Examining the relationship between tax avoidance and tax uncertainty in companies accepted in Tehran's stock exchange

Asghar Asadi[1], Mehdi Noori[2], Mohsen Khajuee[3]

[1.] Accounting Faculty of Firoozkooh Azad University, Tehran, Iran.
[2.] Accounting Faculty of Firoozkooh Azad University, Tehran, Iran.
[3.] Payam-e Noor University, Tehran, Iran.
mohsenkhajuee@yahoo.com

Abstract: One of the most essential issues regarding the condition and the efficient execution of tax policies is to identify tax avoidance methods and the approaches to tax avoidance prevention. Tax avoidance phenomenon is accompanied with economical and social consequences and mutual effects. In this research, Tax uncertainty has been tested as the variable affecting tax avoidance. We used systematic method for homogeneity of population. For approve the hypothesis we used the Kolmogrov-Smirnov test. The results shows that as tax uncertainty increases tax avoidance increases, also this results approved in companies with high reserves.
[Asadi A, Noori M, Khajuee M. **Examining the relationship between tax avoidance and tax uncertainty in companies accepted in Tehran's stock exchange.** *J Am Sci* 2018;14(9):56-59]. ISSN 1545-1003 (print); ISSN 2375-7264 (online). http://www.jofamericanscience.org. 9. doi:10.7537/marsjas140918.09.

Keywords: Tax avoidance, Tax uncertainty, Tax reserves, R & D reserve.

1. Introduction

In a research entitled "the effects of tax regulations on investment decisions and tax reporting in economical institutes in the times of inflation" Chengo (2001) came to the conclusion that the tax regulations regarding interest is the economic institutions' instrument in the times of inflation which lead to the presentation of greater interests, it is effective, and therefore the information is not completely revealed and this will eventually lead to a contrast in the reporting affair based on tax laws and instrumental interest of accounting standards and causes distrust and creates doubt in making financial decision. In an examination entitles "the relationship between measuring tax and financial reporting Gail Matron and George Plesco (2001) came to the conclusion regarding interest that tax accounting and financial accounting are somehow different regarding measuring the interest and these differences are caused by the laws and regulations and national and international standards and trying to reach a consistent view from the standpoint of reporting is the turning point of this examination. Grass (2003) examined Enron Company's financial reporting. In his examination he attended to this part of Enron Company's financial reporting that to what degree does the financial reporting of the company include accurate and valid information and his results indicated that the individuals in charge of the company had committed numerous violations and window dressings in order to commit tax avoidance. In a research named "the factors influencing the decision- making processes of the company when financial accounting is against tax accounting" Fung Javoo (2006), came to the conclusion that tax regulations affect the accounting action anyway and accounting has its own specific regulations and principles as an art which has been influenced by tax regulations. This affectability must be in such manner that it creates a stable process. Mary Margaret Franco et al. obtained a strong and positive correlation between these two types of reporting regarding bold tax reporting and its relationship with bold financial reporting. Another important result of this research has been examining the mutual effect of bold financial reporting and bold tax reporting on the rate of the future efficiency of the shared. In a research entitles "the international rules on measuring the administrative uniform loss and profit" Daniel Shaviro (2009) considered tax and attended to the issue that following the traditional uniform arrays has strongly led to drawing away from the definition of interest subject to tax and financial accounting interest. The world is under pressure to have a one- sided contingent behavior in any case and in the near future is will start moving towards a unified accounting method in presenting financial and tax reports. Direng et al. (2014) conducted a research on the relationship between tax avoidance and tax uncertainty. They state that tax uncertainty indicated the possibility of the reduction of restored tax benefits by the company. They understood that the companies which avoid tax (meaning the companies with relatively low cash tax rate) tolerate greater tax uncertainty in comparison with companies with higher rates. They also conducted some experiments regarding the connection indexes between tax avoidance and tax uncertainty. The data indicated that tax avoidance is relevant to R

& D reserve has a significant certainty. Moreover increasing uncertainty regarding R & D reserve related to tax avoidance is more emphasized in companies with higher taxes. In the research entitled "examining the necessity to reveal the differences between the financial data collected on the based on accounting standards and the financial data collected based on Iran's direct tax law" Shahnavszi (2006) targeted this matter and came to the conclusion that reporting related to revealing the differences between the financial information based on accounting standards and based in tax laws are related to economic decisions.

2. Material and Methods

Dyreng et al. (2014) state that companies, which avoid tax avoidance, (the companies which have a relatively low cash tax rate), tolerate greater tax uncertainty in comparison with companies with higher rates. They hold the belief that tax uncertainty indicates the possibility of reducing the tax restored benefits by the company. They understood that tax avoidance, related to research and development expenses, have an importantly significant uncertainty. Moreover increasing uncertainty regarding research and development expenses, related to tax avoidance, are more emphasized in companies with higher taxes. We will take measures in formulating the research hypotheses as explained below with regard to the above- mentioned issues:

1- Tax avoidance has a significant and positive relationship with tax uncertainty.

2- Tax avoidance has a higher correlation with tax uncertainty in companies with high R & D reserve.

research variables:

UTB ADDS$_i$: includes the ratio of the 5- year tax reserve on the sum of the 5- year sale of the company.

AVOIDER$_i$: is the dummy variable of the tax avoidance index, it is equal to 1 in case the company's paid tax in cash is lesser than the total mean of the sample companies otherwise, it is equal to zero.

UNCERTAINTYE FACTOR$_i$: is the dummy variable of the tax uncertainty index which is considered 1 in case the R & D reserve of the company is higher than the total average of the sample companies. It is considered to be equal to zero otherwise.

lev$_i$: is the financial leverage of the company which is the ratio of the sum of debts to the assets.

Size$_i$: is the size of the company which is the natural logarithm of the assets of the company.

Table 1: the symbols of the research variables

Variables	Variables' symbols	Type
The ratio of the tax reserve to the sum of sales	UTB ADDS$_i$	Dependent variable
Tax avoidance index	AVOIDER$_i$	Independent
Uncertainty index	UNCERTAINT YE FACTOR$_i$	Independent
Financial leverage	lev$_i$	Control
Company size	size$_i$	Control

3. Results

The ratio of the tax reserve to the sum of sales (UTB ADDSi$_i$) variable is the hypotheses testing model in this study as the tax avoidance index of the dependent variable. The assumption that the dependent variable is normal is one of the primary hypotheses of the regression models. According to the central limit theorem in case the number of observations exceeds 30 data you can assume that its distribution is normal. The number of the data related to the dependent variable is 450 year- company and therefore its distribution will be normal according to the central limit theorem. The Smirnov- Kolmogorov test is used to examine the normality of the data in inferential statistics. The statistical hypotheses of this test are as follows.

H0: the data distribution is normal

H1: the data distribution is not normal

Table 3: the normality test of the dependent variable

The dependent variable	Smirnov- Kolmogorov test		
	Test statistics	degree of freedom	Level of significance
UTB ADDS1$_i$	3.690	450	0.000

The results of the Smirnov- Kolmogorov test have been shown in table (3) as we can see "sig" is the ratio of the tax reserve on the sum of sales (UTB ADDSi$_i$) variable which is less than 5% therefore H1 hypothesis is accepted in other words the dependent variable is not normal.

Taking into consideration the fact that the normality of the dependent variable is sufficient when using regression therefore the graph of the possibility

of normality of the ratio of tax reserve to the sum of sales (UTB ADDSi$_i$) variable is drawn below and then the results of data normalization will be presented.

Graph 1: the possibility of the dependent variable being normal.

Normal p-p plot of regression standardized residual.

$Ln\left(\frac{1}{V^2}\right)$

Therefore the data were put in in order to normalize the data distribution. Table (4) shows the z statistic and the Sig value of the data after calculating the LN for the dependent variable.

Table 4: the normality test of dependent variables

The dependent variable	Smirnov- Kolmogorov test		
	Test statistics	degree of freedom	Level of significance
UTB ADDS1$_i$	.784	450	.571

With regard to the level of significance obtained from the Smirnov- Kolmogorov test which the maximum level of error of the test is (a= 0.05); the H0 hypothesis can be accepted. Therefore the values related to the variable of "the market's moderated range" follows a distribution close to a normal distribution.

We can also understand from comparing the graph of the possibility of normality of the dependent $Ln\left(\frac{1}{V^2}\right)$ variable before and after it that the distribution of the dependent variable has become normal.

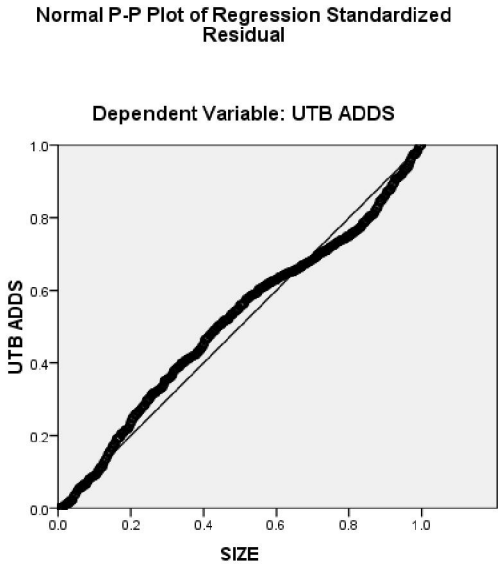

Figure1: the possibility of the dependent variable $Ln\left(\frac{1}{V^2}\right)$ being normal based on

4. Discussions

A large part of the government's income is provided by receiving tax in all countries. Of course the share of tax in the total public incomes is different among different countries and its amount depends on their economical structure and development levels. Although tax avoidance is seen even in countries with a developed tax system but this issues is more critical in countries which are passing these stages and those countries which used the traditional systems for the purposes of tax collection. Tax avoidance is an issue which can affect different aspects of the economy. Firstly it decreases the ability of the government to collect tax and fulfill the budget necessities. Slemord (2007) believes in this regard that tax avoidance leads to an increase in diversion tax 1 and has therefore directed the resources towards nonproductive activities through enlarging underground economy and so it is regarded as an economical- growth obstacle. Tax avoidance can even eventually affect the effectiveness of economical policies since these types of policies are based on official indexes (such as unemployment, the number of official work force, income, consumption) while the existence of underground economy has become problematic for policy- makers and this prevents a proper and accurate economical policy to be applied. Therefore in case the factors influencing tax avoidance are identified the policy makers can easily apply proper policies in line with minimizing the expenses of tax avoidance. Diring et al. (2014) present documents about the relationship between tax avoidance and tax uncertainty in their research which claimed that tax uncertainty leads to a decrease in the tax returned benefits. They found that tax avoiders, meaning the companies with little cash tax rates tolerate significantly greater tax uncertainty in comparison with companies with high cash tax rate. They also tested a number of hypotheses related to the relationship between tax avoidance and tax uncertainty indexes. The data indicated that tax avoidance related to development and research costs is significantly uncertain. Moreover the increased uncertainty is more focused upon through research and development expenses related to tax avoidance in

companies with high research and development expenses.

1) It is advisable that governments and especially the National Tax Affairs Organization present suitable designs and approaches and take practical steps towards increasing the public trust and decreasing tax avoidance.

2) IRIB can produce economics programs and invite the experts of the Tax Affairs Organization and hold debates between these experts and take measures in improving the tax culture and increasing public awareness in this regard.

3) With regard to the relationship between tax avoidance and tax uncertainty in companies with high R & D reserve the Accounting standards Developer Panel and the stock exchange are advised to develop suitable standards and regulations and take necessary measures in decreasing lack of trust and consequently tax avoidance.

4) The shareholders general assemblies and the fundamental investors are advised to better supervise the tax performance of the managers regarding presenting highly confident information.

Corresponding Author:
Mohsen Khajuee
Payam-e Noor University, Tehran, Iran
E-mail: mohsenkhajuee@yahoo.com

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9/25/2018