

Identifying, defining and prioritizing financial risks of South Pars Gas Company

Amin Haghighi^{1*}, Iman Jokar² and Ebrahim Jamei³

- 1- Department of Management, Islamic Azad University, Qeshm International Branch, Qeshm, Iran
- 2- Associate Faculty of Management and Accounting, Islamic Azad University, Fars Science and Research Branch, Fars, Iran
- 3- Head of Financial Accounting at South Pars Gas Complex Company, Assaloyeh, Bousher, Iran

Corresponding author: Amin Haghighi

ABSTRACT: Risk in financial companies can be divided into two Categories, the financial and non-financial risk. The risks such as changes in exchange rates, inflation, lack of transparency of the statements (bills) and errors in the profit expectation are the factors which affect the financial companies' risk. In this study, identifying, defining and prioritizing of financial risks of South Pars gas Company during 2008 to 2013 were reviewed. Data collection included financial documentation of corporate, financial expert's opinions of corporate; and analysis methods were hypothesis testing and research questions of one-variable regression methods and hierarchical analysis approach (AHP) based on South Pars corporate data. The research results showed that factors such as changes in exchange rate, changes in tangible and Long-term asset and Inflation rate and corporate debt, changes in current assets of the company, the amount of company capital are the most important factors affecting the financial risk of the company. And therefore, designing the appropriate systems to manage the assets and debt of corporate is recommended

Keywords: financial risk, exchange rate, changes in asset, asset management, hierarchical analysis (AHP)

INTRODUCTION

Vast gas and petroleum industries are those which are affected indoor and outdoor factors due to dependency on overseas productions and exports. Therefore, recognizing and examining the financial risks in these corporate are of importance. On the other hand, due to dependency of the country's economy on natural gas industries, identifying the effective financial factors in these industries are of priority After the nationalization of the oil industry, and especially after Iran revolution, the huge investments in the oil and gas industry and its related industries in the country especially in southern of Iran and region "South Pars" which is rich of gas, were performed; that applying numerous phases of this huge set has been as its result. According to massive internal and external investments conducted in South Pars Gas Company, the identification and the prioritization of factors affecting its financial risk are important. Therefore, this research seeks to identify and explain the factors affecting the financial risk of this gas Company One of the most important indicators of the planning in the financial company is to identify and prioritize financial risks that could affect the company's productivity. In fact, the possibility of the lack of access to predetermined objectives is concerned as risk. Based on objectives that are affected by the risk and also according to the factors affecting the likelihood of achieving the target, the companies risks are divided into different categories. The risks can be described in the form of unexpected events which is usually in the form of changes in the value of assets or debts. Institutes are exposed to various risks that are in general divided into two categories, commercial 'and' non-commercial risks. The commercial risks are those which creating competitive advantage and added value for the shareholders, by institute. The commercial risks are related to production market in which an institute works. The other risks not controlled by the institute are the non-commercial risks. This category includes systematic risks which are as a result of the basic changes in economic and political environment. Also, the financial risks which are

a part of commercial risks could be defined as the risks that attributed to the crashes in financial markets such as the losses resulted from the change in interest rates and or change in the stock price. The acceptance value of financial risk could be accurately optimized, so that the institute could focus on its main function.

This study aims to identify and explain and prioritize financial risks and to represent the programs and solutions in order to control them. "Which are the most important financial risks in "South Pars Gas Company"" is considered as the main question of this research. What are the factors affecting financial risks of South Pars Gas Company With reference to various scientific resources, various definitions of risk can be found. Given the multiple definitions of the risk, it could be said that the risk is the possibility of changes in the anticipated benefits for a decision, an event or a state in the future. The represented categories show the different types of risk that are conducted in order to assess the likelihood of the changes in the future benefits in various fields related to the business environment but considering that the subject of this article is financial risk, we are going to conduct a variety of financial risks. In general, financial risk is the risks resulting from the balance sheet structure; the risk resulting from the incomes and the profitability, the capital adequacy risk, revenue rate risk, market risk, liquidity risk, exchange rate risk, and commercial risk, all these risks may affect a company. In another definition, risk is divided into two categories, systematic and non-systematic. The non-systematic risk is that resulting from specific traits of the company including the type of product, capital structure of the major shareholders and so on. The systematic risk has been resulted from general developments in market and economy; and not merely been devoted to a particular company; in other word, systematic risk is created through overall movements in market. Many investors pay attention to this points that the acceptance of higher risks is necessary for accessing the higher returns.

A lot of factors are involved in explaining and prioritizing the risks of a company. One of these factors is to predict the company profit in a specified period. Empirical evidence has shown that investors rely on information such as forecasting the earnings per share and they use it in pricing stock. This prediction expresses the expectations of management about the future events which may occur. So, the accuracy of this prediction is of importance for investors. Because making decisions of the investors to buy, sell or hold stock is based on this information. Therefore, the error in profit prediction is the main factor in the function of secondary market (Jack and Magnovmi 2003).

Since either the prediction of benefit or the creation of accruals include a high degree of the management's subjectivism, the error existed in the management's commercial evaluations may likely be observed either in the profit prediction or in accruals. This two disclosed methods contain common (or conjoint) errors due to the management's incorrect estimations of commercial future of the companies.

In accrual accounting system, financial events are recorded and reported at that time, regardless of time of receiving or paying the payment from them. Accordingly, it can be argued that the accounting benefit in the accrual system has not always been equal with cash flows, but accrual component in determining the accounting profit is the complementary of cash component.

On the other hand, the investor's behavior in stock exchange, how to make decision, monetary resources allocation, Pricing and evaluating, could affect the corporate performance. Ambiguous conditions and cognitive mistakes which rooted in the human psychology make investors mistake in forming their expectations and consequently, they show the specific behaviors while investing in financial markets. Investor's behavior is one of effective factors, so that one of the main factors of these behavioral uncertainty is the lack of confidence and (lack) of the information transparency (Hiesu, 2006).

Reliable and related information means less risk for the investors and as a result, the lower capital cost. Those firms which represent the information related to key criteria and performance indicators concerned by the investors, have been more valuable than those maintain the information for themselves. This topic could be interpreted in two ways:

- 1) The markets encourage the more transparent companies and promote their values. Because it is believed that the risks of unpleasant events in these companies are low.
- 2) Often, those firms which obtain good results, more easily provide people with information. These firms don't have anything to hide and they wish to supply their performance results with people, as possible. So, the market can raise their natural (or intrinsic) value. (Alavi, 2010).

Some studies have shown that the transparency of accounting information may affect the informational asymmetry, cost of debt, capital costs and other variable. For example, Andrade et al (2014) show that the transparency leads to reduction in International Research and Analysis Center has represented an index for transparency so that this index is considered as mean score 90items of accounting and other Accounting disclosed by a broad sample of the companies in their annual reporting. The Center has determined certain scores for every traits, and according to the obtained score, it evaluated the value of the financial information transparency. The empirical research has showed the evidence of a negative relationship between the market reaction to the earnings announcement and levels of financial information transparency. According to Yu (2005), informational advantage

linked to financial statement transparency is that the knowledge of investors has been increased and led to increase the shareholder's trust, and decrease the capital cost of the company. Low transparency and informational asymmetry makes the investors and other shareholders confused and unaware. Various researches were conducted about research subject. The first category is the research which has contributed to profit growth. For example, the researches such as Jahansha, Asgari and Asadikoli (2011) examined the effects of the Changes percentage in the payable revenue on future profit growth. Georgizade (2010) examined the relationship between systematic risk and profit growth of the companies listed in Tehran Stock Exchange. In a study, Fakhari and Joseph-nejad (2006) examined the relationship between systematic risk and profit growth of the companies in Tehran Stock Exchange. Jalili Arezo (2005) examined the profitability of the basic variables in predicting the operating profit growth of the active companies in the pharmaceutical and chemical industry of Tehran Stock Exchange. The second category is the research which point to profit transparency. Rahimian et al (2012) investigated the relationship between earnings quality and informational asymmetry in firms listed in Tehran Stock Exchange. Kordestni and Alavi (2010) surveyed the relationship between the accounting profit Transparency and capital cost of normal stock at Iran stock exchange. And the third category is the research which focuses on the risk. Sirani, Hejazi and Keshavarz (2011) studied effect of liquidity risk and other factors on sectional returns in the companies listed at Tehran stock exchange. Saeidi and Ramsheh (2011) examined determinants of systematic risk of the stock at Tehran stock; Tavangar (2011) surveyed the model potency test (D-CAPM) in comparison to (CAPM) model for explaining the relationship between risk and stock returns; and Ghobadi and Amir Hoseini (2010) conducted the test of the explanation capability of the conditional model of the reduced capital asset pricing in order to predict the risk and the expected return rate. These research results show that a set of financial factors affect the risk firms directly and indirectly.

MATERIALS AND METHODS

In this research, collecting data is based on two methods, the library and the field. Concerning the data collection related to research variables, the financial reports of South Pars Gas Company were used. After collecting data (which is) needed to do the research, choosing the appropriate tool to calculate and analyze the data related to variables is very important. Excel and SPSS software were used for performing the calculations and preparing data as well as analyzing them; and Expert chose is used for prioritizing. In the present study, first, the descriptive statistics are presented for the variables of the regression model. These statistics are average, count, maximum, minimum, and standard deviation. These statistics provide overall schematic of each variable in the model. Also, Kolmogrov-Smirnov (KS) test will be used for examining the normality of community distribution; F-statistic and ANOVA test for the significance of regression; T-statistics for the significance of coefficients; and Watson-camera test will be used to assess the independence of the errors from each other.

The population of this research is the South Pars Gas Company which is selected as the test sample. In this research, South Pars Gas Company is selected as the test company. The study period has been five-year duration from 2008 to 2012. Dependent variable is financial risk. For measuring the financial risk, Gabriel and Baker (1980) and Syds and Johnson (2004) model is used as follows:

$$FR = \frac{\sigma_{cf}}{ex_{cf}} \frac{I}{ex_{cf} - I}$$

The independent variables are: Risks resulting from the Company's balance sheet, risk of income and profitability structure, capital adequacy risk, return rate risk, currency risk or (foreign) exchange risk.

RESULTS AND DISCUSSION

Given the extensiveness of the population, a small sample was considered as the selected sample. Out of 10 members of the selected sample, 8 men (80%) and 2 women (20%) are selected. Therefore, most of the respondents are male. In this study, 10% of respondents with a history of less than 5 years, 60% between 6 to 10 years, 20% between 11 to 15 years and 10% were older than 15 years. In this study, 80% of the members shave B.A (bachelor's degree) and 20% of the respondents have M.A. So that, most of the respondents have B.A. All respondents were in the financial sector, 60% in the accounting sector and 40 % in the financial management sector.

Since, firstly the costs of the risks should be calculated for evaluating the test hypothesis, so, the pure values of cash flows, the pure standard deviation of the cash flows, fixed accruals of debts were obtained according to South Pars gas Company data; and consequently, the sub –costs of risk were calculated according to the represented formula. We required the financial parameters values for examining the defined hypothesis test at the beginning of

the study, and these important values were obtained through receiving the accurate information based on company's financial documents.

According to data analysis results, there is correlation between the variables of current assets, long-term assets, current assets ratio to fixed assets, tangible assets, the value of firm capital, firm liabilities and financial risk of the firm. In other words, the changes in each variable may lead to changes in financial risks. On the contrary, there is no correlation between changes in exchange rate, inflation rate, rate of firm capital return, change value in return of firms assets, impure interest, changes in net selling, financial assets ratio to tangible assets(physical) and financial risk of firm.

Totally, according to regression and normal tests conducted in this study, and data collected, there is significant effect on financial risk of firm in the following options:

1. Changes in exchange rates
2. Changes in tangible assets (physical) of firm
3. Changes in long-term assets
4. The value of firm liabilities
5. Changes in current assets of firm
6. The capital value of firm

Based on the regression statistical analysis, the most interesting result is the impact of exchange rate changes on financial risk of South Pars Gas Company. In fact, the role of exchange rate changes on the risk and or economic non-stability of the country on the companies could be clearly observed. The next issue is the changes in the physical and long-term assets that the necessity of converting the most of the physical and long-term assets to current assets may be its reason. The importance of the company debt effect on financial risks, remind the relationship between financial risks relating to previous years and the increasing of the company debts. The issue of increase or decrease in current assets and its role in increasing or decreasing the financial risk should be considered subsequently. The ultimate investment, whether or not, affecting the assets and liabilities in the financial risk leads to this case that increase or decrease in capital, subsequently affect the company's financial risk.

On the other hand, according to AHP analysis and experts of the South Pars gas Company, the following items are effective in the company's financial risks, respectively:

1. Changes in exchange rates
2. Corporate debt (liabilities)
3. The ratio of current assets to fixed assets
4. Long-term assets
5. Capital
6. The current assets
7. Tangible assets

Here, we will examine these 5 important factors, based on the analysis; the exchange rate risk is of importance in the financial risk of corporation. Changes in the revenue, which resulted from the changes in pure interest or total capital of the company, is considered as second factor .The third factor is the inflation rate, which indirectly but surely affects all financial variables of a company .Fourth factor is the amount of debt and the fifth factor is the assets returns. We indicate those in table 1

By comparing the result 2, the following factors have a significant impact on financial risk.

Table1. Table of the factors affected the financial risk (5 main index)

Weight	Indicator	Index	Row
0.0000	175,644	Changes in the company's assets (current, fixed and tangible)	1
0.0002	70155	Changes in revenues and profitability structure of the company	2
0.0031	49668	Changes in capital adequacy (capital and debt) of company.	3
0.2214	65984	Changes in the rate of return on company capital and assets	4
0.7750	9663	Inflation and exchange rate changes	5

CONCLUSION

Based on the research findings and the results from regression test, it is recommended that the company plan its risk management system so that it minimize the effect of changes in exchange rate. It is also proposed that the effect of the changes in tangible and long-term assets should be considered through managing the company's assets; and the financial risk of company should be decreased (or cut) through engineering the assets.

Moreover, the company can reduce the financial risk of company by appropriate management of its debt system. However, based on the results of AHP test and financial experts, the company should consider the most important

factor such as the change in the exchange rate, capital returns, inflation and debt levels of the company and changes in the company's assets return.

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