



The effect of financial crisis and sanctions on methods of financing of firms which listed in Tehran Stock Exchange

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ABSTRACT

Financial crisis and sanctions because of economics problem, can do effect to companies capital structure and financing policies that in this article we are study this subject. In this article for determine financial crisis years we have used from development indicator of GDP growth and methods presentation from latridis and dimitras (2013). In order to test the hypothesis, we collecting data of 63 companies which listed in Tehran stock Exchange in time 2006-2014. The results of this researches show us that first hypothesis said financial crisis and sanctions have no effect to sales and so earnings before tax. With second hypothesis earnings before tax and sales have effect to financing from capital increase, but earnings before tax and sales have no effect to financing from receive loan. And so with third hypothesis, financing policies of receive loan affected of financial crisis have effect to them financial expense. By attention to statistical evidence that we got that it is contrary with exiting evidence and too much drop Tehran Stock Exchange, we can say it is possible that companies for maintain stability and so control of them take stock value and trusting to shareholders and other users, perhaps they have done earnings smoothing and with use of accounting methods and so creation of non-operation earnings they can prevention of reduced earnings before tax some what.

Keyword:

- ✓ financial crisis
- ✓ sanctions
- ✓ financing methods
- ✓ sales
- ✓ earnings before tax

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INTRODUCTION

Companies in decision-financing are faced with two sources of internal and external financing. Internal financial resources include cash flows resulting from operating activities, sales of assets and retained earnings and external financial resources that contain, issuance of bonds, issuance new stock, receipt bank facilities and loans.

Various factors are determine companies structure of financing that we can say some of them such as political and economic factors, legal regulations, inflation, interest rate, lending policies and taxes. In addition to the above, cost of financing, financial and commercial risk of companies, asset combination, with contract restrictions at attraction of resources through create debt and a review stock exchange rules also have considered. According to this cases if there is a financial crisis and sanctions for political and economic factors of effective, an issue that should be considered that is management are chose which one of various financing methods. Iran capital market since the beginning activity because of the lack of international communication and so the lack of foreign investors and companies and so absence of Iranian companies in other stock exchanges, had not directly effect of international financial crisis but psychological effects of the crisis and sanctions against Iran to capital market and also indirect effects of those in recent years is obvious and this new experience in Iran capital market have some challenges.

Effect of sanctions and crisis to 4 group of Tehran stock exchanges companies is while that with subsided of early effect of international financial crisis to real economy section, influences of this crisis and sanctions against Iran have observation to companies earning in 4 group of industrial. First companies are exporter of material to world and contains of down-stream companies of oil, petrochemical and mineral that exporter most of their production. Second companies that their price determined with international prices that contains to producer companies same as steel, copper, zinc and petrochemical companies. Third are companies that have approved price but have pressure from buyers to decrease price and so decrease of import price are faced, same as companies that product iron stone. And fourth are investment and holding companies that partial of their capital attachment to those group. Also existence of sanctions against Iran, have problem to receipt money from sales product to others countries, receive cash from them in country and furthermore of above cases, decrease of liquidity is one of cases that have effect to capital market according to decrease of companies earning because of have decrease amount of money that enter to market and ultimate have decrease of attraction investment in country and extra decrease of stock price of companies, have reception of new companies faced with problem. Thus for access to more insight about reactions of companies when they are fronting with financial crisis and sanctions against Iran, in this research relationship between financial crisis and sanctions and policy of companies financing are checking (yousefi, 2015).

The results of this research have help to companies managers, shareholders and others until they find out in terms of crisis and increase of sanctions against country and

in the period of unconstraint and high volatility there are, which policies of financing is better for companies. The main objective in this researches is check relation between financial crisis and sanctions and financing methods of companies that accepted in Tehran stock exchanges.

Theoretical framework and literature review

Capital structure refers to how combination of financing resources of companies. Some companies have no pre-determined plan for their capital structure and only fit to financial decisions taken by the financial manager, without any specific planning, action to restructure of company's capital (Taghavi, 2012).

Although it is possible these companies in short time have get successful but finally in financing for in their activities faced with major problems. Also companies may not be able optimize use of their available resources. As a result, this fact is confirmed over and over that a company should their capital structure, in such planing that be able to have maximum exploitation of their funds and they could easily adopt to change of status (Tehrani, 2014).

One of condition that may every society is facing, sanctions and financial crisis consequent from it that surely sanctions important role in deflation and inflation and subsequently the financing of companies and their capital structure. One of the major defect affecting on the capital structure is company's costs of bankruptcy or financial crisis, that refers to costs that reason company goes to financial hardship and as a result have getting bankruptcy. In the true capital market, there is no cost associated with bankruptcy, but in the real world there are significant costs associated with bankruptcy. When the ratio of debt to equity exceeds certain limits, probability of bankruptcy increases and expected cost of bankruptcy increase and as a result have negative effect to value of company and its cost of capital considering the cost of bankruptcy, capital structure as a result of the trade-off tax shield of debt and bankruptcy costs.

A brief summary of the studies are as follows:

a. Methods of financing and capital structure:

Mayers and majlof (1984) to assess the determinants of capital structure from the perspective of information asymmetry hypothesis. They expressed that in the absence of information asymmetry between the company and capital market, profitable companies, internal financing sources preferred to external sources but if they needs more resources, first borrowing and then issuance new stock. Mayers (1989) had checked financial structures of 8 different industrial country during 1985-1970. His results indicate that retained earnings are important financing sources in studied countries specially USA, England and Canada. And so have inversely relationship between use of retained earnings and bank credit (Mollanazari et al, 2011). Donalson, Mirz and Bradly at 1961 had research about performance financing of big companies and they observed that management from internal financial resources as a new source of financing strongly advocate and even external resources discarded and if they require external financing, used more from borrowings (Mollanazari et al, 2011).

b. Financial crisis caused by the economic conditions

Behrozifar (2005) evaluating the effect of America unilateral sanctions at world trade and energy global market. In this view, America's unilateral sanctions on Iran

furthermore direct affect to target country, impact on the global economy and even sanctions country's (Behroozifar, 2005).

Yavari and Mohseni (2010) the effect of economic and financial sanctions on the Iranian economy were analyzed and came to this conclusion that at choice between the commercial and financial sanctions, policy makers absolutely using the most powerful of financial sanctions. In this case it was observed that unilateral sanctions of petro-oil importing from Iran because of being competitive of the oil market is ineffective. Therefore it can be concluded that financial sanctions coincide sanctions the export of some goods can provide the same situation with full sanctions (Yavari and Mohseni, 2010).

Taghavi et al (2011) examined the west financial crisis over Tehran's stock exchange. Therefore in their study, from data related to the period 2006 to 2010 and Arch and Garch methodology and ICSS algorithms were used. Their goal was to evaluate the effecting of the west financial crisis on Tehran stock exchange and find out suddenly changes in stock return volatility is by ICSS algorithms. Their results

show that the west financial crisis didn't affect on Tehran stock exchange returns. And also the continuing of volatility in this period has been low (Taghavi et al, 2011).

3. Research's hypothesis

The hypothesis of this study include:

Hypothesis1. Financial crisis and sanction is affecting on revenue and earnings before tax.

Subsidiary1. Financial crisis and sanction is affecting on revenue of company.

Subsidiary2. Financial crisis and sanction is affecting on earnings before tax.

Hypothesis2. Earnings before tax and revenue affected by the financial crisis and sanctions is affecting on methods of financing companies (increase of capital and loan).

Subsidiary1. Earnings before tax and revenue affected by the financial crisis and sanctions is affecting on methods of financing companies through increase of capital.

Subsidiary2. Earnings before tax and revenue affected by the financial crisis and sanctions is affecting on methods of financing companies through receive loan.

The definition of variable presented in table 1.

Table1. operational definition of variable

Independent variables	Crisis: financial crisis, this is calculated using GDP that the method is presented by Latridis and Dimitras. For years that this index is negative, this variable is 1; otherwise is 0. Accordingly years 2006, 2007, 2010, 2013, 2014 as the financial crisis period and years 2008, 2009, 2011, 2012 as non-financial crisis period were defined.
	Rev: income from sales
	EBT: earnings before tax
	I: interest expense
	Loan I: financing through debt
	Loan S: financing through the issuance of shares
Controlled variables	MB: the ratio of market to book value (signs of growth opportunities)
	Lev: the ratio of debt to assets (financial leverage)
	Size: size of company, the natural logarithm of total asset

4. Research study and statistical samples

This study is descriptive research using correlation and comparative methods. The research results are applied, quantity and cross-sectional and because of considering several years data, using from panel-data model. This research are post-event because of using from historical data. Also in this research we have used SPSS, Eviews software to analyze data.

The study population consists of all companies listed on Tehran stock exchange through the years 2006 to 2014. The number of companies listed on the stock exchange in 2006 was the equivalent of 422 companies that according to the following features, sample are selected based on a systematic method. Companies that has the following conditions are considered for part of the sample:

1. Financial period of the sample companies ending in march each year.

2. Companies of sample, their financial year have not changed during the study period.

3. Data of all companies in the sample during the course of the study are available.

4. Investment companies, holding, banks, monetary and insurance institutions because of the specific nature and standards, will be excluded from the sample.

5. Companies that from retained earnings or other reserve are increasing capital, have been excluded from the population.

According to the above restriction, 63 of the companies listed on the stock exchange was selected, that their data collected for 9 years and in fact data from 567 companies-year have examined.

5. Finding of research

Descriptive statistics of the variables show in the table 2.

Table 2. descriptive statistics of variable

financing through the issuance of shares	financing through debt	size of company	Leverage	market to book value	interest expense	earnings before tax	Income from sales	variable
Loan S	Loan I	Size	Lev	MB	I	EBT	Rev	symbol
63 companies at 9 year								Number of observation
10342	1775330	15.27	0.67	1.98	444997	690596	4308006	average
0.00	469137	15.18	0.70	1.62	77061	215967	2874355	mean
6.88	1.879	0.149	-0.395	-0.552	4.077	3.06	2.34	Coefficient skewness
0.224	0.224	0.224	0.224	0.224	0.224	0.224	0.224	Standard deviation of Coefficient skewness
49428	2777749	0.868	0.197	1.82	1082560	1484899	4612595	Standard deviation
0.00	0.00	13.77	0.21	-8.09	-1149740	-2426667	126179	min
446485	11331833	17.05	1.26	8.34	7914996	936310	29118863	Max

The average of interest expense, financing through debt and also financing through the issuance of share, are as follow 444997, 1775329, 10342 million Rial. As you can see coefficient of skewness in all variable except financial leverage and market to book value is positive and the mean value is less than the average of all the variables. This explain that all of variance is skewed to right. Since the standard error coefficient of skewness is 0.224 are between -2 to +2, it can be said variables have normal distribution.

At section of inferential statistics and before estimate of model, first reliability of variables must be examined using

Table3. the results of the test Limier, first subsidiary hypothesis (related to first hypothesis)

Prob.	Chi-Sq. d.f	Chi-Sq. Statistic
0.8767	8	3.776890

Due to the significance is higher than 0.05 (table 3), therefore null hypothesis that address the non-correlation between individual effects and explanatory variable accepted. So, first subsidiary hypothesis (related to first hypothesis) are estimated with random effects model.

Table 4. the results of first subsidiary hypothesis by regressing random effects

Prob.	t-Statistic	Std. Error	Coefficient	variables
0.0000	-19.10575	881007.2	-16832301	C
0.5676	-0.571873	2.992751	-1.711473	Crisis
0.0000	20.63253	65892.00	1359519.	Size
0.5626	-0.579269	14908.04	-8635.769	MB
0.8841	-0.145824	451946.8	-65904.68	lev
1.413979	Durbin-Watson stat		0.440349	R-squared
0.0000	Prob(F-statistic)		110.5495	F-statistic

Due to significant levels of variable coefficients, size of company has a probability value is less than 0.05, so it can be concluded that there are significant relationship between this variable with dependent variable at a confidence level 0.95 and between variables of market to book value, financial leverage and financial crisis with the dependent

the unit root test. For this purpose, the dependent variable of Rev, EBT, financing through debt and financing through issue of share are review and their reliability are approved (the result have not been provided because of brevity).

1-5. First hypothesis

1-1-5. The first subsidiary hypothesis

a. Limier test

The results of the test Limier, first subsidiary hypothesis is related to first hypothesis, show at table 3.

b. Regression of first subsidiary hypothesis (related to first hypothesis) with using random effects.

The results of the estimate first subsidiary hypothesis with using random effects by help of Eviews software as table 4.

variable there aren't significant relationship, at a confidence level 0.95.

Also according to the sign of the estimated coefficients, between size of company with revenue of sales has a direct relationship. In this model, Since the durbin-watson statistics is between 1.5 to 2.5; there isn't auto-correlation and with regard to the significance level is less than 0.05, regression well fitted; but because the independent variable,

namely financial crisis has no significant relationship with the dependent variable, this hypothesis can't be confirmed. According to R^2 , about 44% dependent variable is determined by the independent variable.

Table 5. the results of the test Limier, second subsidiary hypothesis (related to first hypothesis)

Prob.	Chi-Sq. d.f	Chi-Sq. Statistic
0.4509	8	7.823599

Given that significant is more than 0.05 (table 5), therefore null hypothesis that address the non-correlation between individual effects and explanatory variable accepted. So, second subsidiary hypothesis (related to first hypothesis) are estimated with random effects model.

Table 6. The results of second subsidiary hypothesis by regressing random effects

Prob.	t-Statistic	Std. Error	Coefficient	variables
0.0000	-8.607234	297014.3	-2556472.	C
0.1181	1.565419	4890.986	7656.440	MB
0.0000	-7.734489	148080.0	-1145323.	Lev
0.0000	11.59828	22344.06	259152.7	Size
0.7985	0.255432	0.970285	0.247841	Crisis
1.652925				
Durbin-Watson stat		0.247894		R-squared
0.0000	Prob(F-statistic)		15.10664	F-statistic

Due to significant levels of variable coefficients, size of company and leverage has a probability value is less than 0.05, therefore it can be concluded that there are significant relationship between these variables with dependent variable at a confidence level 0.95 and between financial crisis and market to book value with dependent variable there isn't a significant relationship, at a confidence level 0.05.

Since the Durbin-watson statistic is between 1.5 and 2.5, there isn't auto-correlation and with regard to the significance level is less than 0.05, regression model well

Table 7. the results of the Limier test, first subsidiary hypothesis (related to second hypothesis)

Prob.	Chi-Sq. d.f	Chi-Sq. Statistic
0.8517	8	4.060100

Due to the significance is higher than 0.05 (table7), therefore null hypothesis that address the non-correlation between individual effects and explanatory variable accepted. So, first subsidiary hypothesis (related to second hypothesis) are estimated with random effects model.

Table 8. the results of first subsidiary hypothesis by regressing random effects

Prob.	t-Statistic	Std. Error	Coefficient	variables
0.0000	-9.581621	627259.0	-6010159.	C
0.0000	8.588030	0.026079	0.223964	REV
0.0000	-7.749265	0.081065	-0.628193	EBT
0.0000	8.727756	48604.35	424206.9	Size
0.1367	-1.490237	8288.917	-12352.45	MB
0.0000	4.261277	268868.1	1145721.	Lev
1.606448				
Durbin-Watson stat		0.445500		R-squared
0.0000	Prob(F-statistic)		89.50173	F-statistic

Due to significant levels of variable coefficients, all variables except market to book value has a probability value is less than 0.05, therefore it can be concluded that there are significant relationship between these variables with dependent variable at a confidence level 0.95. according to the sign of the estimated coefficients,

2-1-5. The second subsidiary hypothesis

a. Limier test

The results of the test limier, second subsidiary hypothesis is related to first hypothesis show at table 5.

a. Regression of secnd subsidiary hypothesis (related to first hypothesis) with using random effects.

The results of the estimate second subsidiary hypothesis with using random effects by help of Eviews software as table 6.

fitted; but because of the independent variable of financial crisis has no significant relationship with the dependent variable, this hypothesis can't be confirmed. According to R^2 , about 25% dependent variable is determined by the independent variable.

2-5. second hypothesis

1-2-5. the first subsidiary hypothesis

a. Limier test

The results of the test Limier, first subsidiary hypothesis is related to second hypothesis, show at table 7.

a. Regression of first subsidiary hypothesis (related to second hypothesis) with using random effects.

The results of estimate first subsidiary hypothesis with using random effects by help of Eviews software as table 8.

relationship between earnings before tax with financing through debt is reverse. Also relationship between variables of size, revenue and financial leverage, with financing through is a direct. Since the Durbin-watson statistic is between 1.5 and 2.5, there is no auto-correlation and with regard to the significant level is less than 0.05, regression

well fitted and this hypothesis is confirmed. According to R^2 , about 45% dependent variable is determined by the independent variable.

2-2-5. the second subsidiary hypothesis

Table9. The results of the Limier test, second subsidiary hypothesis (related to second hypothesis)

Prob.	Chi-Sq. d.f	Chi-Sq. Statistic
0.2188	8	10.708079

Due to the significance is higher than 0.05 (table10), therefore null hypothesis that address the non-correlation between individual effects and explanatory variable accepted. So, second subsidiary hypothesis (related to second hypothesis) are estimated with random effects model.

Table 10. The results second subsidiary hypothesis by regressing random effects

Prob.	t-Statistic	Std. Error	Coefficient	variables
0.0604	-1.881702	16414.03	-30886.31	C
0.3669	-0.902958	0.000666	-0.000602	REV
0.5346	0.621421	0.002079	0.001292	EBT
0.4114	-0.822130	215.8938	-177.4927	MB
0.4104	-0.823826	6931.015	-5709.953	Lev
0.0198	2.337400	1273.858	2977.517	Size
1.818576				
0.178245		Durbin-Watson stat	0.031035	R-squared
		Prob(F-statistic)	1.352615	F-statistic

Due to significant levels of variable coefficients, size has a probability value is less than 0.05, so it can be concluded that there are significant relationship between this variable with dependent variable at a confidence level 0.95, and between variable earnings before tax with dependent variable at a confidence level 0.95 there isn't significant relationship. Since Durbin-watson statistic is between 1.5 and 2.5, there isn't auto-correlation and with regard to the significant level of regression is more than 0.05, this

a. Limier test

The results of Limier test, second subsidiary hypothesis related to second hypothesis show at table 9.

a. Regression of second subsidiary hypothesis (related to second hypothesis) with using random effects.

The results of the estimate second subsidiary hypothesis with using random effects by help of Eviews software are table 10.

hypothesis can't be confirmed. According to the R^2 , only about 3% dependent variable is determined by the independent variable. Researches hypothesis for small companies, medium and large also been implemented (network model is used to classify companies and the size companies based on quartiles). Summary results of testing hypothesis in small, medium and large companies are as table 11 (statistical results are not presented because of brevity).

Table 11. summary results of testing hypothesis research in small, medium and large companies

This hypothesis isn't confirmed.	First subsidiary hypothesis	First hypothesis	Small companies
This hypothesis isn't confirmed.	Second subsidiary hypothesis		
This hypothesis is confirmed.	First subsidiary hypothesis	Second hypothesis	medium companies
This hypothesis isn't confirmed.	Second subsidiary hypothesis		
This hypothesis isn't confirmed.	First subsidiary hypothesis	First hypothesis	large companies
This hypothesis is confirmed.	Second subsidiary hypothesis		
This hypothesis is confirmed.	First subsidiary hypothesis	Second hypothesis	
This hypothesis isn't confirmed.	Second subsidiary hypothesis		
This hypothesis isn't confirmed.	First subsidiary hypothesis	First hypothesis	
This hypothesis isn't confirmed.	Second subsidiary hypothesis		
This hypothesis isn't confirmed.	First subsidiary hypothesis	Second hypothesis	
This hypothesis isn't confirmed.	Second subsidiary hypothesis		

6.conclusion

According to the results of statistical analysis of the data collected, it can be said that based on the first hypothesis, the financial crisis and sanctions on the company's sales and earnings before tax also doesn't affect. In the event that based on being evidence and sharp decline in Tehran stock exchange, it is expected that the revenue and earnings before tax in the periods of financial crisis reduced and based on the evidence obtained, it can be stated that it is possible companies for maintain stability and so control of stock price and create confidence in shareholders and other users, probably act to have income smoothing and using of accounting methods and create non-operating earnings

preventing from decrease earnings before tax. Based on the second hypothesis, earnings before tax and revenue affect by the financial crisis and sanctions on financing through capital increase is effective. But earnings before tax and revenue affected by the financial crisis on financing by receive loan isn't effective. According to the literature and evidence being on corporate and capital market, it is expected that corporate commercial and credit risk has increased because of sanctions and problems are created in the procurement of raw materials and sell their products, that this could affect at financing through loan and credit risk and high interest expense imposed on them and therefore, companies are more inclined to use to capital

increase and financing from their shareholders, but the results from sample shows that the financial sanctions on the financing through banks isn't very effective and this may be because of sample, was not a good example of community and or the banks into support the government for the protection of domestic production of them have supported and without raising interest rate, to company pay facilities.

Also due to additional tests carried out in companies of different size (small, medium and large) roughly the same results with obtained results that indicating size of companies have different effects on the financing of companies in the financial crisis and sanctions and all companies are equally would not be affected by the financial crisis and sanctions. The results achieved for large companies it can be stated that the sanctions and financial crisis on earnings before tax, revenue and financing methods are not effective. In other words, sanctions and financial crisis wouldn't have effect on large companies. But small and medium sized companies will be affected by the sanctions and financial crisis. Sanctions and financial crisis on how to financing them through issue share has been effective and there is a significant and positive relationship between sanctions and financial crisis and is financing through issuance of share.

Company to long-term and short-term financing are two ways. At long-term methods are option between loan and other financing resource and concerning given circumstances, this choice to do. This situation is a set of within and outside condition of organization. And also based on the characteristics of this resource, chief financial officer have the right mix of these funds as long-term debt, the use of preferred stock and common stock in order to make financial investments company. Of theoretical view, managers make-decisions on the optimal structure of financing, under the influence of various factors, including political and economic factors and legal regulations are determination. The strategy of financing in addition to being under the influence of some macro-economic variables such as inflation, interest rates, lending in the banking system and tax policy; also under the influence of factors such as the cost of financing, financial and commercial risk of companies, assets combine with contractual limitations on attracting resources through debt and updating the rules of exchange. Another external factor can be sanctioned and financial crisis and its impact on sales as well as the method of choice for financing and its impact on capital costs outlined.

One of the major defects affecting on the capital structure are, the cost of bankruptcy or financial crisis, which refers to costs that being in financial hardship and as a result of bankruptcy it gets. Considering the cost of bankruptcy (financial crisis), capital structure are as a result of the trade-off tax shield of debt and bankruptcy costs. So companies in the financial crisis and sanctions need to when choose the method of financing will have special attention to cost of capital, so that they can choose the right solution and pay these costs are not a problem.

One of the models to determine the capital structure, is dynamic capital structure model. At static capital structure assume that leverage the company is known, the company

tries to pay attention to the impression factors and variables, receive to an optimal leverage level. This method has two main consequences: first, given leverage it doesn't require optimum leverage (because given leverage is equivalent optimal leverage); the second such experimental analysis is non-dynamic. Advantage of study about dynamic capital structure as compared to the traditional it's because it is the first, in any of the possible conditions and at any point in time may not be possible to achieve the optimal structure of the company. Second companies move to the target capital structure and the speed of adjustment and its components among different companies. The dynamic model in recent decades much research to be allocated them, company tries its level of debt or leverage adjust at different time. of course, this also entails adjustment costs and to identify factors affecting on the adjustment is of considerable importance (mollanazari et al, 2010). In fact, at financial sanctions and crisis situations is better using dynamic financing model.

Since the financial crisis and sanctions are effecting on companies financing methods, so companies may be faced with financing problems and a cost of debt is also affected. Since no similar studies in this area, the possibility of comparing the results isn't possible.

According to the findings, recommendations will be presented in two parts:

a. Offers from researches results

Given the importance of the financial crisis and sanctions on the economy and corporate performance seems doing most studies will help to clarify this issue. What is suggested is as follows:

1. Knowledge of financial managers, potential users and decision-maker from effect of financial crisis and sanctions on sales and earnings before tax of the company as well as its impact on financing companies, dramatically could guide decision on exact route.

2. According to the method of financing affecting by sanctions and the financial crisis, therefore the method of financing (through the issuance of new shares or borrow) due to the cost of financing it's, can have a direct effect on earnings. And should pay attention to choice of financing methods till the company's survival in times of crisis and sanctions not prejudice.

b. Offers for future research

1. In this research, to determine the period of the financial crisis using by latridis and dimitras (2013) method, but other methods that can be used to determine the financial crisis and the results them compare to this study to determine which method can be better gauge the financial crisis.

2. Could be check whether the sanctions and financial crisis on other factors other than the sale of such expense and the cost is effective and this affects how much changing earnings.

3. Can be research implemented in various industries due to sanctions and the financial crisis and examine which industries are more affected by external factors.

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