

## Exploring Key Determinants of Tax Compliance Decision Among Individual Taxpayers in Sri Lanka

T.G.Damayanthi Swarnathilaka Jayawardane\*<sup>1</sup> Prof. Dr. Kevin Low, (Ph. D)<sup>2</sup>.

1.Faculty of Management, PhD Candidate of Management & Science University, University Drive, Section 13, 40100 Shah Alam, Selangor, Malaysia

2.Faculty of Management, Management & Science University, University Drive, Section 13, 40100 Shah Alam, Selangor, Malaysia

### Abstract

Tax compliance is a major problem in revenue generation by Government of Sri Lanka. The aim of this study is to explore the key determinants of tax compliance behavior of individual taxpayers' in Sri Lanka. Four tax compliance determinants were examined. This research comprises a quantitative study and was established theoretical framework used on existing literature and previous studies relevant to the examined tax compliance determinants were Tax Rate, probability of being Audited, non-Complexity of tax system and probability of detection. This research tested set of research hypothesis based on the framework and quantitative data collected by a questionnaire survey method of research design. Given the five point likert scaled ranking information for both independent and dependent variables. The seven hundred (700) questionnaires were distributed and the number of questionnaire completed and returned were three hundred and eighty eight (388). The researcher used cluster sampling method for this study because of the sample should be represented of the whole country. The multiple regression models were used to examine the relationship between independent and dependent variables and indicate that tax compliance was influenced by the tax rate, probability of being Audited, non-complexity of tax system, and probability of detection. The results of this study can inform policy makers how the determinants influence tax compliance behavior. The results of this study also provides insights both policy makers and tax Administrators to gain better understanding of the key variables that are significantly associated with tax compliance and enable them to implement suitable strategies to minimize potential damaging factors and allow them to improve government revenue. The study also attempts to enhance the existing literature by providing comprehensible picture and a view of taxpayers' compliance behavior from developing countries.

**Keywords:** Tax compliance; tax Rate, probability of Audit, non-complexity of tax system, probability detection

### 1. Introduction

"A tax is a compulsory levy and those who are taxed have to pay the sums irrespective of any corresponding return of services or goods by the government" (Bhatia, 1976; James, 2000) Other writers (Auld & Miller, 1984) describe "the role of taxes as an instrument that stabilizes the economy, and reduces private demand so that resources can be released for public sector use".

Taxation is the most important subject in any Government both developing and developed countries. Government needs financial resources to act as a government and play a role that is expected from it by the public. The tax payment received from taxpayers is one of the incomes to increase the government revenue. With these tax collections, government may upgrade and construct public goods and services such as national defense, infrastructures like roads and educations, and also to meet any societal objectives and public welfares Government has to be done obligations to its citizens as stabilizing national economy as well as redistributing the national wealth through achieving development goals, these goals require huge capital expenditure to be met from taxation. But taxation can perform these functions efficiently where taxpayers are willing to comply with tax Laws of a country.

Tax compliance can define in various ways. For example, Andreoni, Erard, and Feinstein (1998) claimed that "tax compliance should be defined as taxpayers' willingness to obey tax laws in order to obtain the economy equilibrium of a country". according to the Kirchler (2007) tax compliance is willingness to pay taxes and also declared by Song and Yarbrough(1978) as a same definition ,tax compliance as taxpayers' ability and willingness to comply with tax laws which are determined by ethics, legal environment and other situational factors at a particular time and place. Similarly, tax compliance is also defined by several tax authorities as the ability and willingness of taxpayers to comply with tax laws, declare the correct income in each year and pays the right amount of taxes on time (IRS, 2009; ATO, 2009; IRB).

Tax noncompliance can be defined as failure of taxpayer to meet tax obligations whether the act is done intentionally or unintentionally and this may happen through failure to file tax returns, under report of taxable income or misreporting of allowable subtractions from taxable income or tax due such as exemptions, deductions, tax credit etc (Kirchler, 2007; Roth, Scholz &Witte, 1996). The most obvious consequence of tax noncompliance is the loss of tax revenue to government and this limits funds for execution of projects (Frazoni, 2000; Wenzel, 2005). In addition, tax noncompliance creates inequality among the people because both horizontal and vertical

equity are affected ( Alm, Bahl & Murray, 1992;Fjeldstad & Semboja, 2001; Alm & Gomez, 2008).

### **1.1 History of Sri Lankan Taxation system**

Robert Knox, landed in the country after a shipwreck in 1660 was captured by the Sinhalese king and was held captive for twenty years till he escaped from the captivity. He fled to England and recording his experience in captivity (Historical Relation of Ceylon). He explains how the taxes were collected three times a year and how the collected taxes were directed to the king's treasury. According to Knox's record there had been different rates of taxes and taxes paid in kind. Such items included gems, wine, oil, Corn, Honey, wax, cloth, iron tobacco and even elephant teeth. Consequent to the First World War, the cost of administration on the colonies increased tremendously. Accordingly the British colonial office came to the view that the revenue needed to administer a colony should be raised the colony itself. It is with this end in view that the imperial government introduced Income tax to the colonies and Sri Lanka as well.

The third Interim report of Taxation Commission dated 08th March, 1928, recommended that an expert should be got down to investigate whether the conditions in Ceylon were suitable for the introduction of an income tax and if so, to formulate scheme best suited to the conditions of the colony. The legislative council approved this proposal and a result of the negotiations with the United Kingdom. N.J. Huxham was appointed as Income Tax Advisor to government of Ceylon. Mr. N.J. Huxham admits duties as first commissioner of the Income Tax Department and commenced work on 2<sup>nd</sup> April, 1932 Echelon Barracks with 24 staff officers and 77 clerks. First income tax chargeable year of assessment was in 1933/32 and tax exemption limit was Rs. 4800.

Income taxes were charged under the provisions of Income Tax Ordinance No 2 of 1932 and Board of Review was established in order to settle the tax appeal under the provisions of income tax ordinance. The Inland Revenue Act, No.10 of 2006, which came in to effect from 1.04.2006, is the current legislation.

### **1.2 Problem statement**

Low tax compliance is a major problem in developing and developed countries. This has effect directly to Government's tax revenue. Torgler, (2003) argued low tax compliance is limits the capacity of Government to raise revenue for development purposes. The higher the revenue accrued to the government, the government will provide more services to its nation and enhance the standard of living of the people. In this situation we have to answer the question as "why some people pay taxes and others do not pay taxes." for many decades, tax researchers have investigated to find the answer why some people pay taxes and others do not. They were able to do tax compliance researches to identify the factors to tax non-compliance. The most important determinants identified are: such as economic factors, institutional factors, Administrative factors, psychological factors and individual factors. Some empirical studies evidenced Attitudes of taxpayers' may have a significant influence on taxpayer's compliance decision. (Bobek & Hatfield, 2003). Levi (1988) noted that if taxpayer perceived that the rate of transformation from tax to public goods is low then the taxpayers' will feel that the Government does not keep its obligation. So it makes negative Attitudes of taxpayers for tax compliance decision. Azees (2009) also stated "if Government is perceived accountable, more people will pay their taxes voluntarily"

The Government of Sri Lanka relies on tax revenues both for its recurrent and development expenditure. Government of Sri Lanka also suffered for Low revenue and always falls behind the targets. During the period of 2014/15 financial year IRD was able to collect 514.1 billion against a target of 605.3 billion (IRD Performance report 2015). Therefore a need to assess the level of tax consciousness, review of factors causing non-compliance and confine the expectations of taxpaying public with a view to formulating strategies aimed at enhancing tax collection in this sector. This study has been undertaken with aim of analyzing factors affecting tax compliance decision. And make the recommendation to IRD and Government to enhance tax collection in this sector. Therefore, the general question raised here is: what are the variables influencing tax compliance decision of individual taxpayers in Sri Lanka? Other specific questions are what is the relationship between tax rate and tax compliance decision? What is the relationship between probabilities of being audited? Is there any significant relationship between probabilities of detection? Is there any relationship between non-complexity of tax system and tax compliance decision?

### **1.3 Research objectives**

The main objective of the study is determining key factors affecting tax compliance decision among individual taxpayers in Sri Lanka. Since tax compliance may be affected various factors, this study attempts to identify some of the variables may affect tax compliance decision, like tax Rate, probability of being audited, non-complexity of tax system, probability of detection.

Besides, the present study also aimed to find out the possible ways in combating tax non-compliance among Sri Lankan individual taxpayers.

#### **1.3.1 Specific objectives**

- (i) Examine the relationship between tax rate and tax compliance decision.

- (ii) Investigate the impact of probability of being audited on tax compliance decision.
- (iii) Examine the relationship between non-complexity of tax system
- (iv) Investigate the relationship between probability of detection and tax compliance decision.

From the abovementioned research questions and the research objectives, following hypotheses were made and are stated as follows.

H: 1: There is a negative significant relationship between tax rates and tax compliance.

H: 2: There is positive significant relationship between probability of being audited and Tax Compliance.

H: 3: There is a positive significant relationship between Non-complexity of tax system and Tax Compliance.

H: 4: There is a positive significant relationship between probability of detection and Tax Compliance.

#### **1.4 Significance of the Study**

Government needs financial resources for public security, current and capital expenditure such as health, education and infrastructure expected from it by the public. The economic resources are limited, and so increase in government expenditure normally means reduction in private spending by way of transferring resources from private sector to public sector as the tax revenue (James, 2000). Regard James (2000) states that taxation is one method of transferring resources from the private to the public sector. Other writers (Auld & Miller, 1984) describe the role of taxes as an instrument that stabilizes the economy, and reduces private demand so that resources can be released for public sector use. In current situation Tax compliance is a major problem for many tax authorities and it is not an easy task to persuade taxpayers to comply with tax requirements. To be solved this problem; need to find the solution to get maximum tax revenue to the government. The findings of this study will help the government to institute the necessary legislative and administrative measures and also will help the IRD Sri Lanka to get maximum tax revenue in carrying out administrative procedures. IRD Sri Lanka is interested in maximizing revenue collections and thus will find the study useful in instituting measures, policies, and initiatives to address or minimize non-compliance and thus enhance revenue collection.

#### **2. Literature review**

This section presents the theoretical view and conceptual issues relating to the study. All over the world, governments make every challenge to achieve its development goals that are set out in their medium term plans. To be fulfilling these goals, government needs to find the huge capital expenditure which to be met from taxation and other revenue sources. Eshag (1983) argues that, the amount of tax revenue generated by a government for its expenditure programs depends among other things, upon the willingness of the taxpayer to comply with the tax laws of the country.

In this regard, several attempts have over the years been made by both practitioners and academics to examine the issue of tax compliance from various angles including the behavior of the taxpayer.

##### **2.1 The concept of tax compliance**

The exact meaning of tax compliance has been defined in various ways. For example, Andreoni, Erard, and Feinstein (1998) claimed that tax compliance should be defined as taxpayers' willingness to obey tax laws in order to obtain the economy equilibrium of a country. Kirchler (2007) perceived a simpler definition in which tax compliance is defined as the most neutral term to describe taxpayers' willingness to pay their taxes. Compliance in pure administrative terms therefore includes registering or informing tax authorities of status as a taxpayer, submitting a tax return every year (if required) and following the required payment time frames (Ming Ling, Normala and Meera, 2005).

Taxpayers decision to tax compliance influenced by several factors. these factors may be economic factors such as tax rate probability of being audited, tax penalty; psychological factors such as norm, moral, attitude of taxpayers; social factors such as demographic factors ( Brook, 2001) and tax Administrative factors such as probability of detection, complexity of tax system, public service . Allingham and Sandmo (1972) were the first researchers to conduct empirical analysis into compliance behavior of taxpayers and they came up with a model which became known as A- S model. In the model, the compliance decision of taxpayers is considered to be affected by income of the taxpayer, tax rate, probability of audit, and fine rate. Later, the new model introduced by (Alm, 1991; Jackson & Millron, 1986). Therefore, the authors underplayed the influence of psychological and social factors including the demographic characteristics on taxpayers' behavior.

##### **2.2 Tax rate**

*Tax Rate* is one of the economic factor affect to tax compliance decision. Therefore need to discuss, how tax rates influence taxpayers' decision to comply with tax laws. Clotfelter (1983) claimed that "reducing tax rates is not the only policy that has the potential to discourage tax evasion" (p. 363) but the tax rate is an important factor in determining tax compliance behavior although the exact impact is still unclear and debatable (Kirchler, 2007:114) Raising marginal tax rates will be likely to encourage taxpayers to evade tax more (Whitte and

Woodbury, 1985; Ali, Cecil and Knoblett, 2001; Torgler, 2007) while lowering tax rates does not necessarily increase tax compliance (Trivedi, Shehata, and Mestelmen, 2004; Kirchler, 2007) .

### **2.3 probability of being audited**

*Tax audit* is one of the most effective policies to protect the behavior of tax evasion. The level of tax audit can be determined by two elements: one is how many taxpayers are selected for audit and the second is how much intensive the audit is. The first element is easily measured by the number of audited taxpayers divided by the total number of taxpayers. However, the second element is so difficult to measure due to no published information about the process of tax audit. Tax audits, audit rates and prior audit experience have been ambiguously discussed in relation to tax compliance. Some studies claimed that audits have a positive impact on tax evasion (See Jackson and Jaouen, 1989; Shanmugam, 2003; Dubin, 2004). Butler (1993) also found that tax audits can change compliance behavior from negative to positive. These findings complement the Witte and Woodbury (1985) and the Beron, Tauchen and Witte (1988) studies. Witte and Woodbury in their study of small proprietors found that tax audits have a significant role in tax compliance. They did not empirically test individual taxpayers, thus left open room to conduct research in this area.

While Butler (1993) and Witte and Woodbury (1985) found significant results, Beron *et.al.* (1988) found a contradictory result. They reported that audits did not significantly correlate with evasion for all groups they studied.

### **2.4 Non- complexity of tax system**

The most serious problem facing taxpayers and IRS is the complexity of the Internal Revenue Code (the “tax code”). Among other things, complexity of tax system Makes compliance difficult, requiring taxpayers to devote excessive time to preparing and filing their returns; Requires the majority of taxpayers to bear monetary costs to comply, as most taxpayers hire preparers and many other taxpayers purchase tax preparation software; ambiguous comprehension, leaving many taxpayers unaware how their taxes are computed and what rate of tax they pay; Facilitates tax avoidance by enabling sophisticated taxpayers to reduce their tax liabilities and by providing criminals with opportunities to commit tax fraud; Undermines trust in the system by creating an impression that many taxpayers are not compliant, thereby reducing the incentives that honest taxpayers feel to comply; and Generates tens of millions of telephone calls to the IRS each year, overburdening the agency and compromising its ability to provide high-quality taxpayer service. Simplifying tax administration is important because it can facilitate efficient and enhanced administration and reduce costs (Mohani, 2001; Bird, 1998; Silvani and Baer, 1997).

### **2.5 probability of detection**

Compliance in respect to the probability of detection has received attention from many researchers. Allingham and Sandmo (1972) claimed that taxpayers will always declare their income correctly if the probability of detection is high. Probability of detection plays a significant role in reporting behavior as taxpayers will declare everything if they perceive that they will be one of the auditees in that particular year (Riahi-Belkaoui, 2004; Richardson, 2008).

Bergman (1998) investigated tax compliance behavior in Argentina using two approaches; 1) the measures to enhance commercial taxpayers and 2) extensive campaigns and audits which will increase the probability of detection among individual taxpayers. Bergman (1998) investigated tax compliance behavior in Argentina using two approaches; 1) the measures to enhance commercial taxpayers and 2) extensive campaigns and audits which will increase the probability of detection among individual taxpayers.

## **3. Methodology**

### **3.1 Research hypothesis**

Availability of prior Literature on the phenomenon of tax compliance decision, and need to examine the other critical “actors in the field” (Alm et al., 2011) which influence the individual tax compliance decision. Particularly within the context of a developing country like Sri Lanka, the following tentative hypotheses have been articulated and examined in this study.

Hypotheses 1: There is a negative significant relationship between tax rates and tax compliance.

According to the studies, high tax rates leads to lower level of tax compliance (Crane & Nourzad, 1987; Obid, 2004; Ho et al., 2006; Bayer, 2006; and Ahangar et al., 2011). Other economic models of rational compliance decisions however, perceived that tax rates have a mixed impact on tax compliance or predict that increasing tax rates will increase compliance behavior (Kirchler, Hoelzl and Wahl, 2008). In contrast with Allingham and Sandmo, various studies found that increasing tax rates encouraged noncompliant behavior or produced mixed findings (see Pommerehne and Wech- Hannemann, 1996; Park and Hyun, 2003).

Hypotheses 2: There is positive significant relationship between probability of being audited and Tax

Compliance.

Tax audits, audit rates and prior audit experience have been ambiguously discussed in relation to tax compliance. Some studies claimed that audits have a positive impact on tax evasion (See Jackson and Jaouen, 1989; Shanmugam, 2003; Dubin, 2004). Witte and Woodbury in their study of small proprietors found that tax audits have a significant role in tax compliance. They did not empirically test individual taxpayers, thus left open room to conduct research in this area. While Butler (1993) and Witte and Woodbury (1985) found significant results, Beron et.al. (1988) found a contradictory result. They reported that audits did not significantly correlate with evasion for all groups they studied.

Hypotheses 3: There is a positive significant relationship between Non-complexity of tax system and Tax Compliance.

Beck and Jun (1989) Scotchmer and Slemrod (1989) Uncertainty in tax administration is a deterrent to evasion. Brand (1997) Complexity in the law contributes to noncompliance and burden. There has been conflicting hypotheses regarding the effect of complexity on compliance. Westat (1980, pp. 29-30) theorized that complexity aggravates taxpayer uncertainty, which in turn acts to deter non-compliance.

Hypotheses 4: There is a positive significant relationship between probability of detection and Tax Compliance.

Allingham and Sandmo (1972) claimed that taxpayers will always declare their income correctly if the probability of detection is high. Probability of detection plays a significant role in reporting Behavior as taxpayers will declare everything if they perceive that they will be one of the auditees in that particular year (Riahi-Belkaoui, 2004; Richardson, 2008). Sirinivason (1973) proved that an increase in the probability of detection would lead to a decrease in the optimal proportion of understated income.

### 3.2 Research Framework

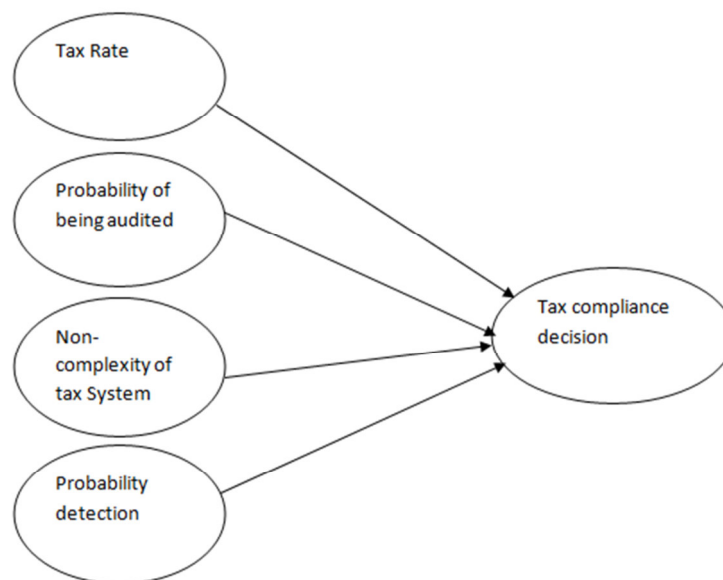


Figure 1. Researcher's model

### 3.3 Research design and methods

A survey was involving individual taxpayers' in Sri Lanka. A structured questionnaire were developed containing a five point lickert scale test items was applied soliciting the opinion of individual taxpayers. These individuals selected cluster basis since which represent the whole country. The Cronbach alpha was applied as the statistical measure of reliability. The reliability estimate indicates each test item had had an alpha value greater than 0.70 according to Pallant (2005).

### 3.4 Data collection methods

The survey data is chosen as the main source of data In this study .primary data is referred as the first hand data which normally collected through the respondents by means of survey form or questionnaire. To be collected data a survey questionnaire will be distributed through mail with return envelop which include researcher's Address.

### 3.5 population and sample size

The researcher used cluster sampling method for this study because of the sample should be representing of the whole country. Using multi stage cluster sampling method and finally who were selected random from the data

bases of each regional office. A total questionnaires survey distributed 700 to individual taxpayers' in Sri Lanka as a mail surveys throughout Sri Lanka and response rate were 426. Due to incomplete Questionnaire, selected sample was 388.

### 3.6 Data analysis techniques

In this study, statistical package for Social Science (SPSS) version 17 is being used to analyze the data collected from questionnaire which filled by the respondents. Data analysis techniques must be correctly used to give sufficient evidence in answering research hypothesis and research questions developed in previous chapter

#### 3.6.1 Internal reliability test

According to Chua (2013, p.137, reliability in research is defined as the ability of the measurements to obtain the same value when it is repeatedly used. Cronbach's alpha internal consistency reliability method is being used in this research. This method is widely used by researchers to measure the consistency of the measurement. Minimum acceptable score is 0.70.

#### 3.6.2 Inferential analysis

Chua (2013) explained that inferential analysis is a statistic outlines the relationship between variables and generalization of the sample to the population. Pearson correlation, multiple regression are the examples.

### 3.7 presentations of data

The rank correlation coefficient ( R) was applied to explain the strength of relationship between independent and dependent variables. The dependent variable in this study is tax compliance decision while independent variables are represented by Tax Rate, probability of being audited, non- complexity of tax system and probability of detection such as four main factors in the hypotheses of this research and tax compliance. Rank correlation was used to measure the opinion of respondents regarding their level of agreement and disagreement. Multiple regression analysis was conducted to assess the relative predictive power of the independent variables on the dependent variable.

The regression model:

$$TCOMP = \alpha + \beta_1RATE_i + \beta_2PROBAUDIT_i + \beta_3COMPLXITY_i + \beta_4PROBDITECT_i + \epsilon_i$$

Where:

TCOMP	- Tax compliance decision
RATE	- Tax Rate
PROBAUDIT	- Probability of Auditing
COMPLEXITY	-Complexity of tax system
PROBDECT	- Probability of detection

## 4. Findings

This section presents the data, the analysis and the results of the analysis. Out of the seven hundred (700) copies of the questionnaire distributed. Four hundred and twenty six received while selected effective respondents three hundred and eighty eight (388) taken for analyzed.

### 4.1 results of the reliability test

According to the Hair et al. (2006), the minimum acceptable level of the Cronbach alpha is more than 0.70. the table 4.1 shows all independent variables fall more than 0.70 . So all items in the measurement in this research were considered reliable as overall are good and excellent range as more than 0.90.

Table 4.1 results of the reliability test

Main Variable	Sub variables	Cronbach's Alpha
Tax compliance decision	Tax rate	0.914
	Probability of being Audited	0.906
	Complexity of tax system	0.940
	Probability of detection	0.942

Source: Field study (2016)

### 4.2 Results of correlation and multiple linear regressions

The results of correlation and regression analysis are presented in this part of the study. To be analyzed one out come variable and multiple predictors are taken. Therefore regress the dependent variable, tax compliance on all of the predictor variables, tax Rate, probability of being audited, non-complexity of tax system, probability of detection. Table 4.2 shows that there are a number of significant correlations (P< 0.01) between tax compliance decision and tax Rate (r= -.55). Correlations is also found (P< 0.01 between tax compliance and probability of being audited (r = .89); there are significant Correlation (P< 0.01) between tax compliance and non- complexity of tax system (r = .84); significant Correlation (P <0.01) between tax compliance and probability of detection (r

= .75) these results support all Hypothesis as H: 1, H: 2, H: 3, H: 4  
 Table 4.2 correlation of independent and dependent variables

**Correlations**

		RATE	PROBAUDIT	COMPLEXITY	PROBDECT	TCOMP
RATE	Pearson Correlation	1	-.612**	-.616**	-.477**	-.550**
	Sig. (2-tailed)		.000	.000	.000	.000
	N	388	388	388	388	388
PROBAUDIT	Pearson Correlation	-.612**	1	.904**	.719**	.895**
	Sig. (2-tailed)	.000		.000	.000	.000
	N	388	388	388	388	388
COMPLEXITY	Pearson Correlation	-.616**	.904**	1	.686**	.839**
	Sig. (2-tailed)	.000	.000		.000	.000
	N	388	388	388	388	388
PROBDECT	Pearson Correlation	-.477**	.719**	.686**	1	.748**
	Sig. (2-tailed)	.000	.000	.000		.000
	N	388	388	388	388	388
TCOMP	Pearson Correlation	-.550**	.895**	.839**	.748**	1
	Sig. (2-tailed)	.000	.000	.000	.000	
	N	388	388	388	388	388

\*\* . Correlation is significant at the 0.01 level (2-tailed).

**Source: Field study ( 2016)**

It can be observed table 4.3 that the R value is 0.909 which indicates the multiple correlation coefficient between tax compliance and tax Rate, probability of being audited, non- complexity of tax system, probability of detection .The R square in table 4.3 is .827, this means that, approximately 83% of the variability of tax compliance is accounted for by the predictor variables in the model.( that is Rate, probability of being audited, non- complexity of tax system, probability of detection).

Table 4.3 Model summary

**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.909 <sup>a</sup>	.827	.825	.34067

a. Predictors: (Constant), PROBDECT, RATE, COMPLEXITY, PROBAUDIT

**Source: Field study (2016)**

It can be observed from Table 4.4, the F value is 457.918 and the P- value is 0.000. Can be concluding that the P- value of the F test is statistically significant which means at P value of Zero decimal places, the model is statistically significant. The p- value associated with the F value is small (0.000) and when compared with our alpha level of 0-01 we can conclude that independent variables reliably predict the dependent variable. if the p- value were greater than 0.05, we would say that the group of independent variables do not show a significant relationship with the dependent variable, or that the group of independent variables do not reliably predict the dependent variable.

Table 4.4 Anova

**ANOVA<sup>b</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	212.579	4	53.145	457.918	.000 <sup>a</sup>
	Residual	44.450	383	.116		
	Total	257.029	387			

a. Predictors: (Constant), PROBDECT, RATE, COMPLEXITY, PROBAUDIT

b. Dependent Variable: TCOMP

**Source: Field study (2016)**

### 4.3 Testing hypothesis

The regression results in table 4.5 show that each of the predicted parameters in relation to the independent factors was significant. But the results shows the coefficient of the independent variable tax Rate (RATE) is not effect in tax compliance decision in Sri Lanka;  $\beta_1 = 0.017$  (P- value = 0.401 which is more than  $\alpha = 0.05$ ) as such there is no negative significant relationship between tax rate and tax compliance, which implies that we reject the Hypothesis 1 stating that There is a negative significant relationship between tax rates and tax compliance. The findings agree with those of Kirchler et al. (2007) who point out tax rate is an important factor in determining tax compliance behavior although the exact impact is still unclear and debatable; which was confirmed by Clotfelter (1983) who declared 'reducing tax rates is not the only policy that has the potential discourage tax evasion' this is because tax rates have mixed impact on tax compliance decision. Results of the study supported the study conducted by Porcano (1988), who claimed that tax rates have no effect on tax compliance.

The table also shows that coefficient of the independent variable probability of being audited is effect in tax compliance decision in Sri Lanka;  $\beta_2 = 0.592$  (P value = 0.000 which is less than  $\alpha = 0.05$ ) which implies that we accept hypothesis 2 and conclude there is a positive significant relationship between probability of being audited and tax compliance decision. these findings agree with those of Hyun (2005) who explore that tax audits is one of the most effective policies to protect the behavior of tax evasion. The findings agree with those some studies claimed that audits have a positive impact on tax evasion (See Jackson and Jaouen, 1989; Shanmugam, 2003; Dubin, 2004).

The findings also shows that coefficient of the independent variable non- complexity of tax system is significant relationship with tax compliance in Sri Lanka;  $\beta_3$  was 0.120 (P-value = 0.009 which is less than  $\alpha = 0.05$ ) which implies that we accept hypothesis 3 and conclude there is a positive significant relationship between non- complexity of tax system and tax compliance. These findings agree with Some research, which has found positive association between complexity and non-compliance, whether intentional or unintentional (e.g. see McKerchar, 2002; Ritsema, Thomas and Ferrier, 2003; Blanthorne and Kaplan, 2008) while others have found that the impact of complexity on compliance varied with the characteristics of individual taxpayers; such as income level, education level, perceptions of fairness and equity and the opportunity to evade (e.g. see Slemrod, 1989). Denmark, Canada and New Zealand are the leading countries that have introduced simplified tax returns by reducing the number of pages to facilitate and increase voluntary compliance among taxpayers (Mohani, 2001; Mohani and Sheehan, 2003,2004).

Further table 4.5 showed that probability of detection strongly associated with tax compliance in Sri Lanka;  $\beta_4$  was 0.181 (P-value = 0.000 which is less than  $\alpha = 0.05$ ) which implies that we accept hypothesis 4 and conclude there is a positive significant relationship between probability of detection and tax compliance. These findings agree with the study conducted by Bergman (1998) have also evidenced that probability of being detected plays a significant role in inducing compliance. Conversely, Young (1994) and Slemrod *et.al* (2001) found that probability of being audited again was negatively correlated with compliance behavior. However, the direction of the relationship (positive or negative) was not clearly stated by Slemrod *et. al.* (1988).

In table 4.5, the t- value for tax rate is 0.840 and the p- value of tax rate is 0.401 is more than alpha 0.05; therefore it implies that tax rate has not significant effect on tax compliance. Probability of being audited has a t- value 12.091 and a p- value of 0.000, so probability of being audited has a significant effect on tax compliance decision. Non-complexity of tax system has a t- value of 2.613 and a p- value of 0.009 since the p- value of non-complexity of tax system is less than our alpha 0.05, therefore non- complexity of tax system has a significant effect on tax compliance. Probability of detection also has a t- value of 6.795 and a p- value of 0.000, it is less than our alpha of 0.05, so probability of detection also has a significant effect on tax compliance.

Therefore, the estimated regression model after removing the insignificant variable-tax rate is stated thus :

$$TCOMP = \alpha + \beta_2 PROBAUDIT_i + \beta_3 COMPLXITY_i + \beta_4 PROBDITECT_i + \epsilon_i$$

$$TCOMP = 0.09 + 0.59PROBAUDIT + 0.12COMPLXITY + 0.18PROBDITECT$$



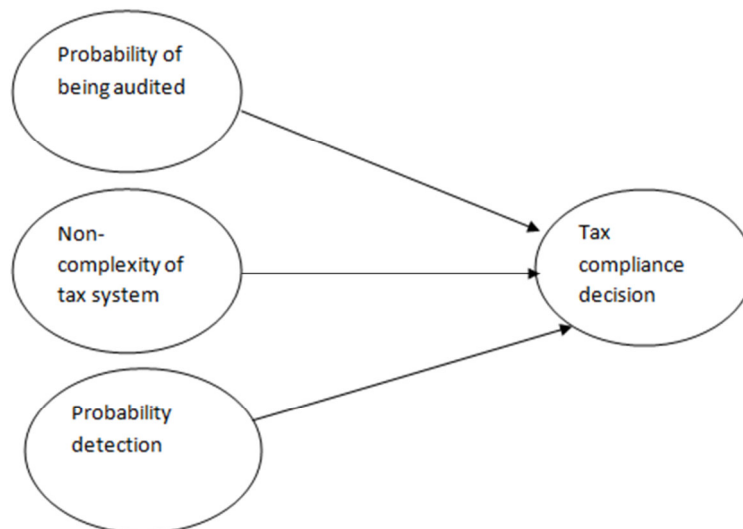


Figure 4.2. Summary of the results of the model- correlation coefficients; source Researcher’s Model 2016

Table 4.5  
**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	.090	.120		.753	.452		
	RATE	.017	.020	.023	.840	.401	.603	1.659
	PROBAUDIT	.592	.049	.639	12.091	.000	.162	6.178
	COMPLEXITY	.120	.046	.133	2.613	.009	.175	5.718
	PROBDECT	.181	.027	.209	6.795	.000	.475	2.104

a. Dependent Variable: TCOMP

Source: Field study (2016)

### 5. Conclusion and recommendation

The study covered the interaction between tax compliance and predictor variables ( Tax Rate, probability of being audited, non- complexity of tax system and probability detection) the main objective of the study was to examine the determining key factors affecting tax compliance decision among individual taxpayers in Sri Lanka. survey design was used with questionnaire as the major tool of data collection. Selected sample size was 388.

From the computation using the pearson moment correlation and multiple linear regressions, it can be deduced that probability of being audited, non-complexity of tax system, and probability detection positive significant impact on tax compliance among individual taxpayers in Sri Lanka. But the study also found tax rates have not significant effect on tax compliance decision among Sri Lankan Tax payers’.

Major; findings of the study and the conclusions, the following recommendations are suggested

1. Continues and improve the audit standard and procedures by IRD Sri Lanka and tax officers of the department , availing audit findings to the public on time and tax officials being friendly and informative to them will increase level of tax compliance.
2. IRD at all level should aim to improve standard of tax system with simplicity in procedures employed for effective and efficiency in tax administration in order to improve tax compliance.
3. Should be introduces new mechanism of procedures for Probability of detection.
4. It is recommended that, the IRD Sri Lanka should revamp and revitalize the taxpayer award scheme.

### References

- Agresti, A., and Finlay, B. (2009). *Statistical Methods for Social Sciences*. 4th ed. New Jersey: Pearson Prentice Hall.
- Ajzen, I. (1988). *Attitudes, Personality and Behavior*. Milton Keynes: Open University Press.
- Ajzen, I. (1991). Theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50,

- 179-211.
- Ajzen, I., and Fishbein, M. (1980). *Understanding Attitudes and Predicting Social Behavior*. Englewood Cliffs, New Jersey: Prentice Hall.
- Ali, M.M., Cecil, H.W., and Knoblett, J.A. (2001). The effect of tax rates and enforcement Policies on tax compliance. A study of self-employed taxpayers. *American Economic Journal*, 29(2), 86-202.
- Allingham, M.G., and Sandmo, A. (1972). Income tax evasion: A theoretical analysis. *Journal of Public Economics*, 1(3-4), 323-38.
- Alm, J. (1991). A perspective on the experimental analysis of taxpayer reporting. *The Accounting Review*, 66(3), 577-93.
- Alm, J., and Torgler, B. (2006). Culture differences and tax morale in the United States and in Europe. *Journal of Economic Psychology*, 27(2), 224-43.
- Alm, J., Jackson, B., and McKee, M. (1992). Institutional uncertainty and taxpayer compliance. *American Economic Review*, 82(4), 1018-26.
- Alm, J., Jackson, B.R., and McKee, M. (1992). *Deterrence and beyond: Toward a kinder, gentler IRS*, in Slemrod, J. ed. *Why People Pay Taxes: Tax Compliance and Enforcement*. Ann Arbor. University of Michigan Press.
- Azeez, A; (2009) Contesting good governance in Nigeria: Legitimacy and accountability perspectives. *Journal of social sciences*, 21 (3): 2
- Agresti, A., and Finlay, B. (2009). *Statistical Methods for Social Sciences*. 4th ed. New Jersey: Pearson Prentice Hall.
- Ajzen, I. (1988). *Attitudes, Personality and Behavior*. Milton Keynes: Open University Press.
- Ajzen, I. (1991). Theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50, 179-211.
- Ajzen, I., and Fishbein, M. (1980). *Understanding Attitudes and Predicting Social Behavior*. Englewood Cliffs, New Jersey: Prentice Hall.
- Ali, M.M., Cecil, H.W., and Knoblett, J.A. (2001). The effect of tax rates and enforcement Policies on tax compliance. A study of self-employed taxpayers. *American Economic Journal*, 29(2), 86- 202.
- Allingham, M.G., and Sandmo, A. (1972). Income tax evasion: A theoretical analysis. *Journal of Public Economics*, 1(3-4), 323-38.
- Alm, J. (1991). A perspective on the experimental analysis of taxpayer reporting. *The Accounting Review*, 66(3), 577-93.
- Alm, J., and Torgler, B. (2006). Culture differences and tax morale in the United States and in Europe. *Journal of Economic Psychology*, 27(2), 224-43.
- Alm, J., Jackson, B., and McKee, M. (1992). Institutional uncertainty and taxpayer compliance. *American Economic Review*, 82(4), 1018-26.
- Alm, J., Jackson, B.R., and McKee, M. (1992). *Deterrence and beyond: Toward a kinder, gentler IRS*, in Slemrod, J. ed. *Why People Pay Taxes: Tax Compliance and Enforcement*. Ann Arbor. University of Michigan Press.
- Andreoni, J, Erard, B., and Feinstein, J. (1998). Tax compliance. *Journal of Economic Literature*, 36, 818-60.
- Azeez, A; (2009) Contesting good governance in Nigeria: Legitimacy and accountability perspectives. *Journal of social sciences*, 21 (3): 217-224
- Bayer, R. C., and Sutter, M. (2009). The excess burden of tax evasion-An experimental Detection-concealment contest. *European Economic Review*, 53(5), 527-543.
- Beck, P.J., Davis, J. S., and Jung, Woon-Oh. (1991). Experimental evidence on Taxpayer reporting under uncertainty. *Accounting Review*, 66(3), 535-58.
- Bergman, M. (1998). Criminal law and tax compliance in Argentina: Testing the limits of deterrence. *International Journal of the Sociology of Law*, 26, 55-74.
- Beron, K.L., Tauchen, H.V., and Witte, A.D. (1988). A structural equation model for tax compliance and auditing, NBER working paper no 2556, *National Bureau of Economic Research*. April. Retrieved 23 October 2008, from <http://www.nber.org/papers/w2556>
- Blanthorne, C., and Kaplan, S. (2008). An egocentric model of the relations among the opportunity to underreport, social norms, ethical beliefs and underreporting behavior. *Accounting, Organizations and Society*, 33(7-8), 684-703.
- Bobek, D .D. & Hatfield, R. C. (2003). An investigation of the theory of planned behavior and the role of moral obligations in tax compliance. *Behavioral research in Accounting*, 15, 13-38
- Butler, C. (1993). Self-assessment: the way forward, *Tax Nasional*, June, 2-3.
- Chua (2013, p.137)
- Clotfelter, C. T. (1983). Tax evasion and tax rates: An analysis of individual returns. *The Review of Economics and Statistics*, LXV (3), 363-73.
- Dubin, J.A. (2004). Criminal investigation enforcement activities and taxpayer noncompliance. Paper presented

- at 2004 IRS Research Conference, Washington, June, 1-45.
- Eshag E (1983). *Fiscal and Monetary Policies and Problems in Developing Countries*. Cambridge: Cambridge University Press.
- Franzoni, L. (2000). Tax evasion and tax compliance. Encyclopedia of Law and Economic, Volume VI. In Boukaertm B., De Geest, G. (Eds.), *the Economic and Public Tax Law*. Cheltenham: Edward Elgar.
- Internal Revenues Services (IRS) (2009). *Update on Reducing the Federal Tax Gap an Improving Voluntary Compliance*. Retrieved 10 Nov.2009, from [http://www.irs.gov/pub/newsroom/tax\\_gap\\_report\\_final\\_version.pdf](http://www.irs.gov/pub/newsroom/tax_gap_report_final_version.pdf)
- Jackson, B., and Jaouen, P. (1989). Influencing taxpayer compliance through sanction threat or appeals to conscience. *Advances in Taxation*, 2, 131-47.
- James, S., and Nobes, C. (2000). *The Economic of Taxation*, 7th ed. London: Prentice Hall. Kirchler, E. (2007). *The Economic Psychology of Tax Behavior*. Cambridge: Cambridge University Press.
- Kirchler, E., Hoelzl, E., and Wahl, I. (2008). Enforced versus voluntary compliance: The “slippery slope” framework. *Journal of Economic Psychology*, 29, 210-55.
- McKerchar, M. (2002). The effects of complexity on unintentional non-compliance for Personal taxpayers in Australia. *Australian Tax Forum*, 17(1), 3-26.
- Ming Ling, L., Normala, S.O., and Meera, A.K. (2005). Towards electronic tax filing: Technology readiness and responses of malaysian tax practitioners. *Tax Nasional*, First Quarter, 16-23.
- Mohani, A. (2001). *Personal income tax non-compliance in Malaysia*. PhD thesis. Victoria University: Melbourne, Australia.
- Pallant, J. (2005). *SPSS Survival Manual: A Step by Step Guide to Data Analysis Using SPSS for Windows*. 2nd ed. Maidenhead: Open University Press.
- Pommerehne, W.W., and Weck-Hannemann, H. (1996). Tax rates, tax administration and income tax evasion in Switzerland. *Public Choice*, 88 (1), 161-170. Richardson, G. (2008). the relationship between culture and tax evasion across countries: Additional evidence and extensions. *Journal of International Accounting, Auditing and Taxation*, 17(2), 67-78.
- Riahi-Belkaoui, A. (2004). Relationship between tax compliance internationally and selected determinants of tax morale. *Journal of International Accounting, Auditing and Taxation*, 13, 135-143.
- Ritsema, C.M., Thomas, D.W., and Ferrier. G.D. (2003). Economic and behavioral determinants of tax compliance: evidence from the 1997 Arkansas tax penalty amnesty program, paper presented at the IRS Research Conference, June, Retrieved 11 October 2008, from <http://www.irs.gov/pub/irs-soi/ritsema.pdf>
- Roth, J.A, Scholz, J.T., and Witte, A.D. (1989). *Taxpayer Compliance: An Agenda for Research*. Philadelphia: University of Pennsylvania Press.
- Shanmugam, S. (2003). Managing self-assessment - an appraisal, *Tax Nasional*, 1<sup>st</sup> Quarter, 30- 32.
- Slemrod, J., Blumenthal, M., and Christian, C. (1998). The determinants of income tax compliance: Evidence from a control experiment in Minnesota. National Bureau of Economic Research Working Paper no. W6575.
- Slemrod, J. (1989). Complexity, compliance costs, and tax evasion. In Roth, J.A., and Scholz, J.T. (eds.) *Taxpayer Compliance: Social Perspectives*, Philadelphia, 2, 156-181.
- Song, Y.D., and Yarbrough, T.E. (1978). Tax ethics and taxpayer attitudes: A survey. *Public Administration Review*, 38(5), 442-452.
- Torgler, B., and Schneider, F. (2005). Attitudes towards paying taxes in Austria: an empirical analysis. *Empirica*, 32(2), 231-246.
- Trivedi, V.U., Shehata, M., and Mestelmen, S. (2004). Impact on personal and situation factors on taxpayer compliance: An experimental analysis. *Journal of Business Ethics*, 47(3), 175-197.
- Troutman, C.S. (1993). Moral commitment to tax compliance as measured by the development of moral reasoning and attitudes towards the fairness of the tax laws, Ph.D. thesis. Oklahoma State University.
- Trivedi, V.U., Shehata, M., and Mestelmen, S. (2004). Impact on personal and situation factors on taxpayer compliance: An experimental analysis. *Journal of Business Ethics*, 47(3), 175-197.
- Westat (1980, pp. 29-30) individual income tax compliance factors study, Rockville,
- Witte, A., and Woodbury, D.F. (1985). What we know about the factors affecting compliance with the tax laws? In P. Sawicki (ed.), *Income Tax Compliance: A Report of The ABA Section of Taxation Invitational Conference on Income Tax Compliance*. Pp. 133-148, American Barr. Association, Chicago.
- Young, J.C. (1994). Factors associated with non-compliance: Evidence from the Michigan tax amnesty program. *Journal of American Taxation Association*, 16(2), 82-105.17-224