Review

The effects of trading with related parties of the market value of companies listed on the Tehran stock exchange

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ABSTRACT

Trading with related parties is considered one of the most opportunistic management behaviors while having common features of commercial activities, it can significantly affect the performance of a business unit. In this study we analyze to what degree trading with related parties affects a company. This research studies 75 companies listed on the Tehran stock exchange in the period of 2006-2011 and they have all been selected via screening. The hypothesis test was done via multiple regressions and the generalized least square method. The results of this study indicate that trading with related parties has a negative effect on a company’s value and will eventually affect the benefits of the stockholders and other external beneficiaries of the company.

Key words: trading with related parties, buying from related parties, selling to related parties, company value, market value to book value of equity.

INTRODUCTION

The aim of investors from investing in stocks is to gain a reasonable return from stock price fluctuations (stock’s market value) and stock earnings. Therefore a stock’s market value is a key factor in deciding whether to buy or sell a stock and people tend to predict it frequently. In order to provide a model that predicts a stock’s market value all determining factors must be determined. In this regard, one of the aims of accountancy is to provide information to investor and analysts in order to assist them in predicting a company’s market value. One of the most important information that is provided in financial statements is information about trades with related parties which because of their special nature are of interest to investors, auditors and other people who assess accounting information. the trading of related parties might decrease the benefits of own side in favor of another and will lead to a loss of interest for the minority shareholders in favor of the controlling shareholders and managers. These groups can benefit by purchasing or selling assets, commodities and services in different prices from the market (laporta and associates. 2002) they can also take loans by good terms and offer the company’s assets as collateral for their personal loans, they can even damage the minority shareholders benefits by acquiring additional stocks in preferential prices. (Johnson and others 2000 )

The market value of company’s can be affected by numerous factors, many of these factors have been analyzed and studied in different researches and texts. In this research we aim to study the effects trading with related parties has on the value of companies listed on the Tehran stock exchange and also identifying
ownership characteristics and corporate governance in companies involved in such transactions.

**Theoretical literature and research background**

Trading with related parties is considered one of the most common opportunistic management behaviors while having common features of commercial activities, it can significantly affect the performance of a business unit. The limited researches that have been done in this area all indicate a paradoxical relation between such transactions and the management performance in order to obtain value for shareholders.

Experts believe that one of the reasons of financial crisis’s in companies are trading will related parties and covering them up in the financial statements. Chank o and associates (2008) believe that trading with related parties give a direct opportunity to related parties to withdraw cash from the company by underground activities.

**Khodamipour, Amini Hooshmand and Zaferaniye (2013)**

According to standard no12 approved in 2008, it studied the requirements of disclosing transactions with related parties on profit management. The results of their study indicated that the coefficient of profit value for companies selling commodities to related people decreased after the disclosure rules were approved and that the coefficient of profit value generated from selling assets to related parties decreased after the disclosure rules was approved. They did not find a significant relation between the new disclosing rules and its effect on the decrease in profit manipulation by selling assets to related parties.

**Khalatbari and associates (2013)**

Stated in their research, which was named the effect transactions with related parties has on the management of companies listed on the Tehran stock exchange, for 85 listed companies between the years of 2005 – 2009 they reached this conclusion that there is a paradoxical relation between transactions with related parties and management performance according to the q2bn index. Additional y, the results indicate that there is no significant relation between transactions with related parties and the company’s performance in terms of value added economy and using the q2bn index for performance evaluation indicates that there is a paradoxical relation between purchase transactions and debt of related parties and management performance. And there no significant relation between sell transactions to related parties and the collaterals received from them or the collaterals paid to them with the management performance. The value added economy index also serves as a criterion for performance evaluation indicates that there is no significant relation buy/sell transactions with related parties and the debt/credit of related parties and collaterals of delivery and payment and the company’s managerial performance.

**In the studies of Kohelbeg and Mehiyo (2010)**

They studied the relation between disclosing transactions with related parties and the company’s value of the United States most prominent company. The results of their studies indicated that companies that do transactions with related parties have a lower value in comparison to companies that don’t, their studies also showed that even though disclosing such transactions does have some benefits for its users it eventually causes a the shares of the company to decrease. They also noticed a paradoxical relation between the occurrence of such deals and receiving loans.

**Henriod and others (2007)**

Studied the role of transactions with related parties of 83 companies by their financial information in the period of 1983-2006. They noticed that the most common trades in executive activities were giving loans to related parties, paying the board of directors and selling commodities and services to related parties and this relation was not disclosed. Their finding showed that asset embezzlement in the company was mostly related to transaction with high cash flow. They reported that overall the existence of such transactions with related parties does not indicate fraud.

**Jencho and associates (2004)**

Studied the pricing of assets in the transactions of related parties in 254 companies in the period of 1998-2000. Their findings indicated that companies enter a deal with an fair price with related parties in comparison to real transactions.

The companies acquire assets from related parties with a higher price in comparison to similar transactions and when they sell assets to related parties they receive less money in comparison to similar transactions. Companies that have an accountancy committee pay a lower price to related parties to acquire and receive a higher price from related parties.

**STUDY METHODOLOGY**

This is a descriptive -correlational study and the research methodology is of a post-event type; which means that
Table 1. Research variables and how to measure them

<table>
<thead>
<tr>
<th>Calculating method</th>
<th>Name of variable</th>
<th>abbreviation</th>
<th>Type of variable</th>
</tr>
</thead>
<tbody>
<tr>
<td>The ratio of market value to book value of equity</td>
<td>Company value</td>
<td>VALUE</td>
<td>Dependent variable</td>
</tr>
<tr>
<td>The ratio of purchase from related parties to all purchases</td>
<td>Buying from related parties</td>
<td>PURRP</td>
<td>Independent variable</td>
</tr>
<tr>
<td>The ratio of selling to related parties to all sales</td>
<td>Selling to related parties</td>
<td>SALERP</td>
<td>Independent variable</td>
</tr>
<tr>
<td>The ratio of gross interest before taxes the medium of assets</td>
<td>Rate of economic return (assets return)</td>
<td>ROA</td>
<td>Control variable</td>
</tr>
<tr>
<td>The ratio of change in the volume of trades between T and T-1 to the volume of trades in T-1</td>
<td>Transactions flow</td>
<td>VARTUR</td>
<td>Control variable</td>
</tr>
<tr>
<td>The natural logarithm of total assets</td>
<td>Size of company</td>
<td>SIZE</td>
<td>Control variable</td>
</tr>
</tbody>
</table>

Table 2. Normalcy of the data

<table>
<thead>
<tr>
<th>Variable</th>
<th>Jarque-Bera</th>
<th>Probability</th>
<th>Variable</th>
<th>Jarque-Bera</th>
<th>Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>VALUE</td>
<td>5.756</td>
<td>0.058</td>
<td>ROA</td>
<td>2.658</td>
<td>0.276</td>
</tr>
<tr>
<td>PURRP</td>
<td>5.896</td>
<td>0.056</td>
<td>VARTUR</td>
<td>2.562</td>
<td>0.277</td>
</tr>
<tr>
<td>SALERP</td>
<td>5.025</td>
<td>0.070</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SIZE</td>
<td>4.524</td>
<td>0.163</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

the study is conducted based on past information and it tends to describe relations by using statistical tests.

To predict the data of the study, it uses a combinational data model and a regression GLS model.
It collects information and data from the basic financial statements of companies listed on the Tehran stock exchange by library method. Additionally it also uses the annually published reports by the Tehran stock exchange for enthusiasts on websites such as codal.ir or rdis.ir.

The study has also used theoretical subjects by library method, books, magazines, educational thesis, reports, foreign and domestic articles and the global internet network in order to gather data.
The statistical locale of this study includes all companies listed on the Tehran stock exchange. To conduct the study, a statistical sample was chosen from companies that were members of the statistical locale which has the below conditions:
1- It should not be an investing, leasing, insurance, bank or multidisciplinary company.
2- Their required data must be available for the study.
3- It should not have changed its activities or financial year in the period of 2007-2012.
4- Present in the Tehran stock exchange since 2007.
5- The end of its financial year must be the end of ESFAND (march)
The reason for conducting the above conditions was to homogenize the statistical locale in the period of the study and to decrease obtrusive variables that arise from such changes. Table 1.

Hypothesis test

To evaluate the normalcy of the data we use the jaco test. In the JB test uses compression and distribution skewness to evaluate the normalcy. The jb statistic is calculated from the following equation:

\[ J.B = n/6(sk^2) + n/24(EK - 3)^2 \]

where \( n \) is equal to the number of views, \( SK \) measures the skewness distribution and \( EK \) measures the strain distribution. The test statistic has a K2 distribution with a 2 degree freedom. The statistic level crisis is (95%) is equal to 5/99. Table 2.

As you can see in the table the JB statistic in each one of the variables was less than 5/99 therefore the error in each sentence distribution follows the normal distribution.

First hypothesis

There are some effects purchase from related parties has on the company value.

Hypothesis: HO the effect of purchase from related parties on the company value does not exist.

HYPOTHESIS: H1 buying from related parties has some effects on the company value. Table 3.

As you can see in table 3, the coefficient and statistic t for the purchase variable of related parties and the company value are -2.805 and -2.048 respectively which indicates that there is a significant negative relation between purchasing from related parties and the
Table 3. Summary of the statistics results of the first hypothesis

<table>
<thead>
<tr>
<th>Significance level</th>
<th>Statistic t</th>
<th>Coefficient</th>
<th>Variable</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.0355</td>
<td>-2.115158</td>
<td>-9.299915</td>
<td>C</td>
</tr>
<tr>
<td>0.0055</td>
<td>-2.505024</td>
<td>-2.048185</td>
<td>PURRP</td>
</tr>
<tr>
<td>0.0003</td>
<td>3.712566</td>
<td>0.038638</td>
<td>ROA</td>
</tr>
<tr>
<td>0.0000</td>
<td>-6.830496</td>
<td>-0.009014</td>
<td>VARTUR</td>
</tr>
<tr>
<td>0.0144</td>
<td>3.957720</td>
<td>3.030083</td>
<td>SIZE</td>
</tr>
</tbody>
</table>

Dorbin Watson: 2.160445  
white test: 0.00062  
Statistic significance level F: 0.000  
Hasman test: 0.0000

Table 4. Summary of statistical results of second hypothesis

<table>
<thead>
<tr>
<th>Loyalty level</th>
<th>Statistic t</th>
<th>Coefficient</th>
<th>Variable</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.7000</td>
<td>-0.385777</td>
<td>-1.776830</td>
<td>C</td>
</tr>
<tr>
<td>0.0005</td>
<td>-3.523915</td>
<td>-2.009083</td>
<td>SALERP</td>
</tr>
<tr>
<td>0.3906</td>
<td>0.860181</td>
<td>0.006362</td>
<td>ROA</td>
</tr>
<tr>
<td>0.4497</td>
<td>0.757270</td>
<td>0.000248</td>
<td>VARTUR</td>
</tr>
<tr>
<td>0.0555</td>
<td>1.924964</td>
<td>1.539728</td>
<td>SIZE</td>
</tr>
</tbody>
</table>

Dorbin Watson: 2.363275  
white test: 0.0677  
Statistic significance level F: 0.0000  
Hasman test: 0.0000

Company value. This means that the more purchases from related parties increases the value of the company will decrease. The WHITE test was 0.062 which indicates a homology of variances. The hasman statistic is 0.000 with indicates that the pattern is a panel data and of a fixed effect type. The coefficient and statistic t for the fixed number © is -9.299 and -2.115. For the control variable the economic coefficient return and the t statistic is 3.712 and 0.038 which indicates a significant positive relation between the economic return and company value. For the volume control variable the t coefficient and statistic is -0.009 and -6.830 respectively, this indicates that there is a significant negative relation between the volume of trades and the company value. The t coefficient and variable for the measurement control variable of the company in relation to company value is 3.972 and 3.030 respectively and this indicates a significant positive relation between company size and company value. The coefficient shows that 65% of the company value change due to purchase from related parties is explained.

According to the results of the test the first hypothesis is accepted. This means that the purchase from related parties has a significant and negative effect on a company's value.

Second hypothesis

The effect selling to related parties has on the company's value.
Hypothesis: HO selling to related parties has no effect on company value.
Hypothesis: H1 selling to related parties has an effect on the company value.

As you can see in table 4, statistic and coefficient t of sale variable to related people and company value is -8.009 and 3.523 respectively and this indicates that sale to related parties has a significant negative effect on company value. This means that when sales to related parties increases the company’s value will also decrease. The white test is 0.067 which indicates a homology of variance. The hasman statistic is 0.000 which indicates a panel data pattern of fixed effect model. The t coefficient and statistic for the fixed number © is -1.776 and -0.385 respectively. This indicates that there is no relation between economic return and company value and for the volume control variable of trades and t statistic is 0.000 and 0.757 respectively which indicates that there is no significant relation between the volume of trades and the company value. The t coefficient and statistic for company's control measurement variable in accordance to company value is 1.539 and 1.924 and this indicates that there is no relation between the company size and
Table 5. Summary of results

<table>
<thead>
<tr>
<th>Hypothesis results</th>
<th>Connection results</th>
<th>Research hypothesis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hypothesis confirmed</td>
<td>Significant negative</td>
<td>Purchase from related parties has an effect on company value</td>
</tr>
<tr>
<td>Hypothesis confirmed</td>
<td>Significant negative</td>
<td>Sales to related parties has an effect on company value</td>
</tr>
</tbody>
</table>

company value. The F statistic model regression is equal to 4.059 and according to the amount of the F statistic possibility which is smaller than 0.01, the entire predicted model is confirmed at a level of 99%. The coefficient indicates that 42% of changes in company value can be explained in terms of sales to related parties. The Watson and statistic is 2.36 which indicates that there is no correlation.

According to the results of the test the second hypothesis is accepted. This means that sales to related parties have a significant and negative effect on the company value. Table 5.

CONCLUSIONS AND SUGGESTIONS

According to the results of the which indicates a paradoxical relation between buy/sell transactions with related parties and company value which is obtained by dividing a company’s market value to its book value we can assert that the more transactions increase with related parties, because of the possibility of misuse and lack of investor optimism these kinds of relations cause a company’s value to decrease.

It is advised that company operators try not to trade with related parties or minimize it so that they can gain the trust of the investors and maintain the interests of the company and the shareholders.

REFERENCES