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THE IMPACT OF FINANCIAL RATIOS ON THE PREDICTION OF BANKRUPTCY OF SMALL AND MEDIUM COMPANIES

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Resumen: El objetivo principal de esta investigación es examinar el impacto de los coeficientes financieros en la predicción de quiebra de pequeñas y medianas empresas. Las comunidades estadísticas de este estudio fueron las empresas aceptadas en la Bolsa de Teherán, cuya muestra estadística incluye 104 empresas de datos para un período de 7 años, 2007-2015. El muestreo se realizó a través del método de rechazo del método sistemático. El método se utilizó para estimar el modelo de regresión logística. Los resultados del estudio mostraron que un aumento en los coeficientes de liquidez reduce la posibilidad de dificultades financieras en las pequeñas y medianas empresas. También se encontró que cuando aumenta el coeficiente de rentabilidad también se reduce la posibilidad de dificultades financieras para las pequeñas y medianas empresas. Además, los resultados mostraron que al aumentar el coeficiente del poder de pago de la deuda, se reduce la posibilidad de dificultades financieras para las pequeñas y medianas empresas. Sin embargo, entre la propiedad y el valor de la relación añadida no hay relación significativa con respecto a la desventaja financiera de las pequeñas y medianas empresas.

Palabras clave: Coeficientes financieros, quiebras, pequeñas y medianas empresas.

Abstract: The main purpose of this research is investigating the impact of financial ratios on the prediction of bankruptcy of small and medium companies. The statistical community of this study was the accepted companies in Tehran Stock Exchange and its statistical sample Includes 104 data companies for the 7-year period 2007-2015. The method was used to estimate the logistic regression model. The results of the study showed an increase in liquidity ratios reduce the possibility of financial distress in small and medium companies. It was also found that increasing the profitability ratio also reduces the possibility of financial distress for small and medium companies. In addition, the results showed an increase in the ratio of debt repayment power, Reduces the possibility of financial distress for companies with small and medium size. However, between ownership and the added ratio value there was no significant relationship with the financial disadvantage of small and medium companies.

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Key words: Financial ratios, bankruptcy, small and medium companies.

1. INTRODUCTION

Investors always want with prediction of the possibility of financial distress for a company, prevent from fueling the original and the return on its found. Hence they are looking for some ways in which they can prevent financial sustainability of companies, because in the case of financial distress, the stock prices of companies are drastically reduced. The most important ways that you can use, by helping to the proper use of investment opportunities as well as preventing waste of resources, was identifying the factors affecting corporate financial distress. One of the problems of predicting financial distress, was lack of knowledge of effective variables on financial distress. Existence of many variables creditors, Managers, researchers and investigating the experiences of other researchers, or the choice of some variables from the range of effective variables, for investigating the causes of financial distress for the company, and lack of scientific selection of effective and important variables on financial distress face them with lot of problems. Therefore, by identifying the important and effective factors on financial distress, they can predict the financial crisis in companies and impose the necessary measures to revise the control of the company. For example management focuses its money the ratio of liquidity, and believes that

appropriate liquidity ratios prevents financial distress in the company. However, another director states that debt ratios are the main cause of corporate financial distress and this disagreement affects the company's long-term and medium-term plans. This is due to lack of proper ranking of financial distress factors. Therefore, in this study, in addition to predicting financial distress and separation of Iranian companies into two successful and unsuccessful groups the impact of some important financial ratios will be on the prediction of financial distress.

2. THEORETICAL FOUNDATIONS AND REVIEW OF PREVIOUS RESEARCH

2.1. Theoretical Basics

One of the major issues in financial literature is financial distress for companies. Financial distress of companies can create many problems stockholders, customers, creditors, and employees of the company (Dobby and Miskisz, 2001). In other words, the financial distress of companies can bring important economic losses to different levels of society (Charis et al., 1990). The importance of financial distress is that its adverse effects are not for financial traders and financially only disadvantaged companies, but depending on the scope of the business or business activity third parties and creditors and dealers with the merchant or the company suffer from it. And sometimes in the company's extensive activities it also leads to other financial distress and unemployment of workers and their employees. And it brings bad consequences for the country's economy. (Shaghaghi Nezhad, 1993). Therefore, it is important to be aware of the risk of financial distress for investors. Because not only the risk of their loss of capital reaches re the lowest level but also they are used as a means of reducing the risk of their investment portfolio. Management also in case of timely notification of the risk of financial distress can take preventive measures to prevent financial distress. Because financial distress imposes heavy economic and social costs on society, from the macro perspective it is also important and important, because resources lost in a crisis-hit economic unit can be devoted to other profitable opportunities (Saeedi and Aghaee, 2009).

The financial distress of companies usually affects the liquidity of the capital market and the development of the economy. In the time of financial distress Banks typically reduce the credibility of financially corporations and in return for a loan, companies are asking for higher interest rates to offset additional risks. Similarly, investment companies reduced buying stock and take an action in looking for investment and buying securities of banks or similar markets. The aforementioned causes a decrease in liquidity in capital markets, increasing the cost of company's founds and a decline in economic growth. The issue of financial distress of companies is always a matter of reflection. Because of the importance of this issue accounting and

financial thinkers around the world have done a lot of research (Nick Bakht and Sharifi, 2010).

Nowadays according to the growing growth of human societies and consequently quantitative and qualitative expansion of economic activity and turning small and small business units into joint stock companies and multinationals which attracted countless investors and a dramatic increase in competitive markets in the business fields and the reduction of monopolar commercial strengths and tight competition between businesses to achieve optimal profitability from one mistake and the recent financial scarcity of international companies on the other hand it caused that financial decision making process was raised as one of the most important topics and functions of financial management. Therefore, as the phenomenon of corporate financial distress can also be the result of irrational decision making by senior executives and financial managers of the company. Therefore, all of the above factors have been caused the issue of financial distress from a financial perspective and most importantly, the prediction of financial distress with the help of common models can make a significant contribution to financial managers to identify timely signs of financial crisis in the company, before the fall provide preventive measures to prevent the collapse of the company.

Forecasting financial distress is one of the ways to use better investment opportunities and prevent waste of resources. Thus, in the first place, with the provision of the necessary warnings, companies can be cautious about financial distress, so that they take appropriate measures with regard to these warnings. And secondly, Investors identify the optimal investment opportunities from unfavorable opportunities and invest their resources in the right opportunities and places (Ghodrati and Moghaddam, 2009).

Since the research work (Fitzpatrick, 1932), they have reviewed several studies with the title of predicting financial distress with this issue. These studies (Beaver, 1966; Gilhatt, 2000; Oghi and De Perrykier, 2006) made it possible with extending models of financial distress so they use financial ratios to predict financial distress. However, most of these studies focus on large companies and less

attention has been paid to units of small and medium units (Story et al., 1987; Siampi and Gordini, 2008). Some researchers believe that one of the issues for the rate of financial distress of small and medium companies is high and these companies suffer from their financial structures because of their short-term credit and the difficulty of accessing long-term credits (Peacock, 2004). Some other researchers believe that these companies will be able to react more quickly when faced with financial distress and find more innovative solutions. They also have the ability to easily capture market segments that are difficult to reach for large companies (Siampi and Goodarini, 2008).

Corporate liquidity ratios can be a factor in financial distress. This claim means that liquidity ratios allow companies to be aware of their ability to repay short-term debt (Mosman et al., 1998).

One of the ratios that influences the prediction of financial distress is the ratio of profitability. Because the life of a company depends on the profitability of their assets, profitability ratios can be more effective in predicting the probability of corporate financial distress (Altman, 1968). Another influential financial ratio refers to the relative structural outlook for corporate financial distress. This ratio represents the percentage of ordinary shares used in the provision of company assets. Usually, when this ratio increases, corporate finance is less dependent on capital borrowing. The other financial ratio discussed in this study is the tax ratio. This ratio represents the company's productivity (Loridana and Javier, 2016). In fact, this ratio shows the company's productivity by comparing the tax generated by the company with the company's tax costs. When tax rates are high, because of their tax capacities, healthy firms pay more taxes than insolvent firms. The latest financial ratios affecting the company's financial distress forecast in this study is the ratio of debt repayment ability. This ratio shows the ability of companies to meet corporate debt obligations and commitments (Van Kyle and Dighaei, 2002).

Therefore, in view of the theoretical foundations discussed above, the purpose of this study is to investigate the effect of some financial ratios on the prediction of financial distress in small and medium companies. Therefore, the main question of the

research can be as follows: how can the ratio of liquidity, profitability, structure, tax and the ability to pay off debt affect the prediction of financial distress for small and medium companies?

2.2. Research background

Loridana and Javier (2016), in a study entitled "The prediction of financial distress for small and medium enterprises, Investigate and develop the model for predicting financial distress for small and medium companies through the creation of a logit model and utilizing financial ratios. The findings of the research indicate that the model is satisfactory and shows that the ratios of profitability and liquidity can be considered as more suitable predictor factors for predicting financial distress in small and medium companies.

Almami et al. (2016) during the recent financial crisis in an attempt, by using the cash flow ratio in predicting corporate financial distress can evaluate the Altman model. They found that when cash flows combined with Altman's original model variables, there is a significant impact on the prediction of healthy firms. In this research, the modified Altman model has been developed to test healthy firms and when it is compared with the original model of Altman, the predictive power of the model is higher. Such results indicate that before, during and after the financial crisis period the accuracy of the adjusted model (compared to the original Altman model) is higher in predicting healthy firms.

Valbona and Elliwana (2015) reviewed Altman's Z-SCORE model to predict the financial distress of retail businesses in Albania. The research sample consists of 30 companies and research period 2010-2012. In this study, 24 financial ratios have also been used. The results show that Altman's original model cannot be used in Albania. As a result, a comparative model was developed to predict the financial distress problem for the for-profit corporations.

Miampul et al. (2014) in a research entitled using Z-SCORE in emerging markets to predict financial distress, reviewed the financial crisis of listed companies in the Thai Stock Exchange. The statistical sample of the research is 31 enterprises and

its timeframe between 2010 and 2012. The results show that Z-SCORE models are emerging markets and Altman's Z-SCORE model can clearly predict the possibility of financial distress at the time of occurrence. In addition, when the information is used two consecutive years, the performance of these models will be higher. In general, the results of the research show that Altman's Z-SCORE model provides a more accurate prediction of financial distress in emerging markets such as Thailand.

Setayesh and Kiyamehr (2015) studied the components and models of predicting financial distress. They stated that the financial distress of large corporations at the international level and the stock market fluctuations, need some tools to assess the financial strength of companies. One of the tools for assessing the financial strength of companies, is using financial ratios as independent variables and obtaining patterns to predict corporate financial distress. The results of studies in the field of financial distress suggests that accounting information can predict financial distress in companies.

Anvar Khatibi and Mohammadi (2012) by examining the effect of economic tax, the quality of profit and leverage ratios on financial distress, evaluated the rate of credit of these indices in Tehran Stock Exchange. Their results show that in the companies listed in the Tehran Stock Exchange, the criteria for economic tax and financial leverage ratios, there are better indicators for predicting financial distress and they are able to show the possibility of financial distress before they occur to shareholders.

3. RESEARCH METHODOLOGY

Current study In terms of purpose, is a type of applied research. The purpose of applied research is developing applied knowledge in a particular context. In other words, applied research is led to the practical application of knowledge. In terms of data collection, the nature of this research is descriptive-correlational. The researcher seeks to discover and investigate the relationships between the factors and circumstances or the type of event that existed or happened, by studying the results of them. In other words, the researcher is looking at the possibility of causal relationships by observing the existing results and

their background in hopes of finding the cause of the occurrence of the phenomenon.

3.1. Explaining and measuring the variables of research

This research involves a dependent variable of the possibility of financial distress in the company, which is described below.

Bankruptcy: Ravio Hsarzadeh (2009) presented the Kaplanziggalsra model with regard to Iran's coordinates. In this study, following Kaplan and Zingales (1988) and Windward and Valuable (2012), (Equation 1), we used a measure of the possibility of financial distress:

Relation (1):

$$\begin{split} \mathit{KZ} &= 17.33 - 37.486 \times \left(\frac{\mathit{Cash Holding}_{it}}{\mathit{Total Assets}_{it}}\right) - \\ 15.21 \times \left(\frac{\mathit{Div}_{it}}{\mathit{Total Assets}_{it}}\right) + 3.39 \times \left(\frac{\mathit{Debt}_{it}}{\mathit{Total Assets}_{it}}\right) - \\ 1.402 \times \left(\frac{\mathit{M}_{it}}{\mathit{B}_{it}}\right) \end{split} \tag{1}$$

Where in:

KZ: Financial constraints (criteria Possibility of financial distress)

Cash Holding: Cash plus short-term investments.

Total Assets: Total company assets.

Div: Dividend profits of the company.

Debt: Total debt of the company.

M: Equity Market Value (the stock market value multiplied by the number of shares in the company).

B: The book value of equity

In Equation 1, for each of the companies a number is calculated. Then, the mean of all the companies has counted, and companies that are higher than each of the indicators have the potential for financial distress and companies below the mean of the above indicators are considered as companies without the possibility of financial distress.

Independent variables

This research includes the following independent variables:

Current ratio (Curr): Equals to current assets ratio to current debt; as liquidity criterion.

Returns: Equals to profit before profit and loss ratio to total book value of assets at the end of the period; as a benchmark for profitability.

Ownership (Financial Independence) (Fin_Indep): Equal to the ratio of the book value of ordinary shares to the total book value of the assets as the ratio of ownership.

Average Tax Value (AV_Tax): Is equal to the ratio of the cost of tax to the Tax .(In this research, in accordance with Hejazi and Hosseini's research (2006), for calculating market tax, the difference between the average market value of equity holdings of the research sample member firms and the average book value of equity of the equity holdings of the sample companies is used).

Debt Consolidation Debt Consumption (CF_TD): Equals the ratio of cash flows from operating activities to total debt of the company; as a deductible payment.

3.1.1. Control variables

Company size (lnTA): Natural logarithm of the total book value of the company's assets.

Age of the company (age): The number of years of activity of the company in the Tehran Stock Exchange.

Industry: Fictitious variable industry type

3.1.2. Fictitious variables

Industry: Fictitious variable industry type

To distinguish between small, medium and large companies from existing companies following Rahimian et al. (2011), the natural logarithm of the total sales of each company is calculated in a year from the considered period. Then, using the quark technique, the first, second, third, and fourth quartiles

are calculated. Companies that have a natural logarithm of their total sales during the period considered are in the first quarter, small companies are in the second and third quarters of medium companies, and in the fourth quarter of large corporate entities. Small companies; in the second and third quarters of the medium companies, and in the fourth quarter, they are considered as large companies. That big companies are excluded from the research sample.

3.2. Research model

In this research, according to Lorrinada and Javier (2016), the following general model has been used. Since the dependent variable in this research is a kind of fictitious variables, therefore, the Logit model will be used to analyze the data and test hypotheses. The overall research model is in Equation 2.

$$y_i^* = \beta X_i + \varepsilon_i \tag{2}$$

Where in:

y: dependent variable

 X_i : Outcome of independent and controllable variables

ε_i: A waste or component of the regression equation

Regarding the variables of research and regarding the above model and by replacing variables, the abovementioned model can be rewritten as in Equation 3.

Relation (2):

 $P_t = \beta_0 + \beta_1 cwr_t + \beta_2 Retuen_t + \beta_2 Fin\ Indep_t + \beta_4 Av\ Tax_t + \beta_5 CFTD_t + \beta_6 In\ TA_t + \beta_7 age_t + Industry \\ + \varepsilon_t$

(3)

Where in:

 $P_{i:}$ Fictitious variable the possibility of financial distress according to relation (1)

Curr: current ratio.

Return: Return on Assets. Fin_Indep: Ownership ratio.

AV_Tax: Tax ratio.

CF_TD: Debt Consolidation Debt Consolidation.

LnTA: size of the company Age: age of the company

3.3. Statistical society and sampling method

The statistical society of the study is the companies listed in Tehran Stock Exchange. Also, the research period is from 2009 to 2015. For sampling, a systematic deletion method has been used, the terms of which are defined as follows:

- In order to compare the information, the end of the financial year of the companies will be March 29th.
- 2- In order to make information homogeneous, companies are of a productive kind.
- 3- Information on the variables selected will be available in this study.

The reason for choosing these constraints for sample research is to homogenize the sample. In other words, the application of these constraints to select the research sample makes it possible for companies to compare more easily. According to the above limitations, 104 companies were selected as the research sample.

4. RESEARCH HYPOTHESES

First Hypothesis: Increasing the liquidity ratio reduces the possibility of financial distress for small and medium companies.

Second hypothesis: Increasing the profitability ratio reduces the possibility of financial distress for small and medium companies.

Hypothesis 3: Increasing the equity ratio reduces the possibility of financial distress for small and medium companies.

Fourth hypothesis: Increasing the tax ratio reduces the possibility of financial distress for small and medium firms.

Fifth hypothesis: Increasing the ratio of debt repayment ability reduces the risk of financial distress for small and medium companies.

5. RESEARCH RESULTS

To test the above hypotheses, the following regression model is used in Equation 4.

$$P_i = \beta_0 + \beta_1 Curr_i + \beta_2 Return_i + \beta_3 Fin\ Indep_i + \beta_4 AV\ Tax_i + \beta_5 CF\ TD_i + \beta_6 LnTA_i + \beta_7 age_i + Industry \\ + \varepsilon_i$$

(4)

Thus, if the coefficients β are positive and significant, then the hypotheses will be accepted.

Before modeling is fitted on the data, model defaults are examined:

5.1. Inequality test of variance remainders

One of the basic hypotheses of an appropriate regression model, the assumption is the homogeneity (consistency) of the variance of the remainders. To test this assumption, the Bartlett, Levin, and externality variance tests are used for this study. The zero assumption in this test is the consistency of the variance of the residuals. If the value of p-value is greater than 0.05, the assumption of zero is accepted. According to the table below, in these models, the assumption of zero (existence of uniformity of variance) is accepted, which shows that there is no anomaly of the variance of the remainders:

Table 1. variance equivalence test

	Bartlett	Prob
Achieved values	0/1853	0/0000

As stated in the previous section, in order to test the significance of the whole model, we use F statistics to test the significance of regression coefficients. Also, the adjusted R2 coefficient of determination is used to examine the relationship between dependent and independent variables. The results of the data analysis for testing the hypotheses are reflected in Table 2.

Regarding the possibility ratio or Prob LR Statistic, this regression is meaningful, which means that the explanatory variables have a significant explanatory power. The first hypothesis states that an increase in the liquidity ratio (CURR) reduces the possibility of financial distress for small and medium companies, according to the coefficient β_1 obtained in Table (2), which is negative and at 5% significance level. The first hypothesis is confirmed.

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

p-value	Statistics t	The standard deviation	ratio	variable
0/0198	-0/3304	0/1479	-0/3448	CURR
0/0000	-6/3676	0/8873	-5/6502	RETURN
0/4709	-0/7210	0/3314	-0/2390	FIN_INDEP
0/3343	-3/1428	0/4485	-0/4330	AV_TAX
0/0017	2/3042	0/3534	-1/1107	CF_TD
0/0212	2/3042	0/0725	0/1671	LNTA
0/7493	-0/3195	0/0083	-0/0026	AGE
0/4461	-0/7618	1/0212	-0/7780	С

173/4895	The statistics LR	0/1719	R-squared
0000/0	Prob(LR-statistic)		

The second hypothesis states that increasing the profitability ratio or RETURN reduces the possibility of financial distress for small and medium companies. Considering the coefficient β_2 that is negative and at 5% significance level, the second hypothesis is also confirmed.

The third hypothesis is that an increase in the equity ratio, or FIN_INDEP, reduces the possibility of financial distress for small and medium companies, the third hypothesis is not confirmed by the coefficient obtained for β_3 , which is not significant at 5% level.

The fourth hypothesis states that an increase in the value-added ratio, or AV-TAX, reduces the possibility of financial distress for small and medium

companies. Given the coefficient obtained for β_4 , which is not significant at 5% level, the fourth hypothesis is not confirmed.

Hypothesis 5: Increasing the ratio of debt repayment power or CF_TD reduces the possibility of financial distress for small and medium sized firms. According to the coefficient β_5 obtained in Table (5-4), which

is negative and at 5% significant, the fifth hypothesis is confirmed.

6. CONCLUSIONS AND SUGGESTIONS

The present research seeks to clarify that what the ratio of liquidity, profitability, structure, tax, and the ability to pay off debt affect the prediction of financial distress in small and medium companies? In this study, five hypotheses have been proposed to investigate such a relationship. In the first hypothesis it was mentioned that an increase in liquidity ratios will reduce the possibility of financial distress for small and medium companies. Regarding the coefficient obtained for the current ratio variable as liquidity criterion which is negative and at 5% significance level, the first hypothesis is confirmed, so increasing the liquidity ratio reduces the possibility of financial distress in small and medium companies. In a commentary, it can be stated that liquidity ratios are a factor that affecting financial distress and allowing small and medium-sized companies to be aware of their ability to repay shortterm debt. The company repays short-term debts and assures its creditors in paying their claims can prevent multiple problems caused by financial distress for shareholders, customers, creditors and employees of the company. The results of this study were investigated by Loridana and Javier (2016) Suggesting that the ratio of liquidity could be as a more predictive factor for predicting financial distress for small and medium companies.

In the second hypothesis, it is mentioned that increasing the profitability ratio reduces the possibility of financial distress for small and medium companies. According to the coefficient obtained for the variable of profitability ratio which is negative and at 5% significance level, the second hypothesis is also confirmed, Therefore, increasing the profitability ratio reduces the possibility of financial distress for small and medium companies. In a commentary, one can state that the existence of a company depends on the profitability of its assets. Profit is the result of applying policies and adopting policies. The success rate of a company in earning profits and how it can be financed by revenue, sales and investment can reduce the risk of financial distress in small and

medium companies. Small and medium companies can achieve the desired profit by setting their own income policies through competitive and competitive designs, and by raising their profitability ratios, they can reduce their financial distress. The results of this study are consistent with the research by Loridana and Javier (2016) that the ratio of profitability can be considered as a more predictive factor for predicting financial distress for small and medium companies. Also, these results are consistent with Pourheidari and Koupaee Haji (2010) research that the risk of financial distress is sooner predicted using the preinterest earnings and asset tax ratio, profit before interest and sales tax rates.

In the third hypothesis, it was mentioned that the increase in the proportion of ownership, reduces the possibility of financial distress for small and medium companies. Due to the coefficient obtained for the ownership variable, which is not significant at 5% level, is not supported by the third hypothesis. Therefore, increasing the proportion of ownership, does not reduce the possibility of financial distress for small and medium companies. In the commentary we can say ownership ratios represent the amount of ownership of the assets to equity holders is a complement to liquidity ratios, that is, the indication of the place of liquidity supply is borrowing or nonborrowing. According to this and the result obtained, despite an increase in ownership and an increase in the ownership of equity by assets and that such a ratio shows the location of liquidity provision of borrowing or non-borrowing Generally increasing this ratio due to borrowing or borrowing in liquidity does not necessarily reduce the risk of financial distress in small and medium enterprises. These results are not consistent with the research by Loridana and Javier (2016) that the ownership ratio can be considered as a more predictive factor for predicting financial distress for small and medium companies.

In fourth hypothesis, it was mentioned that the increase in the tax ratio, reduce the possibility of financial distress for companies with small and medium size. According to the obtained coefficient for the tax variable which is not significant at the 5% level, the fourth hypothesis is not confirmed. Therefore, increasing the tax ratio does not reduce the

possibility of financial distress for small- and medium companies. It can be argued that the ratio of tax represents the level of productivity, and shows the company's productivity by comparing the tax generated by the company with the company's tax costs. When tax rates are high, healthy firms pay more taxes because of their tax capacities compared to financially disadvantaged companies. According to this article, and the existence of some tax breaks in different companies that pay the tax variable can justify the absence of a relationship obtained as a result of the above hypothesis. These results are compared with the research of Anvar Khatibi and Mohammadi (2012) with the appropriateness of the tax ratio to predict financial distress, and Larediana and Javier's (2016) research on the superiority of the value-added ratio as a predictor of financial distress among small and medium companies, they are not consistent.

In the fifth hypothesis, it was mentioned that increasing the ratio of debt repayment power reduces the possibility of financial distress for small and medium companies. With regard to the coefficient obtained for the variable of the debt power ratio, which is negative and at a level of 5%, the fifth hypothesis is confirmed. Therefore, increasing the ratio of debt repayment ability reduces the risk of financial distress for small and medium companies. In the commentary, it can be stated that the ratio of the ability to pay commitments reflects the company's ability to pay off long-term debts. Obviously, with the increase in these ratios, the company is in the eyes of investors for investing an appropriate option with the ability to meet its obligations at its arrival. Thus, with the increase in this ratio, small and medium companies will reduce the possibility of financial distress for these companies. These results are consistent with the research of Loridana and Javier (2016) and Anvar Khatibi and Mohammadi (2012) with the appropriateness of the ratio of the ability to pay commitments to predict financial distress.

Proposals based on research findings

 According to the results of the first hypothesis test Since liquidity ratios show companies' ability to repay short-term debts, It is suggested to investors when considering investment

- decisions while paying attention to the possibility of corporate financial distress to change the liquidity ratio as a measure to predict corporate financial distress.
- 2. According to the test results of the second hypothesis that increasing the profit ratio reduces the possibility of financial distress for small and medium companies, Corporate executives are recommended to adopt appropriate policies for the success of the business unit in response to the competitive conditions of the market in order to profitably and successfully increase the profitability ratio.
- 3. According to the results of the third hypothesis, the increase in the macro ratio could not reduce the risk of financial distress for small and medium enterprises In general, it is suggested to investors to pay attention to other financial ratios that are effective in predicting financial distress for companies.
- 4. According to the results of the fourth hypothesis, the increase in the tax ratio cannot reduce the risk of financial distress for small and medium enterprises, it is suggested to investors to pay attention to other financial ratios effective in this forecast, such as profitability ratios, liquidity ratios, etc. to predict corporate financial distress.
- 5. According to the results of the test, the fifth hypothesis that the ratio of debt payment is suitable for predicting corporate financial distress it is suggested to corporate executives to provide a good picture of the company's ability to pay its commitments in the minds of investors, so that they can provide brokers with the possibility of financial distress in these companies according to the ratio of the ability to pay the debts.

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