



The Effects of Personal Income Tax Evasion on Socio-economic Development in Ghana: A Case Study of the Informal Sector

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Authors' contributions

This study was carried out in collaboration between all the authors. Author B. Ameyaw designed the study and wrote the first draft of the manuscript including the literature searches. Authors B. Ameyaw, B. Addai and EA managed the input of the data for the analysis. Authors B. Addai and IQ managed the analysis and interpretation of the data. All authors read and approved the final manuscript.

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ABSTRACT

Revenues generated from taxes constitute a major source of income for governments. However, the epic display of tax evasion by individuals and firms in most countries has induced researches on the factors accounting for tax evasion in developing countries. Therefore, this study is conducted to investigate the effect of personal income tax evasion on economic growth in Ghana. Questionnaires were submitted to 153 respondents to investigate personal income tax evasion and socio-economic development with 109 respondents and 44 tax authority respondents from the informal sector in the Tema Metropolitan Assembly of Ghana. Regression analysis employed in our study depicted the results of the impact of personal income tax evasion on socio-economic development. The results of the study revealed that tax evasion in Ghana has an adverse influence

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on Socio-Economic Development. Furthermore, a liaison between tax rate and tax evasion was established. In other words, high tax rates amounts to high tax evasion tendency. The study further revealed that tax payers' relationship with tax authorities has no linkage to the evasion of taxes. Moreover, the existence of weak penalties towards tax evasion also do not contribute to the evasion of taxes. The study conclude with recommendations to policy makers to aide in curbing the high incidence of tax evasion in Ghana.

Keywords: Tax evasion; tax authorities; tax rates; penalties; Ghana.

1. INTRODUCTION

Tax revenues for financing public services and infrastructure is a key factor for economic growth and development. In recent times, emerging economies fail to generate the required tax revenues to finance expenditures [1]. Tax evasion is a key challenge to the slow development of emerging economies [2]. Surprisingly, studies analyzing tax payers' ethical reasons and the impacts of tax evasion on the economy are lacking [3]. The ability of governments in developing countries to provide adequate resources will dwindle with incessant tax evasion among its citizenry. Governments in most developing countries impose high taxes on their citizens as well as resorting to borrowing from developed countries to fund public expenditure hence over-crowding the underground economy and experiencing huge public debts. The factoring of economic element into government goal of imposing high tax rate is mostly as a result of taxpayers' social, cultural and moral characteristics. Tax evasion and avoidance are exploited by individuals and corporate firms to curtail taxes as well as employing fake techniques with the support of tax officials [4].

Tax evasion and avoidance impacts the socio-economic development of most nations especially developing countries [2]. Governments mostly resort to taxes or other revenue making systems to fund public expenditures as well as improving the standard of living of its citizens. Therefore evasion and avoidance of tax negatively impacts governments' funding whiles improving the standard of living of few individuals who evade or avoid taxes. Corporations or institutions prefer to satisfy their shareholders by avoiding or evading taxes in order to declare more profit for the success of their businesses. In most developing countries, tax evasion and avoidance pose serious threat to developing countries as compared to the developed countries [2].

Evasion of taxes from the informal sector is a challenge in Tema Metropolitan Assembly which is used as a case study for this research and Ghana as a whole. Compared to the formal sector, taxes are applied on payroll before salaries are received but with the informal sector, individuals' needs to file their returns before taxes are being calculated. This increases the propensity to evade taxes under this sector because there may be a possibility that individuals from this sector may not file their appropriate returns for taxes to be calculated. In ensuring compliance to payment of taxes, reforms have been ensured on Ghana's tax systems for the past three (3) decades. A Fiscal adjustment programme was designed in 1983 to re-instate Ghana's tax base but the constant over-valuation of Ghana's local currency was a major challenge to the tax base re-instatement. The tax base re-instatement was expected to reduce tax evasion, widen tax net and reduce tax burden. In view of the slack fiscal adjustment programme, Value Added Tax (VAT) was introduced in 1995 to minimize changes with respect to the conducts of economic agents. The administrative reform of 1985 focused on the improvement of tax equity as well as enhancing efficiency in the administration of taxes. With respect to improving tax efficiency and enhancing tax payments, the Internal Revenue Service (IRS) and the Custom Exercise and Preventive Service (CEPS) was made autonomous and merged into the Ghana Revenue Authority (GRA) in 2009. In November 2011, the government of Ghana introduced the e-government project to electronically link the GRA directly to the Registrar General's Department (RGD) for easy tracking and collection of tax payments from registered businesses. In spite of the numerous tax reforms established in Ghana, tax evasion still poses a serious threat to the socio-economic development of the country [5]. Therefore, this study investigates some of the factors which serve as an incentive or motivation for tax evasion as well as the effect of tax evasion on the socio-economic development of Ghana.

1.1 Penalties and Tax Evasion

Currently, evasion of taxes is becoming common to citizens in most countries. The penalties for the underreporting of taxes are just a fraction of the tax owed [6]. Thus, in raising the monetary cost for taxes evaded, compliance to taxes can be improved [6]. Enforcement of subtle cost arises from increase in tax penalties but scholars' argument stems from the fact that the increment of penalties beyond their required limit is cost prohibitive because of high administrative cost and the potential "crowding out" of voluntary compliance [6].

In Ghana, the Revenue Agencies Governing Board (RAGB) is the central governing body for the revenue agencies comprising the Internal Revenue Service (IRS), the Customs, Excise and Preventive Service (CEPS), and the Value Added Tax Service (VATS). The RAGB is governed by the Revenue Agencies (Governing) Board Act, 1998 (Act 558). Several penalties are conferred upon individuals who fail to comply with some of the tax laws. Irrespective of the conferment of these penalties, individuals in the country continue to evade taxes because it is just a fraction of taxes owed. The paper therefore seeks to analyse whether or not weak penalties lead to tax evasion. This leads us to our first research objective which is to analyse the effects of weak penalties on tax evasion in Ghana.

1.2 Taxpayer- Tax Authority Relationship on Tax Evasion

Taxpayer- tax authority relationship can be modelled as an implicit or relational contract [7]. This relationship goes beyond transactional exchanges hence involving emotional ties and loyalties [8]. Social psychologists further express the relationship between taxpayers and tax authorities as a psychological contract [9]. Several factors determine the magnitude to which a psychological contract occurs between taxpayers and tax authorities. A salient factor is tradition. The origin of such a tradition may emanate from trust embedded in the citizens by the constitution. The emergence of such a psychological tax contract stems from the extended participation right of the constitution to its citizens [10]. Taxpayers may respond positively or negatively depending on the treatment meted out by tax authorities. Taxpayers' willingness to pay taxes may possibly be augmented when tax authorities handle these

taxpayers with respect. Taxpayers can actively tend to avoid taxes when they are treated merely as 'subjects' who have to be forced to pay taxes. Tax authorities choose ways of dealing with taxpayers thus tax payment is seen to be a 'quasi-voluntary' act [11].

In Ghana, the relationship between taxpayers and tax authorities is an issue than needs to be addressed. In the Ghanaian society, utmost respect is placed on family ties. The existence of such strong and emotional family ties may lead to a relationship between taxpayers and tax authorities thus causing the evasion taxes. The strong family bonds in the Ghanaian society leads us to our second objective which is to examine the bearing of taxpayer-tax authority relationship on tax evasion.

1.3 Tax Rates and Tax Evasion

Understanding the relationship between tax rates and tax evasion is an important issue. In the pioneering work of [12], there existed a positive relationship between tax rates and tax evasion but it depends on assumptions of risk aversion and the penalties for tax evasion. Generally, theoretical predictions on effects between taxpayers and tax evasion are sensitive to modelling assumptions and there exists the need to access the magnitude of this effect [13]. Empirical studies which consider the relationship between tax rates and tax evasion have obtained mixed results ranging from no effects [14] to a significant positive effect [15]. Inversely, tax evasion may lead to the imposition of more taxes on citizens to fund public projects and expenditures.

The Ghanaian society is no exception to the relationship between tax rates and tax evasion. High taxes are mostly imposed in order to raise the required capital to boost the socio-economic development of the country. Such imposition of taxes may have a negative effect on the poor thus encouraging these poor citizens to evade taxes. Moreover, many citizens in the informal sector engage in the underground economy. The activities of the underground economy may lessen government revenue which in turn calls for the imposition of more or high taxes by the government. High tax rates or tax cuts may increase the tendency of payment or non-payment of taxes by citizens. This leads to our third objective which is to determine the impact of tax rates on tax evasion.

2. RESEARCH OBJECTIVES

The broad objective of this paper is to analyse and pinpoint the effect of tax evasion on the socio-economic development of Ghana. Specifically, the study seeks to satisfy the following objectives:

1. To analyse the effect of weak penalties on tax evasion in Ghana.
2. To examine the bearing of taxpayer- tax authority relationship on tax evasion.
3. To determine the effect of tax rates on tax evasion.

3. HYPOTHESES

1. H1: There is significant relationship between tax evasion and weak penalties in Ghana.
2. H2: There is bearing between taxpayer- tax authority relationship and tax evasion.
3. H3: There is significant relationship between tax evasion and tax rates.

4. LITERATURE REVIEW

4.1 Taxation

The socio-economic development hinges on the generation of revenue for infrastructural development. The generation of revenue for providing these infrastructural development is through an efficient tax system adopted by countries. Efficient tax systems hand government extra revenue needed in discharging its obligations for the development of the country. Taxes are one of the most effective means of mobilization of the internal resources of a nation which in turn leads to the creation of a conducive environment for the promotion of economic growth. Tax constitutes the main source of revenue for the federation account shared by the local governments and federal states [16]. Achievement of macroeconomic objectives such as high and sustainable economic growth, employment, stability of prices etc. have been every economy's priority. The achievement of these macroeconomic variables is not automatic but entails policy guidance. Fiscal policies (taxation and public expenditure) and monetary policies (reserve requirements, discount rates and open market operations) are the key instruments in achieving these objectives [17]. Taxes are levied to finance government expenditure. The government helps to finance certain infrastructural needs such as roads necessary for trade by defining and regulating

the issuance of money from taxes. Tax policies are implemented either to: (i) finance a budget deficit, (ii) promote long run growth or (iii) counter other influences in the economy [18].

Taxes have an impact on factor accumulation while total factor productivity can affect the growth of a country. Taxes distort factor prices and induce loss of efficiency in resource allocation [19]. High tax rates can discourage investments and reduce incentives to invest [20]. However, providing tax incentives for some sectors of the economy can distort allocation of capital as well as reducing the productivity of overall investment. During the post-war period in the United States, information was gathered on legislative tax changes from narrative sources (presidential speeches) on changes in real Gross Domestic Product (GDP) from the year 1947-2007. The results depicted a 2.5% to 3% effect of tax changes on output. In addition, output effects was closely linked to changes in actual taxes than news on future changes on actual taxes [18]. A long run relationship between tax structures and economic growth within the Organization of Economic Co-operation and Development (OECD) was analyzed by using an error correction model with annual panel data of 51 countries. Long run economic growth could be enhanced by steadily raising taxes on consumption and immovable property while improving the design of individual taxes [21]. An estimation of corporate taxes, taking into consideration wage bargaining and reduction in investment in the German economy revealed that a 1 euro increment in the liability of corporate tax yields a 44 to 77 cent decrease in wage bill [22]. Taxation yields substantial revenues to government. It has a bearing on GDP which serves as an indicator to the socio-economic development of a nation. Taxes vary according to the economic policies adopted by governments. Taxes are instruments of social engineering to stimulate economic growth [23].

4.1.1 Legal framework of personal income tax in Ghana

As a result of rebasing of the economy by the statistical service in 2011, Ghana achieved a lower middle income status [24]. Ghana faces challenges with regards to tax revenue mobilization. Out of the 6 million estimated taxable population, only 1.5 million pay direct taxes [25]. This depicts a compliance rate of 25%. For about 15 years now, personal income tax has been the lowest share to total tax revenues [26]. In 1994, Ghanaians zealously

acted against the introduction of Valued Added Tax (VAT). Fierce demonstration and protest against the introduction of the tax occurred and the famous one was the *Kumipreko* demonstration [27]. Under the Internal Revenue Act, 2000 which is an Act to amend and consolidate the law relating to Income Tax, Capital Gains, Gift Tax and to provide for related matters, the following laws relate to income taxes considering only Part 1 section 1 and section 2 of this Act:

- (1) A person who has a chargeable income shall pay, Subject to this Act, for each year of assessment income tax as calculated in accordance with this Act.
- (2) The income tax payable under subsection (1) for a year of assessment shall be calculated by applying the rates of tax under the relevant Part of the First Schedule to the chargeable income of that person for the year and from the resulting amount there shall be the subtraction of any tax credits allowed to that person for the year [28]. With regards to this Act, citizens in the informal sector of Ghana still manage to evade the payment of personal income taxes needed to aid in the socio-economic development of the country. In Ghana, many factories in the Greater Accra Region are situated in the Tema Metropolitan Assembly which has been selected for this study. Moreover, many traders and self-employed businessmen and women are migrating to this district because of its industrial nature coupled with the booming market in this District. An investigation into the reasons for the evasion of taxes in the Tema Metropolitan Assembly is therefore necessary to boost the economic growth of the nation.

4.2 Tax Evasion

Tax evasion is a major concern across nations. In public economics, tax evasion is a fundamental issue. Tax reductions affect tax payers' public complaints and citizens' income for public services rendered [29]. Furthermore, evasion of taxes leads to misallocation of resources and affects the accuracy of macroeconomic statistics [30]. Non-compliance to taxes alters the distribution of income in an arbitrary and unpredictable way [30]. High proportion of tax evasion connotes government inability to provide adequate services to citizens [1]. Therefore, an increment in tax revenues is a

common objective to governments. However, taking into consideration economical elements, the chances of raising tax revenues might not be successful on the basis of social and cultural characteristics of societies as well as moral issues [31]. Tax evasion is a challenge in most countries and it arises from sources such as lack of faith in the abilities of government, tax laws etc. Studies conducted by researches projected losses of tax revenues through the evasion of taxes [32]. Loss of revenues due to tax evasion in the United States is estimated to be approximately \$21 billion in the next five years [33]. In addition, another research conducted in the United Kingdom estimated a loss of \$21 billion a year [33]. Also, an estimate made in Greece shows a \$30 billion per year loss of tax revenues [34]. However, these estimations are tax save estimations of tax evaders. The burden of taxes on individuals is viewed empirically or theoretically as a determinant of tax evasion. In Italy, officials' latest estimates from the underground economy generated a value added figure of €200 billion [35]. Worldwide revenue loss from tax evasion for all countries was estimated by the Tax Justice Network to be \$225 billion by basically using a 7.5% return and a 30% tax rate [36]. An estimation of the overall tax revenue lost due to tax evasion in developing countries is equal to \$285 billion per year [37]. In 2001, the United States personal income tax gap amounted to \$345 billion– which is above 15% of the estimated actual (paid plus unpaid) tax liability [38].

The evasion of taxes generally affects the socio-economic development of every nation. Tax evasion increases entrepreneur's accumulated resources but lessens public services provided by governments thus leading to negative consequences of economic growth [1]. Evasion of taxes have an impact on capital accumulation thus affecting economic growth and output in diverse ways. High evasion of taxes infers more capital accumulation and may lead to economic growth. Again, high tax evasion leads to lower tax revenues and less provision of public services from government thus low economic growth rate. Over the period of 1999 to 2007, the relative size of the underground economy involving goods and services which are paid for in cash, and therefore not declared for tax in 162 countries, decreased whereas the unweight average of GDP per capita of the same countries within the same time frame also increased [39]. Countries displaying high rates of tax evasion may experience weak direct democratic rights or

low quality institutions [40] and a further argument deployed on this subject matter describes these countries as typically developing countries with low per capita income [41].

State budgets all over the world have experienced drastic reduction because of tax evasion practices by economic agents. In November 2011, report released by Tax Justice Network, Murphy Richard, tax experts and advisors on tax matters reported a worldwide value of taxes evaded to be in excess of US\$3.1 trillion which is approximately 5.1% of Global GDP. The report exposed the ratio of undeclared dollars at global level as 1:6 whereas the ratio of undeclared dollars at European Level was 1:5 [42]. A synopsis from the report showed tax evasion losses across the world in Table 1 and the top ten countries suffering most from tax evasion is shown in Table 2.

Table 1 shows the evasion of taxes across continents. With respect to Table 1, Asia is the continent with the highest GDP of \$19,338,826 billion while Oceania recorded the lowest GDP of \$1,064,690 billion. However, South America recorded the highest percentage of tax evasion to GDP of 10.36% whereas North America recorded the lowest percentage of tax evasion to GDP of 2.61%.

Top ten countries severely affected by Tax evasion is depicted in Table 2. The United States was the top most country to have recorded the highest amount of tax evasion but because of its large GDP, it is the least of the ten countries to be affected by tax evasion (2.31%) while Russia is the top country to be affected by tax evasion with a percentage of 14.76%.

4.2.1 Tax evasion in Ghana

Developing countries mobilize less taxes than the developed countries as a share of total taxation and as a share of GDP [43]. In developing countries, personal income tax revenues are about 8-10% of GDP. Personal income tax revenues are less than 1-2% of GDP in developing countries [43]. In Ghana, one of the many problems facing tax administration is income tax evasion [44]. Tax evasion accounts for so many factors in Ghana. These factors are glaring and accentuated in the informal sector. Some of these factors include lack of voluntarily compliance, illiteracy, cash transactions, low standard of record keeping and inaccessibility to tax offices etc. [45]. Such factors increase the propensity of the evasion of taxes from the informal sector.

Table 1. Tax evasion across continents

Continent	GDP (Billion \$)	Average shadow economy (%)	Tax evasion (billion \$)	Percentages of tax evasion to GDP
Europe	18,974,416	20.50	1,511,714	7.96%
Africa	1,383,070	34.80	79,235	5.73%
Asia	19,338,826	17.70	665,930	3.44%
North America	17,376,075	10.80	452,828	2.61%
South America	3,632,841	36.80	376,298	10.36%
Oceania	1,064,690	14.10	46,435	4.36%

Adapted from [42]

Table 2. The top ten economies severely affected by tax evasion

Country	GDP (Billion \$)	Average shadow economy (%)	Tax evasion (billion \$)	Percentage of tax evasion to GDP
USA	14,582,400	8.60	337,349	2.31%
Brazil	2,087,890	39.00	280,111	13.42%
Italy	2,051,412	27.00	238,723	11.63%
Russia	1,497,819	43.80	221,023	14.76%
Germany	3,309,669	16.00	214,996	6.50%
France	2,560,002	15.00	171,264	6.69%
Japan	5,497,810	11.00	171,147	3.11%
China	5,878,629	12.70	134,385	2.29%
UK	2,246,079	12.50	109,216	4.90%
Spain	1,407,405	22.50	107,350	7.63%

Adapted from [42]

The Tema Metropolitan Assembly is no other exception to these factors. Ideally, people from the informal sector of this district are petty traders and self-employed. Most people from this district are reluctant to pay taxes due to trust issues with the IRS. For example, the Ghana News Agency reported in 2006 that 10% of tax revenue by the IRS was embezzled into private accounts. As at July 2006, a total sum of 98 billion cedis (Old currency) representing tax revenues was claimed to be remitted to the Bank of Ghana (BoG) by IRS accountants but couldn't be traced to any BoG accounts. Aside the trust issues, a conversation between people from the informal sector in this district depicted that the major reasons for the evasion of taxes stems from tax rates, penalties and tax authority bearing. An investigation into these three factors is therefore important in this research paper.

4.2.2 Population of tax evaders

In Africa where religious and cultural sentiments are most dominant, the tendency of tax evasion may be rampant. Hostility to taxation and the propensity to evade taxes depends on cultural background of individuals and economic incentives [31]. The success or failure of tax systems depends on tax enforcement and compliance. Taxes are evaded by individuals and corporate entities. In an attempt to evade taxes, individuals engage in numerous tax evasion and avoidance activities such as diversion of income; failure to register business; under reporting of incomes etc. [46]. In addition, abuse of debt financing and the engagement in tax fraud is another causative source of tax evasion in Africa [46]. Tax evasion by corporate entities includes: failure to report fully the actual income earned; keeping two sets of accounts whereby one of the accounts shows very low profit; use of false names and false documents; an attempt to reduce tax liabilities by splitting taxes among close associates together with the inclusion of overseas entity in a domestic transactions [47].

4.3 Tax Avoidance

Tax avoidance is currently an integral practice of modern businesses. Some institutions, businesses etc. express pride in tax avoidance irrespective of public criticism arrayed on the avoidance of taxes. Surprisingly, in maximizing shareholder value, shareholders may even require their companies to engage in such activities. Tax avoidance can probably harm businesses and shareholders by damaging

reputation of businesses and impeding its brand efforts. Tax avoidance lessens funds for national infrastructure and skews the burden of taxes towards few categories of persons thus affecting the development of nations [48]. Tax avoidance accomplishes one of these scenarios: "payment of less taxes required by the law," payment of taxes by corporations on "fictitious profits earned," or the "later payment of taxes on profit earned" [48]. Reliance of individuals on the doubts surrounding the applicability of tax laws helps in the engagement of tax avoidance. This also assists tax professionals in exploiting this improbability based on the uncertainty guarding tax laws. The movement of "Double Irish" and "Dutch Sandwich" by Google and Apple to Bermuda (a country without Corporate Income Tax) is an example of tax avoidance through the exploitation of tax loopholes [49]. Google's effective tax rate was reduced to 22.2% and its tax rate on income overseas to 2.4% thereby enabling Google to lower its bill on taxes to \$3.1 billion over the period of 2007-2009 [49]. Google stock price was estimated to be within the region of \$100 lower per share if they had paid the 35% U.S. statutory rate [49]. Again in 2011, Apple reduced its U.S. federal tax bill by an estimated figure of \$2.4 billion, resulting in worldwide payment of tax amounting to 9.8% of profit [50]. The payment of more taxes would have put Apple to a competitive disadvantage and it would have done disservice to shareholders [50]. Report in the New York Times indicated the payment of 20% or less tax rate by 115 firms in S&P 500 over the last five years conflicted with the federal statutory rate of 35% as opposed to that of the United States [51]. However, other researches have proven tax avoidance to be incentivized and ongoing. Top executives influence their firms' avoidance of taxes [52]. Equity risk incentives motivate tax avoidance [53]. Deferment of tax payments over long period of time also encourages tax avoidance [54].

Human capital cannot be overlooked in the linkage of tax avoidance to socio-economic development. Tax avoidance reduces government revenue and expenditure. Tax avoidance can affect an economy where there is a reliance of human capital on public expenditure [55]. In spite of this, tax avoidance increases or diminishes the growth of an economy depending on tax avoidance systems put in place as well as the worth of legal tax rate. Tax avoidance requires a certain level of educational background. The involvement of tax payers in intensive tax planning requires higher

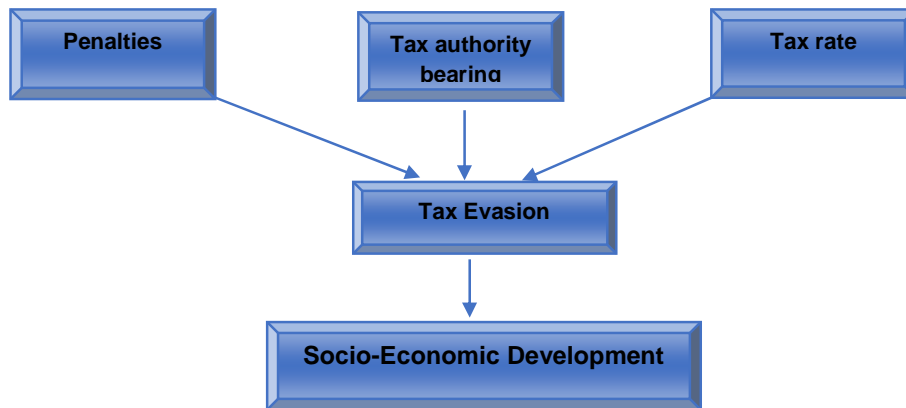


Fig. 1. Conceptual framework
Source: Authors' construct

educational personnel than the educational background of tax payers from the general public [56]. An estimated figure of \$4 billion in tax revenue was missing due to extensive involvement in mass marketed tax schemes in the 1990s by 42000 Australians [57].

The conceptual framework of this study is illustrated in above Fig. 1. The conceptual framework considers penalties, tax authority bearing and tax rate as factors leading to the evasion of taxes. This study seeks to analyze whether or not these factors lead to the evasion of taxes. Additionally, the study seeks to investigate the effects of tax evasion on the socio-economic development of a country.

5. METHODOLOGY

A survey was conducted in order to depict the effects of tax evasion on socio-economic development. A total of 200 questionnaires with 25 questions in each questionnaire was administered to respondents comprising 50 tax officials and 150 taxpayers in the informal sector of the Tema Metropolitan District of the Greater Accra Region comprising self-employed business men and petty traders. Self-administration method was employed by the researchers in the distribution of questionnaires to respondents. Explanations were given to respondents whenever they had difficulties in answering some questions. Regression analysis as well as descriptive study was used for the analysis of the data obtained from the survey. A 5 point Likert-scale was employed with scales ranging from “Strongly Disagree” denoted by 1 to “Strongly Agree” represented by 5 with neutral scores amid the two extremes. Sample size of 44 tax officials

and 109 taxpayers was obtained from the respondents by using the Yemane sample size determination technique to ensure the generation of accurate sample size.

Yemane Formula

$$n = N / [1 + N (e)^2]$$

Where n= Appropriate sample size
 N= Number of questionnaires submitted
 e= Margin of error

Tax officials = $50 / [1 + 50 (0.05)^2] = 50 / 1.125$
 = 44
 Taxpayers = $150 / [1 + 150 (0.05)^2]$
 = $150 / 1.375$
 = 109.

6. STATISTICAL FINDINGS AND DISCUSSION

6.1 Statistical Findings

The following interpretations and discussions were based on the analysis and findings of the study.

The descriptive analysis shows a representation of how respondents answered questionnaires based on the objectives of the research. The graphical representation of this descriptive analysis is moderately skewed to the right. The descriptive analysis further depicts that most respondents strongly agree and agree with our objectives because both recorded higher percentages. Under penalties, 39% agree that the existence of weak penalties helps in tax evasion. Also with reference to authority bearing,

44% agree that the bearing between taxpayers and tax authority also helps in the evasion of taxes. Lastly, 38% agree that there is a relationship between tax rates and tax evasion. Surprisingly, 3% of respondents strongly disagree that penalties, authority bearing and tax rates aid in the evasion of taxes.

Table 3 shows R-square value of 0.774 indicating that the predictors (penalties, tax authority bearing) depict a 77.4% of variability on socio-economic development. The R value of 0.880 indicates a strong positive correlation between penalties, tax authority bearing, tax rate and socio-economic development. This implies that the predictors of tax evasion have a strong relationship with socio-economic development.

Table 4 shows an ANOVA Table of regression model. At $\alpha = .05$, $P < .000$ indicate statistically significant predictors for the dependent variable. Additionally, $P = .05$ suggests a good fit data for the regression model. As a result, there is enough evidence against the null hypothesis (There is no significant relationship between the predictors and socio-economic development).

6.1.1 Determining the regression equation

It is obvious from Table 5 that only tax rate (high tax rate collapses most business) is significant at $\alpha = .05$. The other predictors have P values above $\alpha = .05$ which depicts penalties and tax authority bearing as insignificant. Penalties and tax authority bearing have P values of

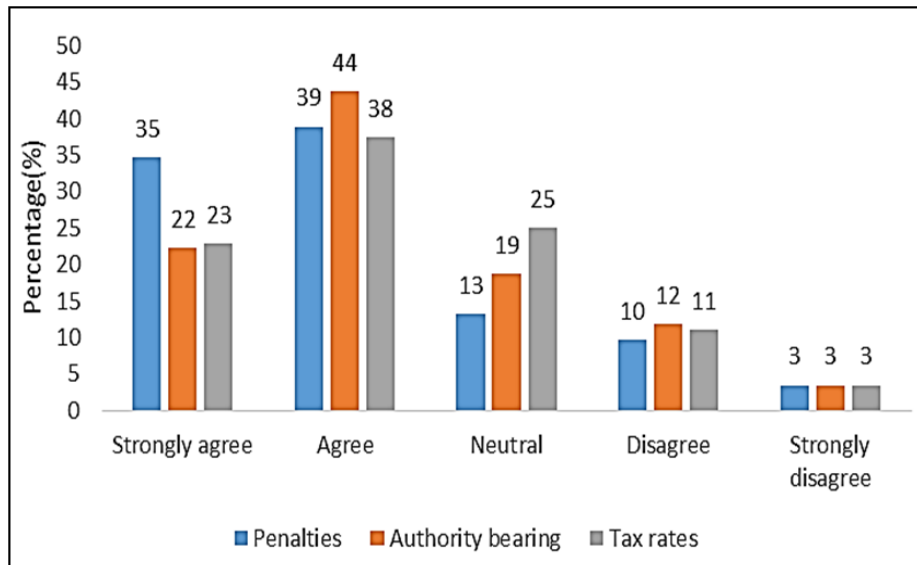


Fig. 2. Bar chart depicting respondents' responses based on the 3 objectives
 Source: Field survey (April, 2015)

Table 3. Model summary

Model 1	R	R square	Adjusted R square	Std. error of the estimate
1	0.880 ^a	.774	.769	.52840

a. Predictors: Penalties, Tax authority bearing, Tax rate

Table 4. ANOVA^a

Model		Sum of squares	Df	Mean square	F	Sig
1	Regression	133.848	1	44.616	159.794	.000 ^b
	Residual	39.089	142	0.279		
	Total	172.937	143			

a. Dependent Variable: Socio-economic development
 b. Predictors: (Penalties, tax authority bearing and tax rate)

Table 5. Coefficients^a

Model	Unstandardized coefficients		Standardized coefficients beta	t	Sig.
	B	Std. error			
(Constant)	.161	.114		1.414	.159
Penalties	.032	.067	.031	.472	.638
Authority bearing	.064	.082	.061	.778	.438
High tax rate	.884	.062	.813	13.505	.000

a. Dependent Variable: Socio-economic development
Significant at 0.05 level

.638 and .438 respectively which is greater than $\alpha = .05$ which depicts the irrelevance of these two predictor variables. Although the coefficient table has beta coefficients for all the predictor variables, it is important to disregard the beta coefficients of penalties and tax authority bearing. The coefficient table has the first column containing the beta coefficients $\beta_0 = .161$ and $\beta_3 = .884$. The regression model shows a simple linear equation of:

$$Y = 0.161 + 0.884X_1$$

Accordingly, a unit change in socio-economic development depicts a corresponding improvement in tax rate by 0.884 holding all other variables constant. From the regression model, evidence of a positive correlation between socio-economic development and tax evasion (predictor variable: high tax rate) exists.

6.2 Discussion

Evading of taxes by the informal sector is very imperative in promoting the socio-economic development in Ghana. The GRA has a role to play in reducing and curbing the rate at which taxes are evaded. Therefore, appropriate systems should be put in place by the GRA to solve or minimize the rate of tax evasion by the informal sector.

In Ghana, taxpayers pay a fraction of taxes as penalties for the evasion of taxes. The Tax system is a key challenge for evasion of taxes. The inaccuracy of our tax systems increase the rates at which taxes are evaded. Most people from the informal sector do not file the actual returns of their businesses whereas others do not file their returns at all. Such non-filing and part-filing of returns automatically leads to tax evasion. People from the informal sector are more sensitive to penalties. The existence of such penalties deters individuals in the informal sector from filing the true returns of their business in order to escape penalties. Weak

penalties do not contribute to the evasion of taxes because the word 'penalties' keeps people in the informal sector away from evasion of taxes.

Strong bonds and ties associated with family and friends cannot be overlooked. Some people engaged in the informal sector may have relatives or friends as tax officials. Such strong family ties may exist between taxpayers and tax authorities. Despite such strong ties, tax officials are always extra careful in handling taxes paid by family and friends. This is because any miscalculation of taxes or enlightenment of tax loopholes by tax officials to taxpayers may lead to expulsion from their respective jobs. Mostly, payment of taxes by a friend or family member of tax officials is handled by a different tax official regarded as a stranger to such a taxpayer. The bearing between taxpayer and tax authority do not contribute in the evasion of taxes.

However, the existence of tax rates is very essential to the evasion of taxes. Fluctuations in tax rates contributes to the evasion of taxes. The findings of this paper indicates that an increase in tax rates results in a corresponding increase in taxpayers' propensity to evade taxes. Similar arguments were made by other researchers in support of our finding [58-61]. Citizens from the informal sector are mostly petty traders or self-employed businessmen and women working to feed their families. Profit maximization is essential to people from this sector. Policies made by government in minimizing profits or the increment in tax rates results in the evasion of taxes by the informal sector. High tax rates especially contribute to the evasion of taxes because the payment of more taxes cause a reduction in the net incomes of citizens from the informal sector as well as the formal sector.

7. CONCLUSION AND RECOMMENDATIONS

Taxpayers will be willing to pay their taxes in an ideal world. However, in a real world situation, no

one enjoys paying taxes hence the existence of tax evasion and avoidance in the world of which Ghana is no exception. The study was conducted to depict whether or not personal income tax evasion has a significant effect on socio-economic development in Ghana. However, out of the 3 objectives, only one objective was proven to be significant whereas the two other objectives proved futile. From the hypotheses, only one predictor variable satisfies the regression model: $Y=0.161+ 0.884X_1$. According to the study, the only contributing factor to evasion of taxes is high tax rates. Enough evidence is found against both H1 and H2. However, we fail to reject H3.

The research portrayed high tax rates as the only predictor variable leading to the evasion of taxes which in turn has a negative significant impact on socio-economic development. It is very imperative of governments, policy makers and institutions in Ghana and the world at large to come out with pragmatic measures to help increase revenue mobilization in order to possess adequate resources to improve the standard of living of the citizens. Therefore, the following recommendations are made in order to minimize tax evasion to an appreciable level if not for its total eradication:

1. The study revealed that a strong correlation exists between personal income tax evasion and tax rate. Government of Ghana should use media platforms to enlighten citizens on the effects of evasion of taxes on socio-economic development. Furthermore, tax rates should be reduced to enhance and boost revenue generation which will increase the tax net to capture many individuals and small businesses. Also, the insignificance of penalties and tax authority bearing should also be tackled. Appropriate checks on these two (2) factors will reduce if not eradicate the problem.
2. Appropriate review and evaluation processes should be integrated into the entire tax system to encourage taxpayers' compliance to taxes. Inflationary measures should also be wrestled aggressively since vast Ghanaian citizens are poor. Moreover, tax forms should be properly explained to taxpayers to reduce its complexity to less educated citizens.
3. Changes in tax legislations should also be communicated to citizens on time via any

available media platforms. Qualified personnel should be recruited and trained to enhance the efficiency and effectiveness of tax operations. Also, tax authorities should engage in practices that are capable of attracting public confidence in eradicating the evasion of taxes.

4. Staff should be motivated to increase their morale in ensuring the insulation of fraud and corruption from tax operations. For example, good salary package should be designed for tax officials to discontinue corrupt practices. In so doing, evasion of taxes will be minimal to ensure the socio-economic development of Ghana.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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