Studying and Identifying Operational Strategies to Improve Compliance Tax in Value- Add Tax System

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ABSTRACT

The present article aims at investigating the "the study and identifying operational strategies to improve compliance in value- add tax system " in the VAT (value added tax) system. For so doing, four factors of structural and content dimensions, including compliance costs, tax culture, Institution size and complexity provision, were chosen and their effect on the extent of tax payers' compliance were tested in terms of research hypotheses. To collect data of hypotheses 1,2,4, "265" questionnaires were distributed among tax payers of this system and to collect data of hypotheses3 were used from Certifications in Qazvin Tax Affairs General Department . Then, the gathered data was analyzed using SPSS and research hypotheses were tested by regression, correlation and Chi-square tests. Findings indicate that there is a statistically significant relationship between compliance costs ,tax culture , Institution size and complexity provision with tax payers' compliance.
KEYWORDS: Value Added Tax (VAT), Tax Compliance, Compliance Cost, Tax Culture, Institution size, Complexity Provision

1. INTRODUCTION

Tax incomes are one of the more stable sources for securing government ruling costs and so , tax system is considered as an important and effective element in different countries economy. Therefore increasing efficiency of reception via promoting tax compliance degree of existing sources constantly and introducing sources with height submission degree was considered in this area. So that many countries as a new tax base for meeting tax role in achieving mentioned goals. This tax on world level was propounded by a trade man (fun zimens)for first time in 1918 and in contrast with other common taxes is considered as a new tax that has more efficiency and competency in increasing tax incomes. So economists offer this tax system for deleting or reducing conventional tax disorder and inadequacy and increasing government income. Beside this, according to international comprisal testimonies , Value-added tax has some unique characteristics and today is propounded as the most common type of general- consumption tax so that about 140 countries included this tax in their tax system until mid_2006 and furthermore, the share of value –added tax to total tax incomes of excuting countries of value- added tax was about 20 percent during 1998. In spite of this , in value- added tax system (like 2000 period), there is gap between expected in come amount and real operation amount constantly that turns it to factors for recognizing effective elements on value-added tax compliance and measuring it as important and considerable topic for successful exciting of value-added tax system in executed countries of this type tax. Examination of current tax system had made necessary adoption of a tax system with height efficiency as a lofty goal. In this direction, value-added tax had paid attention as one of the main systems during two recent decades. Current research the study and identifying operational strategies to improve compliance in value- add tax system *".*

2."Theorical bases and research background"

Linger(2008) evaluated managerial benefits of tax compliance. The research results had shown that costs of tax execution , specially costs compliance were. Relatively height and costs compliance pressure was on small trade companies disproportionally. (Linger ,2008) Tax counsel in Sweden (2006) had studied costs compliance in Sweden and results had shown that the research shows that VAT costs compliance had increased since 1993. Beside reducing property of VAT costs compliance, this research showed that payer who at least deal eith three tax rate had more costs compliance in contrast who deal with one or two tax rate. (Sweden,2006)

Woellner and et al (2005) compared psychological costs which were imposed by Austrian payers during reading and excuting law of tax on income during 1936-1997. (woellner and et al ,2005)

Results of a study that was done in (America,2003) with topic of developing tax culture for better cooperation had shown that many people feel that tax is a bothering that should be avoided. Tax payers feel that treated with them crudely and tax is a force money and unpleasant matter. Some people return tax pages which government had sent to them or in other words the number of people who don't pay tax is increasing. Further more tax payers feel that what is given to government via tax is wasted mostly and government remain unaware of its social responsibilities. Teran- nam (2003) with emphasis on importance of mixing costs compliance and compliance studies, considered optional compliance as part of social capital that is defined along natural, physical and human capital and determines production capacity of each economy. Also he emphasize on the role of Complexity provision, costs compliance and the role of tax

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advisers and mangers on compliance . In spite of this , there isn't any effort to determine relationship between costs compliance and tax . (Teran- nam,2003)

Witeh and Woodbury (2002) concluded that payer function I complex and many elements affect it: social-economic and demographic elements- internal balance and relationship which is unknown. Among elements that potentillly affects payers compliance decisions, this paper concentrate on effect of costs compliance on tax compliance in VAT case.(McKerchar, M 2002)

Before considering relationship between costs compliance function, it is necessary tic insider theatrical models of tax compliance. (Jenkins and forlemu ,1993).

Examined research costs and they concluded that theatrically , reducing costs compliance via simplifying tax system and increasing services to payers will increase optional compliance level.

Keshhavaz (2009) considered effect of changing country tax system structure and the results had shown that changing country tax system structure had led to increasing competency and efficiency in tax affairs general office of Qazvin province. (Keshhavaz,2009)

Mashatan (2003) examined Centre of small and middle agencies in Canada and results had shown that lager agencies have less opportunity for disclaiming income and this is because of necessity of keeping evidences and documents. (Mashatan ,2003)

Taherpour , Kalantary and Aliyari Shourehdeli (2002) examined and recognized Tehran city payers tax culture elements and their results had shown that tax culture is relationship between payers, tax authorities and their manner models. This variable is evaluated according to justice factors of tax organization , debt feeling to society, way of tax consumption and amount of tax escape . In this manner if employed people in a special occupation do their legal responsibilities, other people also will do their responsibilities with more tendency. (Taherpour , Kalantary and Aliyari Shourehdeli ,2002)

Abdi (2009) in the book of "Five years , stable trying in the light of achieving thought" considered reducing laws complexity and research results had shown that offering simple forms like registration forms, declaration , trading invoices and transparent guide directions and circulars will reduce reception costs and facilitate tax collection and reception. (Abdi ,2009)

3.Research Hypotheses

This paper considered nd examined operational methods for promoting tax compliance in value-added tax system in order to reply this question scientifically " Do increasing costs compliance , developing tax culture, Institution size and reducing complexity provision affect on increasing amount of tax compliance ?"

To find answer for above question , these research hypotheses are propounded:

1. Increasing costs compliance affects on increasing amount of payers compliance.
2. Developing tax culture affects on increasing amount of payers compliance.
3. Institution size affects on in creasing amount of payers compliance.
4. Reducing complexity provision affects on increasing amount of payers compliance.

4. RESEARCH METHOD

Research method in this paper is descriptive-analytic and the way of data collecting is ground-library type. The goal of this paper is function since the goal of functional researches is acquiring necessary knowledge and insight for determining means to meet finite and unique necessity. Application of this research results is to recognize effective elements on increasing papers submission in value-added tax system. In order to data and information collecting , it is used means like questionnaire (hypothesis 1,2,4) and documents and evidences in archives of Qazvin province tax affairs general office (hypothesis 3) . The research had used regression statically method and bilateral k test to describe variables and hypotheses testing .Statically society in this research includes 850 person of papers that were subject second stage of value-added tax system of Qazvin province tax affairs general office which sampling method is selected according to society volume and time restriction. Also in this research , it is used order sampling method.

5. Variables definition

Independent variables in this research include costs compliance, tax culture . institution size , complexity provision and dependent variable is tax compliance. costs compliance include all cases and troubles that payer endure for tax paying completely and on time .Tax culture is relationship between payers , tax authorities and their behavior models. Institution size defines agencies classification which is done by several ways that in this research , it's evaluation is done according to amount of agency sale . Complexity provision means that all laws that are related to tax and it s paying reasons should propound simply and without ambiguity and complexity … and defines payers boundless to tax duties and tax law observance. Dependent variable in this research means payers boundless to tax duties and tax law observance.

6. Hypothesis tests model

Hypothetical model for examining costs compliance , culture , complexity provision and tax compliance is propounded in the following:

$$Y_i = \beta_0 + \beta_1 X_{i1} + \beta_2 X_{i2} + \beta_3 X_{i3} + \varepsilon_i$$

It is used different method to what described for examining relationship between tax compliance (compliance and objection) and institution size (small and big).Also it is used k-2 test for examining relationship between two variables which are qualitative or linear. Zero hypothesis and opposite hypothesis is formulated as following :

$$\begin{cases} H_0 : p_1 = p_2 = p_0 \\ H_1 : not H_0 \end{cases} \equiv \begin{cases} H_0 : & \text{there isn't meaningful relationship between two variables} \\ H_1 : & \text{there is meaningful relationship between two variables} \end{cases}$$

7.Date collecting

1.factories or production units which have founding license or operation permit of related ministry.

2.Mines shareholders.

3.suppliers of accounting , accountancy and book keeping service and financial services too.

4.Occupying formal accountants and accounting agencies that are members of Iran official accountants society.

5.councling and managing services suppliers.

6.suppliers of all kind informatics services, computer services such as hardware . software and system designing.

7. motels and hotels with three stars and more .

8. whole sale dealers , whole sales ,big stores , financial brokers, representatives of distribution of internal goods and warehouses owners.

9. Representatives of trading and industrial agencies (internal or external).

10.motory and porter age transportation agencies which have license of related sources , ground, sea and air transport (except units that only transport tourists).

11. Agencies of counseling engineering.

12.marketing and advertising agencies.

8.Reseaarch findings analysis

1-8 Descriptive statistics

Table(1) statistics

model	N valid	Mean	Median	Std. Deviation	Skewness	Kurtosis
Compliance Cost	225	2.82	2.71	0.48	0.30	0.47
Tax Culture	225	2.75	2.67	0.45	-0.23	0.90
Complexity Provision	225	2.76	2.70	0.45	0.51	0.22
Tax Compliance	225	3.04	3.00	1.02	-0.22	-0.31

In table(1) , central indexes such as average , median and dispersion indexes such as standard deviation, skewers and elongation are computed for different variables. Under conditions which average is bigger then median, big points are shown in data because these amounts will affect average. In this case, skew data distribution would be to right direction and in some case , skew would be to left direction. Distribution of any skew variables isn't to left or right direction. If average and median amounts are to each other, variables distribution will be symmetry is one of the normal distribution properties which is considered in the next section. Dependent Variable of tax compliance with amounts of skewers and elongation about (-0.22)and (-0.31) is very similar to normal distribution (Amount of elongation and skewers of normal distribution is null).

2-8 Multifold regression model

Model evaluation is demo by multifold regression model. In this model, parameters analysis is done by controlling other variables so its results in these conditions show that evaluations results are dependent on independent variable. It is noteworthy that in this analysis , meaning fullness of model with variance analysis table is considered first as the main question and is replied correctly (If probability amount of ((F)) be less than 0.05, this model would be meaningful). Then model correlation intensity is considered via determination coefficient variable. During third stage and if the mentioned model be meaningful, evaluation of parameters will do via "statistics and coefficients table and finally, symbols of suitability of conditions of evaluations or regression hypotheses is considered. Main hypotheses and examination methods and there control include:

Normality determination by Smirnoff clomgraph test and lack of colinearity between dependent variables by VIF. This method is described in the following:

$$\begin{cases} H_0 : & \text{Data for dependent variables endorse of normal distribution} \\ H_1 : & \text{Data for dependent variables endorse of normal distribution or no} \end{cases}$$

Table(2)One- sample Kolmogorove-Smirnove Test

N	Normal Parameters(a,b)		Most Extreme Differences			Kolmogorove Smirnov Z	Asymp.Sig (2-tailed)
	Mean	Std. Deviation	Absolute	Positive	Negative		
225	3/04	1/02	0/22	0/19	-0/22	1.108	0.172

Amount of meaningfulness for tax compliance level is equal to 0.172.this amount is more than 0.05 . So null hypothesis is rejected in the 95 percent confidence level, i.e. it is normal distribution.

3-8 Examination of hypotheses (1,2,4)

Examination of costs compliance, tax culture, complexity provision and tax compliance by regression analysis:
Assumed model is as:

$$Y_i = \beta_0 + \beta_1 X_{i1} + \beta_2 X_{i2} + \beta_3 X_{i3} + \varepsilon_i$$

That in above model, costs compliance , tax culture and complexity provision are respectively X_{i1}, X_{i2}, X_{i3} and dependent variable is tax compliance.

Null hypothesis and opposite hypothesis in this model are as:

$$\begin{cases} H_0 : \beta_1 = \beta_2 = \beta_3 = 0 \\ H_1 : \beta_i \neq 0, i = 1,2,3 \end{cases}$$

$$\begin{cases} H_0 : & \textbf{There isn't meaningful model.} \\ H_1 : & \textbf{There is meaningful model.} \end{cases}$$

In the following table , regression analysis results are given :

Table(3) ANOVA

Model	Sum of Squares	df	Squares	F	sig
Regression	52/49	3	17/50	21/34	0/00
Residual	181/22	221	0/82		
Total	233/72	224			

Amount of "F" meaningfulness level is equal to 0.000.this amount is less than 0.05 . So null hypothesis is rejected in the 95 percent confidence level, ie it is meaningful in the 95 percent confidence level.

Table(4)Model Summary

R	R Square	Adjusted R square	Std. Error of the Estimate
0/47	0/22	0/21	0/91

Amount of multifold correlation coefficient is equal to 0.47 and amount of determination coefficient is about 0.22, i.e. it is about 22 percent of changes of dependent variable by independent variables (costs compliance, tax culture, complexity provision).

For evaluating above coefficients can use following hypotheses by "t" statistics. Null hypothesis and opposite hypothesis for width through origin or fixed amount is as following:

$$\begin{cases} H_0 : \beta_0 = 0 \\ H_1 : \beta_0 \neq 0 \end{cases}$$

And for amount of correlation of independent variables is written as following:

$$\begin{cases} H_0 : \beta_1 = 0 \\ H_1 : \beta_1 \neq 0 \end{cases}$$

$$\begin{cases} H_0 : \beta_2 = 0 \\ H_1 : \beta_2 \neq 0 \end{cases}$$

$$\begin{cases} H_0 : \beta_3 = 0 \\ H_1 : \beta_3 \neq 0 \end{cases}$$

Amount of test statistics is computed as following:

$$t_{\beta_i} = \frac{\beta_i - 0}{S_{\beta_i}} \quad i = 0,1,2,3$$

Judgment way is as following : If "t" amount is in the rejection area, null hypothesis is rejected. But for simplicity, it is used amount of meaningful level for rejection or no rejection of null hypothesis.

Table(5) Coefficients

Model	B	Std. Error	standardized Coefficients B	t	Sig	Tolerance	VIF
constant	-0/39	0/46	-	-0/82	0/406	-	-
Compliance Cost	0/45	0/10	0/28	4/32	0/000	0/83	1/21
Tax Culture	0/41	0/14	0/19	2/82	0/005	0/80	1/26
Complexity Provision	0/37	0/15	0/16	2/56	0/011	0/88	1/14

Amount of "t" test statistics for cost compliance is equal to 4.32 (meaningful and positive). In other words, increasing costs compliance affects on increasing amount of payers compliance. This amount for tax culture is equal to 2.82 (meaningful and positive) so developing tax culture affects on increasing amount of payers compliance and for complexity provision is equal to 2.56 (meaningful and positive) therefore decreasing complexity provision affects on increasing amount of payers compliance, in other words there is reversed relationship between tax compliance and costs compliance and meaningful and direct relationship with two other variables and "t" amount for width through origin or fixed amount is equal to -0.82cthat is'nt meaningful. VIF amounts for all independent variable is equal to 1 . If This index is less than 10, it is sign of lack of collinearity between independent variables.

Evaluated model is as flowing:

$$Y_i = 0/45 X_{i1} + 0/41 X_{i2} + 0/37 X_{i3}$$

4-8 Analyzing data of documents and proof

In this section, descriptive statistics as average, median and….. are computed for two sale variables during 3 and 4 period. This index show variables statistics distribution.

In =this section , K-2 amount is evaluated via data distribution test and hypotheses are tested too. Deduction about hypotheses testing is according to acquired meaningfulness level of done test, i.e when amount of meaningfulness level is less than 0.05 , null hypothesis is rejected at 95 percent level and otherwise, null hypothesis isn't rejected. Computations is done by spss 18 software.

1-4-8 Third hypothesis testing

"examining institution size and payers tax compliance " for examining relationship between tax compliance (compliance and objection) and institution size (big and small), it is used different method to what is described. For examining relationship between two variables which are qualitative or order, it is used K-2 test for two-dimension tables. Null hypothesis and opposite hypothesis is formulated as following:

$$\begin{cases} H_0 : p_1 = p_2 = p_0 \\ H_1 : not H_0 \end{cases} \equiv \begin{cases} H_0 : \\ H_1 : \end{cases}$$ There isn't meaningful model.

There is meaningful model.

Table(6)

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	8.674[b]	1	.003		
Continuity Correction [a]	7.880	1	.005		
Likelihood Ratio	8.756	1	.003		
Fisher's Exact Test				.004	.002
Linear-by-Linear Association	8.638	1	.003		
N of Valid Cases	241				

a. Computed only for a 2x2 table

b. 0 cells (.0%) have expected count less than 5. The minimum expected count is 38. 34.

Amount of K-2 statistics is equal to 8.67 , so null hypothesis is rejected. It means that there is meaningful relationship between two variables because amount of testing statistics is in the null hypothesis region, ie size of economic institution affects on increasing of amount of payers compliance.

Table(7) Crosstabultion

institution size	Count	Compliance and Objection		Total
	% Within institution size	Objection	Compliance	
Small	Count	71	49	120
	% Within institution size	59/17	40/83	100
Big	Count	93	28	121
	% Within institution size	76/86	23/14	100
Total	Count	164	77	241
	% Within institution size	68/05	31/95	100

There is 41 percent compliance and 59 percent objection in small institutions. In contrast, there is 23 percent compliance and 77 percent objection in big institutions.

9. SUMMARY AND RESULT

1- Increasing costs compliance affects on increasing costs compliance affects on increasing amount of payers compliance. For examining reject or accept of this hypothesis, it is used 5 agents (7 questions): accounting software, Absorption of new employee, tax consular absorption, submitting amount and electronic costs. Above hypothesis, i.e "costs compliance affects on amount of payers compliance" is accepted. This finding is according to results of jenkin's studies.

2.Developing tax culture affects on increasing amount of payers compliance. For examining reject or accept of This hypothesis, it is used four agents (6 questions): tax justics, debt to society, spending way and tax escape. Above hypothesis, i.e "Developing tax culture effects on increasing amount of payers compliance" is accepted. This finding is according to result of Emami, Aqayi, Kalantary and pandy 's researches.

3. Institution size affects on increasing amount of payers compliance. For examining reject or accept of this hypothesis, it is used amount of firms sale and amount of their objection. Ale amount of a firm shows it 's size affects on increasing amount of payers compliance" is accepted. This finding is according to result of Mashatan's researches.

4. Decreasing complexity provision effects on increasing amount of payers compliance. For examining reject or accept of this hypothesis, it is used 2 agents (10 questions) and value- added tax forms and directives. So above hypothesis , i.e "Decreasing complexity provision effects on increasing amount of payers compliance". Is a accepted that i s according to Biniyaz study.

10.Recommendations

This research had considered effective agents on payers compliance behavior in sector of value-added tax of Qazvin province tax affairs general office which it is recommended that similar study do in other tax affairs general offices, specially big cities and final results compare with each other. This study is done during 2010- 2011 years, so it is necessary that studies develop this research according to different seasons of next year to acquire better and stable results.

This research only considered sources which are liable to second stage of this system and it is recommended that this research extend develop to other stages. This study had considered four effective agents on payers compliance and it is recommended that other effective factors consider too.

11.Limitation

Research about human and social science has complexity and many limitations for research subjects. These limitations include:

1.Limitation of measurement means (questionnaire), i.e in spite of necessary and sufficient explanations about questionnaire questions, may test resources had not have correct reply.
2.Limitation of inability to control unwanted variables in payers such as interest to answer tax question s by them.

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