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Tax Compliance among Ghanaian SMEs: How impactful is Taxpayer Education?

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Abstract

Taxes are major sources of government revenue required to finance state machinery. However, the Ghanaian economy, recognised as an emerging market, is predominantly characterised by the informal sector and largely dominated by small and medium scale enterprises (SMEs), is not properly regulated resulting in poor and delayed tax compliance culture. This phenomenon adversely affects the needed revenue for developmental projects. Consequently, a need arose to educate taxpayers about their civic obligations of paying taxes. This paper, thus, aimed at testing the effect of tax education on tax compliance among SMEs within the Techiman Municipality of Ghana. This paper used an online survey to collect valid responses from 297 respondents using purposive and simple random sampling techniques. Partial Least Square – Structural Equation Model (PLS-SEM) approach was adopted in assessing the measurement and structural models. This study reports that electronic media taxpayer education positively ($\beta = 0.523$, t-value = 4.466, P-value = 0.000) affects tax compliance; print media taxpayer education significantly ($\beta = 0.230$, t-value = 2.232, P-value = 0.026) influence tax compliance; and stakeholder sensitisation programmes significantly ($\beta = 0.236$, t-value = 1.991, P-value = 0.047) impact on tax compliance. The researchers thus recommend that tax authorities within the Techiman Municipality should intensify taxpayer education amongst SMEs as they tend improving tax compliance to shore up government revenue. This study will provide government feedback concerning policies that should be carried out and the requisite education or training that needs to be embarked on to enhance voluntary tax compliance among SMEs in Ghana.

Keywords: Taxpayer Education, Tax Compliance, SMEs, Ghana

Introduction

Taxation, the world over is a major contributor to government revenue (Lymer & Oats, 2009). Accordingly, low tax compliance by taxpayers affects the ability of the government to raise the needed revenue for development (Castro & Scartascini, 2015). Higher tax revenue will enable the government to undertake more developmental projects to help raise the living standards of the citizenry. However, whereas tax is an income to the government, it is a cost to the taxpayer. Thus, the taxpayer desires to minimise cost and maximise revenue, while the government desire to maximise revenue through enhanced tax compliance (De Simone et al., 2013). To reach a common ground between the taxman and the taxpayer, the taxman needs to institute measures that will simplify tax compliance for the taxpayer. Lymer and Oats (2009) posit that one such approach is the adoption of enhanced taxpayer education.

Tax evasion, seen as the failure of the taxpayer to comply with the obligations of tax, has adverse repercussions on economies. Undeniably, it poses serious challenges to tax officials every economy, albeit, developed, emerging or developing. Tax evasion tends to impact adversely on government ability to undertake the needed developments to enhance the living standards of the people. Taxpayers, over the years have the likelihood to evade taxes. This phenomenon has attracted the attention of governments, tax officials and scholars. The negative effect of tax evasion on government revenue has dire consequences for the economy. It plummets mobilised revenue required by governments to invest in important facets of society including health, education and infrastructure development (Robbins & Kiser, 2020). The most developed economies the world over are not spared this canker. Therefore, the identification of the predictors of tax evasion and compliance attitudes by taxpayers is crucial to facilitate the collection process of tax.

Knowledge about the tax system, is one of the profound factors that enhances the level of tax compliance (Nakiwala, 2010). Accordingly, many scholars (see for example Maseko, 2014; Mengere, 2014) have researched into the relationship between taxpayer education and tax compliance. Taxpayer education is defined as the approach of educating both taxpayers and potential taxpayers about the tax system as a whole and the essence of tax payment. Taxpayers are enlightened on paying their taxes to the state as a result of this approach. Hence encouraging taxpayers to fulfil their tax payment obligations willingly is the main significance of taxpayer education. The essence of taxpayer education includes imparting knowledge with regards to the tax laws and compliance, influencing the attitude of the taxpayer towards taxes generally, and maximising tax revenues vide voluntary compliance (Misra, 2004). Tax compliance on the other hand is a conscious act of obeying and complying with the tax laws. therefore, tax compliance is seen as honouring tax payments obligations fully. As a result, non-compliance of taxes takes place when taxpayers fail to honour their tax payments obligations fully. The measure of tax compliance adopted by many authorities including the PricewaterhouseCoopers is the ratio of the submission of income tax returns. Many scholars (see for example Adusei, 2018; Ali, 2017; Swenson, 2016) have concluded that taxpayer education has a profound impact on tax compliance.

In the light of the foregoing explanations, there are a phenomenon gap and research gap which motivate the researchers to explore further in this study. The phenomenon gap relates to the fact that Ghana is an emerging market with economic prospects. Coupled with good and growing economic opportunities, Ghana is the target of investment by many potential investors; both locally and globally. The increased investment will correspond with increased tax revenue for the government. These potential investors would have to honour their tax payment obligations, including

keeping proper books of accounts, reporting all income and expenses fully and accurately, filing tax returns when due, and paying all taxes at the due dates. All these obligations require the compliance of the taxpayer to soar government revenue from taxes. Concerning the research gap, earlier studies have examined the impact of tax education on tax compliance in Ghana. However, they were influenced by demographic patterns, methodological inconsistencies, and partly based on smaller sample size. For instance, Pepra, Abdulai and Agyeman-Dua (2020) focused on income tax administration compliance among Small and Medium Scale Enterprises (SMEs) within the Nkwanta South District. Similarly, Mbilla, Abiire, Atindaana and Ayimpoya (2020), looked at tax education and tax compliance in the northern enclave of Ghana. Musah (2019) addressed the determinants of tax compliance among SMEs in the Greater Accra Region of Ghana. Earlier, scholars such as Ayee (2007), had addressed tax compliance through creating and increasing reciprocity with the government. The research outcomes of these studies are fragmented and varied. With their attendant conclusions and recommendations challenges that might have been influenced by demographic patterns and deficiencies in methodologies, policymakers, thus, may have challenges relying solely on their results for decision-making purposes. This particular reason is the research paucity that this study seeks to address is through a bigger sample size and using respondents from a cosmopolitan municipality. Therefore, this paper aims to examine the impact of taxpayer education on income tax compliance among SMEs in the Techiman Municipality of Ghana.

Research Objectives

Specifically, this study sought to achieve three objectives. These are:

- ❖ To examine the effect of e-taxpayer education, otherwise known as an electronic form of taxpayer education in the compliance of taxes of SME taxpayers within the Techiman Municipality of Ghana.
- ❖ To investigate the impact of print media form of tax education in the compliance of taxes of SME taxpayers within the Techiman Municipality of Ghana.
- ❖ To assess the influence of sensitisation programmes of stakeholders in the compliance of taxes of SME taxpayers within the Techiman Municipality of Ghana.

This study, thus, explored the effect of tax education on tax compliance among SMEs within the Techiman Municipality of Ghana. The remaining segment of the study is organized as follows: Section 2 presents theoretical and empirical review, hypothesis formulation, and the conceptual framework, section 3 reports on the methodology of the study, section 4 addresses the results of the study, section 5 elaborates on the discussion and conclusion of the study, and 6 elaborates on limitations of the study and suggestions for future studies

Theoretical and Literature Review

Theoretical Framework

Generally, people have said that there are two certainties in life. These are death and taxes. Nonetheless, the certainty of tax payments by people is far from the truth; individuals shirk from honouring their tax payment obligations. They adopt a lot of schemes to minimise their tax payment obligations to the state including interpreting the tax laws to their benefit (Onuba, 2011). Historically, people have always been hesitant about honouring their tax payment obligations. The major challenge confronting the tax officials identified is the taxpayer's mindset that, the government was not accountable to them. The perception of taxpayers is that tax revenues are squandered at the

expense of the discharge of social responsibilities of governments. This mindset dents the image of the government and it adversely affects tax compliance among taxpayers.

The essence of theories is to offer explanations, predictions, and the understanding of occurrences and facts. Scholars such as (Bartole, 2012; Swann, 2003), argue that theories enrich current knowledge within the confines of some assumptions. Van der Vorm et al., (2009) concluded that every study is based on a theory which informed the problem, questions, and to some extent the objectives of the study. Psychological factors such as morals and ethical issues, theories of tax compliance are equally significant to the taxpayer. A lot of scholars have adopted several theories to examine the impact of taxpayer education on tax compliance. These include social trust (Sturgis, Patulny, Allum, & Buscha, 2015; Habibov, Cheung, & Auchnnikara. 2017), the Allingham and Sandmo (i.e., A-Z) theory (Pepra, Abdulai and Agyeman-Dua (2020), Economic based theory (Alawodi & Ojeka, 2012; Feld & Frey, 2007) and the Social Psychological theory (Noguera, Miguel Quesada, Tapia, & Llàcer, 2014; and Ajzen & Fishbein, 1977). The theories of planned behaviour and economic deterrent have been adopted by the researchers as the basic theories underlying the study.

The Theory of Planned Behaviour

The theory of planned behaviour is a psychological concept which connects beliefs and behaviour and attempts to espouse human behaviour. Icek Ajzen coined this theory to enhance the theory of reasoned action's predictive ability through the integration of perceived behavioural control. The position of this model is that an individual's behaviour in the society is influenced by definite factors which emerge from some bases and arise in an organized manner. The power in executing a particular behaviour hinges on the fact that man has a motive in connection with behavioural intention. Three variables, attitude towards behaviour, subjective norms and perceived behavioural control, affect the behavioural intentions of humans. Behavioural beliefs, normative beliefs and control beliefs, in turn, affect the variables of behavioural intentions. This theory's emphasis is thus, on the morals and ethics of the taxpayer. Accordingly, this concept argues that a taxpayer may voluntarily comply with his tax payments obligations even when the likelihood of detection is low. Thus, this concept emphasizes on changing individual attitudes towards tax systems rather than relying on punitive measures and increased audits, as remedies to tax compliance.

Economic Deterrence Theory

This theory which was propounded by Becker in 1968 is based on the concept of criminology. This theory thrives on the assumption that, if the outcome of perpetuating a crime exceeds the crime itself, the individual may be restraint in perpetuating the crime. Thus, this concept is based on the assumption that individuals are knowledgeable about the distinction between what is wrong and right and the repercussions of unlawful behaviours. Scholars belonging to this school of thought of the opinion that people opt to comply or flout after considering the benefits and the repercussions of their steps. Allingham and Sandmo (1972) argue that this theory integrates the concept of an economically rational taxpayer who will evade taxes so long as the benefits from such actions exceed the envisaged punitive actions of being caught.

Empirical Review

Tax Compliance

SMEs are crucial in the economic development and growth of a country through job creation and tax contribution to the national purse. Thus, the contribution of SMEs to Ghana's GDP, cannot be overemphasised. James and Alley (2004), argue that the meaning of tax compliance is predominantly based on the extent to which taxpayers comply with tax laws in a particular jurisdiction. Tax compliance comes in three different forms. These include filing compliance, reporting compliance, and payment compliance. To Kirchler (2007), tax compliance is the taxpayers' willingness to honour their tax liabilities promptly. Similarly, Ming Ling, Normala, and Meera (2005), posit that taxpayers' responsiveness concerning tax compliance consists of the preparedness to register for tax and the timely provision of accurate information about the business to the tax officials. Besides, taxpayers are to regularly submit their tax returns annually and pay their tax liabilities promptly. Based on this assumption, tax non-compliance take place when the taxpayers fail to meet their tax obligations fully. Singh and Bhupalan (2001), concluded that taxpayers are to be tax laws compliant, honest, knowledgeable about the tax systems of a particular jurisdiction and utilise such knowledge to adhere to their tax obligations promptly, truthfully, and comprehensively. They assert that these are the prerequisites of tax compliance.

The operations, size, and the nature of SMEs make the issue of tax compliance critical among them. Some of the contributing factors for defrauding and evading taxes include high tax rates, penalties, inadequate understanding of the tax laws and huge compliance costs. Taxpayers either willfully or unwilfully fail to honour the tax laws (Williams and Round, 2009). These class of taxpayers are either resisters of taxes or protesters of taxes. Whiles protestors of taxes plan to evade taxes by adopting alternative interpretations of the tax laws, tax resisters on the other hand willfully fail to pay their taxes. In the Ghanaian economy, a lot of SMEs operate in the informal sector which makes the issue of tax compliance very critical.

Electronic taxpayer education and tax compliance

Tax compliance could be enhanced through electronic means of creating tax awareness (Ross, 2007). This medium of taxpayer education enables the tax authorities to maximise taxpayers' profit which culminates into increased revenue for national development. TAX Interactive (TAXi) as an online platform can be adopted by tax authorities to educate taxpayers about their rights and responsibilities (Misra, 2004). Accordingly, the tax authorities can adopt medium such as TV, Radio, internet, telephone, mobile phone, CD-ROMS, DVD, etc. to educate taxpayers about their rights and obligations concerning taxes. According to Palil (2010), electronic taxpayer education through radio and television is among the most effective communication platform of disseminating latest tax information to taxpayers and others. This could lead to increased tax compliance among SMEs within the Techiman Municipality of Ghana. Palil (2010) again argues that tax officials can adopt email, short messages (SMS), websites to regularly update taxpayers about tax issues including their tax obligations. Taxpayers who have challenges can equally use these media to solicit for assistance from the local tax office. Ross (2007), asserts that dealing with taxpayers vide electronic means will improve tax compliance greatly. This implies that lack of taxpayers' compliance with tax regulations will compel the tax authorities to apply costly and forceful means of tax compliance including tax audits, distress, garnishee, pecuniary penalties, among others, to coerce taxpayers to honour their tax payment obligations. Impliedly, a comprehensive taxpayer education through the adoption

electronic medium would enhance tax compliance among SMEs in the Techiman Municipality of Ghana. The tax authorities vide electronic taxpayer education, can provide the needed information about electronic tax payments systems including e-register, e-filing and e-payment to enhance tax compliance among SMEs (Palil, 2010). Similarly, Gitaru (2017), report that the electronic medium of educating taxpayers (e-taxpayer education) positively influences the compliance of taxes. Inferring from the above, the researchers hypothesise that:

H1: there is a significantly positive relationship between electronic taxpayer education and tax compliance among SMEs

Taxpayer Education through Print Media and Tax Compliance

Providing taxpayers education vide the print media will facilitate tax compliance (Ross, 2007). Although much research has not been done in this area, there could be under or overestimation of the magnitude of the issue. Using flyers, newspapers, print outs, magazines and many others to carry out crusades on tax responsibilities and rights among SMEs will enhance consciousness, submission of returns, and the confidence of taxpayers (Tetteh, 2019). According to Hyman (2005), print media taxpayer education is the most preferred means of achieving tax compliance in Tanzania. The adoption of print media taxpayer education, Nurlis (2015) asserts will improve understanding of the tax laws, taxpayer consciousness, tax returns submission, payment awareness, loyalty and reduction in tax evasion. Then Gitaru (2017) concluded that the effective use of national newspapers and information magazines will improve tax awareness, the filling of tax returns, and ultimately boost taxpayers' morale. This implies that business operations of SMEs will be smooth and increased tax revenue for the country will.

It is from this angle that the present study examined the effect of print media taxpayer education on tax compliance among SMEs in the Techiman Municipality of Ghana. Inferring from the above, this study hypothesises that:

H2: There is a positive correlation between educating taxpayers using print media and tax compliance among SMEs

Sensitising Stakeholders and Tax Compliance

Sensitisation programmes such as road shows organised by tax officials to have an encounter with taxpayers at designated places and periods can influence tax compliance (Palil, 2010). In Kenya Gitaru (2017), in a study conducted to ascertain how influential taxpayer education is on tax compliance, the Kenyan Revenue Authority organizes workshops to educate taxpayers on tax compliance. Similarly, Tetteh (2019) asserts that the Ghana Revenue Authority (GRA) organises workshops for taxpayers to increase tax compliance. The views and concerns of the taxpayers are solicited to help improve tax administration. Through such fora, the concerns of taxpayers relating to their rights and responsibilities are addressed, the tax authority's administrative processes are made known to the taxpayer, and taxpayers' awareness about the various interventions and incentives aimed at minimising the cost of transactions and the availability of time concerning the tax laws are made known to them.

Activities carried out during such events include classification of taxpayers using the compliance of taxes, identification, organisation, and the facilitation of suitably planned meetings such as workshops, fora, conferences, and drafting of memoranda of understanding between GRA and other key stakeholders to enhance tax compliance (GRA, 2019). Nurlis (2015), posits that workshops afford

the tax official the convenience to have frank interactions with taxpayers concerning tax issues and these events culminate into increased tax compliance. Then Tetteh (2019), found that sensitisation programmes help train taxpayers to comply with the tax laws. Consequently, workshops organised by the tax officials for stakeholders are crucial in improving tax compliance among taxpayers. This is mainly since these provide a face to face discussions between the taxpayer and the tax authorities (Tetteh, 2019). These face-to-face communications allow for clarifications on any thorny issue, which ultimately results in increased tax compliance. Inferring from the above, the researchers hypothesise that:

H3: Stakeholder sensitisation programmes and tax compliance are positively correlated

Conceptual Framework

Conceptual framework is perceived as a visual presentation which provides either a narrative or graphical explanation about the intended study variables and the presumed correlation that exists between them. A conceptual framework is therefore a collection of broad principles and ideas selected from a study and adopted to build a presentation afterwards. In this study, the review of theoretical literature and empirical studies reveal that there is a correlation between taxpayer education and tax compliance. A detailed description of the dependent and independent variables and their surrogates which were deduced from the literature have been provided by the researchers in 3.4 (measurement variables). The figure below indicates the framework exhibiting the relationship between the independent variables and the dependent variable.

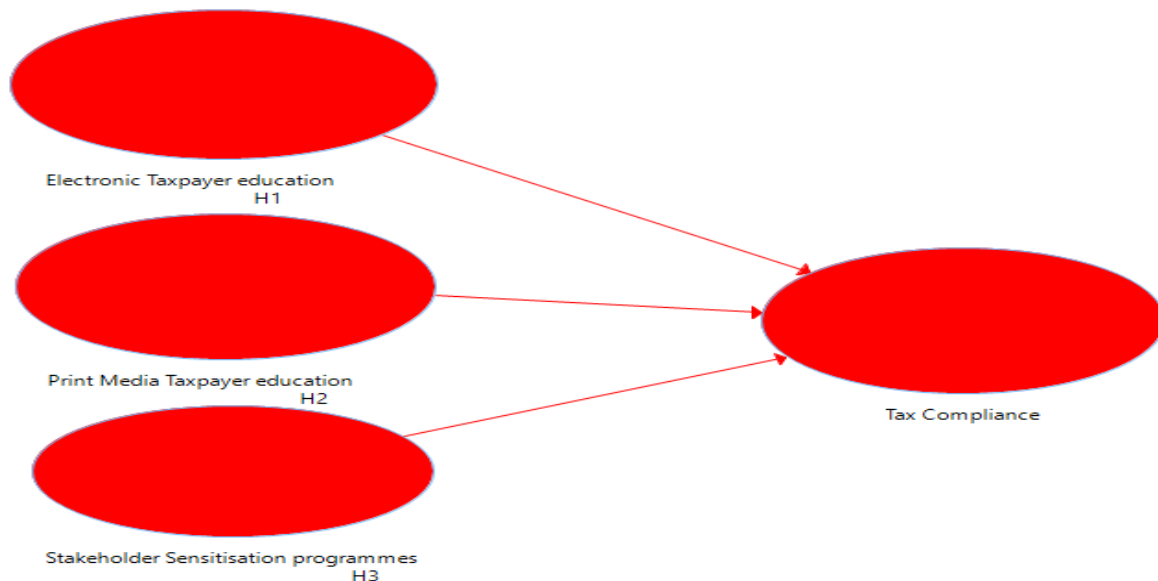


Figure 1: Conceptual framework Authors' construct

Methodology

Study Design

This study explored the impact of tax education on tax compliance among SMEs in the Techiman Municipality of Ghana using a cross-sectional survey design. An online survey was used to collect data from the respondents as physical contact was inappropriate as a result of the effects of the Covid-19

pandemic. In comparison with a regular survey, an online survey is both cost-effective and suitable in terms of response.

An overview of the Study Area

The study was conducted in the Techiman Municipality, the Bono East regional capital of Ghana. The municipality is of a cosmopolitan status as it is densely populated with mixed of diverse ethnic groups of Ghana (GSS, 2010). The city is located in mid-Ghana and attracts traders, business operators, especially SMEs, and other investors within Ghana and beyond, particularly from neighbouring West African states such as Mali, Niger, Burkina Faso, La Cote d'Ivoire, Nigeria, etc. As a result, several SMEs are operating in the municipality. These credentials motivated the researchers to select the municipality for the study. The city is thus, one of the vibrant economic hubs of Ghana and has the potential of raising substantial tax revenue for the government (GRA, 2014). This feat could be achieved if sufficient taxpayer education is embarked on, particularly for the SMEs operators to improve tax compliance.

Population and Sampling

This study's population is made up of SMEs in the Techiman Municipality of Ghana. SMEs have enormous economic prospects to facilitate the growth of the economy as they generate a substantial amount of income. Hence, they are to honour their tax obligations to the state to facilitate the needed development. SMEs in the Techiman Municipality of Ghana are characterised by businesses including food vendors, traders, transport operators, restaurants, hotels, recreational facilities, guest houses, bars, boutiques, cyber cafes, chemists, salons, barbers, cobblers, agrochemicals, tailoring, airtime, domestic money transfer, health and educational facilities.

The researchers adopted non-probability sampling techniques in selecting the respondents for this study as a result of the nature of the study. The researchers use purposive sampling technique to select the institution for the study, that is the Ghana Revenue Authority (GRA). 5 officials of the Domestic Tax Revenue Department (DTRD) of the GRA in the Techiman Municipality were purposively selected due to their in-depth knowledge and experience about tax administration in the municipality. They comprise of personnel from the following units; taxpayer services; compliance, enforcement, and debt management; tax audit; and strategy, research, policy and programmes (SRP&P). According to scholars such as (Denscombe, 2014; & Denscombe 2010), the purposive sampling technique is suitable in selecting respondents who know the issue under study. Simple random sampling technique was used in selecting the SMEs in the municipality. These sampling approaches, according to Kuranchie (2016) ensures that all SMEs within the population have an equal chance of selection. Antony, Kumar, and Labib (2008) posit that these sampling techniques are more appropriate for this kind of research as a result of the availability of resources, data source, the nature of the selected SMEs, and the capability to produce the needed results in achieving the objectives of the study. Consequently, a sample size of 334 respondents, based on the population of SMEs in the municipality was selected for the study. However, in all, 297 valid responses were received and used for the analysis of this study.

Measurement of Variables

Dependent Variables

This study's dependent variable is tax compliance. The proxies used for tax compliance in this study include morality, the imposition of fines, the severity of punitive measures, the general attitude in evading taxes, ineffective enforcement actions, the negative influence of tax evaders, higher tax rates, conformity with group norms and expectations. Previous scholars such as Kuug (2016) and Alm, Jackson, and McKee (1992), had assessed tax compliance using a score. The researchers adapted this approach in this study. As all the respondents had some level of compliance since all of them were honouring their tax payment obligations, the objective is to ascertain if the sampled SMEs register their businesses for tax purposes, file their tax returns timely, accurately and truthfully declare all business transactions, and pay their taxes promptly.

Independent Variables

The proxies for this study's independent variables were e-taxpayer education, the print media form of taxpayer education, and sensitisation programmes for stakeholders adopted by the tax authorities in Techiman Municipality of Ghana. Internet access, the flexibility of the electronic system, use of radio, TV, emails, and mobile phones for taxpayer education, and online access to educational materials, were the measures of electronic taxpayer education. Print media taxpayer education was measured via newspapers, brochures, magazines, banner, flyers, books, or leaflet publications, easy accessibility of the publication, the quantum of educative information found in the published material, the publication's applicability, the publication's flexibility or otherwise. Sensitisation programmes were measured in terms of seminars, workshops, tax clinics organised by tax authorities in Techiman Municipality. These variables have been deduced from the literature.

Data Collection and Analysis

Data used in this study was collected using a primary source. This study used a self-designed questionnaire in line with the 5-point Likert's scale ranging from strongly disagree to strongly agree and coded 1 to 5 respectively in line with previous studies (Kuug, 2016) and modified to meet this study were distributed to 334 respondents. The questionnaire used in this study was adapted from Gitaru (2017) and modified to suit the objectives of this study. A pre-test sample of 35 SMEs was made for modification to achieve a more effective research instrument. The researchers adopted an online survey in collecting data for the study as a result of the impact of the COVID-19 pandemic that prevented the traditional face-to-face approach of reaching respondents. The questionnaire comprises of 5 parts. Part A attempted to solicit demographic information of the respondents. Part B addressed tax compliance among SMEs. Part C on the other hand sought information on electronic form taxpayer education of SMEs by GRA, whereas Part D addressed the print media form of taxpayer education adopted by the tax authorities. Finally, Part E solicited information on stakeholder sensitisation programmes adopted by the tax authorities in the study area.

In this study, the Partial Least Squares-Structural Equation Modelling (PLS-SEM) using SmartPLS 3 was adopted for the statistical analysis (Ringle, Wende, & Becker, 2015; Hair, Hult, Ringle, & Sarstedt, 2016). Moreover, because this research is an exploratory study, PLS-SEM is perceived as the appropriate tool for studies of this nature (Hair, Hult, Ringle, & Sarstedt, 2014). Besides, due to the weakness of the goodness-of-fit (GoF) in distinguishing between valid and invalid models, this study adopted a two-step procedure in examining and presenting the outcome of the PLS-SEM (Hair,

Sarstedt, Hopkins, & Kuppelwieser 2014; Henseler, Ringle, & Sinkovics, 2009). Thus, in this study, the two-step model is perceived as appropriate. In the first step, the researchers assessed reliability, validity, and multicollinearity problems of the model. Concerning the measurement model, PLS-SEM recommended that the scholars should look at the outer loadings of the items and the average variance extracted (AVE) to establish the convergent validity. Added to these, Ringle et al., (2015) suggested the Fornell-Larcker (FL) criterion examine the discriminant validity of the study model. Concerning the structural model, the path coefficients, SRMR, and the coefficient of determination (R^2) were examined (Hair et al., 2014). Thus, the researchers made use of all the criteria mentioned above to assess the measurement and structural models. The second segment, however, the second stage of the PLS-SEM was devoted to testing the formulated hypotheses. All the constructed hypotheses were verified in this section of the study. Based on convention, this study assumed a t-value of 1.96. The relationship having a threshold value of 1.96 was accepted but, the relationship having a t-value below 1.96 was rejected.

Model Specification

This study's variables were obtained from primary source using an online survey. Tax compliance, e-taxpayer education, print media form of taxpayer education, and sensitisation programmes for stakeholders.

Tests performed include reliability, validity, and multicollinearity. The researchers also assessed the hypotheses formulated for this study to ascertain their acceptance or rejection. This study's model is:

$$TC = \alpha + \beta_1 ETE + \beta_2 PTE + \beta_3 SSP + \varepsilon$$

Where; α

TC = Tax Compliance

α = Intercept

ETE = e-taxpayer education (Electronic Taxpayer Education)

PTE = Educating taxpayers using print media (Print media taxpayer education)

SSP = Stakeholder Sensitisation Programmes

E = Errors

Results

In this section, the findings of PLS-SEM using PLS-Algorithm (i.e., maximum iteration of 300 and a stop criterion of 10^{-7} and bootstrapping (i.e., using subsamples of 5000) are presented. Based on theory and previous literature, a threshold value of at least 0.5 was assumed for the factor loadings that were first to be estimated (Hair, Black, Babin, Anderson, & Tatham, 2010). Factor loadings with values below the rule of thumb (i.e., 0.5) were deleted (see Table 3 and Figure 2). e-taxpayer education and educating taxpayer using the print media had 6 construct items each but 5 were retained for each of these variables. Stakeholder sensitisation programme, however, had 7 indicators but 1 was deleted. And lastly, tax compliance had 8 variables but 7 were maintained. Starting from Table 1 which presents the correlation matrix amongst the latent variables, there is a positively strong correlation among the dependent variable (i.e., tax compliance) and the independent variables (i.e., e-taxpayer education, print media taxpayer education, and stakeholder sensitisation programme). Besides, there is a positively strong correlation amongst the independent variables. The threshold that may

lead to problems of multicollinearity in this study is absent although correlation is positively quite strong.

Table 1: Results of Correlation Matrix of the Latent Variables

	ETE	PTE	SSP	TC
ETE	1.000			
PMTE	0.843	1.000		
SSP	0.841	0.765	1.000	
TC	0.915	0.851	0.852	1.000

Note: ETE= e-taxpayer education; PMTE=Print media taxpayer education; SSP=stakeholder sensitisation programme; TC = tax compliance

The internal consistency of the model concerning the responses was examined using both Cronbach's alpha (CA) and composite reliability (CR). The Cronbach's Alpha, also called the lower bound and the composite reliability, the upper bound of the test, should be higher than 0.7 (Hair, Hollingsworth, Randolph, & Chong, 2017). This study asserts that the model's internal consistency is established since the Cronbach's alpha and composite reliability figures exceed the benchmark figure of 0.7 (see Table 2). Thus, the responses are internally considered as reliable. Hair et al. (2017), recommend that in assessing the external consistency of the responses, the values of Average Variance Extracted (AVE) should be more than 0.5. Inferring from Table 2, the values AVE exceed the threshold figure of 0.5. This shows the external validity of the responses. This study estimated the variance inflation factor (VIF) to verify the existence or otherwise of collinearity problem in the model (Hair et al., 2017). Inferring from Table 2 and Table 3, this study reports the absence of collinearity problem or problems in the model as all the VIF values are higher than 5.

Table 2: Reliability Tests Results

	CA	CR	AVE	VIF (Inner)
ETE	0.826	0.877	0.592	4.079
PMTE	0.8300	0.883	0.607	3.584
SSP	0.924	0.940	0.725	3.548
TC	0.864	0.895	0.554	

Note: ETE= ETE= e-taxpayer education; PMTE=Print media taxpayer education; SSP =stakeholder sensitisation programme; TC = tax compliance; CA = Cronbach's alpha; CR = composite reliability; AVE = Average Variance Extracted; VIF = Variance inflation factor

Table 3: Factor Loadings and VIF

Construct item	Loading	VIF (Outer)
I honour my tax obligations because I have good morals (T1)	0.818	3.558
There are severe punitive measures for tax evaders (T2)	0.673	2.354
The penalties accompanying tax evasion deter me from evading taxes (T3)	0.599	2.240
Generally, taxpayers are hesitant in paying taxes (T4)	0.773	4.596
When taxpayers perceive the enforcement actions of tax authorities as ineffective, they become less compliant (T5)	0.798	3.596
Non-compliance attitude of some taxpayers adversely affects other taxpayers (T6)	0.633	1.803
Group norms and expectations influence tax compliance amongst SMEs (T8)	0.872	3.496
The tax authorities educate us on our rights and obligations via TV, Radio, Mobile phones, WhatsApp, email, etc (ETE1)	0.834	2.413
There are regular updates from the GRA on our rights and obligations as taxpayers through SMS (ETE2)	0.624	1.848
The usage of email by the tax authorities to educate SMEs their rights and obligations as taxpayers is inappropriate (ETE3)	0.836	2.263
Taxpayer education via the WhatsApp and Facebook does not receive much patronage (ETE4)	0.835	2.578
Taxpayer education through local dialect on TV/Radio is effective (ETE5)	0.689	1.549
The use of newspapers to educate SMEs about their rights and obligations as taxpayers is inappropriate (PTE1)	0.813	2.233
The use of leaflets by the GRA in educating SMEs about their rights and obligations taxpayers is appropriate (PTE2)	0.857	2.442
The use of brochures by the GRA in educating SMEs about their rights and obligations taxpayers is inappropriate (PTE3)	0.713	1.940
The use of fryers by the GRA in educating SMEs about their rights and obligations taxpayers is inappropriate (PTE5)	0.913	3.099
Using of magazines by GRA to educate SMEs about their rights and obligations do not lead to tax compliance (PTE6)	0.550	1.447
GRA organises stakeholders sensitisation programmes for SMEs to create tax awareness (SSP1)	0.872	3.263
The public is enlightened about the essence of honouring their tax obligations through awareness (SSP2)	0.807	2.208
SME taxpayer can file their tax returns with ease as a result of stakeholders sensitisation programmes (SSP3)	0.855	2.919
Tax base and tax revenue have improved as a result of stakeholders sensitisation programmes organised by GRA (SSP4)	0.895	3.506

The attitudes of taxpayers have due to the improved Taxpayer sensitisation has played a vital role in changing the attitudes of taxpayers (SSP5)	0.800	2.487
As a result of the detailed nature of workshops and tax clinics, the public is provided with ample time in conceptualising ideas (SSP7)	0.875	3.450

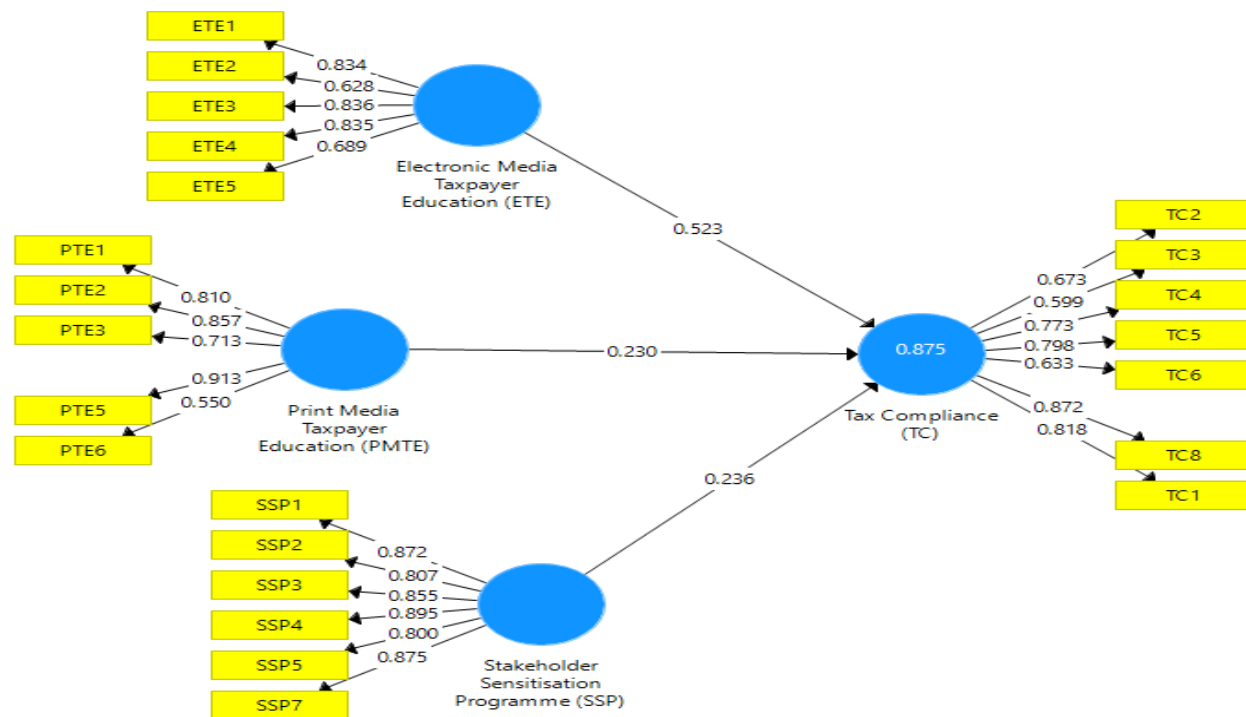


Figure 2: Structural Model Assessment Results

This paper assessed the Fornell-Larckel (FL) criterion of the study to establish the discriminant validity of the model. The FL criterion, in line with theory and convention, AVE’s square root (diagonal value) for each construct items should be higher than the latent variables’ correlation. Inferring from Table 4, this has been met. Accordingly, the results of this paper are valid.

Table 4: Validity Results using Fornell-Larckel (FL) criterion

Variable	ETE	PTE	SSP	TC
ETE	0.769			
PTE	0.843	0.779		
SSP	0.841	0.765	0.851	
TC	0.915	0.851	0.852	0.744

Note: ETE= e-taxpayer education; PMTE=Print media taxpayer education; SSP=stakeholder sensitisation programme; TC = tax compliance

In the second step of the PLS-SEM, the researchers verified the hypotheses formulated. All the hypotheses formulated were examined to determine their acceptance or rejection in this segment. A t-value of 1.96, in line with convention, was consequently assumed. Thus, the relationship having a threshold of 1.96 was accepted. On the other hand, the relationship having a t-value below 1.96 was to be rejected (see Table 5 and Figure 3 for the assessment).

Table 5: Results of Hypotheses Testing and Path Coefficients

Hypotheses	Path	β	M	SD	T-Stats	P-value	Findings
H1	ETE \rightarrow TC	0.523	0.534	0.117	4.466	0.000***	Supported
H2	PTE \rightarrow TC	0.230	0.252	0.103	2.232	0.026**	Supported
H3	SSP \rightarrow TC	0.236	0.209	0.118	1.991	0.047**	Supported

β = path coefficient; M=Mean; SD= Standard Deviation; T-Stats= T-Statistics; ***denotes 1% significance level; **denotes 5% significance level

This paper establishes that electronic media taxpayer education positively ($\beta = 0.523$, t-value = 4.466, P-value = 0.000) affects tax compliance. H1 is thus, fully supported. Again, the outcome of this study shows that print media taxpayer education significantly ($\beta = 0.230$, t-value = 2.232, P-value = 0.026) influence tax compliance. H2 is therefore supported. Lastly, this study’s results show that stakeholder sensitisation programmes significantly ($\beta = 0.236$, t-value = 1.991, P-value = 0.047) impact on tax compliance. Thus, H3 is fully supported. Besides, approximately 88% of the variance in tax compliance is jointly explained by e-taxpayer education, print media taxpayer education, and stakeholder sensitisation programmes. Besides, the SRMR value of this study was estimated to be 0.075. In line with a conventional approach, an SRMR figure below 0.08 in an indication of a good model. Hence this study’s model is well fitted.

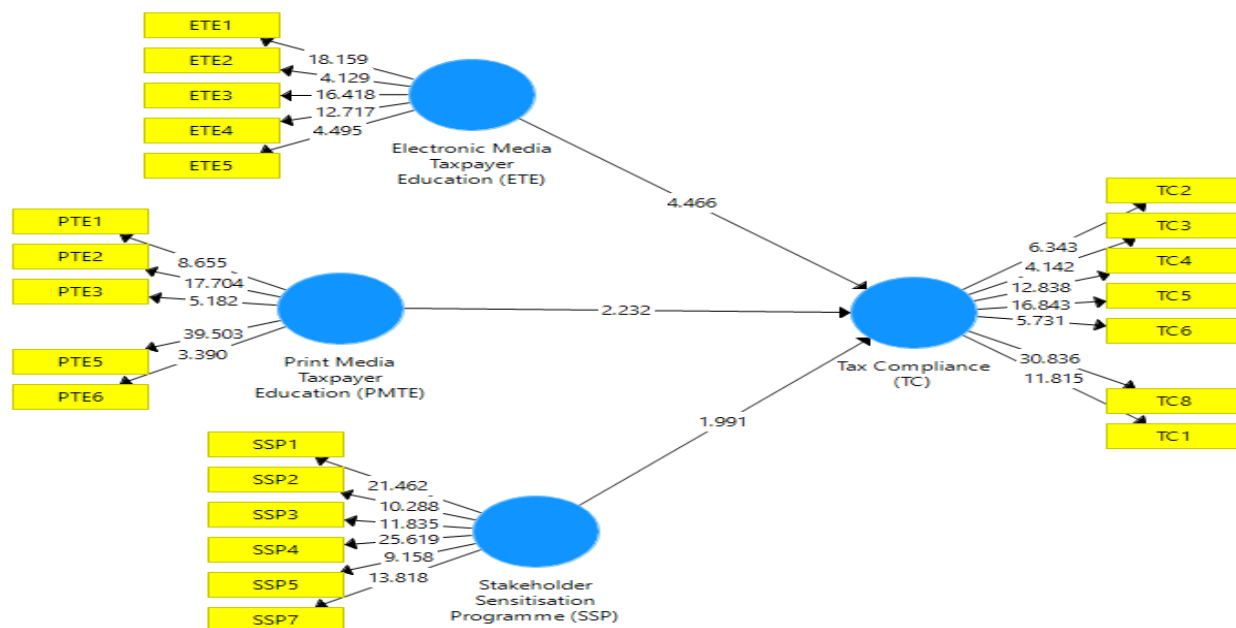


Figure 3: Structural Model Assessment Results

Discussion and Conclusion

The main objective was to verify the effect of taxpayer education on tax compliance in Ghana by examining data collected from SMEs within the Techiman Municipality of Ghana through an online survey. Three hypotheses in all were established based on their assessments. Through the results of the testing of the hypotheses, this study established that Hypothesis one (H1) addressed the impact of e-taxpayer education in the compliance of taxes in which a t-value of 4.466 which was higher than the benchmark figure of 1.96, with positive $\beta = 0.534$ were established. Thus, electronic form taxpayer education positively impacts on tax compliance among SMEs. This conclusion is consistent with the outcome of studies such as Gitaru (2017); Palil (2010); Ross (2007); and Misra (2004). Besides, the outcome of the analysis of the hypotheses reveal that Hypothesis two (H2) had a t-value of 2.232 which was higher than the threshold figure of 1.96, with a positive $\beta = 0.230$ were established. This is an indication that print media from taxpayer education significantly affects tax compliance positively. Based on this, Hypothesis two (H2) is fully supported. Scholars including Tetteh (2019); Nurlis (2015); Young et al. (2010); and Hyman (2005), have documented that print media form taxpayer education improves tax compliance. This study's results are consistent with the position of these scholars. Added to these, the study's results show that Hypothesis three (H3) which had a t-value of 1.991 which was higher than the rule of thumb of 1.96, with positive $\beta = 0.236$ were established. This show that stakeholder sensitisation programme positively impacts on tax compliance. H3 is therefore supported. Several studies (see for example Tetteh, 2019; Gitaru, 2017; Nurlis, 2015; Palil, 2010; and GRA, 2019) have reported that stakeholder sensitisation carried out by tax authorities to create tax awareness among taxpayers enhance tax compliance. This conclusion is in agreement with the results of this study.

This study presents evidence that, in the specific context of the Techiman Municipality of Ghana, taxpayer education has a profound effect on tax compliance. We established that the three strands of taxpayer education carried out by tax authorities and adopted in this study (i.e., e-taxpayer education, print media taxpayer education, and stakeholder sensitisation programme) influence tax compliance of SMEs in the Techiman Municipality of Ghana. We believe that this study's outcome provides significant contributions to academia, practice, and policymakers. In sum, this study does not only examine the effect of tax education on compliance among SMEs but, also, identifies and assesses three media by which tax education enhances tax compliance. Significant evidence from this study is in support of the prediction that tax compliance behaviour and the imposition of pecuniary penalties for tax evasion can be inculcated and minimised respectively through tax education, particularly through e-taxpayer education, print media taxpayer education, and stakeholder sensitisation programme. Thus, this study contributes to academia by adding to available literature by investigating the variables that impact on tax compliance by taxpayers within the informal sector in Ghana. This is very crucial as prior studies in Ghana on tax compliance are sparse and fragmented. Concerning practice, SMEs within the informal sector of the Ghanaian economy will also benefit from this study as it will assist them to appreciate the moral responsibilities of honouring tax obligations and the importance that is available when one complies. Finally, regarding contribution to policy, this study will offer government feedback concerning policies that should be carried out and the requisite education or training that needs to be embarked on to enhance voluntary tax compliance among SMEs in Ghana.

Limitations and Suggestions for Future Studies

We used an online survey to collect the data for the study. Hence it is probable that responses might have been received from taxpayers who are not SMEs in the Techiman Municipality of Ghana. This study's focus being the Techiman Municipality of Ghana, additionally, adversely affects the generalisation of the findings. We encourage future studies to address this shortcoming. Lastly, this study was confined to taxpayer education through e-taxpayer education, print media taxpayer education, and stakeholder sensitisation programme, which leave other options such as professional tax advice, unattended to. We recommend that future studies address this limitation.

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