Agricultural Marketing and Commercialization Journal
5(1), 67-89, 2021, ISSN Print: 2676640X, ISSN online: 2676-7570

Designing a Confirmatory Factor Analysis Model to investigate the impact of Risk Management on Corporate Profit Sharing

Hossein Nouri Farid [1], Alireza Momeni [2*], Aziz Gord [3]

[1]PhD candidate of Accounting Department, Zahedan Branch, Islamic Azad University, Zahedan, Iran,
[2]Department of Accounting, Payame Noor University, Tehran, Iran,
https://orcid.org/0000-0003-1495-1221, Email: Momeni50688@gmail.com
[3]Department of Accounting, Payame Noor University, Tehran, Iran,

Abstract

Dividend is one of the issues that has long been considered by financial researchers and continues to be one of the controversial issues in the field of financial management. The aim of this study was to model confirmatory factor analysis to investigate the effect of risk management on corporate dividends. For this reason, we have used some systematic risk components such as exchange rate risk, interest rate risk and financial risk to measure risk management. In order to investigate the dividend of companies, we have used the variables of earnings per share, dividends, earnings growth per share and dividend ratio. The research tool was a questionnaire whose reliability was confirmed based on the opinion of a group of faculty members and related experts and Cronbach's alpha coefficient was used to determine the reliability of different departments (0.78-0.92). Data were analyzed using Lisrel8.8 software. To analyze the collected data, first, descriptive statistics describing the main variables and demographic characteristics are examined. Then inferential statistics are presented. In inferential statistics, confirmatory factor analysis (CFA) with covariance-based approach was used by Lisrel8.8 software to assess the occasion of the measurement tool (questionnaire). Also, skolgi and elongation coefficients were used to investigate the type of data distribution. According to the type of questions raised in the questionnaire, an independent sample T-test was used to investigate the assumptions. The results of the hypothesis test indicate that risk management is directly related to corporate dividends.

Keywords: Confirmatory Factor Analysis, Profit Sharing, Risk Management.

Introduction

Budgetary choices are one of the foremost critical ranges of competition for companies to provide optimal financial resources for survival in a turbulent business environment. Data almost commerce status, esteem added and chance of firms is one of the most important data for their choice making.

Choosing on the costs of benefit from the company's operations is one of the major choices of the company's managers (Hashemi, 2016). The significance of dividend policy was first examined by Miller and Modigliani. Concurring to them, within the full capital market, there's no relationship between profit arrangement and the stock market value of companies. In a full capital advertise, the value of the company depends as it were on end of the cash flows that result from the investments made. A number of analysts (Lynnette, 2011) point out that numerous companies have a long-term profit arrange, whereas less companies are willing. Their benefits convey this year among shareholders. In this manner, directors attempt to distribute less profit in cash for fear of losing a great amount of liquidity. Since profit arrangement is effective in long-term planning and dividend installment to shareholders, the company may consider two important points in its profit payment decision: First, non-payment of profits increases the resources available to the company and increases the possibility of productive projects, and second, the payment of dividends leads to an increase within the value of offers from the point of view of shareholders, so companies to maximize Shareholders' wealth declares and distributes dividends to estimate their least expected return. However, profits represent the major cash payments of companies and are one of the foremost important options and choices for managers. The manager must choose how much to divide the company's benefits and how much to reinvest within the company in the form of accumulated profits. In spite of the fact that profit payment specifically benefits shareholders, the firm's ability to build up benefits for greater advantage affects growth opportunities (Baker et al., 2018). Since the most important criterion for assessing the execution of institutions is as of now the rate of return on stocks, and given that one of the essential criteria for decision-making within the stock market is the rate of return, this criterion alone has information content and more; Actual and potential investors use it in monetary examination, performance appraisal and forecasting (Ebrahimzadeh, 2017). Stock market members are continuously looking to get more returns with sensible risk. In this regard, they use information. Basse & Vers, (2019) states that profit policy can give data around company performance and influence stock costs and financial specialist behavior. For this reason, within the genuine world, the financial managers of the company, when formulating the dividend policy, should consider long-standing time investment opportunities of the company in connection to the inner resources of the capital and balance between the current dividend and future development to maximize shareholder wealth. Dividend policy is determined during the arranging process and is part of the company's long-term investment and financing strategy, which are defined at the same time (Abdollahzadeh, 2016). Given the above and the importance of profit-sharing arrangements for investors, as well as managers and partners, as well as the presence of different avoidable and unavoidable dangers within the market that have a significant effect on the capital

advertise and are exceptionally important among owners and managers. In this manner, we considered it important to show confirmatory calculate analysis in this study to explore the impact of risk management on corporate profit sharing.

Theoretical foundations and literature review

Dividend policy is one of the most important issues in financial management and in fact the basis of corporate evaluation: the value of all companies is equal to the current value of their future cash flows. Investors receive two types of cash returns in exchange for accepting investment risk in the company: cash profits and capital gains (due to changes in the value of shares). Cash dividends are the most important source of cash payments to shareholders and therefore are of great importance (Ebrahimzadeh, 2017). Today's joint stock companies are composed of collective efforts of groups such as managers, employees, shareholders and creditors. These groups come together in a joint stock company by concluding various formal and informal contracts. For many years in the past, economists have assumed that all groups related to a joint stock company are operating for a common purpose, but in the past two decades, many instances of conflicts of interest between groups and how companies deal with such conflicts have been raised by economists. These cases are generally referred to as representative theory (Dastgir & Zafari, 2017). (Bahramfar & Mehrani, 2014), defines corporate executives as brokers and shareholders as kargmar. Wise and cautious managers who act in the best interests of shareholders should invest in all profitable opportunities; Reduce investment in non-profitable projects. (Moradi, 2019), on the other hand, states that it is better to divide liquidity in the organization into dividends among shareholders, because it reduces interest payments, funds for miscellaneous expenses and investment opportunities, and compels managers of family companies to search for financing in capital markets and reduces the level of funds available for miscellaneous consumption by managers of family companies (Yunasi & Karrahi Moghadam, 2013). Considering that managers of these companies have more information about future cash flows than outside the company and their motivations for disseminating information to investors and distributing profits are unclear, monitoring management behavior through shareholders in family companies is mandatory (Diwai, 2011).

Explaining and explaining the dividend policy of companies and its determinants is one of the biggest challenges that has always been facing financial thinkers, several researchers after decades of studying and studying in this regard, have not yet fully explained all the factors affecting the company's dividend policy and how to interact between these factors. (Barazandeh, 2017) wrote about this about three decades ago, the deeper we look at the issue of dividends, the more it becomes a puzzle whose parts are properly matched, but to this day this image and its complexities remain and will not remain (Ebrahimzadeh, 2017).

Risk Management

Risk management is a process by which an individual or an organization uses optimal methods to try to secure itself against a variety of risks. So it reacts from itself. All organizations, including service, industrial and manufacturing organizations, invest in projects that have different risks. They can succeed if they overcome the problems and problems arising from this risk that can dominate the risks and provide a suitable way to reduce it so that the risk cannot cause the organization to fail. Therefore, in an organization, first, different types of risks are identified and different control methods are identified for them based on their type. However, these risks are generally eliminated and can only be controlled. For example, one of the risk control methods can be introduced as the use of insurance, thus securing your person or organization for various accidents to reduce the risk of accidents. Some other risk control methods include futures contracts and treaties, option contracts, foray contracts, etc., which closes between the two sides of the transaction to reduce the risk.

Interest Rate Risk

Interest rates include financing or loans or the price paid for rent. There are usually several interest rates in an economic system (mortgage interest rates, car purchase loan interest rates and interest rates of different types of bonds). From several perspectives, interest rates are very important:

From a personal point of view, high interest rates prevent you from buying a home or a car, as the cost of financing will be very high. And on the contrary, high interest makes individuals save more, because they can benefit from interest or interest by depositing extra money into a savings fund.

From a general point of view, interest rates have severe effects on the health of the economic system, because in addition to affecting people's willingness to consume or save, it does not affect interest-related decisions or investments of companies and businesses. For example, high interest rates cause a company to delay the construction of a new manufacturing unit, although building such a unit can create new jobs.

Financial Risk

Financial risk is related to the use of financial resources and the financing of the enterprise through debt. Financial risk is closely related to the concept of leverage. In other words, the more the institution goes under the debt burden, the higher the leverage, and as a result, the higher its financial risk.

Exchange Rate Risk

All investors who invest in international markets face the risk of exchange rate changes. For example, an investor who buys shares of a company located in another country will eventually have to convert his returns into his own country's money. If the exchange rate changes, this person is likely to lose, as is the possibility of profit.

Since the proceeds of ordinary shares are paid to the holders of deposit receipts after converting to the host country currency, in case of any delay in the rate of equality between the two currencies of the local country and the host, the possibility of reducing the income of the holders of deposit

receipts in terms of domestic currency increases.

With the expansion of economic activities, the business environment governing each industry has encountered significant developments in two areas of access to "cheap resources" and "appropriate target markets". These developments in line with the principle of "limited resources of unlimited needs" require manufacturing enterprises to use cheap resources in the production of goods and services and access to global markets with the approach of mass production of products (Byrne, 2005). On the other hand, trade between products and goods in the world space should be based on acceptable values and approved by all countries. This value is nothing but the national currency of the country of origin (and the national currency of the country of the transaction, which is called the so-called "currency"). In fact, goods and services in international trade are valued and traded in currency. Undoubtedly, the price (credit) of the currency and its volatility is a function of some conditions. In the business environment of enterprises, the process of supply-production chain and distribution of enterprise products is influenced by exchange rate fluctuations. As a rule, uncertainty about the amount of currency fluctuations for each firm is considered as a type of risk (uncertainty) that can affect the framework of the firm's activity. Therefore, management of this risk is considered as one of the most important tasks of financial managers of enterprises. Exchange rate fluctuations from two channels of total demand (net exports) and total supply (costs of imported intermediate goods) affect the production of goods and services (Jahankhani & Parsaian, 2015). (Yong, 2015), a study entitled The Impact of the Financial Crisis on The European Insurance Industry's Dividend Policy: Additional Empirical Evidence. In this paper, by examining inflation, the dividend policy of European insurance companies has been re-examined. In particular, some kind of approach introduced by (Rabin & Kahnemn, 2016), proposed by (Pirsalehi, 2018), used in this field. The sample of the data examined here is set to prevent structural problems. In addition, newer data (of course) is also taken into account. Thus, this experimental study pays more attention to experiences in times of crisis and post-crisis. It seems that this affects the results. (Yunasi & Karrahi Moghadam, 2013) conducted a study examining the impact of financial leverage on dividend policies in Karachi's companies. The results of their research in 403 companies during 2002-2008 showed a significant negative relationship between financial leverage and dividends. (Jahankhani & Ghorbani, 2015) reviewed the dynamics and determinants of dividend policy in 920 non-financial companies listed on the Pakistan Stock Exchange during 2001-2006. The results showed that companies predict the amount of dividends next year in order to adopt a policy of earnings, relying on the profits of each share and dividends of previous years. The study, (Campbell et al., 2018), is the first research to investigate the effect of dividend policy on stock returns by controlling the size, leverage, beta and acceleration 2 of the real-time power of stock price change.

(Hashemi, 2016), in the Chinese Stock Exchange, confirmed previous research on the direct relationship between financial leverage and the size of the company and the obvious fixed assets with profitability. Also, the results showed that there is a positive correlation between financial leverage and stock price variability. In a 2002 study entitled "The Effect of Dividend Policy on Stock Price Fluctuations in Malaysian Financial Market", Hashemijoo and Colleagues examined the relationship between stock price fluctuations and dividend policy and the amount of interest paid, and concluded that there is a significant negative relationship between stock price dispersion and these two variables. (Lynnette, 2011) conducted studies on corporate dividend changes and showed that increasing dividends would reduce the systematic risk of companies and vice versa. (Baker et al., 2018) investigated the relationship between changes in dividends and future profitability of the company. The results showed that changes in dividends provide information about the level of profitability of the company in the following years. In 1995, Barclay and his colleagues investigated "determinants of financial leverage and corporate dividend policies". He considered three factors of investment opportunities, the effects of messaging changes in cash dividends and the size of the company as possible determinants of profit division policy in companies. (Haghighat & Panahi, 2011), conducted a research entitled "The Relationship between Earnings Quality and Future Stock Returns in Listed Companies in Tehran Stock Exchange". In this research, Roozov categorized the determinants of corporate dividend policy in the form of cases, transactional costs of financing from capital market, financial financing limitations resulting from increased financial and operational leverage, and external ownership representation costs of minority shareholders. (Ebrahimzadeh, 2017) indicates that in emerging capital markets, the relationship between company size, systematic market risk and profit-to-price ratio with stock returns with reported relationship In developed capital markets, it is at odds. (Basse & Vers, 2019) provided strong backers for the relationship between size and ratio of book value to market value with stock returns. They expressed skepticism about beta sensitivity in the capital asset pricing model and found that the differences in stock returns are mainly explained by two factors: the size of the company and the ratio of book value to market value, examined the data of the Greek Stock Exchange. Based on data from 29 companies during the years up to now, he showed that the policy of dividend and its behavior is primarily important for investors.

(Kamyabi & Ranjbar, 2013) found that the size of the company's market value (ME) had a significant effect on stock returns, by examining the effect of product market competition on the relationship between ownership concentration and dividend policy in listed companies in Tehran Stock Exchange, concluded that there is an inverse and significant relationship between leverage and accrual ratio with dividend policy and the size of the company has a direct and significant relationship with dividend policy.

(Ebrahimzadeh, 2017), investigating the interaction between risk management and corporate governance on the volatility of the results' profits, shows that the simultaneous impact of risk and CEO duality on Tucson is reverse return, but the simultaneous effect of risk and ownership concentration on Tucson is direct and significant returns, by examining the relationship between dividend policy, systematic risk and return with changes in stock prices in Tehran Stock Exchange concluded that Stock returns have a significant effect on stock price changes. In relation to the effect of control variables, the growth trend had a positive effect and the size of the company and the debt-to-asset ratio had a negative and significant effect on stock price changes. (Hashemi, 2016), with the aim of investigating the relationship between dividend policy and risk of falling stock prices of listed companies in Tehran Stock Exchange, concluded that there is a negative and significant relationship between cash dividend policy and stock price fall risk.

Methodology

The collected data are meaningless numbers and figures that are used to make them meaningful in order to achieve research goals. Data analysis as part of the scientific research methodology process is one of the main foundations of any study and research by which all research activities are controlled and directed until a result is reached. To analyze the collected data, first, descriptive statistics describing the main variables and demographic characteristics are examined. Then, inferential statistics are presented. In inferential statistics, confirmatory factor analysis (CFA) with covariance-based approach was used by Lisrel8.8 software to assess the occasion of the measurement tool (questionnaire). Also, skolgi and elongation coefficients were used to investigate the type of data distribution. According to the type of questions raised in the questionnaire, an independent sample T-test was used to investigate the assumptions.

Research Hypotheses

The hypotheses of this study are as follows:

1- Interest rate risk directly affects earnings per share

2- Exchange rate risk directly affects earnings per share

3- Financial risk of companies has a direct effect on earnings per share

4- Interest rate risk directly affects dividend payments

5- Exchange rate risk directly affects dividend payments

6- Financial risk of companies directly affects dividend payments

7. Interest rate risk directly affects earnings growth per share

8- Exchange rate risk directly affects earnings growth per share

9- Financial risk of companies has a direct effect on earnings growth per share

10. Interest rate risk directly affects the ratio of dividends paid by stocks

11- Exchange rate risk directly affects the ratio of dividends paid by stocks

12- Financial risk of companies has a direct effect on the ratio of dividends paid by stocks

Results

Measurement of normality of distribution of variables

In order to implement statistical methods and calculate the appropriate test statistics and logical inference about the research hypotheses, the most important action before any action is to select the appropriate statistical method for the research, so awareness of the distribution of data is a fundamental priority. Normal distribution means that the distribution of variables on both sides of the average is the same so that the distribution diagram has a bell shape, if the distribution of variables is not normal, the distribution will be removed from the bell state and lean to the left or right of the average, when the distribution of variables is normal, parametric tests are used to test the assumptions and otherwise nonparametric tests are used. Skewness and kurtosis coefficients are used to evaluate normality. Absolute magnitude shows the coefficient of skewness and kurtosis greater than 2 violations of normality of the data.

Table 1. Data normality test results

Variables	Skewness coefficient	Kurtosis coefficient	Results
Second sub-hypothesis	-0.692	-0.107	Normal
Third sub-hypothesis	-0.588	0.668	Normal
Fourth sub-hypothesis	-0.215	-0.178	Normal
Fifth sub-hypothesis	-0.586	0.118	Normal
Sixth sub-hypothesis	-0.602	-0.302	Normal
Seventh sub-hypothesis	-0.754	0.592	Normal
The eighth sub-hypothesis	-0.321	0.186	Normal
The ninth sub-hypothesis	-0.709	1.109	Normal
The tenth sub-hypothesis	-0.396	0.687	Normal
Eleventh sub-hypothesis	-0.350	0.014	Normal
Twelfth sub-hypothesis	-0.216	-0.446	Normal

As is evident in the (Table 1), the amount of skewness coefficient and kurtosis for all variables studied is in the safe range (+2 and -2) and indicates the normality of the data. On the other hand, the central limit theorem in statistics proves that if the number of statistical samples increases (more than 30 samples) the distribution of data will be directed towards normal statistical distribution. In the present study, the sample was 280 people and is very desirable. Also, histogram diagrams have the main variable of bell and symmetric state and are very similar to the normal distribution histogram diagram. Therefore, in general, it is concluded that the distribution of the data of the variables in the (Table 1) normal or at least very close to normal and parametric tests can be used.

Confirming factor analysis of questionnaire structures

Before performing any assumption and prioritization test, the questions used in the questionnaire should be evaluated separately

from the research variables in terms of fit capability. In confirmatory factor analysis, the researcher tries to obtain confirmation on a assumed factor structure. That is, it determines whether the data is in line with a specific factor structure set out in the hypothesis. Confirmatory factor analysis is also used to measure the validity of indicators of a construct in the questionnaire to determine that there is necessary coordination and alignment between the indicators (questions). In other words, confirmatory factor analysis is a tool for assessing the validity of the questionnaire. That is, the questionnaire measures what was built to measure it.

The diagram below shows the first-order model of factor analysis with standardized coefficients **(**Figure 1) and **(**Figure 2).

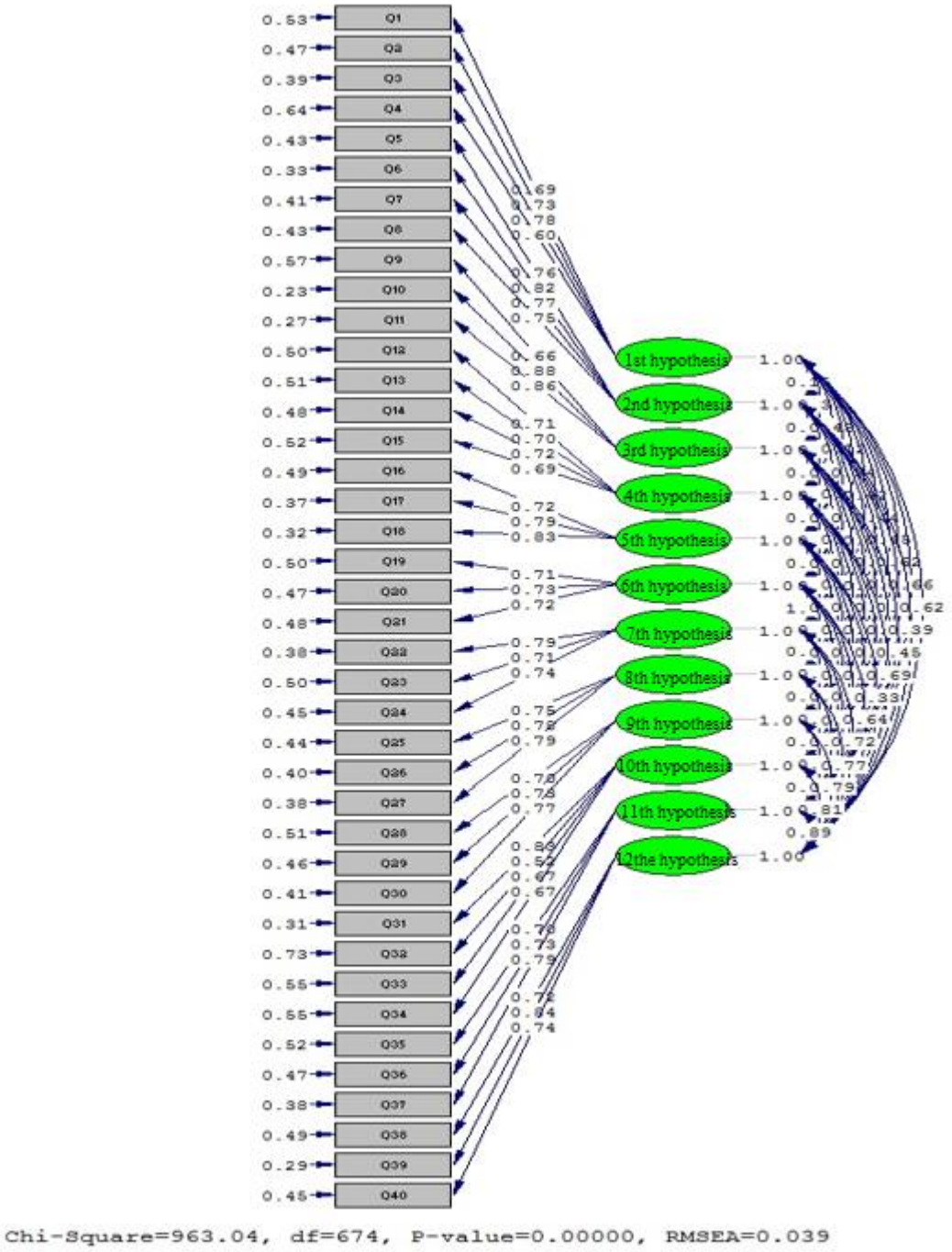

Figure 1. Standardized Path Coefficients of Factor Analysis Model

Agricultural Marketing and Commercialization Journal
5(1), 67-89, 2021, ISSN Print: 2676640X, ISSN online: 2676-7570

The diagram below shows the first-order model of factor analysis with significant T coefficients.

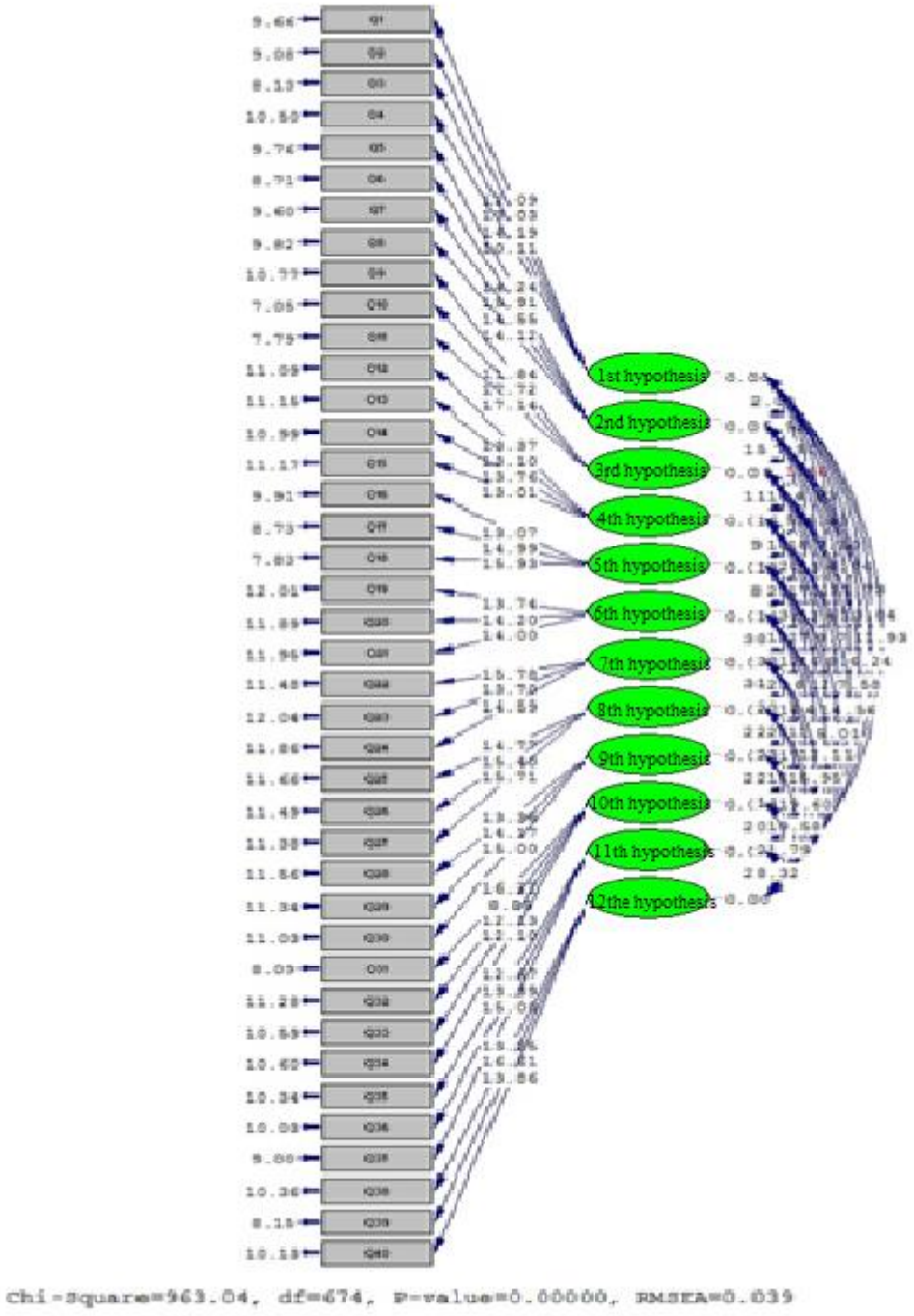

Figure 2. The amount of T-statistics of factor analysis model

Standardized coefficients of factor loads and significant amount of T

From the standardized coefficients measurement model, it can be perceptions that there is a significant correlation between the variables present and the corresponding indicators. Standardized coefficients actually indicate path coefficients or standardized operating loads between factors and markers. In order to have a standard, there should be a significant correlation between the variables and the questions of the questionnaire (items). If the standardized factor load is higher than 0.4, it can be said that the questions have good explaining power. T-Value values show the significance of each parameter and if the T value is greater than the absolute value of 1.96, the parameters of the model are significant and in this case, the validity of the measurement structures of the relevant variables can be confirmed at a significance level of 0.05.

The standardized factor load value for all questions is more than 0.4 and considering that all meaningful numbers between items with corresponding latent variables are calculated larger than 1.96, the validity of the measurement structures of the relevant variables can be confirmed at a significance level of 0.05. Therefore, there is no need to change or remove questions in the model and research questionnaire. Cronbach's alpha coefficient is calculated for all variables, which according to the limits mentioned for these criteria, results that the cronbach alpha coefficients of all structures are accepted.

Model Fitting Indicators

In order to confirm the factor analysis model and the documented results, it is necessary to fit the model to an acceptable level. In the (Table 2) are the indicators used with its value.

Table 2. The results of fitness indices of confirmatory factor analysis models

Indicators reviewed	**Latin symbol**	**Standard level**		**Estimated value**
Kai Square/Degree of Freedom	(x2/ df)	Less than 3	Carmines and Mciver (1981)	1.42
Root mean squares estimation error	(RMSEA)	Less than 0.08	Hayer et al. (1998)	0.039
Normalized fit	(NFI)	More than 0.9	Bentler and Bound (1980)	0.97
Comparative fit	(CFI)	More than 0.9		0.99
Increasing fit	(IFI)	More than 0.9		0.99
Goodness of fit	(GFI)	More than 0.8	Etzadi and Forouhmand (1996)	0.85
Cronbach's alpha	ALPHA	More than 0.7	Cronbach (1999)	0.956

As shown in (Table 2), in the factor analysis model, the chi-square value is 1.42 and less than 3. Also, the root value of the estimated variance of approximation error (RMSEA) is equal to 0.039 and less than 0.08. Also, the Adaptive Fitness Index (CFI), Incremental Fitness Index (IFI), Normalized Fitness Index (NFI) and Goodness Fitness Index (GFI) are all calculated to the appropriate level. Therefore, in general and according to the calculated indicators, the optimal fit of the model can be concluded. The (Table 2) shows that the confirmatory factor analysis of the constructs of the questionnaire used has a suitable fit and the constructs of the questionnaire show the relevant variables well. It should be noted that the Cronbach's alpha value of the total questionnaire with 40 questions and a sample of 280 people was calculated to be 0.956.

Confirmatory factor analysis showed that the amount of factor load between the questionnaire questions and the latent variables related to it is statistically significant and there is no need to delete or change the questionnaire questions. Also, the results of model fit indices as well as Cronbach's alpha value is at a desirable and citationable level. Therefore, according to the collected data and with 95% probability, it can be stated that the questionnaire questions actually measure what we are considering.

Investigation of research goals and hypotheses

After examining the occasion of the measurement tool with confirmatory factor analysis technique and examining the normality of the data in this part of the study, the questions and objectives raised in the research were investigated. In fact, due to the normality of the data distribution of variables, an independent sample T-tech test will be used.

An independent single-sample T-test is used when the researcher intends to compare the average of a society with a theoretical and assumption average. This assumption or theoretical average can be a common or common value, a standard value, or an expected value, which in this study is considered number 3, which is the middle limit of questions range 1 to 5. In fact, in this study, according to the type of questions used in the questionnaire, the decision-making questionnaire is as follows:

If the mean scores of each hypothesis are higher than the numerical value 3 (the middle of the 5-option Likert spectrum), that hypothesis will be confirmed. And if the mean scores of people about a hypothesis are less than 3, that hypothesis will be rejected. Statistically, the following hypothesis is tested:

Null Hypothesis: The average variable is equal to 3. ($\mu=3$)

Alternative Hypothesis: The average variable is not equal to 3 ($\mu\neq3$).

1st hypothesis: Interest rate risk has a direct effect on earnings per share.

The (Table 3) shows the results of an independent sample t-test on the first hypothesis.

Table 3. Results related to the first hypothesis

First hypothesis	Average	T-amount	Significance level	Mean difference	95% confidence interval of the average difference		Results
					Lower limit.	Upper limit	
Interest rate risk on earnings per share	3.49	11.171	0.000	0.49	0.41	0.58	Confirm

As can be seen in the (Table 3), the significance level of the test regarding the effect of interest rate risk on earnings per share is calculated with a T11.171 statistic equal to zero and less than the error level of 5%. Therefore, it is concluded that the assumption of zero independent single-sample T-test is rejected and the opposite assumption of the test is confirmed by the opposite of the mean scores of the subjects regarding the hypothesis of this part of the study with the number 3. Since the average scores of interest rate risk impact on earnings per share were reported to be 3.49 and more than 3, and also about the high and low differences of the estimated average, a positive amount has been obtained. Therefore, it can be concluded that the effect of interest rate risk on earnings per share is in a positive direction and statistically this effect is also significant.

In other words, it can be said that according to the collected data and with a 95% probability of interest rate risk, it has a significant effect on the profit per share. Therefore, the first hypothesis is confirmed.

2nd hypothesis: Exchange rate risk directly affects earnings per share

The (Table 4) shows the results of an independent sample t-test on the second hypothesis.

Table 4. Results related to the second hypothesis

Second hypothesis	Average	T-amount	Significance level	Mean difference	95% confidence interval of the average difference		Results
					Lower limit.	Upper limit	
Exchange rate risk on earnings per share	3.68	15.037	0.000	0.683	0.593	0.772	Confirm

As can be seen in the (Table 4), the significance level of the test regarding the effect of exchange rate risk on earnings per share is calculated with a T-15.037 statistic equal to zero and less than the error level of 5%. Therefore, it is concluded that the assumption of zero independent single-sample T-test is rejected and the opposite

assumption of the test is confirmed by the opposite of the mean scores of the subjects regarding the hypothesis of this part of the study with the number 3. Since the average scores of exchange rate risk effect on earnings per share were reported to be 3.68 and more than 3, and also about the high and low differences of the estimated average, a positive amount has been obtained. Therefore, it can be concluded that the effect of exchange rate risk on earnings per share is in a positive direction and statistically this effect is also significant.

In other words, it can be said that according to the collected data and with a 95% probability of exchange rate risk, it has a significant effect on earnings per share. Therefore, the second hypothesis is confirmed.

3rd hypothesis: Corporate financial risk directly affects earnings per share

The (Table 5) shows the results of an independent sample t-test on the study of the third hypothec.

Table 5. Results related to the third hypothesis

Third hypothesis	Average	T-amount	Significance level	Mean difference	95% confidence interval of the average difference		Results
					Lower limit.	Upper limit	
Corporate financial risk on earnings per share	3.54	11.296	0.000	0.547	0.452	0.643	Confirm

As can be seen in the (Table 5), the significance level of the test regarding the effect of financial risk of companies on earnings per share is calculated with a T11.296 statistic equal to zero and less than the error level of 5%. Therefore, it is concluded that the assumption of zero independent single-sample T-test is rejected and the opposite assumption of the test is confirmed by the opposite of the mean scores of the subjects regarding the hypothesis of this part of the study with the number 3. Since the average scores of financial risk impact of companies on earnings per share were reported to be 3.54 and more than 3, and also about the high and low average differences, a positive amount has been obtained. Therefore, it can be concluded that the effect of financial risk of companies on earnings per share is positive and statistically this effect is also significant.

In other words, it can be said that according to the collected data and with a 95% probability of financial risk, companies have a significant effect on earnings per share. Therefore, the third hypothesis is confirmed.

4th hypothesis: Interest rate risk directly affects dividend payments.

The (Table 6) shows the results of an independent sample t-test on the fourth hypothesis.

Table 6. Results related to the fourth hypothesis

Fourth hypothesis	Average	T-amount	Significance level	Mean difference	95% confidence interval of the average difference		Results
					Lower limit.	Upper limit	
Interest rate risk on dividends paid by stocks	3.42	8.402	0.000	0.423	0.324	0.522	Confirm

As can be seen in the (Table 6), the significance level of the test regarding the effect of interest rate risk on dividends paid by 8.402 is calculated as zero and less than the error level of 5%. Therefore, it is concluded that the assumption of zero independent single-sample T-test is rejected and the opposite assumption of the test is confirmed by the opposite of the mean scores of the subjects regarding the hypothesis of this part of the study with the number 3. Since the average scores of interest rate risk impact on dividends paid by stocks equal to 3.42 and more than 3 reported and also about the high and low difference of estimated average, a positive amount has been obtained. Therefore, it can be concluded that the effect of interest rate risk on dividends is positive and statistically this effect is also significant. In other words, it can be said that according to the collected data and with a 95% probability of interest rate risk, it has a significant effect on dividend payments. Therefore, the fourth hypothesis is confirmed.

5th hypothesis: Exchange rate risk directly affects dividend payments.

The (Table 7) shows the results of an independent sample t-test on the fifth hypothesis.

Table 7. Results related to the fifth hypothesis

Fifth hypothesis	Average	T-amount	Significance level	Mean difference	95% confidence interval of the average difference		Results
					Lower limit.	Upper limit	
Exchange rate risk on dividends paid by stocks	3.46	8.624	0.000	0.467	0.361	0.574	Confirm

As can be seen in the (Table 7), the significance level of the test regarding the effect of exchange rate risk on dividends paid by T8.624 is calculated as zero as and less than the error level of 5%. Therefore, it is concluded that the assumption of zero independent single-sample T-test is rejected and the opposite assumption of the test is

Agricultural Marketing and Commercialization Journal
5(1), 67-89, 2021, ISSN Print: 2676640X, ISSN online: 2676-7570

confirmed by the opposite of the mean scores of the subjects regarding the hypothesis of this part of the study with the number 3. Since the average scores of exchange rate risk impact on dividends 3.46 and more than 3 reported and also about the high and low difference of estimated average, a positive amount has been obtained. Therefore, it can be concluded that the effect of exchange rate risk on dividends is positive and statistically this effect is also significant.

In other words, it can be said that according to the collected data and with a 95% probability of exchange rate risk, it has a significant effect on dividends. Therefore, the fifth hypothesis is confirmed.

6th hypothesis: Corporate financial risk directly affects dividend payments.

The (Table 8) shows the results of an independent sample t-test on the sixth hypothesis.

Table 8. Results related to the sixth hypothesis

Sixth hypothesis	Average	T-amount	Significance level	Mean difference	95% confidence interval of the average difference		Results
					Lower limit.	Upper limit	
Corporate Financial Risk on Dividends	3.54	9.263	0.000	0.540	0.425	0.655	Confirm

As can be seen in the (Table 8), the significance level of the test regarding the effect of financial risk of companies on dividends paid by T9.263 is calculated as zero and less than the error level of 5%. Therefore, it is concluded that the assumption of zero independent single-sample T-test is rejected and the opposite assumption of the test is confirmed by the opposite of the mean scores of the subjects regarding the hypothesis of this part of the study with the number 3. Since the average scores of financial risk impact of companies on dividends equal to 3.54 and more than 3 reported and also about the high and low estimated average difference, a positive amount has been obtained. Therefore, it can be concluded that the effect of financial risk of companies on dividends is positive and statistically this effect is also significant. In other words, it can be said that according to the collected data and with a 95% probability of financial risk of companies, it has a significant effect on dividends. Therefore, the sixth hypothesis is confirmed.

7th hypothesis: Interest rate risk directly affects earnings growth per share.

The (Table 9) shows the results of an independent sample t-test on sub hypothesis analysis.

Table 9. Results related to the seventh hypothesis

Seventh hypothesis	Average	T-amount	Significance level	Mean difference	95% confidence interval of the average difference		Results
					Lower limit	Upper limit	
Interest rate risk on earnings growth per share	3.69	15.515	0.000	0.698	0.610	0.787	Confirm

As can be seen in the (Table 9), the significance level of the test regarding the effect of interest rate risk on earnings growth per share is calculated with a T-15.515 statistic equal to zero and less than the error level of 5%. Therefore, it is concluded that the assumption of zero independent single-sample T-test is rejected and the opposite assumption of the test is confirmed by the opposite of the mean scores of the subjects regarding the hypothesis of this part of the study with the number 3. Since the average scores of interest rate risk impact on earnings growth per share were reported to be 3.69 and more than 3, and also about the high and low estimated average difference, a positive amount has been obtained. Therefore, it can be concluded that the effect of interest rate risk on earnings growth per share is in a positive direction and statistically this effect is also significant.

In other words, it can be said that according to the collected data and with a 95% probability of interest rate risk, it has a significant effect on the growth of profit per share. Therefore, the seventh hypothesis is confirmed.

8th hypothesis: Exchange rate risk directly affects earnings growth per share

The (Table 10) shows the results of an independent sample t-test on the study of the eighth hypothesis.

Table 10. Results related to the eighth hypothesis

Eighth hypothesis	Average	T-amount	Significance level	Mean difference	95% confidence interval of the average difference		Results
					Lower limit	Upper limit	
Exchange rate risk on earnings growth per share	3.25	5.486	0.000	0.258	0.165	0.351	Confirm

As can be seen in the (Table 10), the significance level of the test regarding the effect of exchange rate risk on earnings growth per share is calculated with a T5.486 statistic equal to zero and less than the error level of 5%. Therefore, it is concluded that the assumption of zero independent single-sample T-test is rejected and the opposite

assumption of the test is confirmed by the opposite of the mean scores of the subjects regarding the hypothesis of this part of the study with the number 3. Since the average scores of exchange rate risk effect on earnings growth per share were reported to be 3.25 and more than 3, and also about the high and low estimated average difference, a positive amount has been obtained. Therefore, it can be concluded that the effect of exchange rate risk on earnings growth per share is in a positive direction and statistically this effect is also significant.

In other words, it can be said that according to the collected data and with a 95% probability of exchange rate risk, it has a significant effect on earnings growth per share. Therefore, the eighth hypothesis is confirmed.

9th hypothesis: Corporate financial risk directly affects earnings per share growth.

The (Table 11) shows the results of an independent sample t-test on the ninth hypothesis.

Table 11. Results related to the ninth hypothesis

Ninth hypothesis	Average	T-amount	Significance level	Mean difference	95% confidence interval of the average difference		Results
					Lower limit	Upper limit	
Corporate financial risk on earnings growth per share	3.85	19.456	0.000	0.857	0.770	0.943	Confirm

As can be seen in the (Table 11), the significance level of the test regarding the effect of financial risk of companies on earnings growth per share is calculated with a T19.456 statistic equal to zero and less than the error level of 5%. Therefore, it is concluded that the assumption of zero independent single-sample T-test is rejected and the opposite assumption of the test is confirmed by the opposite of the mean scores of the subjects regarding the hypothesis of this part of the study with the number 3. Since the average scores of financial risk impact of companies on earnings growth per share equal to 3.85 and more than 3 reported and also about the high and low estimated average difference, a positive amount has been obtained. Therefore, it can be concluded that the effect of financial risk of companies on earnings growth per share is in a positive direction and statistically this effect is also significant.

In other words, it can be said that according to the collected data and with a 95% probability of financial risk, companies have a significant effect on earnings growth per share. Therefore, the ninth hypothesis is confirmed.

10th hypothesis: Interest rate risk directly affects dividend ratio.

The (Table 12) shows the results of an independent sample t-test on the study of the tenth hypothesis.

Table 12. Results related to the tenth hypothesis

Tenth hypothesis	Average	T-amount	Significance level	Mean difference	95% confidence interval of the average difference		Results
					Lower limit	Upper limit	
Interest rate risk on dividend ratio	3.53	12.711	0.000	0.530	0.448	0.612	Confirm

As can be seen in the (Table 12), the significance level of the test regarding the effect of interest rate risk on the dividend ratio of 12.711 T is calculated as zero as and less than the error level of 5%. Therefore, it is concluded that the assumption of zero independent single-sample T-test is rejected and the opposite assumption of the test is confirmed by the opposite of the mean scores of the subjects regarding the hypothesis of this part of the study with the number 3. Since the mean scores of interest rate risk impact on dividend ratio of 3.53 and more than 3 reported and also about the high and low estimated average difference, a positive amount has been obtained. Therefore, it can be concluded that the effect of interest rate risk on dividend ratio is positive and statistically this effect is significant.

In other words, it can be said that according to the collected data and with a 95% probability of interest rate risk, it has a significant effect on the dividend ratio. Therefore, the tenth hypothesis is confirmed.

11th hypothesis: Exchange Rate Risk directly affects dividend ratio.

The (Table 13) shows the results of an independent sample t-test on the study of the 11th hypothesis.

Table 13. Results related to the 11th hypothesis

11th hypothesis	Average	T-amount	Significance level	Mean difference	95% confidence interval of the average difference		Results
					Lower limit	Upper limit	
Exchange rate risk on dividend ratio	3.70	15.548	0.000	0.700	0.611	0.788	Confirm

As can be seen in the (Table 13), the significance level of the test regarding the effect of exchange rate risk on the ratio of dividends paid by 15.458 T is calculated equal to zero and less than the error level of 5%. Therefore, it is concluded that the assumption of zero independent single-sample T-test is rejected and the opposite

assumption of the test is confirmed by the opposite of the mean scores of the subjects regarding the hypothesis of this part of the study with the number 3. Since the average scores of exchange rate risk effect on dividend ratio equal to 3.70 and more than 3 reported and also about the high and low estimated average difference, a positive amount has been obtained. Therefore, it can be concluded that the effect of exchange rate risk on dividend ratio is positive and statistically this effect is also significant. In other words, it can be said that according to the collected data and with a 95% probability of exchange rate risk, it has a significant effect on the dividend ratio. Therefore, the eleventh hypothesis is confirmed.

12th hypothesis: Corporate financial risk directly affects dividend ratio.

The (Table 14) shows the results of an independent sample t-test on the study of the twelfth hypothesis.

Table 14. Results related to the twelfth hypothesis

Twelfth hypothesis	Average	T-amount	Significance level	Mean difference	95% confidence interval of the average difference		Results
					Lower limit	Upper limit	
Financial risk of companies on dividend ratio	3.63	12.147	0.000	0.633	0.530	0.736	Confirm

As can be seen in the (Table 14), the significance level of the test regarding the effect of financial risk of companies on the ratio of dividends paid by 12.147 T is calculated as zero and less than the error level of 5%. Therefore, it is concluded that the assumption of zero independent single-sample T-test is rejected and the opposite assumption of the test is confirmed by the opposite of the mean scores of the subjects regarding the hypothesis of this part of the study with the number 3. Since the average scores of financial risk impact of companies on the ratio of dividends paid by stocks equal to 3.63 and more than 3 reported and also about the high and low estimated average difference, a positive amount has been obtained. Therefore, it can be concluded that the effect of corporate financial risk on dividend ratio is positive and statistically this effect is significant. In other words, it can be said that according to the collected data and with a 95% probability of financial risk of companies, it has a significant effect on the dividend ratio. Therefore, the twelfth hypothesis is confirmed.

Discussion

Regarding the relationship between interest rate risk and dividends of companies, the results of the research are aligned with (Sadeghi Sharif, 2013), (Hashimujo et al., 2018), (Abdollahzadeh, 2016), researches. Regarding the relationship between exchange

rate risk and dividends of companies, the results of the research are in harmony with the researches of (Hashimujo et al., 2018), (Abdollahzadeh, 2016), (Dastgir & Zafari, 2017) and the results of researches (Sadeghi Sharif, 2013), (Moradi, 2019). Also, in relation to financial risk, the results of this study are in harmony with the researches of (Hashimujo et al., 2018), (Abdollahzadeh, 2016), (Dastgir & Zafari, 2017) and disagree with the results of (Moradi, 2019).

Conclusion

In this study, we designed a confirmatory factor analysis model to investigate the effect of risk management on corporate dividends. For this reason, to investigate risk management, we examined exchange rate risks, interest rates and financials. The results of the present study briefly showed that exchange rate risk, interest rate risk and financial risk, all three components of systematic risk, are directly related to corporate dividends. One of the most important issues in the capital market is awareness of the level of corporate risk, especially systematic risk, which can play a significant role in decision-making. Because it is believed that corporate stock returns are a function of systematic risk and systematic risk indicates changes in the rate of return of a share compared to the changes in the return rate of the entire stock market. In the capital market, investors are trying to invest in the place that brings them the most returns, and in this regard, they also pay attention to the risk associated with investment, and if they accept the risk tolerance for which they will earn a price, and these revenues will be nothing but more investment gains. On the other hand, companies are trying to operate in such a way that they fulfill the main goal of the owners of the company (shareholders), i.e. increasing the value of the company. As a result, the importance of research is that investors and companies can adjust or make new decisions based on the results of the research.

References

- Hashemi H. (2016), Investigating the relationship between dividend policy and risk of falling stock prices of listed companies in Tehran Stock Exchange, International Conference on Management and Accounting, 15(2): 114-125.
- Lynnette D. (2011), Assessing credit or determining quality? The evolving role of ratingagencies, 14(1): 89-104.
- Baker H. & Farrelly G. & Edelman R. (2018), A survey of management views on dividend policy, Financ Manage, 14(1): 78-84.
- Ebrahimzadeh T. (2017), "Investigating the Interaction between Risk Management and Corporate Governance on Earnings Volatility", Economics, Financial Management and Accounting Studies, 2(1): 246-260.
- Basse T. & Vers W. (2019), The impact of the financial crisis on the dividend policy of the european insurance industry: additional empirical evidence, 18(1): 3-17.
- Abdollahzadeh F. (2016), Investment Management and Stock Exchange, Processors Publications, 6(3): 930-941.
- Dastgir M. & Zafari F. (2017), The Role of Accounting Information in Predicting Stock Return Rates, sychological Bulletin, 12(1): 44-63.
- Bahramfar N. & Mehrani K. (2014), "The Relationship between Earnings per Share, Dividend and Investment in Companies

Listed in The Stock Exchange", Accounting and Auditing Reviews, 9(4): 31-40.

- Moradi M. (2019), "The Relationship between Earnings Quality and Audit Fees with The Dividend Policy of Companies Listed in Tehran Stock Exchange", Accounting and Management Perspective, 12(4): 1-16.
- Yunasi E. & Karrahi Moghadam S. (2013), Factors Affecting Dividends in Companies Listed in Tehran Stock Exchange, Financial Accounting Quarterly, 5(3): 93-102.
- Diwai S. (2011), Dividend Policy and Ownership Structure: An Applied Study on Industrial Companies in Malesia StockExchange, Journal of Management Research, 9(2): 117-128.
- Barazandeh M. (2017), Effect of macroeconomic variables on stock price index, MSc thesis in economics, Allameh Tabataba'i University, 8(6): 55-63.
- Byrne K. (2005), How do consumers evaluate risk in financial products? Journal of Financial Services Marketing, Henry Stewart Publications, 19(5): 82-94.
- Jahankhani A. & Parsaian A. (2015), Stock Exchange, 2nd edition, Tehran: University of Tehran, 11(3): 26-37.
- Yong W. (2015), An Empirical Study of the Relationship between the Listed Company Stock, 7Returns and the Credit Rating, 20(7): 8-17.
- Rabin A. & Kahnemn D. (2016), "Belief in the law of small numbers", sychological Bulletin, 2(4): 9-16.
- Pirsalehi M. (2018), The Relationship between Risk and Investment Return in Tehran Stock Exchange, MSc Thesis in Business Administration, University of Isfahan, 14(5): 101-113.
- Jahankhani A. & Ghorbani S. (2015), "Identifying and Explaining the Determinants of Corporate Profit Policy In Tehran Stock Exchange", Financial Research Quarterly, 20(6): 51-63.
- Campbell J. & Hilscher J. & Szilagyi J. (2018), In search of distress risk, Financial Management and Accounting Studies, 6(1): 3-10.
- Haghighat H. & Panahi M. (2011), "The Relationship between Earnings Quality and Future Stock Returns in Listed Companies in Tehran Stock Exchange", Journal of Accounting Knowledge, 9(3): 90-99.
- Kamyabi Y. & Ranjbar S. (2013), The Relationship between Return, Risk and Dividend Policy with Stock Price Fluctuations in Companies Listed in Tehran Stock Exchange, Journal of Accounting Knowledge, 16(5): 27-40.
- Sadeghi Sharif J. (2013), "Designing a Pricing Model for Capital Assets in Bor S. Tehran Securities", Ph.D. Thesis in Financial Oriented Management, University of Tehran, 14(2): 77-89.
- Hashimujo G. & Solberg D. & Zorn T. (2018), Simultaneou Determination of Insider ownership, Debt, and Dividend Policies in Malesia, Journal of Financial and Quantitative Analysis, 21(2): 249-261.