The distribution of dividends among shareholders: usually company board announces the cash dividend and pays to common shareholders (Hampton, 1995).

*Schools of thoughts in the dividend theory*

The dividend studies can be categorized as following:

1 - Those researches that examine the relationship between stock market value and dividends, which are mainly based on two ideas:

a) Irrelevance theory (dividend effect on company value)

b) Irrelevance theory (lack of effect of dividends on company value)

2 - Those who study the effects of signaling (informing) of dividends declaration on company value. According to this theory, dividends have the information content.

3 - Those that examine the impact of shareholders combination on dividend policy (Clientele Theory). According to this theory, dividend policy depends on the composition of shareholders' interests.

4 - Those studies which investigate the relationship between investment, dividend and earnings and attempt to make model between the above variables by using the regression methods (Bahramfar & Mehrani, 2004).

There is a traditional thought that supports the high proportion of dividend payments. According to this theory, shareholders prefer dividends to capital gains and this theory is known to "Bird in Hand" in the financial books. The second theory is contrary to previous theory in which shareholders prefer the future capital gains to the current dividends. On the other hand, shareholders prefer a low payout ratio because capital gains are taxed less than dividends.

The third theory refers to the theory of Modigliani and Miller that declared the company's market value is insensitive towards the dividend policy. According to this theory, company's dividend policy is irrelevant to company value. The main assumption of this model is that the future market value is unaffected by the current dividends. Modigliani and Miller observed that investors prefer certain levels of dividends in the condition of the presence of tax. This particular level of dividend may be determined by tax rates that investor is encountered to it. (Bhattacharyya, 2007) What is important is the investment policy. In each period, the firm should determine the investment program and after determining the schedule of investments, should decide towards dividends. The fourth way of thinking refers to the growth transition from years ago. According to this theory, dividend changes are important for stock investors. In this thinking, the dividend policy has a direct impact on stock value.

### The effect of dividend policy on the value of institutions

The important aspect of dividend policy is to determine the amounts of incomes that should be distributed among the shareholders or remained as retained earnings in the institutions. Stored revenues are the most important source of cash in the institution for its growth and development and from the perspective of shareholder it is also a type of the capital benefit. Revenues constitute series before annual division of funds consuming. Thus, although both purposes of dividend policy (namely, the distribution of profits between shareholders and its remaining in the company for growth and development) are desirable, these two are in conflict with each other. High percentage of dividend among shareholders refers to the reduction of revenues maintained in the institution and consequently leads to the reduction of growth rate of stock price in the institution. Various theories have been proposed about the facilitated income and institution's shares value. These theories can be classified into two groups:

A - Theories that consider the decision making about annual facilitated revenues irrelevant in shares value of institution.

B - Theories that evaluate the decision making about annual facilitated revenues a serious and important variable to affect the shares value of institution. (EslamiBigdeli, 1991)

Life Cycle theory states that institutions can be in one of the following steps: (Paine and Anderson, 1983):

A - In the state of growing and also when institutions have facilities for new investment and the rate of return on these investments is higher than the cost of the relevant capital: r>k

B - In the state of static and when institutions are indifferent towards the new investment and in this state the rate of return on investments are equal to the cost of capital: r=k

C - In the state of falling and when facilities have finished for new investment in institution and return on investment is less than its capital cost: R<k

*Growing institutions: (r> k)*

Those institutions with r> k are considered growing institutions. The assumption is that the mentioned institutions have numerous profitable investment opportunities. Such institutions reinvest the stored incomes in the institution with the rate higher than the expected rate of shareholders. Now, if these institutions follow the policy of maintaining all incomes for internal investment, the stock value will be maximized.

*Ordinary institutions: r = k*

Most of institutions in which r is greater than k, do not have unlimited investment opportunities. In institutions with r = k, the stock market value is the same in different ratio of annual facilitated earnings payment. In other words, in ordinary institutions all earnings policies are same and when r is equal to k, the ratio of earnings payment has no effect on the stock market value of institution.

*Declining institutions: r <k*

Some institutions do not have any opportunity to invest profits ten times the annual incomes. In such institutions, the returns ratio obtained from investment is lower than the minimum cost required for financing. The investors of such institutions tend to divide the earned income to apply it in other investment opportunities that its returns is higher than the earnings obtained from investment in declining institutions.

The stock market value of declining institutions (r <k) when reaches to its maximum that these institutions do not maintain their annual incomes any way. Therefore, the maximum of payout ratio for declining institutions is one hundred percent. The value of such institutions increased with enhancement of dividend payment.

### The lack of importance of dividend policy

There are several economic factors that indicate the dividend policy is not important in the ideal conditions of market. The hypothesis of lack of importance of dividend policy was proposed for the first time in 1961 by Modigliani and Miller which later became known as the M.M theory. They try to investigate the effect of payable earnings on stock value under the ideal conditions of capital market in which there is no tax and stock trading is done without paying agents commission and stock value is only a function of the risk and return of company's capital project and with no relevance to the company's dividend.

According to the M.M theory a company with significant investment opportunities, should spend its profits to invest in these projects and if there was excess, divide it among the shareholders (Jhankhani, 1992). If it failures to perform it and divides more profit, it should publish and sale new shares for financing the required fundsand this action leads to the enhancement of the number of company's shares and the reduction of dividends per share in the future and will ultimately reduce the price per share. Therefore, increasing income obtained from received dividend will be associated with the reduction of stock price and shareholders' wealth will not change. In other words, the stock price after the General Assembly is decreased equivalent to the dividend and consequently, shareholders' wealth remains constant.

The M.M theory is based on two main discussion: first, shareholders are able to obtain the desired income flow by selling a part of their own stoke (instead of dividend receiving), second, even if the shareholders due to transaction costs and tax fail to obtain their desired cash flow from the sale of shares, the higher profit payment by company cannot guarantee the more price for the

stock. According to the M.M theory, the income requirements of shareholders are different. A number of stakeholders to meet their living expenses need to receive the dividend. Unlike some other do not need it and if they receive dividends, use it to purchase shares for company again. So, the first group will try to buy stocks of companies that pay higher dividends and the second group will try to buy stocks of companies with low dividends distribution. Therefore, the existence of stock trading costs (commissions for buying and selling shares) would not cause all companies follow the same dividend policy (high or low). Some companies in order to attract the first group choose the more dividend policy and some others to attract the second group select the low dividends policy.

### Theories related to dividends with stock price

Proponents of this school believe that making decision about shareholders dividends or holding it in institution is effective for stock value of the institutions. Managers must take great care in choosing the ratio of earnings payments. The objective of selecting the dividend policy is to maximize the present value of future wealth of shareholder. The theory of effectiveness of dividend policy on stock market value is based on the researches results of Myran. G. Gordon during 1962 to 1968. This hypothesis relies on the direct relationship between institutions' dividends policy and assessment of the market by its profitability. The conclusion of Gordon is based on this assumption that investors generally express that they are averse to the risky behavior and hence believe that the future dividend involves the higher risk than the *current dividend (Vafadar&Gholamtamimi, 1997).*

### Theory of Preference of Dividends

This theory expresses that investors prefer the high dividends payout ratio. The stock price of companies with high dividends payout ratios is relatively higher. Conversely, companies with low dividend payout ratio have low stock price. The main justification of this theory is the lack of investor confidence to the future and uncertainty usually has a direct relationship with the length of time namely, the longer the time the greater uncertainty. If company has had an investment program, it is clear how much cash flow will have in close years, but in further years it is unclear that the project has how much cash flow. Investors prefer dividends to future capital gains because they are risk-averse. Cash dividends received by investors increases their cash, but receiving dividends in the future is risky. Investors prefer a bird in hand to two birds on a tree branch. The time value of money is another important point on preference of dividend. Any reasonable investor should prefer a dollar of today dividends to a dollar of future dividends. According to this theory, companies should maintain the high dividends payout ratio. So, companies that pay high percentage of their income as dividends, their stock prices will be maximized. Graham and Walter are the thinkers of this theory.

### Dividends avoidance theory

A truth lies at the heart of this theory that dividends are taxed more than capital gains. Investors believe that they should receive low dividends to face with more wealth in the future. Financing through internal sources of company (retained earnings) has lower cost among various methods of financing, thus when company is facing to lower financing costs, ultimately increase profits. The enhancement of profits increases the company value and stock price that consequently increase shareholders' wealth. Investors who have consistent idea with this theory are willing to buy shares of companies with low dividend payout ratio. This theory in some of financial books is famous to the tax difference theory. Yet we know the capital gains are postponed to the future by paying taxes and the time value of money is different compared to the future. On the other hand, it indicates an inverse relationship between the type of management and profit payment. With equal levels of the existing liquidity, a manager with lower productivity declares more payable profits than the manager with higher productivity (Batajarya, 2007).

Free Cash Flow Conjecture argues that high-payable benefits are better because more payable benefits exclude cash flow from managers' hands and consequently, managers have less money to lavish. According to this assumption, also high-payable benefit declaration leads to the higher abnormal return (Bhattacharya, 2007).

### Cash profit

There are various methods for cash profit payment which including:

*1 - Fixed and regular profit:* profit regulation aims to maximize shareholder returns. One of the more effective factors on stock value is the stability or instability of the payable dividend. For example, the reduction or elimination of dividends may influence the market for years. The variable patterns of profit are less desirable compared to its fixed patterns. In order to maintain the stability of dividends and creating a stable pattern, the company management should properly select the ratio of payable dividends to total earnings that its continuation and consolidation to be possible. If management has had clear perspective from long-term investors' goals and intended profitability, undoubtedly, he will be more successful in implementation of appropriate dividend policy.

### Fixed interest payments methods

1 - A fixed percentage of income: in this method, a certain percentage of the income is divided among the shareholders.

2 - Fixed financial size: a fixed sum is distributed among the shareholders each year. 3 - A percentage of the market price: For example, 10% of the market price is divided on the convention date as dividend. This method is used mostly to encourage the stock price enhancement in the market.

4 - A percentage of the nominal value: the ratio payment method by the nominal cost is a misleading method because the share price in market is usually several times more than the nominal value and perhaps the very large percentage of the profits to be declared by this method but compared to the market value has too low percentage.

5- Profit payment by variable: some other companies do not have regular policy regarding the distribution of dividends among shareholders and may pay a year 5% and next year 90% of their income to shareholders by cash or next years do not pay any profit. However, Iranian companies use the percentage method of nominal cost butthey have a type of payment variable policy. Adopting this policy will depend on the following factors:

A) When economic conditions vary.

B) When company's revenues are unpredictable.

C) Management to be conservative.

D) The property to be limited.

6 - Extra dividends: Another group of companies pay extra profit in addition to the ordinary dividends. By announcing the extra profits, company sends this message to shareholders that an additional dividend will be paid in addition to the annual ordinary dividend. Declaring the additional dividend is good especially for companies with income fluctuation (Aragon, 1988). Using this type of profit causes the company maintains its dividend stability and also divides prosperity of the commercial rewards among its shareholders. If the distribution of this profit has continued in consecutive years, shareholders consider the extra dividends as essential as the ordinary dividends and if this profit not to be paid a year, it makes them worried.

### Restrictions on dividend payments

1 - Legal restrictions: sometimes company is limited legally and according to the particular circumstances in declaring and paying dividends and these limitations entirely depends on the countries' laws and declared conditions (Hampton, 1995).

Legal restriction on dividend in Commercial Law of Iran in Article 239 states: "dividend is the net profit of financial year of company minus the losses of prior fiscal years and mentioned legal reserve in Article 238 as well as the other optional reserves and also dividends of prior years that is not divided"(Nasrzadh, 1996). Therefore, in this article three factors limit divided: 1 - Losses of prior years (past) 2 - Legal reserve (present) 3 - Optional reserves (future). After deduction of the above issues, profit can be divided. According to the Article 90 of the same low, if a company has had profits, it should pay at least 10% of it to shareholders.

2 - Liquidity Status: However, sometimes a company is profitable, but may have undesirable cash position because of being weak in sales of goods or timely receipt of receivables. Since, dividend indicates an output current, if company's cash position to be well, its ability to pay dividends will be higher. The liquidity position of the company is dependent on its capital structure. Capital structure and management of the assets, liabilities and equity. The liquidity position of the company depends on its capital structure. Capital structure refers to managers' performance on assets, liabilities and equity. The company may not have the liquidity because of implementation of investment and development projects. Therefore, during dividends the time limit of its payment should be considered. This limited time is 8 months according to the Article 240 of the Commercial law of Iran. The company should use the input and output flow statement in order to be able to pay commitments relevant to the dividends or other commitments timely.

3 - Limitation of loan contract: is effective in two ways on decision of managers for the proposed dividend:

1 - The observance of financial ratios stipulated in the loan contracts

2 - The obligation to repay the loan installments on due date

3- In loan contracts, the lender considers compulsory the observance of some issues for the borrower because of the loan back guarantee. For example, the dividend is not allowed without the consent of the lender or when the bond is published if the current ratio, interest coverage or other ratios to be lower than the certain levels, company is not permitted to pay dividends. Provisions in some contracts may require that the amount of paid dividend to be limited to a percentage of income. However, repayment of loans is very effective in liquidity. The repayment of these installments requires the basic liquidity programs. Usually, the cash profit of company is one of the sources that provides the installments' payments and if the bulk of the profits to be divided among the shareholders, the company may face to difficult in repayment of installments unless the repayment of the loan's installments to be supplied from other sources

4- The accessibility of company to money and capital markets: financing is possible from various ways including: the issuance of new shares, the use of loans and financing through internal sources (retained earnings and reserves). Each of these ways requires a cost. If administrator of the company concludes that financing through the company's profit requires lower cost, usually the profits are not divided among shareholders. If the company has had access to other capital markets with lower cost, the profit will be paid. The debt market is the most important market in third world countries and it is used due to the low interest rate.

5 - Paying attention to the company's growth and development policy: growth and development policy of company requires investment. Financing is necessary for investment which is through reducing assets or by loan and increasing liabilities from issuance place of new shares or the place of company's profit. Each of these methods requires a cost. If the cheapest financial source to be profit for company, the company cannot always divide the profits. Company need to adjust their financial structure. The stability of revenues and profitability is one of the most important factors that influence the dividend. Dividend and future profitability of investments have interrelationship in the growth and development and each of these factors affect other.

6 - The effect of taxation works of dividend on the company's future: The taxation works of dividend on future of company is one of the capital formation and investment factors from the company's profits. Governments to encourage investors to invest more consider exemptions for investments that are done from the profit of company or in other words, if the obtained profits to be applied in companies' re-invest, they are exempted from earnings' taxes. In cases that companies have tax privileges prefer to share less profit and vice versa in the cases that companies do not have tax privileges through dividends encourage shareholders to the distribution of their investments.

7 - Income status of shareholders: The only income source for some shareholders of company is the profits that receive from their investments place. For example, retirements, insurance and savings institutions purchase the stock of companies only for obtaining annual profit (Beasant, 1988). Companies with such shareholders have to divide an amount of their profits in order to maintain the buying demand of their share in high level. In contrast, in companies with family aspect in which shareholders do not need to company's profit, most of earnings remain in company for development. Shareholders who purchase the capital to use the resources usually do not show interest to dividend. In this debate, shareholders' demand determines whether like profit or long-term interests?

8 - Tax status of shareholders: if the financial status of shareholders to be in a way that includes progressive tax and tax policies and laws of country establish privileges for investment from not dividend place, usually shareholders are not interested in dividend. In countries where tax laws are set up to receive capital gains taxes, sometimes shareholders decide between the current dividend tax payment and capital benefit tax, if the current dividend tax rates and capital gains tax to be equal, shareholders decide to choose among the present or future taxes payment.

9 - Company governance and control: if company's management is keen to retain the control of current shareholders of company, avoids to buy new shares. If publishing new shares to be used to finance, the new partners may enter and the old shareholders lose the control of company. Therefore, at this time, managers consider the lack of dividend as a better solution. In loan contracts usually limitations are established fro company management by directors.

10 - Financing costs: financing through loan, publishing new shares and lack of dividend requires costs as well as financing through issuance of new shares or bonds or debt has costs which are considerable. While, financing through profit dose not require transaction costs for company. Therefore, managers prefer this financing method. However, the efficient market hypotheses state that financing through each of the above methods is not different from others.

11 - Inflation rate: the time value of money is one of the more important issues that should be taken into consideration in dividend. If inflation rate to be higher than the growth rate, profits distribution may be beneficial to shareholders and in this case, financing through debt (assuming that better rate is less than the inflation rate) is more desirable for companies.

12 - Rate of return on investment: investors have different investment opportunities in mind generally with expected rate of return from these investments. If the investors' expected rate of return to be less than the company's rate of return, they tend to the lack of dividend.

13 - Economic stability: The economic status influences the company's profitability in terms of being in the state of recession or boom and consequently, will be effective on the dividend. In recession state, profitability would be low generally and companies cannot distribute profits.

14 - Company's statute: in some cases company's statute determines that profit to be distributed in certain extent or limits how to distribute the profit. For example, only 5% of profits are distributed annually.

**Research hypotheses**

*1. There is a relation between earnings per share and stock price in companies accepted in the Stock Exchange.*

*2. There is a relation between forecasted earnings per share and stock price in companies accepted in the Stock Exchange.*

*3. There is a relation between earnings per share and dividends per share in companies accepted in the Stock Exchange.*

*4. Most of the companies accepted in the Stock Exchange predict their earnings per share more than the actual extent.*

**Methodology**

This study in terms of purpose is an applied one and with descriptive - survey methodology. In order to collect contents relating to the theoretical foundation of study, the library method like books, journals and master thesis and for data collection the companies' reporting and existing software in the stock exchange are used. All companies accepted in the stock exchange during 2000-2010 constitute the statistical population of study. In this study stratified sampling (random) is used, so that at first the sample size is determined by pilot study on population, and then a number of them are chosen as sample by random classification. In this study, the SPSS software is used for data analysis. Furthermore, the descriptive statistics to data analysis, and inferential statistics to describe the collected data are used in order to confirm or reject the research questions.

*Hypothesis testing*

The overall goal of any statistical hypothesis testing is to determine whether the guess about the properties of population is strongly confirmed according to the obtained information. This guess according to the purpose of study typically includes the claim about the amount of a population parameter. Indeed, every ruling about population is called a statistical assumption that its acceptability should be investigated based on the information obtained from population sampling.

In this section, the research questions will be tested according to the data obtained from sampling and the use of statistical tests.

*First hypothesis: There is a relationship between earnings per share and stock price in companies accepted in the Stock Exchange.*

Hypotheses $H_0$ and $H_1$ are expressed as following:

$$\begin{cases} H_0 : Cor_{eps,p} = 0 \\ H_1 : Cor_{eps,p} \neq 0 \end{cases}$$

Cor is the correlation coefficient.

Null hypothesis states that there is no relationship between two variables, while $H_1$ hypothesis indicates a relationship between these two variables. These two variables were calculated over the six years for 55 sample company to test this hypothesis, and their relationship was examined and the following tables indicates the results of the variables analysis: (The considered confidence level is 95% in this study).

**Table 1. The correlation coefficient between earnings per share and price mean during the 2000-2010 for 55 companies**

| R | $(R^2)$ | df | F | Sig. |
|---|---------|-----|-------|------|
| .468 | 0.219 | 1,328 | 92.198 | .000 |

**Table 2.The regression coefficient between earnings per share and price during 2000-2010 for 55 companies**

| Fixed rate | R | Df | t | Sig. |
|---|---|---|---|---|
| 188.26 | 5.367 | 1329 | 9.602 | .000 |

As can be seen in table 2, the correlation coefficient (R) and coefficient of determination ($R^2$) are respectively equal to 0.468 and 0.219. Since, $R^2$ shows the intensity of relation, the correlation amount between these two variables is approximately moderate. To investigate this relationship, t, F, calculated by SPSS software were evaluated. According to the obtained values of F and t, null hypothesis based on the lack of relationship between earnings per share and stock price is rejected and H1 hypotheses regarding the existence of relationship between earnings per share and stock price is confirmed. This relationship can also be inferred due to the significant indicators, since the intended a is .5 in this study, if this index to be less than .5, the relationship is confirmed, that this value is zero here. Therefore, it can be pointed to the existence of relationship between two variables with reliability close to 100%. The regression coefficient is calculated to investigate the effect of earnings per share on stock price. While the relationship has been confirmed, but the low value of $R^2$ indicates the distance of issues from regression line, however, for every unit increase (decrease) in earnings per share, the price increases for 5.367 units (decrease).

*Second hypothesis: There is a relation between forecasted earnings per share and stock price in companies accepted in the Stock Exchange*

$$\begin{cases} H_0 : Cor_{peps,p} = 0 \\ H_1 : Cor_{peps,p} \neq 0 \end{cases}$$

$H_0$ hypothesis states the lack of relationship between two variables, while $H_1$ hypothesis shows a relationship between these two variables. The results obtained from the variables analysis are presented in following tables (The intended confidence level is 95% in this study).

**Table 3. The correlation coefficient between predicted earnings per share and price mean during the 2000-2010 for 55 companies**

| R | $(R^2)$ | df | F | Sig. |
|---|---|---|---|---|
| 0/524 | 0/275 | 1,328 | 124/271 | .000 |

**Table 4. The regression coefficient between earnings per share and price during 2000-2010 for 55 companies**

| Fixed rate | R | df | t | Sig. |
|---|---|---|---|---|
| 91.066 | 7.177 | 1,329 | 11.148 | .000 |

As can be seen in table 4, the correlation coefficient (R) and determination coefficient ($R^2$) are respectively equal to 0.524 and 0.275. Since, $R^2$ indicates the relationship's intensity; the correlation amount between these two variables is approximately in average rate. According to the obtained value of t and f, null hypothesis based on the lack of relationship between predicted earnings per share and stock price is rejected and $H_1$ based on the existence of relation between predicted earnings per share and stock price is accepted. This relation can also be inferred by considering the significant indicators, when the desired a is .5 in this study, if this index to be less

than .5, the relationship is verified and here this value is zero. Therefore, it can be pointed to the existence of relationship between two variables with reliability near to 100%. The regression coefficient is calculated to investigate the effect of earnings per share on stock price. The regression coefficient is calculated to examine the effect of earnings per share on stock price. However, the relationship has been confirmed, but the low value of $R^2$ demonstrates the distance of issues from regression line, yet, for every unit enhancement (decrease) in earnings per share, the price increase for 7.717 units (decrease).

*Third Hypothesis: There is a relation between earnings per share and dividends per share in companies accepted in the Stock Exchange.*

$$\begin{cases} H_0 : Cor_{eps,dps} = 0 \\ H_1 : Cor_{eps,dps} \neq 0 \end{cases}$$

$H_0$ hypothesis declare the lack of any relationship between two variables, while $H_1$ hypothesis shows a relationship between these two variables. The results obtained from the variables analysis are given in following tables (in this study, the intended confidence level is 95%).

**Table 5. The correlation coefficient between earnings per share and dividend per share during the 2000-2010 for 55 companies**

| r | $(R^2)$ | df | F | Sig. |
|---|---|---|---|---|
| 0.96 | 0.922 | 1,328 | 3877.79 | .000 |

**Table 6. The regression coefficient between earnings per share and dividend per share during 2000-2010 for 55 companies**

| Fixed rate | R | Df | t | Sig. |
|---|---|---|---|---|
| 19.876 | 1.313 | 329 | 62.266 | .000 |

As can be seen, the correlation coefficient (R) and determination coefficient ($R^2$) are respectively equal to 0.96 and 0.922. Since, $R^2$ indicates the relation's intensity; the correlation rate between these two variables is high. Due to the value obtained from t and f, $H_0$ hypothesis based on the lack of relationship between earnings per share and dividend per share is rejected and $H_1$ based on the existence of relation between earnings per share and dividend per share is accepted. This relation can also be inferred by considering the significant indicators, since, the desired a is .5 in this study, if this index to be less than 0.5, the relationship is verified and here this value is also zero. So, with reliability near to 1 can be pointed to the existence of relationship between two variables. The regression coefficient is calculated to examine the effect of earnings per share on stock price. Although, the relationship has been confirmed, the low value of $R^2$ indicates the distance of issues from regression line, yet, for every unit enhancement (decrease) in earnings per share, the price increase for 1.313 units (decrease).

*Fourth Hypothesis: Most of the companies accepted in the Stock Exchange predict their earnings per share more than the actual extent.*

$$\begin{cases} H_0 : N \leq 50\% \\ H_1 : N > 50\% \end{cases}$$

To examine this question, $H_1$ hypothesis expresses that the number of companies that have predicted their own earnings more than actual extent is more than 50% in confidence level of 95%

and $H_0$ states that the number of companies that have predicted their own earnings less than actual extent is less than 50% in confidence level of 95%.

According to Table 7, because the observed test statistic (0.42) at $P \leq .05$ is significant, thus $H_0$ is rejected and mutual hypothesis or H1 is confirmed.

**Table 7. Binomial test related to the first question**

| Sig | Probability test | Observed probability | N | Research hypothesis | | Question |
|---|---|---|---|---|---|---|
| 0.042 | 0.50 | 0.44 | 146 | $N \leq 50\%$ | $H_0$ | Most firms recognized in Stock Exchange predict the share profit more than what it really is |
| | | 0.56 | 184 | $N > 50\%$ | $H_1$ | |

So, with 95% confidence, it can be said that the majority of listed companies on the stock exchange predict their earnings per share more than the actual amount.

**Conclusion**

Regarding the above results, the following conclusion can be drawn:

1. There is a relation between earnings per share and stock price in companies accepted in the Stock Exchange.

2. There is a relation between predicted earnings per share and stock price in companies accepted in the Stock Exchange.

3. There is a relation between earnings per share and dividends per share in companies accepted in the Stock Exchange.

4. The majority of the companies accepted in the Stock Exchange predict their earnings per share more than the actual amount.

**Recommendations**

1 - Shareholders use various variables to buy and sell shares that from above variables can be pointed to predicted earnings per share, earnings per share and dividend per share. Since the predicted earnings per share can be a sign of earnings per share and dividend, it is suggested to shareholders to do investment and share buying and selling actions according to the existence of relation between predicted earnings per share and earnings per share with stock price as well as the relationship between earnings per share and dividend per share.

2 - It is recommended that companies' managers to divide lower earnings if there are investment opportunities, because at first, financing through loan is difficult in Iran due to the money market structure and because of high inflation, loan rates are relatively high. In this case, if the company has had investment opportunity, by dividing its own internal resources' earnings reduce the value of the company. Therefore, it is recommended that managers of company to do favorable actions in this regard. Secondly, because of the relationship between dividend with earnings per share and predicted earnings, managers should be careful in declaring their own earnings. Because by announcing predicted earnings, attitudes towards earnings per share and dividends are formed in the minds of stakeholders (Behavioral reasons).

4 - The suggestion that can be offered to exchange is that the stock organization to be excluded from governmental structure and converted to a private organization and its role from an

executor and affair performing agent to be converted to an observer that is supported by shareholders, in this case can defend the rights of shareholders.

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