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AN EMPIRICAL ANALYSIS OF DETERMINANTS OF TAX EVASION: EVIDENCE FROM SOUTH ASIA

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ABSTRACT

Tax evasion is a much challenging issue in both developed and developing countries specifically in South Asia. This study examines the tax evasion problem which erodes revenue generation for the Tax authorities and Governments in South Asian context. The objective of this study is to explore major determinants which influence tax evasion in this region. This research provides a basic framework to understand the impact of socio-economic, behavioral, institutional and political factors towards the decision of evading taxes. The research has conducted an empirical investigation of four South Asian countries, Pakistan, Bangladesh, India, and Sri Lanka through OLS panel regression analysis and Fixed Effect (FE) approach using a dataset from 1988 to 2017 derived from World Economic Forum Annual Reports for the period 1988-2017. The measures that may help tax agencies and the governments to discourage tax evasion have also been highlighted in the last part of this paper. it is observed that factors like age, corruption, high-income level, marginal tax rate, ease of doing business, and accountability are positively related to the tax evasion with varying magnitude whereas the variables for gender, services income, HDI, public trust in politician and rule of law are negatively associated with the dependent variable. self-assessment, agriculture income source and technological readiness show mixed results both insignificant and significant for the region. it is concluded that economic and institutional factors are more strong determinants of tax evasion in comparison with the demographic factors.

Keywords: Tax Evasion; Services Income; Technological Readiness; Ease of Doing Business; Accountability.

INTRODUCTION

Tax evasion is as old a phenomenon as the taxation regime itself. It is a long-standing issue which rises above national limits as individuals and firms anywhere in the world, try to evade taxes whenever tax authorities decide to charge them. Tax revenues are major and important income sources for governments in almost every country and collection of sufficient taxes helps stabilize the economy and leads to less dependency on governmental borrowing. The potential or collectible tax revenue of any country estimated based on tax laws is much higher than the actual taxes collected due to evasion. Tax evasion also causes some other problems being intimidating to economic development. For example, it distorts the tax system resulting in more law enforcement costs and reduces the collection of tax revenue and the ability of the government to repay.

Although the problem remains ever-present yet in modern times where the economies are continuously under institutional transition, restructuring and reframing their fate, this issue becomes of vital importance as the governments need money to run its whole system.

This issue has got much consideration from scientists over the most recent 30 years. This problem has been broadly been investigated in developed countries from the perspective of a theory of general deterrence, economic measures and fiscal psychology Alm, Cherry, Jones, & McKee, 2010; Cuccia, 1994; Dreher & Schneider, 2010; Cullis & Lewis, 1997; Grasmick & Scott, 1982; Kirchler, Muehlbacher, Hoelzl, & Webley, 2009; Hofmann, Hoelzl, & Kirchler, 2008). However, there is a dire need for much focused investigative study in the regional perspective owing to different socio-economic and political situations for different regions of the world like South Asia.

Tax evasion is a major problem and authorities find it difficult to persuade taxpayers to make compliance with tax (James & Alley, 2004; Clarke, & Lewis, 1982, Bordignon, 1993; Schneider & Enste, 2013; Richardson, 2008; Friedland, Maital, & Rutenberg, 1978). Undoubtedly, tax evasion is increasing concerns all over the world for taxation authorities and tax-policy makers in all societies, all economic systems, all social classes, all industries, all professions, and in developing as well as developed countries (Chau & Leung, 2009; Das-Gupta, Lahiri, & Mookherjee, 1995, Wallschutzky, 1984). The potential of tax collection as designed and governed by the country's taxation laws is always much

higher than the real figure of collection of taxes. So, what causes and determines the evasion behavior of the taxpayers is the matter to be probed here (Lewis, 1979; Palil, 2010; Coutts & Jann, 2011). As this concern is severely challenging for all the economies, the South Asian countries are more victims of this loss, therefore, there is much need to focus on the causes and remedies in the countries of this region.

The agencies collecting taxes in this region exhibit institutional drawbacks, inadequate materialization of tax collection potential due to personal and management in capabilities and issues. On the other hand, many factors may influence the taxpayers which may result in disturbing the balance of government budgets and increasing the gap between public revenue and spending as experienced by most countries owing to evasion of taxes. It is also noteworthy that tax research has always focused more on developed countries whereas there is less work done on a specific regional basis. Further, all the socio-economic and political and institutional factors causing tax evasion needs to be studied upon as the problem is not as simple and cannot be explained just one perspective approach. South Asian countries face grave problems due to insufficient resources base, inadequate institutional frameworks and lack of expertise.

Therefore, this research has focused on the South Asian region to analyze the factors influencing tax evasion using panel data for 4 countries of Asia from 1988 to 2017. The factors influencing tax evasion considered in this study include; Age of the taxpayer, Male and Female taxpayers, Quality of Education System, Income source, Top Marginal Tax rates, High and Low-Income level of the taxpayers, HDI, Tax Morale, Transparency of policymaking, Technological Readiness, Public trust in politicians, Ease of doing business and Rule of law. This paper is an effort to suggest some other prevailing situations and factors of any country and interaction between the urge to evade taxes and there is a vital need to understand the gap in already conducted studies on tax evasion and this research in this area would help more comprehension of the matter.

OBJECTIVES OF THE STUDY

1. To examine the relationship between Tax evasion and Socio-Economic factors in South Asia.

2. To examine the association between institutional factors and tax evasion phenomenon in South Asia.

3. To examine the association between tax evasion and demographic and political factors in South Asia.

This empirical research will help to build on the existing knowledge base regarding the phenomenon of tax evasion. Further it will provide the revenue authorities with an insight into what measures they might take in policy making and implementation along-with restructuring and reorganizing the operational side of the tax office in future. In addition to that it is hoped that this research shall assist the tax authorities towards identifying the tax evasion tendency and behavioral patterns of the individuals, firms and corporations currently evading taxes due to the treasury.

LITERATURE REVIEW

Many authors have reviewed the tax compliance literature like Jackson & Milliron (1986). Most of these researchers view tax evasion from three perspectives, *1) General deterrence; 2) Economic deterrence; and 3) Psychological aspect*. Generally, these theories altogether mean that tax evasion can be discouraged by imposing sanctions (Tittle, 1980; Schwartz & Orleans, 1967; Williams, 2010; Verboon & Van Dijke, 2007). In the opinion of certain others such as Allingham and Sandmo (1972), and Kasper, Kogler, and Kirchler (2015) the issue of tax evasion can be summed up as an economic decision under uncertainty. However, socio-economic factors when viewed together with institutional and demographic factors a complex phenomenon of tax evasion behavior emerges which needs further deliberation.

Fundamentally, it is the distortion of information that affects compliance behavior and controls on the economy along with exercising authority by the governments is affected (Cowell, 1990, p.40). It is invariably a persistent problem in all countries of the world and there is vastly studied evidence of black economy in international perspective (pp. 22–23). In the shadow economy or black economy, individuals are providing false information thus avoiding and evading taxes (Muehlbacher, & Kirchler, 2010; Kirchler, Hoelzl, & Wahl, 2008; Gärling, Kirchler, Lewis, & Van Raaij, 2009; Dreher & Schneider, 2010).

Kendrick (1939) narrates that the capability of the taxpayer of paying the taxes, tax liability and payment with a compulsion to the country is bound by theory. The crux of this theory is that the burden of taxes should be shared between the masses for equity and justness to ensure that the individual has to pay according to his capability. Chang and Schultz Jr. (1990) also observed that that increasing level of Income shown positive

association with tax evasion, however, they did not find that the relationship decreased with income. Further two pieces of research by Clotfelter (1983) and Alm, Bahl and Murray (1993) concluded altogether opposite association of income level and they found that income level has a negative association with tax compliance. However, Feinstein (1991) concluded in his research that an insignificant association between income level and tax non-compliance existed as per their research. The income variable and its interaction when studied along with other independent variables need to be explored into for which present study is an endeavor in this direction.

Allingham and Sandmo (1972) in their theoretical research paper on tax evasion behavior discussed tax evasion. The authors have probed into the problem from taxpayer's eyes and factors impacting tax motivation and compliance have been deliberated upon as a theory (Gärling et al., 2009; Hofmann, Hoelzl, & Kirchler, 2008; Hirschi, & Gottfredson, 1983). The theory concluded by these authors has very strong implications for the tax collecting agencies and authorities. This theory focuses on penal and administrative strategies for coping up with the problem of tax evasion. They believe that evasion can be minimized, and a better culture of compliance may be ensured by the imposition of penalties increasing the administrative expenses (Frey & Jegen, 2000; Hale, 1996; Torgler & Schneider, 2009). However, there is a gap to study the phenomenon in the context of political and policy-making levels along with other economic factors in the context of South Asia.

The tax compliance policies having a considerable impact on taxpayers' financial status might cause increased tax evasion instead of decreasing it. So, the macroeconomic policies that lead towards shrinking the share of the middle class into the national resources stream will certainly lead towards increased tax evasion. Similarly implying a tax system of single flat rate leads to put more tax burden on the low-income taxpayers' class hence, leading towards increased tax evasion by these low-income taxpayers. Conversely, the tax policies based on involving the high-income group of taxpayers to pay an increasing share of taxes ultimately results in "Revolt of the Haves" (Bloomquist, 1979). The impact and interaction of Income level and corresponding High Marginal tax rates along with other economic factors like HDI, Corruption needs attention for investigation in South Asia.

Wei and McGee (2015) in their research paper conducted a study on the ethical aspect of tax evasion to inquire whether men are more compliant towards tax laws or women prove more defiant. The study reflected that in

most of these countries' women were found prone to evading taxes whereas in many countries no significant difference was observed in this regard. The subject study focusses on gender as one of the many variables as tax evasion is the outcome of the interaction of several factors that are hard to be studied in isolation hence this phenomenon as an outcome of certain variables in the context of South Asia needs an investigative study.

Preobragenskaya and McGee (2016) concluded in their research paper "A Demographic Study of Russian Attitudes toward Tax Evasion" that various demographic variables show interesting results regarding attitude towards tax evasion and these results further show fluctuations over time. They observed that women taxpayers, younger and married taxpayers show more opposition towards evasion behavior. Higher educated taxpayers and widows show an attitude of better compliance (Ross & McGee, 2012). The evasion behavior also changed with geographical location showing least opposition in Moscow and the authors observed that tax evasion was not taken very serious offence in Russia when compared to other acts.

The results revealed that the deceitful approach toward paying taxes is impacted by religion. In a study conducted by Abdixhiku, Besnik, Pugh, & Hashi (2017), they recorded that tax evasion as a serious issue in transition economies owing to socio-economic, institutional and cultural changes that harm the revenues collected. People and firms in such an environment tend to evade taxes whenever and wherever they find it easy or possible to evade taxes given to the loopholes in the system and structural lacunas. However, the South Asian region has to be studied yet in this particular context being the less or least documented economies in these countries.

Folayan and Adeniyi (2018) in their study 'Effects of Tax Evasion on Government Revenue Generation in Oyo State, Nigeria explored the effects of tax evasion on revenue generation by the Government in Oyo State. The findings presented that the amount of Internally Generated Revenue did not meet the estimates for revenue expected to be collected in 5 years under study. The results further concluded that tax evasion harms revenue collection resulting in revenue loss to the government. Similar situation also prevails in South Asian countries where less inclination towards paying taxes turns out to be a significant cause towards considerable budget deficit.

In view of the foregoing facts it is felt that there is gap in the tax evasion literature for strategic and policy requirements towards addressing the issue

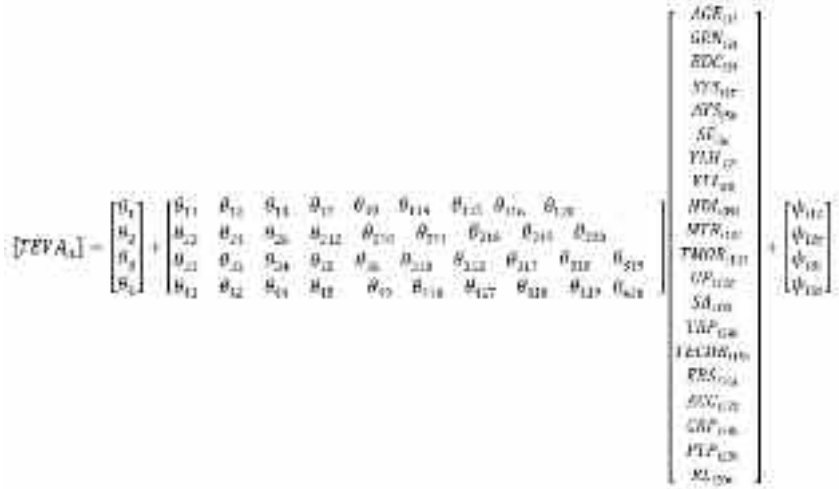
as vector of factors involving socio-economic, demographic, institutional and political factors across the economies of South Asia. Until the underlying factors are studied thoroughly, strategy and mechanism to control tax evasion are hard to take shape and tax evasion may continue to be widespread. In this context this study undertakes to explore the tax evasion problem with reference to its various as determinants of Tax Evasion.

METHODOLOGY AND DATA COLLECTION

This paper uses a panel data analysis approach through the OLS Regression method and Fixed Effect (FE) approach to examine the impacts of different factors on tax evasion for the four Asian countries for the period 1988 to 2017. The panel data allows heterogeneity across countries to be controlled. OLS helps to decide heterogeneity for unobserved factors. Hausman's test is applied to choose between the Fixed Effect approach and the Random Effect approach. The results endorse applying the Fixed Effect approach. The Fixed-Effects model treats the α and the μ as regression parameters. The data for the dependent and independent variables have been taken from World Economic Forum Annual Reports for the period 1988-2017 that is based on World Bank data, Global competitiveness Report, International Country Risk Guide, and World Governance Indicators (World Bank, 2017). The countries included in the study are as follows:

The Model and Hypotheses

The following model is developed to capture the impact of independent variables on tax evasion in the light of theory and earlier studies.



D = α+ E *F + μ

Where Tax Evasion, the dependent variable, is represented by matrix D, α

is the intercept's matrix, E is a matrix of coefficient, F matrix represents the independent variables and μ represents the matrix of stochastic error terms. In matrix C, AGE represents the percentage of older taxpayers in any country of the region whereas GEN describes the percentage of Females. EDC stands for Quality of education system. SYS, AYS, and SE reflect Services Income, Agriculture Income, and Self Employment. YLH stands for High Income Level whereas YLL means Low Income taxpayers. HDI symbolizes the Human Development Index of the countries in the region. MTR is the Top marginal tax rates and TMOR shows the Tax Morale of the people in any country. SA represents the Self-Assessment system of taxation and TRP stands for the Transparency of policy in any given country. TECHR means Technological Readiness and EBS stands for Ease of Doing Business in a given countries. ACC stands for Accountability and CRP means Corruption. PTP shows Public Trust in Politicians and RL Shows Rule of Law in any country of the region.

Based on the theoretical framework, the following hypotheses have been made for this study.

H_1: There is a significant negative association between older Taxpayers and tax evasion all other factors being the same.

H_2: There exists is a significant negative association between Female taxpayers and tax evasion all other factors being the same.

H_3: There exists a significant negative association between the Quality of Education System of taxpayers and tax evasion all other factors being the same.

H_4: There exists a significant positive association between the High-income level/Low-income level of the taxpayers and tax evasion all other factors being the same.

H_5: There exists a significant positive (negative) association between Income derived from Services (Agriculture), Self-Employment and tax evasion all other factors being the same.

H_6: There exists a significant positive relation between Top marginal tax rate and tax evasion all other factors being the same.

H_7: There exists a significant negative relation between HDI and tax evasion all other factors being the same.

H_8: There exists a significant negative relation between Tax Morale and tax evasion all other factors being the same.

H_9: There exists a significant positive relation between Self-assessment

system and tax evasion, all other factors being the same.

H_{10}: There exists a significant negative relation between Transparency and tax evasion, all other factors being equal.

H_{11}: There exists a significant negative relation between Technological readiness and tax evasion, all other factors being the same.

H_{12}: There exists a significant negative relation between Ease of doing business and tax evasion, all other factors being the same.

H_{13}: There exists a significant negative relation between Accountability and tax evasion, all other factors being the same.

H_{14}: There exists a significant negative relationship between public trust in politicians and tax evasion in a country, all other factors being the same.

H_{15}: There exists a significant positive relationship between corruption and tax evasion, all other factors being the same.

H_{16}: There exists a significant negative relation between rule of law and tax evasion, all other factors being the same.

Descriptive Statistics

The Descriptive statistics for the sample of South Asia are given below.

Table 1: Descriptive Statistics of Variables for South Asia

	Mean	Median	Maximum	Minimum	Std. Dev.	Observations
TEVA	4.110667	3.985	6.81	2.03	1.095415	120
AGE	4.949083	4.48	10.07	3.08	1.396899	120
GEN	49.07425	48.75	51.94	48.09	1.024153	120
EDC	3.452167	3.28	4.67	2.59	0.683414	120
SYS	34.3545	35.19	47.67	10.32	6.944568	120
AYS	40.9	42.035	69.51	23.77	12.50997	120
SE	35.2415	31.08	69.7	2.6	14.72295	120
YLH	44.40833	45	55.5	35	4.361281	120
HDI	0.543667	0.52	0.77	0.39	0.109644	120
MTR	21.23167	15	55.95	7.1	15.32655	120
TMOR	1.714667	1.63	3.03	0.9	0.603668	120
TRP	4.53625	4.875	5.96	2.59	0.857842	120
TECHR	2.691008	2.82	3.46	1.81	0.475543	119
EBS	5.5	5.27	8.79	2.52	1.474901	120
ACC	4.774167	4.96	5.28	3.66	0.470668	120
CRP	2.643814	2.7	4.38	1.81	0.584986	118
PTP	2.1705	2.14	4.19	1.45	0.540898	120
RL	0.419515	0.38	2	0.18	0.200814	103

Source: Author Estimation through EViews

The variable Age, ranges from 3.08 to 10.7 with average value of 4.48. Gen (Gender) variation range from 48.08 to 51.01 which notifies lesser variation in the percentage of male and female population in South Asian countries. Similarly, EDC (Education system quality) ranges from 2.59 to 4.67. SYS (Services Income Source) showing the same nature as AYS (Agriculture Income) reflects that the drastic variations from country to country as the range goes from 10.32 to 47.67 with an average of 35.19 for SYS and from 23.77 to 69.51 with average of 42.03 which means that the percentage of people attached to services and agriculture Income source in various countries of the sample are different, whereas SE (self-employment) shows huge variations with an average of 634.38 of concerned countries. MTR is showing greater variation among different countries. However, the variables HDI, TRP, TECHR, EBS, ACC, CRP, PTP and RL show moderate variations at individual levels and their averages are not leaving impact over the scenario. From the results presented in the table, it can be concluded that the variables AYS and SE have more fluctuation from the mean than others.

CORRELATION RESULTS

The first part of the results shows the correlation matrix and then results are exposed through OLS and Fixed Effect (FE) method to capture the impact of various independent variables on Tax Evasion.

Table 2: Correlation Matrix of Variables

	TEVA	ACC	AGE	GEN	EDC	SYS	AYS	SE	YLM	YLL	HDI	MTR	TMOR	TRP	TECHR	CRP	PTP	RL
TEVA	1																	
ACC	-0.008	1																
AGE	0.062	0.094	1															
GEN	0.0143	-0.14	0.832	1														
EDC	0.166	0.174	0.412	0.04	1													
SYS	0.0163	0.216	0.28	-0.1	-0.134	1												
AYS	0.0674	-0.62	-0.78	-0.85	-0.8	-0.65	1											
SE	0.0823	-0.56	-0.40	-0.05	-0.3	-0.58	0.067	1										
YLM	-0.125	0.171	0.06	-0.11	-0.044	0.11	-0.06	-0.21	1									
YLL	0.1275	0.262	-0.41	0.335	0.323	0.402	-0.5	-0.36	-0.09	1								
HDI	-0.0678	0.006	0.432	0.729	0.268	0.775	-0.56	-0.22	0.086	0.415	1							
MTR	0.0122	0.557	0.891	0.819	-0.187	0.332	-0.77	-0.48	0.037	0.333	0.892	1						
TMOR	-0.163	0.517	0.798	0.857	0.108	0.354	-0.51	-0.56	-0.77	0.251	0.347	0.616	1					
TRP	-0.067	0.56	0.462	0.534	0.583	0.438	-0.71	-0.02	0.131	0.555	0.347	0.363	0.406	1				
TECHR	-0.004	0.311	0.629	0.339	0.641	0.418	-0.77	-0.06	0.028	0.512	0.037	0.565	0.058	0.321	1			
CRP	0.286	0.176	0.24	0.50	0.553	0.308	-0.06	-0.36	0.034	0.225	0.2	-0.37	0.156	0.018	0.116	1		
PTP	-0.06	0.016	-0.13	-0.39	0.063	0.204	-0.23	-0.06	0.362	0.199	-0.53	-0.19	0.118	-0.06	0.029	0.755	1	
RL	0.003	0.044	0.77	-0.06	0.428	-0.34	-0.23	-0.1	-0.1	0.754	0.398	0.075	0.158	0.025	0.866	0.323	0.348	1

The correlation among independent variables TMOR, AYS, SE is showing high value (greater than 0.50). AGE, GEN, HDI also have high value (greater than 0.50). The variables GEN and MTR also show a high correlation value (greater than 0.50) with each other. Age is highly correlated with SE, PTP whereas the Gender variable is highly correlated with AGE, CRP and AYS,

HDI. The variables RL and YLH, YLL, TMOR have less than 0.50 correlations among them can be used together in a model.

Unit Root Analysis

The stationarity or otherwise of a data series can greatly affect its behavior in the regression model. The unit root test has been conducted for the variables with the results in the following tables.

Table 3: Unit Root Test

Variables	Levin, Lin & Chu t*	I'm, Pesaran and Shin W-stat	ADF - Fisher Chi-square	PP - Fisher Chi-square	Remarks
TEVA	-4.46779 (0.0000)	-8. 67220 (0.0000)	72.6979 (0.0000)	105.749 (0.0000)	Data Is Stationery at 1st Difference.
ACC	-6.92344 (0.0000)	-7.90647 (0.0000)	65.6036 (0.0000)	120.781 (0.0000)	Data Is Stationery at 1st Difference.
AGE	-5.17488 (0.0000)	-4.04337 (0.0000)	31.2406 (0.0000)	56.1515 (0.0000)	Data Is Stationery at 1st Difference.
GEN	6.92389 (0.0000)	-6.48148 (0.0000)	52.8420 (0.0000)	-	Data Is Stationery at 1st Difference.
EDC	-9.36090 (0.0000)	-9.21340 (0.0000)	77.4239 (0.0000)	103.775 (0.0000)	Data Is Stationery at 1st Difference.
SYS	-4.11376 (0.0000)	-7.83529 (0.0000)	60.4012 (0.0000)	809.855 (0.0000)	Data Is Stationery at 1st Difference.
AYS	-2.45157 (0.0071)	-3.96711 (0.0000)	31.0675 (0.0001)	67.4838 (0.0000)	Data Is Stationery at 1st Difference.
SE	-6.47950 (0.0000)	-5.22023 (0.0000)	42.2475 (0.0000)	80.6138 (0.0000)	Data Is Stationery at 1st Difference.
YLH	-6.31393 (0.0000)	-5.31180 (0.0000)	41.9769 (0.0000)	81.4658 (0.0000)	Data Is Stationery at 1st Difference.
YLL	-4.86257 (0.0000)	-4.68134 (0.0000)	-36.4614 (0.0000)	106.305 (0.0000)	Data Is Stationery at 1st Difference.
HDI	-72.0930 (0.0000)	-42.1513 (0.0000)	81.1272 (0.0000)	-	Data Is Stationery at 1st Difference.
MTR	-4.82602 (0.0000)	-6.25931 (0.0000)	50.6038 (0.0000)	75.2834 (0.0000)	Data Is Stationery at 1st Difference.
TMOR	-8.33922 (0.0000)	-9.42661 (0.0000)	79.0042 (0.0000)	86.1526 (0.0000)	Data Is Stationery at 1st Difference.
TRP	-2.85282 (0.0000)	-9.82796 (0.0000)	82.1246 (0.0000)	99.5731 (0.0000)	Data Is Stationery at 1st Difference.
TECHR	-7.50683 (0.0000)	-7.98611 (0.0000)	66.1325 (0.0000)	98.3728 (0.0000)	Data Is Stationery at 1st Difference.
CRP	-7.54043 (0.0000)	-6.80601 (0.0000)	55.9137 (0.0000)	66.1557 (0.0000)	Data Is Stationery at 1st Difference.
PTP	-6.94971 (0.0000)	-8.82020 (0.0000)	72.7143 (0.0000)	78.2511 (0.0000)	Data Is Stationery at 1st Difference.
RL	-7.24043 (0.0000)	-7.18600 (0.0000)	59.1874 (0.0000)	87.9633 (0.0000)	Data Is Stationery at 1st Difference.

Results for OLS and Fixed Effect (FE) method

Results for OLS and Fixed Effect (FE) method to examine the impact of various independent variables on Tax Evasion are given below.

Table 4: Results Based on OLS and FE Approach

Variables	OLS				FE			
	Model-1	Model-2	Model-3	Model-4	Model-1	Model-2	Model-3	Model-4
AGE	7.532310 (5.407905)*			2.096140 (0.693688)	11.67206 (5.686407)*			13.18754 (1.67033)***
GEN	-30.93253 (-7.29143)*	-32.30836 (-4.68762)*	-43.68860 (-4.63097)*	-37.38742 (-5.0686)*	-50.02903 (-5.49219)*	-2.413218 (-0.129235)	-38.91684 (-1.739722)	-1.753678 (-0.10006)
EDC	7.593421 (3.44787)*		8.228174 (3.39193)*		3.728884 (1.33182)		1.957057 (0.63722)	
SYS		-0.191083 (-0.57743)	-0.634222 (-2.01552)**	-0.686021 (-2.27827)**		-1.318679 (-0.58668)	-9.214913 (-3.31774)*	
AYS			-0.090045 (-0.232483)	-0.546657 (-5.50225)*			0.381686 (0.511811)	-1.063991 (-3.18298)*
SE		0.020455 (0.123855)	0.426194 (2.49489)*			-0.237443 (-0.99634)	42.24453 (3.30473)*	
YLH	1.670234 (8.17481)*				1.350994 (4.053100)*			
YLL	-0.011973 (-0.31404)	-0.006764 (-0.18164)			-0.019317 (-0.46018)	-0.013426 (-0.32531)		
HDI	-34.25350 (-1.006962)			0.552002 (6.51873)*	-64.98344 (-0.75514)			-0.768444 (-2.3381)**
MTR		0.566464 (2.69527)*	0.493757 (1.55680)			1.020941 (0.0214)	0.080466 (2.1139)**	
TMOR		1.301996 (0.413681)				3.383537 (0.60436)		
SA		33.97077 (3.06423)*				103.0524 (0.40575)		
TRP	-4.035558 (-2.16064)**				-7.705146 (-3.21177)*			
TECHR	-2.349223 (-1.74072)				1.969670 (1.07790)			
EBS	1.601992 (2.514298)*			1.994323 (2.87422)*	1.312714 (1.38466)			0.23790 (1.9432)**
ACC			-2.339379 (-0.72094)	-2.552002 (-6.51873)*			-14.21668 (-3.11031)*	-21.68982 (-1.9973)**
PTP		-2.516505 (-3.95477)*	-1.308824 (-0.60909)	-1.756604 (-2.29784)**		-0.992775 (-2.865473)*	-1.570533 (-0.508360)	-3.435592 (-0.878618)
CRP		5.472883 (1.96358)***	3.480881 (1.61198)	7.082902 (1.9069)***		0.559648 (0.05708)	3.155401 (1.234645)	2.221715 (0.24416)
RL	-24.50163 (-2.30132)*	-40.74899 (-2.41855)*		-39.74683 (-2.41288)*	24.34433 (1.74333)	-76.32698 (-3.34967)*		-78.98912 (-3.53459)*
Constant	1446.913 (7.006170)*	1675.438 (4.69589)*	-16532.16 (-1.6130)	1896.072 (4.899882)*	2425.375 (5.455280)*	345.9169 (0.370882)	-8387.192 (-1.330777)	232.1725 (1.864511)
R2	0.678550	0.801385	0.700222	0.797857	0.804308	0.893095	0.834685	0.897315
DW-Stat	0.919035	1.333929	0.888382	1.179379	1.052238	1.425911	1.018835	1.435210
OBS	150	90	149	88	150	90	149	88

*In parenthesis t-statistics values are given, *, ** and *** are statistically significant at 1, 5 and 10 % respectively, FE is a fixed effect approach.*

The Table 4 shows that the variable Age has very significant and positive association with tax evasion, both for OLS and FE which means that the behavioral pattern of older taxpayers reflects that they are more inclined towards tax evasion in South Asia. H_I is rejected at 1% and 10% significance level. GEN has a significant negative association showing

that H_2 is accepted at 1% significance level. Quality of Education System (EDC) shows a significant positive relationship with the dependent variable for OLS only at 1% significance level. Hence, H_3 is not proved and is rejected. Services' income source has a negative and significant association with the dependent variable. Agriculture source of income is also negatively associated with tax evasion and this association is significant for model 4 only in both OLS and FE. Based on these results H_4 is accepted at 1% significance level. Self-employment (SE) has shown mixed responses. YLH has a significant positive association with the dependent variable for both OLS and FE models and hence H_5 is proved at 1% significance level.

Marginal Tax Rate (MTR) shows positive association and therefore, H_6 is accepted. H_7 is also accepted as the results prove a negative association between HDI and tax evasion. It implies that in any country or region if people are made to believe that Government money is used for human development like education, health, food, they tend to evade less taxes. H_8 is rejected as the results show a positive association. Self-Assessment system (SA) has a significant positive association for OLS meaning thereby that when people given the liberty to assess their income themselves, they tend to be attracted to finding ways to avoid and evade taxes and thus the hypothesis H_9 is rejected at 1 % significance level. Transparency (TRP) is having a negative and significant relationship with tax evasion for this group of countries and therefore hypothesis H_{10} is accepted at 5% and 10% significance level.

TECHR is also having negatively significant results for OLS and hypothesis H_{11} is proved. Ease of doing business (EBS) is having positive and significant relation therefore H_{12} is rejected for South Asia where the results are significant at 1% and 5 % for both OLS and FE. Accountability has a negative and significant association with tax evasion variables in OLS model 4 and for FE. Based on empirical results hypothesis H_{13} is accepted at significance level 1%, and 10% for OLS and FE. A significant negative relationship is observed for the variable PTP (public trust in politicians and therefore H_{14} is accepted at 1% and 5 % significance level for OLs and FE. In this region, this variable seems to affect the tax evasion decisions of the taxpayers. Corruption variable has a significant positive association with the dependent variable for OLS models and hence H_{15} is accepted at 10% significance level for

OLS, however, for FE the results are not significant. Corruption has a positive impact on tax evasion phenomenon, and it seems that the corruption element in systems, individuals, or organizations leads people of this region more forced to avoid and evade taxes. Rule of law shows a strongly significant negative association with the dependent variable and as per the results, Hypothesis H_{16} is accepted for model2 and 3 of OLS and FE at a significance level of 1% and 10%.

CONCLUSION

This research reached the conclusion that economic and institutional factors are the strong determining factors of tax evasion in comparison with the demographic factors. The key determinants of tax evasion found for south Asian region are High-Income taxpayers, Marginal Tax Rates, Age of the taxpayer, Education system quality, Ease of doing Business, Self-Assessment Tax system, Corruption, Transparency of Policymaking, Accountability, and Rule of law with varying magnitude in this study of Asia. The variables for Gender, Services income, HDI, Public Trust in politicians, Technological readiness are showing weak impact. The regression results show that the high-income taxpayers are more inclined towards tax evasion for this region. Further, the behavioral pattern of older taxpayers reflects that they are more inclined towards tax evasion as compared to the younger taxpayers. For this region, if the countries have a strict system of accountability, people will be less prone to evade taxes. If the systems and society ensure better environment subject to Rule of law, the taxpayers are less motivated to evade taxes. The results show that by incorporating not only economic variables, but also institutional and demographic variables into this model of tax evasion, more compelling results are found. The findings of this study are significant to academicians and researchers and other stakeholders.

POLICY RECOMMENDATIONS

The results have policy guidelines and implications for governments and tax authorities for decreasing the level of tax evasion. We can recommend some policies while keeping in view the above discussion.

- To encourage older taxpayers, the governments should provide tax credits and more incentives to motivate them for tax paying and while making policies should give incentives both for male and female taxpayers.

- The self-employed taxpayer should be made subject to the withholding tax regime by making it mandatory for the parties making payments to deduct tax at the time of such payments and deposit it into the treasury.

- Tax systems should make the rates stationary after a certain level of increase so that much burden of taxes does not fall on the shoulders of the high-income taxpayers.

- There should be tax seminars and tax education regarding the self-assessment scheme to equip the taxpayers with adequate knowledge of tax laws and processes involved. Proper tax education and tax incentive schemes will motivate the masses to pay taxes voluntarily.

- Transparent tax policies and technically sound tax administration would ensure better compliance results. Environment where people have better trust in their political system and its institutional transparency would make individuals and firms more loyal and honest to the rules and regulations.

- The tax authorities must design automation in the procedures of collection of taxes, which guarantees efficiency and leakage-proof system. The tax authorities should develop comprehensive instructions manuals and put these on websites to facilitate taxpayers.

- This study provides that rule of law in any country affects strongly the compliance behavior. The rule of law entails a strict interpretation of the tax law to provide legal certainty. The basic principle shaping the tax law is that all taxes must be based on a law made by the legislature and they should not be caused by the administrative or judicial discretion of the authorities.

- The regional organizations like SAARC should improve collaboration to design workable strategies through research and technological intervention to improve tax bases, tax compliance, and tax conscience through cooperation and sharing of expertise.

LIMITATIONS

This study underwent certain limitations while obtaining the data as data was not available in an adequate way for all countries of the region

and only those countries were selected where data was available. Further, data for some years was missing, so panel data of 4 countries in South Asia was available for analysis purposes. In further studies, it is suggested to consider other regions like Africa or Eurasia as a subject of study for Tax evasion behaviors in the short term as well as the long-term impact of different factors.

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