



Effects Real Earnings Management and Liquidity Leverage Relation Analysis Case study: accepted plants into Tehran stock exchange

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ABSTRACT

Objective: The main purpose of the present research is to investigate the relation between liquidity leverage and real earnings management of the accepted plants into Tehran stock exchange in 2014. Through determination the concept of creation steps or liquidity leverage expansion as well as real earnings management, this paper is going to describe how this kind of thought is created in accepted plants. **Methodology:** Having explained its effective factors, they are analyzed and classified and finally combining various presented models and theories, they are analyzed by specialists. In this research 91 plants out of accepted ones in Tehran stock exchange which have got particular properties are analyzed and used to investigate the relation between liquidity leverage and real earnings management. **Results:** Finally, considering concluded meaningful relations of studied secondary hypotheses, the first hypothesis which there is a meaningful relation between liquidity leverage and real earnings management is absolutely verified. Having studied hypotheses using T test, they can be classified based on their averages. This classification demonstrates that cash conversion cycle index has got the most relation to the real earnings management. **Conclusion:** Research conclusions demonstrate that there is a meaningful relation between liquidity leverage and real earnings management. Considering the conclusions, some suggestions are presented, too.

1. Introduction

In the third millennium negotiable instrument is one of the most important financial markets which show each country's economic. Negotiable instrument stagnancy and effloresces affects not only on national economic but on regional and international economic. Negotiable instrument stock market on one hand collects private section's saves and liquidity to finance investment projects and on the other hand it is considered as a formal and trustable reference in which stagnant save owners can look for a suitable investment occasion and invest their own funds (Khajavi, 2011.)

One of the tools which are used to determine plants' financial position is financial relations analysis. Actually, financial relations reveal vital facts about operations and financial position of a plant. The advantage of the relations studying is that the relation between main goods of financial statements would be exact as well as plants' financial shortcomings and strong point will be determined (Noravesh, 2010).

Moreover, plants' profitability which is usually analyzed by interest report is one of the important information that is considered by individuals at decision making. Financial experts also usually regard interest report as a remarkable factor of their analysis and judgments. Investors believe that in compare with fixed return, infixed return guarantees more dividends. In addition, interest exchangeability is considered as a crucial criterion of plant risk; that is, plants whose interest is more fix are at less risk. Therefore, investors are interested in plants whose interest is more fix as they are more suitable places for investment (Norman 1991).

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Basically, interest management occurs when management attempts to present an appropriate image of the plant before interested parties since this image directly or indirectly affects on managers' interest. However, frequently there is a concern that interest as the most important plant's financial operation index would be managed for particular goals by managers who are against potential interest of common stockholders (Fakhari, 2012).

Actually, interest management occurs when management attempts to present an appropriate image of the plant before interested parties since this image directly or indirectly affects on managers' interest (Rasouli, 2007). So, frequently there is a concern that interest as the most important plant's financial operation index would be managed for particular goals by managers who are against potential interest of common stockholders. Although, different reasons are presented for interest management motivations in other countries (finance, representative expense, new stockholder absorption, political process and so on), reward procedure basing on interest is one of the interest manipulation reasons in Iranian plants (Savickas, 1984). Financial experts often consider interest report as remarkable factors of their analysis and judgment. Interest management can be done in two ways: interest management basing on 1 accounting amounts 2 real management. In the first method management disposes its accounting amounts according to its own favorable goals through optional promissory goods. In the latter one, management makes some operational decisions in the other words, through real activities manipulation gains its interested profits. Interest measurement process and its result play an important role in plant administration and financial statement users usually pay attention to it a lot. Since economic agency profit computing is influenced by accounting estimate methods as well providing financial statement is up to commerce unit of management, probably because of various reasons, would take an action to manage interest (Super, 1983).

Plants functions evaluation frequently is regarded by stockholders, investors, financial creditors such as banks and financial institutes, creditors specially managers. Function evaluation financially is determined by two strong indexes: liquidity and profitability. Profitability means that economic agency is healthy and liquidity reveals economic agency survival (Talebi, 2007). Index which evaluates plants liquidity was and still is considered by specialists. This causes specialist be able to present new index by analyzing traditional indexes shortcomings (Khoshtinat & Zahirnamazi, 2004, cited Khajavi, 2011). These indexes regard deficits of liquidity traditional indexes arising from paying no attention to plants liquidity detailed positions. On the other hand, plants profitability which is usually analyzed by interest report is important information which is considered at decision makings.

2. Materials and methods

2.1 New Measures of Liquidity Measurement

Considering shortcomings of the plant's traditional liquidity indexes, financial researchers planed to define some indexes which not only remove mentioned shortcomings but also regard liquidity position details of the plants.

Comprehensive Liquidity measure: this index computing current relation weight average, solve the problem of not considering liquidity amount of current assets and redemption time of current liabilities.

Cash conversion cycle measure: cash conversion cycle is a certain time period between paying liabilities and receiving cash from debts. Actually, the shorter this period is, the better liquidity the plant would have (Whan Marko, 1998).

Net liquidity balance index: this index indicates liquidity position of plant to balance net cash and negotiable instruments. Therefore, this research studies the relation between liquidity leverage and real earnings management in Tehran stock exchange. Accepted plants into Tehran's stock exchange security also are not except from abovementioned challenges especially considering quick qualitative and quantitative improvement which have been occurring during the recent years (Zimbardo, 2009). As in Iran there is few researches on studying the relation between liquidity leverage and real earnings management, so this research is going to investigate liquidity leverage position and its relation and effect on real earnings management in accepted plants into Tehran stock exchange as well as basing on its results present a model to improve mentioned properties so that accepted plants into Tehran stock exchange survive in this turbulent and competitive milieu and prepare itself in advance to face sudden changes. Along with studying the relation between liquidity leverage and real earnings management of accepted plants into Tehran stock exchange, considering related fields, following main and secondary hypotheses are presented:

- Main hypothesis: there is a meaningful relation between liquidity leverage and real earnings management of accepted plants into Tehran stock exchange.
- First secondary hypothesis: there is a meaningful relation between liquidity index and real earnings management of accepted plants in Tehran stock exchange.
- Second secondary hypothesis: there is a meaningful relation between cash conversion cycle index and real earnings management of accepted plants into Tehran stock exchange.
- Third secondary hypothesis: there is a meaningful relation between net liquidity balance index and real earnings management of accepted plants of Tehran stock exchange.
- Liquidity leverage
- Comprehensive Liquidity index
- Cash conversion cycle index
- Balance real earnings index
- Real earnings management

2.2 Research methodology

Methodology of this research is based on practical purpose and its method nature and problem view is post occurrence. In addition, its collected data is qualitative that means interviewers' statements, discussions are written and research data are collected from different plants referring financial statements

and reports, descriptive notes, weekly and monthly reports of stock exchange securities, Internet sites, databases, stock exchange magazines and reports. In this way, to perform the present research, these steps are followed:

- 1.Designing a conceptual framework using library studying, documentary analysis and related Internet site surfing.
- 2.Designing purposes using basic theories, research review of literature, researcher's background experience, and using experts and specialists opinions.
- 3.Interviewing Managers and top specialists on elements composition its general image and its designing method.
- 4.Designing and collecting data, based on theoretical framework and research hypotheses using authorities and respected professor's guidance
- 5.Analyzing and extracting conclusions basing on experimental data
- 6.Summarizing conclusions using respected professor's guidance and other authorities and finally presenting an appropriate model based on findings.

This research involves accepted plants into (91 plants) Tehran stock exchange. Research population includes accepted plants into Tehran stock exchange and its sample is selected by Sitmatice method whose representative criteria of sampling are as below:

- 1.Plants should be accepted into stock exchange before 2007 and they have been active till the end of 2013.
- 2.The end of fiscal year leads to the end of 2013 and during 2007 – 2013 their activities or fiscal year should not have been changed.
- 3.Plant should not have interruption transaction over 6 month of research period.
- 4.Plant's financial data should be available.

Having collected a plenty of observations and data, suitably they should be analyzed and reported using statistics methods. Descriptive statistics is used to summarize collected data and knowing research population better. Descriptive statistics end is not justification but using numbers, it describe, extract main points and prove to be true the data composition. It is worth to mention that SPSS and EXCEL software are used to analyze data (Zimbardo, 2012).

3. Discussion and results

In this section, firstly in order to analyze data normalization Clomogrooff and Smirnoff tests are used then in order to test each hypothesis, research population is analyzed by one sample T test for each hypothesis. Since statistic data have normal distribution, parametric statistic tests are used to analyze data. In this research, T test is used for each hypothesis test. When a sample is large, parametric tests can be used even if population is not normal.

3.1 First Secondary Hypothesis Test

Considering error percentage $\alpha = 0.05$ and reliability level $= 0.95$, freedom degree equals $df = n - 1 = 90$. So test with "a" error level is $t_{\alpha/2} = 1.96$. Moreover, observation test using following formula equals: $(\bar{x} - x_1)/sn = t$

$T = 2.53$

T test:

Liquidity index

$T = 2.53$

Freedom degree 90

Double Meaningfulness level 0.014

Average difference 0.19493

Min 0.0410

Max 0.3489

Reliability 95%

Considering concluded results, statistic test: 2.53 is larger than statistic chart: 1.96. Since computed statistics in error level 0.05 and freedom degree 90 is larger than chart amount, so it can be said that null hypothesis is refused and alternative hypothesis is verified. That is, there is a meaningful relation between this variable and real earnings management.

3.2 Second secondary Hypothesis Test

Considering error percentage $\alpha = 0.05$ and reliability level $= 0.95$, freedom degree equals $df = n - 1 = 90$. So test with "a" error level is $t_{\alpha/2} = 1.96$. Moreover, observation test using following formula equals: $(\bar{x} - x_1)/sn = t$

$T = 6.91$

T test:

Cash conversion cycle index

$T = 6.91$

Freedom degree 90

Double Meaningfulness level 0.000

Average difference 0.32692

Min 0.2267

Max 0.4271

Reliability 95%

Considering concluded results, statistic test 6.91 is larger than statistic chart: 1.96. Since computed statistics in error level 0.05 and freedom degree 90 is larger than chart amount, so it can be said that null hypothesis is refused and alternative hypothesis is verified. That is, there is a meaningful relation between this variable and real earnings management.

3.3 Third Secondary Hypothesis Test

Considering error percentage $\alpha=0.05$ and reliability level $=0.95$, freedom degree equals $df=n-1=90$. So test with “a” error level is $t_{\alpha/2}=1.96$. Moreover, observation test using following formula equals: $(x-x_1)/sn=t$

$T=4.30$

T test:

Net liquidity balance index

$T=4.30$

Freedom degree 90

Double Meaningfulness level 0.000

Average difference 0.23901

Min 0.1288

Max 0.3492

Reliability 95%

Considering concluded results, statistic test: 4.30 is larger than statistic chart: 1.96. Since computed statistics in error level 0.05 and freedom degree 90 is larger than chart amount, so it can be said that null hypothesis is refused and alternative hypothesis is verified. That is, there is a meaningful relation between this variable and real earnings management. Finally, considering concluded meaningful relations of studied secondary hypotheses, the first hypothesis which there is a meaningful relation between liquidity leverage and real earnings management is absolutely verified. Having studied hypotheses using T test, they can be classified based on their averages. This classification demonstrates that cash conversion cycle index has got the most relation to the real earnings management.

4. Conclusion

This research studied the relation between liquidity leverage and real earnings management. Basing on review of related literatures, as was expected strong and meaningful relation between liquidity leverage aspects and real earnings management is proved as well tests display that there is a meaningful relation between them. Research conclusions show that liquidity leverage and real earnings management are related directly. During the third millennium plants to be survived in the current competitive world have to devote some parts of their attempts to processes and functions which play a crucial role in their success and functions improvement. Some of effective processes of having better function are using liquidity leverage tools and real earnings management that in case using effectiveness criteria can play a remarkable role in plants functions. Considering research conclusions obviously this criterion not only directly influences on plants' functions and liquidity but also indirectly and through affecting other mechanisms improves plants' real earnings management and position. Abovementioned purposes and plants' function improvement should be provided for appropriate liquidity in plants through encouragement or forcing them applying other liquidity leverage mechanisms by Stock exchange.

4.1 Suggestions

Considering research conclusions, it is suggested that:

1. Suggestions are considered in accordance with research conclusions which indicate the relation between liquidity leverage and real earnings management in accepted plants into Stock exchange. Actually, stockholders and investors are suggested regarding the concluded elements of this research in their decision making models. Financial investors and researchers always consider liquidity factor as well as interest and operational cash flow difference in their decision making process.
2. Financial report users should know that liquidity leverage of a plant does not provide sufficient reliability of useful observation on cash keeping level of the plant.
3. It is suggested exposing more information about board composition of the plants; because by increasing uncharged members of the board, a useful observation would be done on plants' real earnings management level and cash flow keeping level would be decreased, too.
4. Stock exchange securities organization is suggested that observe clear and proper information presentation of the plants and consider effective factors on plants' liquidity.
5. In the studied plants, effect of equipments and machines on earning management is negative. Therefore, probably these plants use depreciated machines. So it should be considered that old equipments and machines influence on the plants gain negatively. In the recent years, considering international sanctions against Iran, it is not possible for all plants to update industrial machines. It is suggested that plants maximize their earnings by using new machines.
6. Obviously, the effect of income on earning management is positive. It is suggested that plants study income increasing methods so that maximize their gain.
7. Analyze Non- collinearly relation between earnings management, income and industrial machines in Tehran stock exchange member plants. In fact, this suggestion helps proper expense of equipments and machines to maximize the gain. In addition, maximum earned gain can be made by a certain amount of income and assets.
8. Analyzing industrial equipments and machines updating method for the minimum expense as well as analyzing using new machines effect on earning management of the plants are suggested.

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