Effect of Debit Structure on Profitability of Food Industries Accepted in Tehran Stock Exchange

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ABSTRACT

The main purpose of this article is the review the impression of debt structure to profitability of catering industrial company that accepted in Tehran security exchange. In this way, investigate the total catering industrial company that the financial statement information (balance sheet, income statement) of them is exist for ten years in Tehran security exchange. In order to, 27 company of the catering industrial company is selected and 10(ten) years information of them about the total debt, operation profits, pretax profits, net profit and earnings per share is correlation coefficient. In whole, the final result indicate, except the relation between. The dept and earnings per share to exist the significant relation between the debt and profits.

KEY WORDS: debt structure, profitability, statement information, pretax profits, net profit and earnings per share.

INTRODUCTION

Financial management can be defined as knowledge and technique of financing and application of funds in order to achieve goal of knowledge and science of money management so that it collects funds of the persons or institutes and spends or invests in it. In case that we consider balance sheet as representing status of a joint stock company, financial management with decision about debits and salary of shareholders finances financial resources and invests in them with decision about current and long term assets.

Companies can achieve the required funds at time of need for new financial resources either through borrowing or transfer of the company’s ownership. Any company should specify financial costs during decision making for use of new financial resources and determine effects which any efficient resource and operational risk of the company leave. Use of correct methods of financing for execution of profitable projects can play essential role in increase of wealth of the shareholders.

Some financial specialists believe that value of the company depends on performance of management not its capital structure. They say that making correct decision in investment can cause to increase wealth and more profit of the shareholders. Making strategic decision in financing is one of these decisions.

In contrary to the above theory, attention to tax savings resulting from debit interest cost and low debit cost compared to other capital resources persuaded most financial specialists that used of debit in long term financing causes to increase value of the company and increase wealth of the owners. On this basis, the company should keep balance between value of tax saving of the interest and different costs. It means that debit ratio should be adjusted in such a manner that it maximizes value of the company. In fact,

This group seeks to achieve the final goal of the company i.e. maximizing wealth of the shareholders by decreasing costs. They regard minimization of the tax financing cost important. On the basis of this theory, if status of a company is such that it can enjoy tax saving, it will be advantageous for the company to finance by borrowing. It is evident that the company should restrict rate of its loan with regard to additional costs resulting from financial crisis.

Review of literature: Known theory of Modiliani and Miller in 1958 who believed that capital structure had no effect on value of the company was the starting point for performing different researches on recognition of desirable structure of the company’s capital. Following the above article, different scientists criticized theory of Modiliani and Miller and some confirmed it. These persons are David Durand in 1959, Fred Weston in 1963, Dawson, Drwer and Jacob I 1965, Merton (1977) and Jack Backer. Broad reactions of financial sciences specialists to theory of Modiliani and Miller led them to defend themselves through the articles which they published or correct them in some cases. In the next theories, they confirmed effect of tax savings of debits interest and costs and effect of financing methods on value of the companies.

Fama and French in 1992 studied difference between average share return and market risk, size of the company, financial pyramid, book value of the shareholders’ salary and market value of the shareholders’ salary and profit to price ratio and concluded that market risk and size of the company don’t relate to shares return.

But average return on shares is reversely related to book value of financial pyramid and directly related to market value of financial pyramid. This relation has been called puzzle by Fama and French.

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Christie, 1998, concluded that hypotheses of remuneration and debit plan are statistically important in elaboration of management motivations for earnings management.

Darough et al. studied profit management in Japanese companies in 1998. Their research result showed that there was relationship between political costs, remuneration project, ownership structure and internal financing and earnings management.

In 1976, Scott and Martin concluded in their research done in USA that type of industry is an effective and determining factor in financial structure of the companies.

Rammers in research of 1976 concluded that financial structure in France and Japan has significant difference among different industries while such difference is not found in the Netherlands and Norway. Anderson in his studies in 1990 on relationship between financial structure and technology concluded that the capital spending companies have higher debt than the user companies have.

In Iran, research relating to structure of capital and generally financial sciences has not longer record and includes the researches which have been done in recent years on Tehran stock exchange.

Reza Tehrani (1995) in his PhD thesis concludes that shares ratio in Tehran Stock Exchange is not affected by all financial variables on value of shares and the most important factors effective on price of shares are return on each share and cash earnings of each share while variables such as risk and expectations have no important effect on price of shares.

Rahmani, Mahmoud (1995) in his master’s thesis concluded that sharing the available shares causes to decrease price of shares and debt without risk decreases price of shares.

Seyed Javad Delavari in his master’s thesis concluded that ratio of the shareholders’ salary return of the companies accepted in Tehran Stock Exchange is not affected by financing methods.

Omid Pour Heidar in his master’s thesis concludes that financial structure of the company's active in Tehran Stock exchange in different groups of industry has no significant difference from each other and creditors don’t consider type of industry in capital market.

Ahmadi, Mohammad Reza (2001) in his master’s thesis concludes that there is no final inference about significant relationship between capital structure and return ration but it seems that the relationship is not completely negative.

Ali Baghani in his master’s thesis concludes that short term financing methods have no considerable effect on return on shares of the companies accepted in Tehran stock exchange.

**Importance of the research subject:**

In order to invest and prepare short and long term financial plans, it is very important to recognize finding useful financial resources including internal or external affairs for preparing capital and management faces such decisions and they should select these resources by considering cost and effects which it has on wealth of the shareholders, value of the company and price of shares. This research aims at understanding that how debit structure of the food industries companies accepted in Tehran stock exchange is and what effects debit structure has on dividend and gathering information in this regard so that managers use it in order to optimize decisions relating to short term and long term financing method.

Research goals; final aim of this research is to mention if debit structure has considerable effects on profitability of the food industries companies and mention the cases which help management make decisions about financing.

Research hypotheses: generally, research hypotheses have been defined as follows:

Main hypothesis:

H₀: there is no significant relationship between debit structure and profitability of the companies.

H₁: there is significant relationship between debit structure and profitability of the companies.

Sub hypotheses:

First hypothesis:

H₀: there is no significant relationship between debit structure and profit of each share (Eps).

H₁: there is significant relationship between debit structure and profit of each share (Eps).

Second hypothesis:

H₀: there is no significant relationship between debit structure and net profit.

H₁: there is significant relationship between debit structure and net profit.

Third hypothesis:

H₀: there is no significant relationship between debit structure and profit before tax deduction.

H₁: there is significant relationship between debit structure and profit before tax deduction.

Fourth hypothesis:

H₀: there is no significant relationship between debit structure and operational profit.

H₁: there is significant relationship between debit structure and operational profit.

Data gathering method: the methods which have been used in this research for gathering information include review of literature, books, theses and publications and other secondary sources of which the most important ones are information of Tehran stock exchange.

Domain of research: use of financial statements of food industries companies accepted in Tehran Stock Exchange as financial statements composes the main skeleton of the research. For this reason, we analyze financial statements for about 10 years (1995 to 2004). Time domain of this research is 10 years.
Space domain of this research is all food industries companies accepted in Tehran Stock Exchange.

Research methodology

This research is performed in deductive–inductive method. Deductive method is used in theoretical fundamentals of research and inductive reasoning has been used in proving or rejecting research hypotheses with use of suitable statistical methods in order to generalize results. Debit structure relationship as independent variables and profitability of the companies as dependent variable will be tested with use of correlation statistical model.

Table 1 - research finding

<table>
<thead>
<tr>
<th>dependent variable</th>
<th>Operational profit</th>
<th>Profit before tax</th>
<th>Net profit</th>
<th>Profit of each share</th>
</tr>
</thead>
<tbody>
<tr>
<td>Debit</td>
<td>R correlation</td>
<td>Sig significance</td>
<td>R correlation</td>
<td>Sig significance</td>
</tr>
<tr>
<td></td>
<td>coefficient</td>
<td>level</td>
<td>coefficient</td>
<td>level</td>
</tr>
<tr>
<td>621%</td>
<td>0.0005%</td>
<td>633%</td>
<td>0.0002%</td>
<td>594%</td>
</tr>
</tbody>
</table>

First hypothesis test:
H₀: there is no significant relationship between debit structure and profit of each share (Eps).
H₁: there is significant relationship between debit structure and profit of each share (Eps).
With regard to table 1—because correlation coefficient of debit and profit of each share equals to -0.07% with significance level of 916% in the first hypothesis, we conclude that there is no significant relationship between debit and profit of each share. H₀ is accepted and its opposite hypothesis H₁ is rejected.

Profit of each share is 0.04 which is not significant. Figure 1 shows this problem.
R^2=0.0004

Figure 1: First hypothesis test

Second hypothesis test:
H₀: there is no significant relationship between debit structure and net profit.
H₁: there is significant relationship between debit structure and net profit.
With regard to table 1—correlation coefficient of debit and net profit equals to 594% with significance level of 0004%, we conclude that there is significant relationship between debit and net profit. H₀ is rejected and its opposite hypothesis H₁ is accepted.
Net profit determination coefficient with debit is 35.3% which shows significant relationship. Its regression model is as follows. Figure 2 shows this problem.
R^2=0.353
Y₁=8703/668+101X
F test for significance of model f=140/200 and significance level of 0004% shows that the presented model is a suitable model.
Third hypothesis test:

H₀: there is no significant relationship between debit structure and profit before tax deduction.

H₁: there is significant relationship between debit structure and profit before tax deduction.

With regard to table 1—since correlation coefficient of debit and profit before tax deduction equals to 633% with significance level of 0002%, we conclude that there is significant relationship between debit and profit before tax deduction. H₀ is rejected and its opposite hypothesis H₁ is accepted.

Profit before tax deduction determination coefficient with debit is 40% which shows significant relationship. For this reason, we can fit regression model. Figure 3 shows this problem.

\[ R^2 = 0.353 \]
\[ Y_3 = 9241/32 + 119X \]

F test for significance of model ʕ=171/559 and significance level of 0002% shows that the presented model is a suitable model.
Third hypothesis test:

$H_0$: there is no significant relationship between debit structure and operational profit.

$H_1$: there is significant relationship between debit structure and operational profit.

With regard to table 1—correlation coefficient of debit and operational profit equals to $R=62.1\%$ with significance level of 0.005%, we conclude that there is significant relationship between debit and operational profit. $H_0$ is rejected and its opposite hypothesis $H_1$ is accepted.

Operational profit determination coefficient with debit is 38.6\% which shows significant relationship. We can fit regression model. Figure 4 shows this problem.

$$R^2=38.6\%$$

$$Y_d=9946.735+124X$$

$F$ test for significance of model shows that $F=161/301$ with significance level of 0.005\% shows that the presented model is a suitable model.

![Figure 4- operational profit](image)

**Conclusion**

As observed in finding of this research, we concluded as follows with regard to main research question (is debit structure effective on profitability of food industries companies?).

Research finding for relationship between debit and net profit shows significant relationship between debit and net profit with use of 10-year average. With regard to significance level which is less than 5\% and determination coefficient ($R^2=353$), we can conclude that 35.3\% of net profit changes is expressed with debit changes. Therefore, null hypothesis is rejected and hypothesis 1 is accepted. Then, we can conclude that debit is effective on net profit of the food industries companies accepted in Tehran Stock Exchange. Research finding for relationship between debit and profit before tax deduction shows significant relationship between debit and profit before tax deduction with use of 10-year average. With regard to significance level which is less than 5\% and determination coefficient ($R^2=400$), we can conclude that 40\% of profit before tax deduction changes is expressed with debit changes. Therefore, null hypothesis is rejected and hypothesis 1 is accepted. Then, we can conclude that debit is effective on profit before tax deduction of the food industries companies accepted in Tehran Stock Exchange. With regard to results obtained from correlation between debit and operational profit for 10-year period of research, the obtained evidences show that significance level of relationships between debit and operational profit is less than 5\% which shows relationship between debit and operational profit. Operational profit determination coefficient with debit is 38.6\% indicating that 38.6\% of the operational profit is obtained with debit. Ion this hypothesis, null hypothesis and hypothesis one are confirmed.

Generally, there is significant relationship between debt structure and profitability in other hypotheses except for relationship between debt and profit of each share which is not significant. With regard to results obtained from correlation test regarding the relationship between debt and profit of each share for 10 years of the calculated research, some evidences were obtained that significance level for correlation between debt and profit of each share is more than 5\% and statistical null hypothesis is confirmed indicating that the first hypothesis is rejected. On the other hand, there is no significant relationship between debt and profit of each share.
REFERENCES

1- Nikoo Moram, Hashem, guide of Rood Poshti and Freidoon Heibati, Farshad 1999, fundamentals of financial management, first volume
2- Nikoo Moram, Hashem, guide of Rood Poshti and Freidoon Heibati, Farshad 2002, fundamentals of financial management, second volume
6- Shabahang, Reza, Financial Management, second volume, Auditing Organization Research Center, 1995
8- Tehrani, Reza, study on factors effective on price of shares, PhD thesis, University of Tehran, 1995
9- Jahankhani, Ali, financing methods of companies present conditions of Iran capital market, Accountant periodical, No. 107 and 108, March 1995
10- Frances and Tyler, bear shares and preferred shares, translated by Farideh Poor Rezvan Rooh, Periodical
11- Rahmani Mahmoud, effect of financing methods (long term loan and publication of bearer shares) on price of shares of the companies accepted in Tehran Stock Exchange, master’s thesis, University of Tehran, 1995
12- Hasani, Afshin, information content analytical study of shares price as profit predicting factor, master’s thesis, Spring 1999
13- Kordestani, Gholamreza, earning management, Boors Publication, 33
14- Setadi, Hassan and Keighobadi, Parviz, 1985, statistics and its application in management, University of Tehran
15- Noferesti, Mohammad, statistics in economics and commerce, second volume, Rasa Cultural Services Institute Press, fifth volume, 1997
18- Delavari, Seyed Javad, study on financing methods on return of the shareholders’ salary in the companies accepted in Tehran Stock Exchange, Tarbiat Modarres University, 1998
19- Poor Heidari, Omid, study on determining factor of financial structure of the companies accepted in Tehran Stock Exchange, supervisor, Mohammad Taghi Shahidi, University of Tehran, 1995
20- Ahmadi, Mohammad Reza, relationship between capital structure and return of Tehran Stock Exchange companies in 13 industries, master’s thesis of accounting, Islamic Azad University, Central Tehran Branch, 2001