UNIVERSITY OF CAPE COAST

TAX EDUCATION AND TAX COMPLAINECE: A STUDY OF THE SELF-EMPLOYED IN THE CAPE COAST METROPOLITAN ASSEMBLY OF GHANA

BY

ALHASSAN YUSIF TRAWULE

Thesis submitted to the Department of Accounting of the School of Business, College of Humanities and Legal Studies, University of Cape Coast, in partial fulfilment of the requirements for the award of Master of Commerce degree in Accounting.

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ALHASSAN YUSIF TRAWULE

2017
DECLARATION

Candidate’s declaration

I hereby declare that this thesis is the result of my original work and that no part of it has been presented for another degree in this university or elsewhere.

Candidate’s Signature………………………… Date…………………………

Name:………………………………………………………………..

Supervisors’ declaration

We hereby declare that the preparation and presentation of the thesis were supervised in accordance with the guidelines on supervision of thesis laid down by the University of Cape Coast.

Principal Supervisor’s Signature ………………… Date………………

Name: ………………………………………………………………………

Co-Supervisor’s Signature……………………..Date………………

Name: ……………………………………………………………………..
ABSTRACT

The level of tax knowledge is a key indicator of the level of tax compliance, which also affects the amount of the tax revenues available to support government projects and programmes. In Ghana, the level of compliance among the self-employed is low according to the Institute of Statistical Social and Economic Research (ISSER) and the Ghana Revenue Authority (GRA). It is believed that the level of compliance among these self-employed will be improved with tax education. This study seeks to investigate the relationship between tax education and tax compliance among the self-employed in the Cape Coast metropolis. The study applied the quantitative approach by designing closed-ended questionnaires to collect the appropriate numerical data necessary to address the study objectives. Tax compliance is represented by committed, capitulative and creative compliances. Tax education is also represented by five proxies. A total of 400 respondents were drawn from the estimated self-employed population of 28,355. The study adds to the body of existing knowledge on tax education and tax compliance. The key findings from the study indicate that tax education affects tax compliance among the self-employed, however, the nature of the relationship depends on the type of the content of tax education and the type of compliance to be achieved. Generally, tax compliance segregation into committed tax compliance, capitulative tax compliance and creative tax compliance has significant bearings on overall tax compliance. The study recommends that the tax laws should be made less complex to ensure compliance, penalties must be enforced, and tax payers must educate themselves more on tax laws. The GRA must also organise seminars and conferences to educate tax payers.
KEY WORDS
Capitulative Tax Compliance
Committed Tax Compliance
Composite Tax Compliance
Creative Tax Compliance
Self-employed
Tax Compliance
Tax Education
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To my wife, Salamatu and the children, I say a big thank you for the encouragement and support given me during those hard times. Lastly, I am grateful to all whose works have been cited in this study. Have my acknowledgement and appreciation.
DEDICATION

Dedicated to my dear wife Salamatu Yakubu, and my mum, Hajia Aisha

Trawule for their belief in me.
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<td>Analysis of Variance</td>
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<td>Cape Coast Metropolitan Assembly</td>
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<td>Confirmatory Factor Analysis</td>
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<td>COC</td>
<td>Convenience of Compliance</td>
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<td>EPPM</td>
<td>Extended Parallel Process Model</td>
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<td>FAM</td>
<td>Fear Appealing Messages</td>
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<td>Ghana Statistical Service</td>
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<td>GTK</td>
<td>General Tax Knowledge</td>
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<td>ICT</td>
<td>Information and Communication Technology</td>
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<td>ISSER</td>
<td>Institute of Social Statistics and Economic Research</td>
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<td>KMO</td>
<td>Kaiser-Meyer Olkin</td>
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<td>KRA</td>
<td>Kenya Revenue Authority</td>
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<td>NCBD</td>
<td>Nairobi Central Business District</td>
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<td>PAYE</td>
<td>Pay-As-You-Earn</td>
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CHAPTER ONE
INTRODUCTION

Introduction

This chapter gives a general overview on the reason for this study. It discusses the background to the study, including the statement of the problem. It also captures the objectives of the study, the hypotheses to be tested, the significance and scope of the study. There are also subsections on the limitations of the study and how the study is organised.

Background to the Study

Taxation is one of the most significant elements in managing national income, especially in developed countries and it has played a vital role in civilized societies over thousands of years ago (Lymer & Oats, 2009). Low tax compliance is a serious matter for many developing countries. This is because it trammels the capacity of the government to raise revenue for developmental projects (Torgler, 2003). His study concludes that the higher the revenue, the more likely the government will put more developmental plans in place to enhance the living standard of the people.

One of the well pronounced factors in literature which affects the level of tax compliance is the level of tax knowledge (European Commission, 2007, Nakiwala, 2010). In view of this, researchers have continually turned attention to unearth the relationship between tax education and tax compliance (Machogu & Amayi, 2013, Olowookere & Fasina, 2013, Brainyyah & Rusydi, 2013, Osebe, 2013, Mengere, 2014, Maseko, 2014 etc). These researchers often borrow theories from other disciplines to back the supposed relationship between tax education and tax compliance. Among the borrowed theories are:
the trans-theoretical model (TTM) of change, the extended parallel process model (EPPM), the theory of planned behaviour (TPB) and others.

Studies have also revealed that tax compliance among the self-employed leaves much to be desired. For instance, the study by Scheutze and Bruce (2006) concludes that non-compliance among the self-employed is an important concern as the self-employed sector of the economy makes a very important contribution to the total level of tax evasion in the USA.

In Ghana, a study conducted by the Institute of Statistical Social and Economic Research (ISSER) in their ‘State of the Economy Report’ in 2006, indicates that the percentage contribution to government revenue of income tax from the self-employed were as low as 5.71%, 5.35% and 5.24% for the tax years 2003, 2004 and 2005 respectively. This condition could be largely attributed to the presence of income tax non-compliance among the self-employed. In earlier studies, it was established by Song & Yarbrough (1978) that in Ghana, non-compliance by the self-employed is a major factor that contributes to the reason why tax authorities received less than what the law allows.

There is the need for further studies in Ghana as the Ghanaian economy is also supported by tax. Revenue loss from non-compliance by individual taxpayers, specifically the self-employed was estimated to range from $93.20 billion to $95.30 billion for the tax year 1992 (Flynn, 2003). The Ghana Revenue Authority (GRA), realizing the high level of income tax non-compliance among the self-employed, has devised various unconventional means of taxation (standard assessment, identifiable groupings and, most recently, the tax stamp) over the years to rope into the tax net as many self-
employed persons as possible (GRA, 2014), however, the problem is still persistent.

According to Seidu (2010), who conducted a study on enforcing income tax compliance among the self-employed in the Tema Metropolis, the level of income tax education among the self-employed in Tema is low, resulting in the high income tax non-compliance among those self-employed. It is apparent, therefore, that increased tax education among tax payers may increase the level of tax compliance among the self-employed. Seidu (2010), however, focused on enforcing tax compliance in general. It does not look at the specific case of tax education, and its relationship with tax compliance. Other Ghanaian studies have considered various aspects, for instance, Atuguba (2006) who considered the Ghanaian tax culture, Terkper (2007) focused on ways to improve the accounting systems of tax of Ghanaian SMEs, Ayee (2007) looked at compliance by creating and enhancing reciprocity with the government and Ohene (2011) looked at knowledge of tax reliefs and incentives as well as knowledge of tax education programme by SMEs in the Juaben Municipality of Ghana.

Following the tax compliance problems and the inadequate evidence-based studies in the Ghanaian context, it is tempting for policy makers to rely solely on studies from other regions whose conclusions have been affected by methodological problems and differences in regional characteristics. It is against these backdrops that this study seeks to investigate the influence of tax education on tax compliance among the self-employed in the Cape Coast metropolis of Ghana.
Statement of the Problem

Throughout the review, it is learnt that there is no comprehensive study that addresses the tax compliance question in the Ghanaian context. The known studies: Atuguba (2006) who considered the Ghanaian tax culture, Terkper (2007) focused on ways to improve the accounting systems of tax of Ghanaian SMEs, Ayee (2007) looked at compliance by creating and enhancing reciprocity with the government and Ohene (2011) looked at knowledge of tax reliefs and incentives as well as knowledge of tax education programmes by SMEs in the Juaben Municipality.

None of the extant Ghanaian studies has looked at how tax educational interventions would influence the tax compliance behaviour of tax payers, despite the theoretical supports for such relationships. Therefore for tax educational policy, the formulators may be tempted to rely solely on literature from other parts of the world which may not be relevant to the Ghanaian settings. Due to the theoretical inconsistency (Brewer & Rimer, 2008; Murray-Johnson et al., 2004), the choice of the theoretical argument may not be applicable to tax payers behaviour in Ghana, hence relying on their recommendations for policy decisions may be factually inaccurate. Therefore the research question remains: Which of the theories define the tax compliance behaviour of tax payers in Ghana through tax education? This study seeks to answer this research question and provides reference literature for tax education programmes.

Some of the existing literature on other countries rely mainly on the theory of planned behaviour and therefore use intention as a measure of tax compliance (Chin-Fatt, 2000, Eriksen & Fallan, 1996). However, intention and
real behaviour are not the same (Hagger et al., 2002). One’s positive compliance intention may change overtime or by circumstances. Thus, intention is not a good predictor of behaviour (Hagger et al., 2002). Therefore conclusions and recommendations from these studies may not be true in the real world of taxation. This presents an opportunity to re-examine these studies. This study uses real tax payers to measure both tax education and tax compliance levels, thereby eliminating the flaws identified in the theory of planned behaviour.

Moreover, most of the reviewed studies use correlation to measure causal relationship between tax education and tax compliance which is inappropriate and the results doubtful (Machogu & Amayi, 2013, Mukasa, 2011, Olowookere & Fasina, 2013 and Tusubira & Nkote, 2013). For instance, a positive correlation between ‘X’ and ‘Y’ does not mean ‘X’ positively affects ‘Y’ or vice-versa. This study seeks to revise the methodological problems to ascertain robust results to draw reliable conclusions. The study uses regression analysis to examine the relationship between tax education and tax compliance.

Furthermore, through the literature review nothing came to the researcher’s knowledge to believe the existence of the study on tax education and tax compliance of self-employed in the Cape Coast metropolis. This study is also unique in the sense that, through the review, it is evident that it is one of the first to examine tax education and tax compliance by segregating compliance into key elements as suggested by earlier writers (Chow, 2004; Hart, 1998 and McBarnet, 2001). This would help to know which tax education content influences a particular tax compliance element.
Research Objectives

The objectives of the research are grouped into general and specific objectives. These objectives are outlined below:

The general objective of this study is to ascertain the relationship between tax education and tax compliance of the self-employed in the Cape Coast metropolis.

The specific objectives of the study are to:

i. Determine the influence of tax education on committed tax compliance of the self-employed in the Cape Coast metropolis.

ii. Evaluate the effect of tax education on capitulative tax compliance of the self-employed in the Cape Coast metropolis.

iii. Assess the influence of tax education on creative tax compliance of the self-employed in the Cape Coast metropolis.

iv. Investigate how tax education affects composite tax compliance of the self-employed in the Cape Coast metropolis.

Research Hypotheses

To quantitatively address the specific objectives in line with the theoretical arguments, the following hypotheses are formulated:

Hypothesis 1:

H0: There is no significant influence of tax education on committed tax compliance of the self-employed in the Cape Coast metropolis.

H1: There is a significant influence of tax education on committed tax compliance of the self-employed in the Cape Coast metropolis.
Hypothesis 2:
H0: There is no significant effect of tax education on capitulative tax compliance of the self-employed in the Cape Coast metropolis.
H1: There is a significant effect of tax education on capitulative tax compliance of the self-employed in the Cape Coast metropolis.

Hypothesis 3:
H0: There is no significant influence of tax education on creative tax compliance of the self-employed in the Cape Coast metropolis
H1: There is a significant influence of tax education on creative tax compliance of the self-employed in the Cape Coast metropolis

Hypothesis 4:
H0: There is no significant effect of tax education on composite tax compliance of the self-employed in the Cape Coast metropolis
H1: There is a significant effect of tax education on composite tax compliance of the self-employed in the Cape Coast metropolis

Significance of the Study

This study is significant in two perspectives, i.e., academic or knowledge and policy or operational. From the academic perspective, even though there is copious literature on tax compliance and or non-compliance elsewhere, there appears to be little of such literature in Ghana from the review of literature. This study adds to the body of existing knowledge on the subject of tax education and tax compliance among the self-employed in the Cape Coast metropolis of Ghana. This would be of vast benefit to academia,
particularly as a reference material to other students who would want to carry out further study into tax compliance in Ghana.

The study will also help the Ghana Revenue Authority (GRA) to develop effective tax educational programmes that would enhance tax compliance behaviour not just among the self-employed, but amongst the entire taxpayers of the country. Thus, the self-employed and all taxpayers would also benefit from such tax educational programmes that would be developed. The greatest beneficiary as a result, would be the citizenry, since improved compliance to tax laws would heighten government revenue for better economic development to improve the welfare of the citizenry.

Limitations and Delimitations of the Study

This thesis is restricted to the Cape Coast Metropolis. It may thus be inappropriate to generalize the findings of this study to other municipalities in the country. The involvement of GRA officials would have further enriched the work with their deep insights and wealth of information on tax administration and compliance in Ghana. However, the study focused on the self-employed because it was believed that the views of the GRA officials could not substantially change the views obtained by the self-employed themselves. As such, the study was restricted to the self-employed.

Again, this study focuses on the self-employed without employees as the urban informal sector has majority of its participants in the retail trade i.e. buying and selling (ISSER, 2003). The findings of this study may therefore not be a true representation of the tax compliance behaviour of all the self-employed in the Cape Coast metropolis.
Another limitation of the study is the data collection approach adopted by the study. Since the unit of analysis of the study (self-employed without employees) was not easily accessible, the purposive sampling technique was used. This may make some of the results bias. This seeming bias was cured by ensuring that all the respondents had an equal chance of being selected. The approach adopted was to select every other potential respondent in the sample population.

**Scope of the Study**

This study covered only self-employed people in the Cape Coast Metropolis. The study is limited to discussions of tax education and tax compliance in Ghana. The content of tax education used in this study is confined to general knowledge in taxation, fear appealing messages, convenience of tax compliance, cost of tax compliance and benefits of tax compliance. Similarly the scope of tax compliance includes committed compliance, capitulative compliance and creative compliance.

**Organisation of the Study**

The study is organized into five main chapters. Chapter one focuses on introduction which gives a comprehensive background to the study, specifies the problem under investigation, the objectives of the study, research hypotheses, significance of the study and the scope of the study. It also discusses the limitations and delimitations of the study. The chapter two presents the review of related relevant literature. Chapter three discusses the methodology of the study. The fourth chapter presents results and discussions.
The final chapter- chapter five presents the summary, conclusions, and recommendations of the study.

Chapter Summary

This chapter gave a general background to the study and the statement of the problem. Tax revenues are one of the most important sources of revenues for governments. However, most governments, particular from developing countries, are faced with the problem of low tax compliance, particularly from the self-employed. Tax education is seen to be one of the most important factors that can affect the tax compliance behaviour of these self-employed. This study is therefore to find out if there is any relationship between tax education and tax compliance among the self-employed within the Cape Coast metropolis. Some hypotheses have been formulated to be tested. It is expected that this study will be beneficial to academia or knowledge, policy formulators and the general tax paying public. The major limitations to this study are also discussed.
CHAPTER TWO
REVIEW OF RELATED LITERATURE

Introduction

This chapter reviews existing literature relevant to the present study. It reviews theories that establish relationships between the dependent and independent variables of the study as well as relevant empirical literature on those relationships. The various hypotheses to be tested are examined as well. This section also provides the conceptual framework developed from the literature review as well as the lessons learnt.

Theoretical Framework:

The following theories are reviewed in the study:

Trans-theoretical model of change (TTM)

The trans-theoretical model of change (TTM) explains the relationship between tax education and committed tax compliance. The TTM is a behaviour change model which is extensively studied (Prochaska & DiClemente, 1986). According to the TTM, behavioural change is considered to be a progression through a succession of six phases, namely: (i) pre-contemplation, (ii) contemplation, (iii) preparation, (iv) action, (v) maintenance, and (vi) termination (Prochaska & DiClemente, 1986). The TTM acknowledges that individuals have particular informational demands at all
stages of behavioural change and it is capable of providing the intervention strategies which are most effective at all of the stages (Prochaska & DiClemente, 1986). Thus the model proposes that individuals must obtain teaching interventions that are suitable for the stage in which they find themselves in the process of behavioural change (Brewer & Rimer, 2008). Balanced decision-making as well as self-efficacy is a central part of the theory (Brewer & Rimer, 2008).

The TTM assumes that the behaviour of an individual does not change decisively and rapidly. Rather, behavioural change, most specifically, habitual behaviour takes place via a cyclic process as stipulated below.

**Stage 1- Pre-contemplation Phase**

At the precontemplation phase, individuals are not even seriously thinking about changing and they have no interest in any sort of help. A person in this phase is inclined to defend his existing bad habit(s) and he does not deem it a problem. The individual might be defensive notwithstanding the efforts made by other people to put pressure on him to quit. The individual does not concentrate his attention on stopping and is inclined not to talk with others about this bad habit. Precontemplators are usually categorized as unmotivated or resistant and have a tendency to avoid discussion, information, or thought pertaining to the targeted behaviour (Kristeller, Rossi, Ockene, Goldberg, & Prochaska, 1992).

**Stage 2 – Contemplation Phase**

The second stage, the contemplation phase, is the stage where individuals are very much aware of the particular aftereffects of their negative habits and they devote time to ponder over their problem. Even though they
are capable of considering the likelihood of changing, they seem to be unsure about it. In this stage, individuals happen to be on a seesaw, evaluating the advantages and disadvantages of changing their behaviour or quitting. Although the individual ponders over the negative sides of his bad habit as well as the positives related to stopping (or reducing), he might doubt whether the benefits accompanying quitting in the long-term will be greater than the costs in the short-term. The person knows the benefits of making a change, but is keenly conscious of the accompanying costs (Prochaska, Redding, & Evers, 1997).

A person in this phase honestly declares his intention to make a transformation in the next six months. However, it may take a little as just a few weeks or even as lengthy as one’s lifetime to go through the stage of contemplation. As a matter of fact, some individuals keep thinking and thinking about abandoning their negative habits and might die not once getting beyond the stage of contemplation. On the plus side, people are more open to welcoming information concerning their negative habit, and it is more likely that they will really make use of learning interventions, and then think about their thoughts and feelings concerning their negative habit. Usually, contemplators are considered to be procrastinators or ambivalent to change (Prochaska & DiClemente, 1986).

Stage 3 – Preparation Phase

At the third stage, known as the preparation or the determination stage, individuals are committed to change, typically in the next one month (DiClemente et al., 1991). Their enthusiasm to change is shown in certain proclamations as: I really need to take actions on this, this is worrying.
Something must change. What could I do?” This phase is like a phase of research. Here, individuals are taking minor steps on the way to cessation. They try to collect information on what they must do in order to change that negative behaviour. Most at times, people avoid this stage, trying to go directly from contemplation to action and eventually fail for the reason that they have not done enough research or agreed to what it actually takes to make such a major change in behaviour. The preparation stage is a transition stage but not a stable phase, with individuals having the intent to make progress to the next stage (the action stage) in the next one month (Grimley, Prochaska, Velicer, Blais, & DiClemente, 1994).

Stage 4 – Action Phase

The action or willpower stage which is the fourth stage is where individuals think they possess the capability to change how they behave, and they are keenly engaged in taking action to transform their negative behaviour by the use of numerous techniques. This stage happens to be the shortest among all the phases. How long it takes each individual to go through this stage is not the same. It normally takes about six months, but could also be as quick as an hour (Velicer, Rossi, Prochaska, & Diclemente, 1996). At this stage people mostly rely on their willpower. They make overt attempts to quit the negative behaviour and they stand a great chance for setback (Velicer et al., 1996). They mentally re-evaluate their dedication to their own selves and find plans to handle both external and personal pressures that might bring about slips. They might make use of short-range incentives to maintain their enthusiasm, and assess their efforts to change their behaviour in a manner that boosts their confidence. At this stage, people also have a tendency to welcome
assistance, and there is likelihood as well, that they will look for support (a very essential element) from others. If they are successful here, they move on to the fifth stage.

**Stage 5 – Maintenance Phase**

The fifth stage or the maintenance stage has to do with the ability to successfully shun all temptations to go back to the negative habit. The maintenance phase aims to sustain the new condition (Kristeller et al., 1992). Individuals in this phase have a tendency of reminding themselves of the progress made so far (Kristeller et al., 1992). They regularly reframe the rules governing their own lives and they are gaining additional skills to cope with life as well as evade relapse. They can anticipate the circumstances in which there could be an occurrence of a relapse, and that they prepare in advance coping strategies. They know how personally meaningful and worthwhile that which they are working toward is. They remain patient and acknowledge that it usually takes some time to give up old behavioural patterns and put new ones into practice until they become secondary to the new ones. Although they might still have thoughts of going back to their previous negative habits, they fight the urge and remain on track.

Even throughout a day, an individual might go through a number of the various stages of transformation. It is natural and common that individuals going through these phases would retrogress, attaining just one stage and drawing back to a preceding stage. Such drawbacks are normal as one strives to change their behaviour. The difference between those in the maintenance stage and those in the action stage is that maintainers have the highest self-
efficacy and they are seldom lured to relapse (Prochaska & DiClemente, 1986).

**Stage 6 – Termination Phase**

The sixth and the last stage is the termination stage. Here, previous negative behaviours are not recognized as desirable any longer (Kristeller et al., 1992) (e.g. evading tax is not pleasurable any more but it rather causes dissatisfaction).

Drawing from the TTM, when individuals in the contemplation and preparation stages of change are educated on the need to change as well as the benefits and the costs of changing, then they will be committed to complying with tax regulations. This theory thus indicates that education on general tax knowledge and convenience of tax compliance has a positive influence on committed tax compliance.

**The Extended Parallel Process Model (EPPM)**

The extended parallel process model (EPPM) establishes a relationship between tax education and capitulative tax compliance. The model which was proposed by Witte (1994) tries to predict the manner in which people would react when they are confronted with fear provoking stimuli. Messages which are fear appealing have been effective in behavioural change since they draw attention to the risk(s) a person faces for performing or not performing a particular action (Murray-Johnson, Witte, Patel, Orrego, Zuckerman, Maxfield & Thimons, 2004). Certain persuasive strategies attempt to produce particular behaviour or decisions by giving information that is emotionally loaded or
biased. Strategies of such sort might use urging, inducement and reasoning, and also use either rational or emotional appeals, or a combination of both appeals as the basis of their message. Also, persuasive communications usually employ “fear tactics” as a technique to boost the level of arousal of recipients and also to make them have the feeling that they are more susceptible to certain risks. It posits that, when people are given risk messages, they undertake two appraisal activities (Murray-Johnson et al., 2004).

First, they observe whether or not they stand susceptible to a recognized threat and also whether that threat is a severe threat. This is to say the first process involves perceived susceptibility - the level to which an individual feels they stand at risk for some particular threat and perceived severity - the level to which an individual sees a threat as being serious. Generally, if it is perceived that the threat is irrelevant or trivial, they overlook the message of risk as well as the advice to perform the needed action.

Secondly, if individuals think they stand susceptible to some threat which is severe and their fear level is stimulated, they become motivated to consider whether the required action could minimize that threat - the response efficacy and also whether they could carry out the required action - the self-efficacy. Once they feel they are capable to act, they will suitably keep the risk under control.

Several fear-provoking work-related studies have tested the EPPM. This includes gun safety (Roberto, Meyer, Johnson & Atkin, 2000), tractor safety (Witte, 1993), loss of hearing amongst occupational groups, for instance coal miners (Murray-Johnson et al., 2004) or landscape farmers and workers (Smith et al., 2008), as well as pandemics amongst workers (Barnett et al.,
Witte and Allen's (2000) meta-analysis of the EPPM indicated that usually threats serve as an effective stratagem in a number of situations. This theory may also be applicable as theoretical justification for the study: influence of tax education on the tax compliance behaviour of taxpayers since its proponents touch on how fear appeals influences the behaviour of individuals (Witte, 1992). Thus, it helps understand how tax education on the consequences of tax non-compliance might affect the attitude towards tax compliance amongst taxpayers.

Notwithstanding the theoretical reasons provided by extended parallel process model, it has some flaws. The model is solely formed on fear. Fear appeals do not always lead people to undertake the danger-control which is what is being fostered, but instead people may engage in strategies of fear-control in which they take on maladaptive responses, for instance, counter-arguing, disregarding the messenger or the message, or just ignoring the message (Witte, 1992). Taking wholesomely the propositions of this model, to enhance tax compliance, the tax authorities should engage in fear arousing educational programs. However, this strategy has short term outcome as in the long run the tax payers may be used to such threats and seek more possible means to subdue the effect of the fear. In addition, the EPPM predict similar behaviour pattern for people. This is not always the case. Some individuals are able to accommodate some situations while others cannot. Therefore there is ‘NO ONE SIZE FIT FOR ALL’ strategy. Considering these weaknesses, relying on only the EPPM may reduce the robustness of the study. Therefore, other theories or models which work on some of these weaknesses are considered.
In addition to the EPPM, the precontemplation phase of the TTM establishes a relationship between tax education and capitulative tax compliance. According to the TTM, persons at the contemplation stage of change do not believe their actions are wrong and are not eager to change. It follows that individuals at the precontemplation stage may only reluctantly comply with tax regulations for reasons beyond their control.

The Theory of Planned Behaviour (TPB)

The theory of planned behaviour (TPB) establishes a relationship between tax education and creative tax compliance. The theory was proposed by Icek Ajzen in 1985. It is a theory that links beliefs and behaviour.

The TPB suggests that attaining and sustaining behavioural change needs an intention to leave behind a negative behaviour or adopt a good behaviour (Ajzen, 2005). TPB maintains that not only is intention influenced by attitude regarding the behaviour, it is also influenced by the perceived social norms (the strength of other people’s opinions regarding the behaviour, and the individual’s own enthusiasm to abide by such significant others) as well as the extent of the perception of behavioural control.

The theory has been tested in many fields including the health sector. The authors Godin & Kok (1996) reviewed the applications of Ajzen's TPB in the health domain and verified the theory’s efficiency to predict and explain behaviours that are health-related. They came out with the findings that the theory’s efficiency did quite well in explaining intention, perceived behavioural control being as important as attitude across health-related
behaviour categories. However, the theory’s efficiency, varied amongst categories of the health-related behaviours.

The TPB is relevant to this study in that it offers a systematic approach to recognize the issues that remain most significant to an individual’s decisions concerning the performance of certain behaviours (Brewer & Rimer, 2008), such as that towards tax compliance. Since many significant attitudes and beliefs are changeable (Brewer & Rimer, 2008), they happen to be ultimate targets for any subsequent tax educational interventions. With this theory, tax education should be targeted at building tax compliance intentions. This is because the theory postulates that when positive intentions are built, real behaviour is influenced positively. In the tax compliance domain, Putra (2012) examined the fittingness of the TPB in explaining the behaviour regarding tax compliance amongst taxpayers who are sole proprietors. One of the most significant strengths of the TPB is that it emphasizes the specificity of intended or planned behaviour (Brewer & Rimer, 2008). Also, the TPB is well backed by existing laboratory experimental data, interventions for health behaviour and field studies.

TPB has been criticized on how behavioural intentions are measured (Brewer & Rimer, 2008). Furthermore, the TPB posits that intentions bring about behaviour, but empirical data imply an assessment that is more qualified. Even though longitudinal studies propose a very robust intention-behaviour connection (Sheeran, 2002), well designed experimental investigations indicate an effect which is much smaller (Webb & Sheeran, 2006).
Moreover, intentions usually overemphasize, but sometimes make little of real behaviour. Numerous factors impact the relationship between a change in intention and a behavioural change. The correlation is significantly weaker with respect to risk behaviours normally performed in social perspective, for behaviours that are backed by habits, and also where measurement of intentions were done a long time away from the behaviour (Webb & Sheeran, 2006). Several other factors could weaken relationships between intention and behaviour to a lesser degree. The numerous uncertainties that come with whether intentions will produce behaviour change or not imply that while intentions of behaviour are potentially helpful in pilot or preliminary studies, they are an insufficient primary result for interventions and studies meant to impact the tax compliance behaviour of the public.

Furthermore, TPB puts forward that attitudes could influence behaviour just by means of intentions. This assertion is questionable, as this is not always the case. It has been shown that often, attitudes predict behaviour directly without intentions as intermediary (Liska, 1984). Intentions could change with time, as could attitudes, rendering their correlations with behaviour somewhat a shifting target. A correlated problem is the fact that individuals do not develop intentions for every behaviour, particularly when the favourable opportunity to act is a lengthy period away (Brewer & Rimer, 2008). Evaluations that control former behaviour usually discover that intention is not a major behaviour predictor any longer (Hagger, Chatzisarantis, & Biddle, 2002).

Although methods of measurement specified by TPB are potent for prediction, in practice, they are challenging (Brewer & Rimer, 2008). They
depend on broad pilot work, comprising personal interviews administered by interviewer, and could demand more stuffs than most modern surveys could realistically accommodate (Brewer & Rimer, 2008). Even though this is ultimately useful, it could be a costly, demanding process and decrease participation rates as well. Gathering pilot data which is more intensive could be a challenging task when programs need to be quickly developed.

According to the theory of planned behaviour, the information received by individuals shape their intentions and it is reflected in their actions. This implies that when people are enlightened on certain tax benefits through general tax education, it stimulates their desire to tax planning and other activities to minimize their tax obligation. The TPB thus indicates that general tax education positively impacts creative tax compliance.

Theories supporting the relationship between tax education and composite tax compliance

All three theories discussed under the first three hypotheses establish a relationship between tax education and composite (overall) tax compliance. Drawing from the propositions of the TTM, if the right tax education interventions are provided at the appropriate stage of change, then the overall tax compliance of individuals will be enhanced.

Borrowing from the EPPM, fear stimulates positive actions, thus if tax education is centered on general tax knowledge, penalties for non-compliance and illustrations on cases of default and the consequences suffered by the defaulters, the level of compliance will be high. On the other hand, the TPB posits that a positive intention positively influences positive behaviour. Thus,
if positive intentions are built via tax education on general tax knowledge and tax convenience, the tax compliance behaviour of taxpayers will be positively influenced. It follows from the TPB that tax education will enhance the overall tax compliance behaviour amongst the self-employed taxpayers in the Cape Coast metropolis.

Empirical Review

A number of studies have been reviewed in line with the specific research objectives.

Empirical evidence of the relationship between tax education and committed tax compliance

Committed tax compliance occurs when people choose to comply willingly when they are faced with a tax bill (McBarnet, 2011). The researcher is of the view that committed tax compliance is “when tax payers are willing to pay taxes with no complaint”.

A number of prior studies also sought to ascertain the relationship between tax education and committed tax compliance. Among those studies is the study of Machogu and Amayi (2013) which focused on ascertaining the influence taxpayer education has on voluntary tax compliance amongst small and medium-enterprises in the Mwanza City of Tanzania. The study specifically establishes the degree of tax education amongst the SMEs, the degree of voluntary tax compliance with the SMEs as well as how taxpayer education influences the degree of voluntary tax compliance, amongst entrepreneurs in the Mwanza City of Tanzania.
Machogu and Amayi (2013) recommended that all educational levels – i.e. from the primary school level upwards – should teach taxation, with the aim of fostering voluntary compliance with tax. This is a comprehensive study as it considers data from both the tax payers and the tax authorities. However, the methodology and the analysis are too simplistic. The findings are mere opinions and analysis quite subjective. Although the focus of this study looks at tax education and compliance similar to Machogu and Amayi (2013), higher order analysis with scientific tools are used to make the findings and conclusions more objective.

In addition, Olowookere and Fasina (2013) conducted a study on the relationship between taxpayers’ education and voluntary compliance amongst the Lagos State taxpayers. The study aimed at examining the effect of the program on tax education on tax payers’ compliance behaviour. The research design used for the study was a quasi-experimental survey design. The sampling technique used was a simple random method to sample a total of 250 taxpayers in the Lagos state. The authors recommended that tax education be offered to all students at all educational levels.

Although Olowookere and Fasina’s (2013) study uses real tax payers’ behavioural data, it suffers from inappropriate measure of relationship. The use of ANOVA is appropriate when one is to investigate the associations or association between nominal and ratio/scale variables. The present study is therefore seen to refine this study while employing some of the appropriate techniques.

Furthermore, the study conducted by Brainyyah and Rusydi (2013) aimed to find out the impact of tax knowledge, tax complexity and perceived
fairness of tax on tax compliance decisions amongst Malang’s SME entrepreneurs.

The findings of the research discovered that tax complexity, tax knowledge and perceived fairness of tax simultaneously affect the compliance decision of taxpayers so as to fulfil their tax obligations. Whereas partial test indicated that tax complexity and tax fairness both influence tax compliance amongst Malang’s SME taxpayers the tax knowledge did not show any significant impact on compliance with tax laws. This study used appropriate methodology in establishing the relationship- multiple regression. Therefore, the present study borrows the methodology in its analysis for comparative analysis.

The fact that the real estate industry is among the fastest developing businesses of the Kenyan economy, but yet, the tax authority having to deal with the continual decline in the collection of taxes from the sector a number of years prompted Osebe (2013) to investigate how tax compliance is affected by certain factors. Specifically, the study sought to find out the influence of the cost of tax compliance, tax knowledge and education, penalties and fines, as well as perceived opportunity to evade tax on the compliance behaviour towards tax rules as respects the Kenyan real estate industry. The findings of the research revealed that the cost of compliance had a negative influence on the level of tax compliance. On the other hand, tax knowledge and tax education had a positive influence on the tax compliance level amongst investors in the real estate business.

Penalties and fines also had a positive impact on the tax compliances level, whereas perceived opportunity to evade tax had a negative impact. The
research offers some preliminary support that imposing penalties and fines, as well as providing tax knowledge and tax education amongst investors in the real estate business will enhance tax compliance. On the other hand, high cost of compliances and also high opportunity to evade tax will decrease tax compliance amongst investors into real estate business. The researcher thus recommended that the cost of tax compliance must be in such a manner that it does not incite taxpayers to elude tax. It was also recommended that there must be strong enforcement of penalties and fines so as to discourage tax evasion. Further, it was recommended that tax authorities must simplify the procedures involved in filing of tax returns as well as the paying of taxes. Osebe’s (2013) study is more robust and serves as empirical evidence to compare with the ultimate results of the study. However, the scope of the study is limited to only the real estate and may be difficult to transfer the implications to other sectors. The present study seeks to extend this study by including tax payers from different sectors.

In addition, a study was conducted by Mengere (2014) to investigate the impact of tax education on ‘Pay as you earn’ (PAYE) tax compliance of the businesses audited by the Revenue Authority in Nairobi, Kenya. According to the author, the motivation behind the study was that, irrespective of the fact tax serves as an essential tool for generating revenue for the developmental projects of government, PAYE tax compliance amongst Kenyan taxpayers was poor from a general perspective since there was insufficient knowledge amongst the taxpayers. The research evaluated the education of tax payers as being a basic strategy for the achievement of voluntary compliance with PAYE tax on the part of the taxpayers.
The study found that an adequate knowledge about issues of tax existed amongst the financial managers and owners of the businesses. Eight-six percent of those who responded said they had ample information about PAYE system and income taxes. Ninety percent asserted that the PAYE audit had made them understand the rules of PAYE. It was also found that ‘Pay as you earn’ tax education actually has an impact on PAYE voluntary tax compliance. The author recommended that tax education should be studied by all students at every level of education whether or not they are accounting students. It was further recommended by Mengere (2014) that government as well as other stakeholders must work hand-in-hand to minimize the cost of compliance and the complexity of PAYE tax so as to enhance tax compliance. Mengere (2014)’s study uses appropriate methodology with samples from wide variation of tax payers. This makes this study comparable to the focus of the present study. However, the focus of the present is extended to revise the scope of Mengere (2014).

Maseko (2014) examined the tax compliance determinants in Zimbabwean SMEs. The study focused on how compliance costs and tax knowledge influenced the behaviour towards tax compliance of Zimbabwean SMEs for the 2009-2011 tax period. The study’s core objectives were to evaluate how the exceptional business circumstances of SMEs, levels of knowledge about tax, the SME operators’ perceptions towards taxes, and also compliance costs influence SME taxpayers’ tax compliance attitude.

The research findings showed that SMEs are faced with different conditions of business as compared to large companies, and as a result, the SMEs bear high burdens of tax compliance. It was also indicated by the results
that the SME operators’ perceptions about fairness of tax, quality of tax service and the priorities of government spending hugely influenced their decisions on tax compliance. Unlike the findings of many extant studies reviewed, it was discovered that tax knowledge has no correlation with the compliance with tax registration, but it showed a weak negative relationship with the compliance with filing.

Additionally, Maseko (2014) discovered that tax compliance has a negative relationship with costs of compliance. He study made a recommendation that the present tax law needs amendment to include provisions that give SMEs unique tax incentives so as to enhance SME taxpayers’ voluntary tax compliance. It was again recommended by the study that the tax authority in Zimbabwe, ZIMRA, must circulate information concerning updates on tax more frequently so that the amount of knowledge about tax will be improved to attain voluntary compliance with tax.

**Empirical evidence between tax education and capitulative tax compliance**

McBarnet (2011), defines capitulative to mean when tax payers choose to comply unwillingly, complain but pay up nonetheless. The definition by McBarnet (2011) is adopted for this study.

Several empirical studies have investigated the effect of tax education on capitulative tax compliance. For instance, a study was conducted in New Zealand by Tan and Chin-Fatt (2000) to ascertain how tax knowledge influenced tax compliance. The study examined the links between the increases in tax knowledge and how fairness is perceived as well as the
attitudes towards tax compliance using students enrolled in a course on introductory taxation in a tertiary institution in New Zealand. Contrary to prior research, the results showed that increasing tax knowledge had no significant effect on the attitudes towards tax compliance and the perceptions of tax fairness. This study did not use actual tax payers. The study relied on only students. This might have been influenced by the propositions from theory of planned behaviour. However, the intention equates real behaviour assumption of theory of planned behaviour has been criticized. It has been argued that intention is not a major behaviour predictor any longer (Hagger et al., 2002). The present study therefore refines this study by incorporating real behavioural measure rather than a mere intention.

The declined efforts of revenue collection in Uganda in the midst of a taxpayer atmosphere typified by a poor tax culture of compliance, low tax knowledge levels, and the inequitable and excessively complicated laws on tax motivated the researcher Mukasa (2011) to study the links between tax knowledge, tax compliance, and perceptions of tax fairness of SMEs in Uganda. Both qualitative (explanatory and analytical) and quantitative (inferential and descriptive) research approaches were adopted. The study focused on tax registered SMEs inside the Kampala District’s Central Division who formed the study population.

It was found that a causative relationship existed between tax knowledge, perception of tax fairness and tax compliance. It was also discovered that tax compliance has a positive significant correlation with tax knowledge. In a similar vein, tax compliance did have a significant and positive correlation with perceived fairness of tax. Nonetheless, a weak
relationship was found between perceived fairness of tax and tax knowledge. The author opined that if taxpayers’ perceptions of tax fairness as well as tax knowledge are positively improved, it will result in enhanced attitudes towards tax compliance.

It was thus recommended by Mukasa (2011) that a great deal of emphasis must be placed on the spreading of concrete, technical tax knowledge in the course of leading tax education. Also, government must improve the accountability and provision of its service so that taxpayers will perceive a reasonable and just exchange with the government. This study is similar to the present study as it also uses real tax payers. Therefore the present study borrows the research design from this study in its methodology. However, this study suffers technical methodological flaw as it uses correlation to measure relationships. Correlation in fact measures associations between or among variables. The fact that there is say positive correlation between ‘A and B’ does not mean ‘A’ causes ‘B’ or ‘B’ causes ‘A’. The appropriate method to establish relationship is regression. Therefore the present study revises the methodological errors to ascertain robust results to draw conclusions.

**Empirical literature on relationship between tax education and creative tax compliance**

The relationship between tax education and creative compliance was investigated by Mukasa (2011). Mukasa found that when individuals’ general tax knowledge is enhanced they take technical tax decisions to enhance their
general tax compliance. Creative tax compliance is used in this study to refer to when tax payers engage in certain acts to minimize taxes by making the most of possibilities to define income in a different way and abstract expenditures that fall within the range of the tax laws.

Furthermore, Brainyyah and Rusydi’s (2013) study discovered a significant positive causal relationship between general tax knowledge and tax compliance. Even though Brainyyah and Rusydi (2013) considered composite tax compliance but not just creative tax compliance, they came to a conclusion that there is a significant relationship between tax complexity (tax convenience) and tax compliance.

**Empirical Relationship between Tax Education and Composite Tax Compliance**

Composite tax compliance combines the effects of committed tax compliance, capitulative tax compliance and creative tax compliance. It is the overall tax compliance. Findings from empirical studies on the influence of tax education on composite tax compliance have been mixed. While some prior studies found that tax education positively influences tax compliance, other studies found no significant relationship between tax education and tax compliance. A study that found no significant relationship between tax education and tax compliance is the study by Tan and Chin-Fatt (2000) mentioned earlier.

Eriksen and Fallan (1996) earlier discovered that tax education enhanced tax compliance behaviour. The study by Eriksen and Fallan (1996) in Norway illustrated how significant tax education is in tax systems. The
study conducted by Eriksen and Fallan (1996) has three major parts. First of all, the research focused on the knowledge of taxpayers. Second, the study attempted to disclose the overall influence that tax knowledge has on the behaviour towards tax compliance amongst individual taxpayers. Third, the study included tax agents so as to ascertain how they influence the determination of the behaviour of taxpayers. It is assumed that tax agents are more involved in preparing, calculating and declaring tax liability on the individual taxpayers’ behalf than in a system which is directly assessed. Eriksen and Fallan (1996) tried to find out the relationship that exists between the degree of knowledge about tax and the behaviours toward taxation, i.e., whether specific knowledge about tax has any influence on attitudes on the whole (not just tax attitudes) and to also investigate the behaviour of persons towards traditional crime.

The research was done by quasi-experiment with post-testing and pre-testing of two groups of student in Norway. The findings of the research indicated that there is a positive relationship between tax knowledge and perceived fairness of tax, attitudes towards tax evasion and tax ethics. The authors opined that fiscal knowledge has a correlation with behaviours towards taxation. They also claimed that tax behaviour could be enhanced if taxpayers understand tax laws better. Although this study provides evidence for comparative analysis to the results of the present study, it is more abstract as students’ behaviour to tax compliance may change over time. Therefore using life data from actual tax payers provide strong evidence to tax policy analysis and formulation.
The findings of Eriksen and Fallan (1996) is similar to Osebe (2013) who discovered that tax education based on fear tactics has a positive effect on tax compliance. However, unlike Eriksen and Fallan (1996) who investigated the tax compliance behaviour of students, Osebe used genuine taxpayers in the real estate industry.

All the reviewed studies have looked at compliance as a composite factor. There are evidences to show that compliance can be committed compliance, capitulative compliance and creative compliance (McBarnet, 2001). Attitude of tax payers toward these types may be different. The existing studies have failed to recognize this.

Hypotheses Testing

The research hypotheses to be tested are examined below:

Relationship between tax education and committed tax compliance

The trans-theoretical model of change (TTM) discussed earlier is used to examine the relationship between tax education and committed tax compliance. According to the theory, education on general tax knowledge and convenience of tax compliance has a positive influence on committed tax compliance.

The hypothesis to be tested is stated below.

Hypothesis 1:

H0: There is no significant influence of tax education on committed tax compliance of the self-employed in the Cape Coast metropolis.

H1: There is a significant influence of tax education and committed tax compliance of the self-employed in the Cape Coast metropolis.
**Relationship between tax education and capitulative tax compliance**

The second objective seeks to evaluate the effect of tax education on capitulative tax compliance. The key theory underpinning this objective is the extended parallel process model (EPPM) explained. The hypothesis relating to this objective is stated below.

*Hypothesis 2:*

H0: There is no significant effect of tax education on capitulative tax compliance of the self-employed in the Cape Coast metropolis.

H1: there is a significant effect of tax education on capitulative tax compliance of the self-employed in the Cape Coast metropolis.

**Relationship between tax education and creative tax compliance**

This section looks at the relationship between tax education and creative tax compliance as indicated in the third objective. The theory of planned behaviour gives credence to this relationship. The hypothesis to be tested is also stated below.

*Hypothesis 3:*

H0: There is no significant influence of tax education on creative tax compliance of the self-employed in the Cape Coast metropolis.

H1: There is an influence of tax education on creative tax compliance of the self-employed in the Cape Coast metropolis.

**Relationship between tax education and composite tax education**
The final objective seeks to establish the effect of tax education on composite tax compliance. This section presents relevant literature to back this relationship. The hypothesis to be examined is provided below.

Hypothesis 4:

H0: There is no significant effect of tax education on composite tax compliance of the self-employed in the Cape Coast metropolis.

H1: There is a significant effect of tax education on composite tax compliance of the self-employed in the Cape Coast metropolis.

Conceptual Framework

The reviewed literature have shown relationship between tax compliance and tax education. There are theoretical relationships between these study variables. Thus, all the theories have presented theoretical arguments to support the expected relationship. The variables for tax education comprise general tax education, penalty for non-compliance, evidence of enforced penalties, tax evasion control, physical location of tax office, cost of tax compliance, benefits of tax compliance and tax amnesty. These variables are the proxies for the independent variables. The tax compliance has been operationalized as: committed compliance, capitulative compliance and creative compliance. These variables have been deduced from the literature. This present study borrows the theoretical evidences and empirical issues discussed to predict the relationship between tax education and tax compliance as shown on the Figure 1.
The arrow in Figure 1 shows the direction of the expected relationship between tax education and tax compliance and the category individual elements belong. General tax knowledge, fear appealing, convenience of tax compliance, cost of tax compliance and benefits of tax compliance are used as the main elements of tax education. Similarly, the various elements of tax compliance are spelt out under tax compliance.

The contents of tax education are expected to have specific relationship with tax compliance. The tax compliance variables used in this study are: committed compliance, capitulative compliance and creative compliance. The relationship between the tax education and tax compliance is shown by the thick arrow. The figure is specifically shown as:

**Figure 1**: Relationship between Tax Education and Tax Compliance

Source: Author’s Construct from literature

**Lessons Learnt and Knowledge Gap**

The overall review of the related literature has unearthed theoretical reasons for investigating the relationship between tax education and tax
compliance. It is learnt from the review that although the reviewed theories provide theoretical underpinnings, their propositions are inconsistent. For instance in the theoretical review, it is evident to learn that the Extended Parallel Process Model (EPPM) assumes generic behavioural style of tax payers as the model postulates that fear provoke messages causes changes in tax compliance (Murray-Johnson et al., 2004). However, the Trans-Theoretical Model (TTM) also frowns on the generic behavioural change among tax payers. From the TTM postulations, it is learnt that for tax education to influence tax compliance behaviour, the content of the education should be balanced to consider the traits of all the six stages of behaviour change (Brewer & Rimer, 2008).

The above inconsistency raises the question: Which of these theories define the tax compliance behaviour of tax payers in Ghana? This research question has not yet been answered. Therefore this study contributes to the body of knowledge in tax compliance by seeking answers to the above research question. In contributing to the above research gap, this study includes in the tax education measure both fear provoking elements such as penalties for non-compliances, evidences of enforced penalties and tax evasion control and other balanced elements such as general tax knowledge, physical location of tax office, cost of tax compliance, benefits of tax compliance and tax amnesty.

Similarly, the evidenced studies in the literature sometimes use intention based measure of tax compliance (Chin-Fatt, 2000, Eriksen & Fallan, 1996). The use of intention as proxy for actual compliance is often influenced by the theory of planned behaviour. However, the intention equates real
behaviour assumption of the theory of planned behaviour is no longer a good predictor of real behaviour (Hagger et al., 2002). Therefore, conclusions drawn from these studies may not fit well in the real world of taxation. This presents an opportunity to re-examine these studies.

Moreover, it is learnt from the literature review that most of the quantitative studies which seek to investigate the relationship between tax education and tax compliance suffers from methodological flaws (Machogu & Amayi, 2013; Mukasa, 2011; Olowookere & Fasina, 2013, Tusubira & Nkote, 2013). For instance, whiles the focus of most of these studies is on causal relationship, they turn to use correlations (Machogu & Amayi, 2013; Mukasa, 2011; Tusubira & Nkote, 2013). Correlation is appropriate in measuring associations and not causal relationships. For instance, as explained in the empirical critique, the fact that there is say positive correlation between ‘A and B’ does not mean ‘A’ causes ‘B’ or ‘B’ causes ‘A’. Thus, it is inappropriate to use established correlations between variables to draw conclusions on causal relationships. Thus, concluding that tax education affect compliance is factually inappropriate. Therefore the present study revises the methodological errors to ascertain robust results to draw conclusions.

Furthermore, to the best of the researcher’s knowledge, there are very few or no direct studies in respect of tax education and tax compliance of the self-employed in the Cape Coast metropolis. Similarly, this study is unique in that no specific study within this sub-region has considered the key elements of tax compliance as suggested by Chow (2004), Hart (1998) and McBarnet, (2001): committed compliance, capitulative compliance and creative compliance. Segregating tax compliance into these constituents and to
determine the consequence of tax education on them would help in the tax education policies.

Chapter Summary

The chapter reviewed three theories – the Trans-theoretical Model of change (TTM), formulated by Prochaska & DiClemente in 1986, the Extended Parallel Process Model by Witte (1994) and the Theory of Planned Behaviour by Ajzen in 1988. It is learnt from the review that although the reviewed theories provide theoretical underpinnings, their propositions are inconsistent. A number of relevant studies in connection with this study were also reviewed. From the literature review, some of the quantitative studies which sought to investigate the relationship between tax education and tax compliance suffered from methodological flaws (Machogu & Amayi, 2013; Mukasa, 2011; Olowookere & Fasina, 2013, Tusubira & Nkote, 2013). The review also revealed that there are very few or no direct studies in respect of tax education and tax compliance of the self-employed in the Cape Coast metropolis. This makes the study unique in this metropolis. A conceptual framework is developed from the reviewed literature. The lessons learnt from the review are also presented.

The overall review of the related literature has unearthed theoretical reasons for investigating the relationship between tax education and tax compliance.
CHAPTER THREE
RESEARCH METHODS

Introduction

This chapter contains a description of the various procedures and techniques used to collect and present the detailed data for the study. Methodology is any organized query that intends to provide information for solving research problems identified (Asika, 2000). This chapter specifically covers the philosophical position and research paradigm of the researcher, the study approach and research design. It also discusses the hypothesis testing framework, the empirical framework for hypothesis testing and the data and sampling techniques.

Philosophical Position and Research Paradigm

The term paradigm originated from the Greek word “paradigma” which means ‘pattern’. It was first used by Kuhn (1962) to denote a conceptual framework shared by a community of scientists which provided them with a convenient model for examining problems and finding solutions. According to Collis and Hussey (2009) “a research paradigm is a philosophical framework that guides how scientific research should be
conducted, based on people’s philosophies and their assumptions about the world and the nature of knowledge.”

The research paradigm of this study is positivism. Positivist paradigm is associated with quantitative methods of analysis, because this paradigm assumes that the phenomena under study can be measured. Positivism is concerned with uncovering truth and presenting it by empirical means (Henning, Van Rensburg & Smit, 2004).

According to Lincoln & Guba (2005), researchers who work from the positivism perspective explain in quantitative terms how variables interact, shape events, and cause outcomes. Multivariate analysis and techniques for statistical prediction are among the classic contributions of this type of research (Neuman, 2003).

Study Approach

The study applies the quantitative approach by designing closed–ended questionnaires to collect the appropriate numerical data necessary to address the study objectives. Quantitative approaches allow flexible treatment of data, in terms of comparative analyses, statistical analyses, and repeatability of data collection in order to affirm reliability (Partington, 2002).

Research Design

The research design employed in collecting, analyzing and interpreting the data is the survey strategy. The choice of survey strategy over other research designs such as experimental and casual-comparative was informed by the assertion of Saunders, Lewis, and Thornhill (2007) that
survey is an appropriate and common strategy in business and management research. The choice of survey strategy allowed for the collection of large amount of data from the population in a highly economical way.

Hypotheses and Testing Framework

In the review of literature, we established theoretical relationships between the variables in the hypotheses. The framework for standard multiple regression framework is used to test the various hypotheses.

The general objective of this study is to ascertain the relationship between tax education and tax compliance of the self-employed in the Cape Coast Metropolis of Ghana.

The following stated regression models are used in addressing the specific research objectives:

**Hypothesis 1:** There is no significant influence of tax education on committed tax compliance of the self-employed in the Cape Coast metropolis.

\[ Coc_t = \alpha_t + \beta_1 GTK + \beta_2 FAM + \beta_3 COC + e_t \]  

**Hypothesis 2:** There is no significant effect of tax education on capitulative tax compliance of the self-employed in the Cape Coast metropolis.

\[ Cac_t = \alpha_t + \beta_1 GTK + \beta_2 FAM + \beta_3 COC + e_t \]  

**Hypothesis 3:** There is no significant influence of tax education on creative tax compliance of the self-employed in the Cape Coast metropolis.

\[ CRC_t = \alpha_t + \beta_1 GTK + \beta_2 FAM + \beta_3 COC + e_t \]
Hypothesis 4: There is no significant effect of tax education on composite tax compliance of the self-employed in the Cape Coast metropolis

\[ C_{pc_t} = \alpha_t + \beta_1 GTK + \beta_2 FAM + \beta_3 COC + e_t \]  \hspace{1cm} (3.4)

Where

GTK connotes General Tax Knowledge

FAM connotes Fear Appealing Messages

COC connotes Convenience of Compliance

Coc\(_t\) connotes Committed Tax Compliance

Cac\(_t\) connotes Capitulative Tax Compliance

CrC\(_t\) connotes Creative Tax Compliance

Cpc\(_t\) connotes Composite Tax Compliance

e is measured as the error term.

The nature of these hypotheses is a multiple regression. Standard multiple regression technique was used to test for the hypotheses for two major reasons. It allows for the concurrent entry of different independent variables into a model and provides the basis of analyses, findings and conclusions on a single scenario (Leech, Barrett & Morgan, 2005). Secondly, the results generated by the multiple regression shows separately the contribution of each independent variable to the total variance in a dependent variable (Pallant, 2007).

The proxies for the study variables are substituted into equation (3.1) to derive the empirical model. Thus, having determined the theoretical model, the elements of both the response and explanatory variables are placed into the theoretical model to present the empirical model. Empirically, since the
response variables are more than one, multiple regression models are used and presented as:

**Relationship between Tax Education and Committed Tax Compliance**

To test the hypothesis that there is a positive relationship between committed tax compliance and tax education, the following model will be estimated:

\[ Coc_t = \alpha_t + \beta_1GTK + \beta_2FAM + \beta_3COC + e_t \]  

(3.1)

Where:

- \( Coc_t \) connotes Committed Tax Compliance;
- GTK connotes General Tax Knowledge;
- FAM connotes Fear Appealing Messages;
- COC connotes Convenience of Compliance.

General Tax Knowledge is expected to have a positive relationship with committed tax compliance. This is because, according to Machogu and Amayi (2013), as a result of education, tax payers become aware and understand their obligations and rights as taxpayers, and are therefore more likely to comply. Fear appealing messages is expected to also have a positive relationship with committed tax compliance, because, as found in Osebe (2013), the threat of fines and penalties have a positive influence on tax compliance levels. The researcher expects a positive relationship between the convenience of compliance and the level of committed tax compliance. The more convenient it is to comply, the more likely it is for taxpayers to do so.
This is supported by Maseko (2014), who examined the relationship between compliance costs and tax compliance among SMEs in Zimbabwe.

Overall, it is expected that there will be a positive relationship between tax education and committed tax compliance.

**Relationship between Tax Education and Capitulative Tax Compliance**

The following equation will be used to test the hypothesis that there is a negative relationship between capitulative tax compliance and tax education:

\[
Cac_t = \alpha_t + \beta_1 GTK + \beta_2 FAM + \beta_3 COC + e_t
\]  

(3.2)

Where,

\( Cac_t \) connotes Capitulative Tax Compliance.

The explanations for the next variables are as explained in equation (3.1).

General Tax Knowledge is expected to have a negative relationship with capitulative tax compliance. According to Mukasa (2011), taxpayers are likely to comply willingly when they have some knowledge about tax. The researcher expects a negative relationship between fear appealing messages and capitulative tax compliance because, according to Murray-Johnson et al., (2004), messages which are fear appealing are effective in behavioural change since they draw attention to the risks a person faces for not performing a particular action. The researcher expects a negative relationship between the convenience of compliance and the level of capitulative tax compliance. The more convenient it is to comply, the more likely it is for taxpayers to comply willingly without being coerced. This is supported by
Maseko (2014), who examined the relationship between compliance costs and tax compliance among SMEs in Zimbabwe.

Overall, it is expected that there will be a negative relationship between tax education and capitulative tax compliance.

**Relationship between Tax Education and Creative Tax Compliance**

This section tests the hypothesis that there is a negative relationship between creative tax compliance and tax education. The following equation is used to test:

\[
C_{rc_t} = \alpha_i + \beta_1 GTK + \beta_2 FAM + \beta_3 COC + e_t \tag{3.3}
\]

Where,

- \(C_{rc_t}\) connotes Creative Tax Compliance.

The model is expected to have an overall negative effect. General Tax Knowledge is expected to have a negative relationship with creative tax compliance. As Brainyyah and Rusydi (2013) put it, general tax knowledge reduces the risk of a taxpayer being creative with his tax liabilities. The researcher expects a negative relationship between fear appealing messages and creative tax compliance. The extended parallel process model (EPPM) lends credence to this, as it postulates that fear appealing messages will stimulate positive actions, thereby reducing the negative tendencies for creative tax compliance.

The researcher expects a negative relationship between the convenience of compliance and the level of creative tax compliance. The more convenient it is to comply, the more likely it is for taxpayers to comply
willingly without being creative. Brainyyah and Rusydi’s (2013) study established that there is a significant relationship between tax complexity (tax convenience) and tax compliance. This means that taxpayers are less likely to be creative with an improved level of convenience.

**Relationship between Tax Education and Composite Tax Compliance**

This section presents the hypothesis that there is a positive relationship between tax education and composite tax compliance (committed, capitulative and creative). It is determined using the following model:

\[
C_{pc_t} = \alpha_t + \beta_1 GTK + \beta_2 FAM + \beta_3 COC + e_t \tag{3.4}
\]

Where, 

\(C_{pc_t}\) connotes composite tax compliance.

This is expected to have a positive effect. This expectation is based on the outcome of several studies in the past: Eriksen and Fallan (1996), Tan and Chin-Fatt (2000), Machogu and Amayi (2013), Olowookere and Fasina (2013), Brainyyah and Rusydi (2013), Maseko (2014) etc.

**Measurement of Variables**

The dependent variable, tax compliance, has the following dimensions: committed compliance, capitulative compliance and creative compliance. Similarly, tax education, the independent variable, is represented by five proxies: general tax knowledge, fear appealing messages, convenience of compliance, cost of tax compliance and benefits of tax compliance. These variables are measured via questionnaire designed from
the literature. Table 1 below summarises the variables and their measurements:

Table 1—Summary of Study Variables, Sources of Data and Measurement

<table>
<thead>
<tr>
<th>Variables</th>
<th>Question No:</th>
<th>Definition</th>
<th>Measurements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Committed</td>
<td>15</td>
<td>When tax payers are willing to pay taxes with no complaint.</td>
<td>Likert Scale</td>
</tr>
<tr>
<td>Compliance</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Capitulative</td>
<td>16</td>
<td>When tax payers choose to comply unwillingly, complain but pay up nonetheless when faced with tax bill</td>
<td>Likert Scale</td>
</tr>
<tr>
<td>Compliance</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Creative</td>
<td>17</td>
<td>When tax payers engage in certain acts to minimize taxes by making the most of possibilities to define income in a different way and abstract</td>
<td>Likert Scale</td>
</tr>
<tr>
<td>Compliance</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
expenditures that fall within
the range of the tax laws.

<table>
<thead>
<tr>
<th>General Tax Knowledge</th>
<th>Awareness of tax legislation and other tax related information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fear</td>
<td>8, 9 and 10 These are messages which have the effect of provoking fear in taxpayers. For example threat of imprisonment, fines, closure of business etc.</td>
</tr>
<tr>
<td>Convenience of Compliance</td>
<td>11 and 12 The ease/convenience with which a taxpayer can pay his/her tax. This includes accessing the tax office, filling the necessary returns and making payments.</td>
</tr>
<tr>
<td>Cost of Tax Compliance</td>
<td>13 The costs to be incurred by taxpayers in complying with the tax laws. These include time, money, stress etc.</td>
</tr>
<tr>
<td>Benefits of Tax Compliance</td>
<td>14 The benefits associated with complying with the tax laws. These may include winning</td>
</tr>
</tbody>
</table>
government contracts, tax incentives, tax clearance certificates etc.

| Composite Tax Compliance | 15, 16 and 17 | This combines the effects of the other tax compliance (committed, capitulative and creative) |

Source: Field survey, Trawule (2014)

**Validity and Reliability**

To achieve validity of the instruments and methods used in this study, the study identified the variables which relate to tax education and tax compliance from the reviewed literature. It was revealed that general tax knowledge, fear appealing messages, education on convenience of tax compliance, education on cost of tax compliance and education on benefits of tax compliance are more suitable factors to measure tax education. Similarly, committed compliance, capitulative compliance and creative compliances are identified in measuring tax compliance. Besides the literature review, factor analysis was ran to determine how the questions on the questionnaires measure what they purport to measure. The statistical results limited the components for measuring tax education from five to only three components, namely, general tax knowledge, fear appealing messages and tax convenience.

Subsequent to the validity, reliability analysis was performed. The reliability test was used to examine the reliability of the study variables, instruments and the questions used to measure these variables. The test was based on the Cronbach Alpha. This is widely used and considered as one of...
the most effective measure of reliability (Pallant, 2005). From the analysis, the overall score for the Cronbach Alpha are 0.796 and 0.698 for tax education and tax compliance respectively. Although there is no generally agreed score for determining the extent of reliability, some experts have argued that approximately 0.70 is a relatively high reliability score. Therefore the results from the study show that the questions issued to the sampled respondents were more reliable to measure tax education and tax compliance among the self-employed in the Cape Coast metropolis. The reliability test was performed using SPSS (version 17). The details are presented in Table 2 below:

Table 2- *Scale reliability of Study Variables*

<table>
<thead>
<tr>
<th>Study variables</th>
<th>Cronbach Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tax education: Independent variable</td>
<td>.796</td>
</tr>
<tr>
<td>General tax knowledge</td>
<td>.762</td>
</tr>
<tr>
<td>Fear appealing message</td>
<td>.695</td>
</tr>
<tr>
<td>Tax convenience</td>
<td>.671</td>
</tr>
<tr>
<td>Tax compliance</td>
<td>.698</td>
</tr>
<tr>
<td>Committed compliance</td>
<td></td>
</tr>
<tr>
<td>Capitulative compliance</td>
<td></td>
</tr>
<tr>
<td>Creative compliance</td>
<td></td>
</tr>
</tbody>
</table>

Source: Field Survey, Trawule (2014)

**Principal Component Analysis**
The principal component analysis (PCA) is a common method under factor analysis that aims at defining the core structure in a matrix of data. This method was used to identify the core dimensions of the study variables. The study specifically used confirmatory factor analysis (CFA). According to Liua and Salvend (2009), CFA is helpful in confirming the compatibility of measurable indicators to the study and those formed by pre-established theories. The purpose of this analysis is to enhance the reliability of the measuring indicators. In this study, confirmatory factor analysis is used to refine the components used in measuring tax education. The results reduced the original five components as determined from the literature to 3 components. The details have been displayed on Table 3 below:

Table 3-Principal Component Analysis of Content of Tax Education

<table>
<thead>
<tr>
<th>Components</th>
<th>Indicators</th>
<th>GTK</th>
<th>FAM</th>
<th>COC</th>
<th>KMO</th>
</tr>
</thead>
<tbody>
<tr>
<td>General tax knowledge</td>
<td>Q6 (Appendix)</td>
<td>.685</td>
<td></td>
<td></td>
<td>.666 (0.000)</td>
</tr>
<tr>
<td></td>
<td>Q12 (Appendix)</td>
<td>.772</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Q13 (Appendix)</td>
<td>.801</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fear appealing messages</td>
<td>Q7 (Appendix)</td>
<td>.558</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Q8 (Appendix)</td>
<td>.551</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Q9 (Appendix)</td>
<td>.630</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Q10 (Appendix)</td>
<td>.593</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Convenience</td>
<td>Q11 (Appendix)</td>
<td></td>
<td></td>
<td>.812</td>
<td></td>
</tr>
</tbody>
</table>
It can be observed from the above table that the confirmed components are GTK, FAM and COC for general tax knowledge, fear appealing messages and tax convenience respectively. The KMO value is 0.666 with significant level of 1 percent. The Kaiser-Meyer Olkin Measure of Sampling Adequacy (KMO) presents the suitability level of the factor analysis (Luong & Ha, 2011). According to Luong & Ha (2011), for factor analysis to be suitable for the data, the KMO should be between 0.5 and 1.0 with significant level less than 0.05. Therefore the KMO test as portrayed in the table means that the confirmed components are suitable for the analysis.

**Data and Sampling Techniques**

This section describes the data and how it was obtained. It specifically discusses the study area, study population, sample size and justification, validity and reliability and data analysis.

**Study Area**

The study area covers the entire Cape Coast Metropolis. Cape Coast, which was formerly the capital city of Ghana and currently the regional capital of the Central Region, forms part of the Cape Coast Metropolitan Assembly (CCMA). The Cape Coast Metropolitan Assembly (CCMA) is one of the seventeen (17) political and administrative districts in the Central Region of Ghana. The Metropolis shares a common boundary to the south with the Gulf of Guinea, west with the Komenda-Edina-Eguafo-Abrem Municipal Area (at Iture Bridge), east with the Abura-Asebu-Kwamankese District and to the
north with the Twifo-Hemang-Lower Denkyira District. The Metropolis occupies an area of approximately 122 square kilometres. The southernmost point is the Cape Coast beach. The northern and furthest point is at Brabedze, and is about 17 kilometres from the Cape Coast Township.

According to the 2010 Population and Housing Census conducted by the Ghana Statistical Service (GSS), the Metropolis has a total population of 169,894 dominated by females. Out of the total population, 87,084 are females and 82,810 are males respectively (PHC, 2010). The major economic activities that the people of the metropolis engage in include trading and farming.

The choice of Cape Coast for the research is as a result of the low tax revenues generated from the metropolis (GRA, 2014). Cape Coast has a large informal sector made up of the self-employed. The self-employed account for a major part of this non-compliance. Forty-seven (47) percent of these self-employed are without employees. The study is conducted on the self-employed without employees. The reasons that accounted for the choice of this self-employed without employees are: self-employed without employees carried out large business activities in the metropolis, no type of research has been conducted in this area and the self-employed are prone to tax non-compliance in Ghana (Flynn, 2003).

Study Population

The study focuses only on self-employed businesses without employees and apprentice which form a large portion of the self-employed in the Cape Coast Metropolis. The population of self-employed in the Cape Coast Metropolis is 60,330 (PHC, 2010).
The self-employed without employees and apprentice is estimated to be 28,355 which represent 47% of the total self-employed population (PHC, 2010). The study focuses on self-employed without employees, because tax compliance of employees is relatively high as they are deducted at source. Thus, tax evasion by employees is weak compared to the self-employed. According to Fynn (2003), the loss of tax revenue is greatly attributed to the self-employed.

**Sample Size and Justification**

To enhance the confidence in the findings and conclusions from this study, the study follows scientific and empirical means to determine the sample size. Therefore the present study uses the model developed by Yamane (1967) to determine the sample size. Yamane’s sampling size determination model is presented as:

\[
A = \frac{k}{1 + (ke^2)}
\]

Where: \(A\) is the sample size, \(k\) is the population, \(e\) is the error limit (0.05 on the basis of 95% confidence level)

Substituting the data on these variables in the study, the sample size is determined as:

\[
A = \frac{28355}{1 + (28355 \times 0.05)^2}
\]

\[
A = \frac{28355}{70.89}
\]

\[
A = 399.99 \text{ or approximately } 400
\]

Therefore using a population of approximately 28,355 self-employed without employees and apprentices with an error limit of 5%, a sample size of 400 is considered adequate as computed above.
Sampling Technique

After determining the sample size, the study proceeds to determine and apply the sampling technique. The study employed the purposive sampling technique in selecting from self-employed without employees in the Cape Coast metropolis. The use of the quota purposive sampling technique was to ensure that each category of the major economic groups was represented in the sample (Palys, 2008).

Data Collection Method and Instrument

Primary data for the study are collected through the administration of structured questionnaires to the self-employed in the Cape Coast Metropolis. The questionnaires are structured based on the specific objective of the study, various components of tax compliance or non-compliance and tax education as discussed in the literature review chapter.

The use of questionnaire appears to be one of the most pertinent instruments used to answer research questions. It represents a comparatively cheap means of collecting information, and normally provides a rapid turn-around time (Remenyi, 2003). The first step in planning a questionnaire is to define and describe the phenomenon distinctly in order to identify the construct to be measured (Remenyi, 2003, Punch, 2009). Respondents are provided with elaborate instructions as to how the questionnaires are to be completed and returned. The principle behind providing clear instructions and ensuring confidentiality of data is based on the fact that, this significantly declines the likelihood of getting biased responses (Sekaran, 2003).

Responses to the survey are confidential and no participants or respondents names are provided. The study uses only closed-ended
questionnaires and a five-point Likert scale to make it easy to complete and to analyse.

Validity and Reliability of Instrument

The pre-test was conducted in the Komenda-Edina-Eguafo-Abirem (KEEA) metropolis to help measure and validate the contents of the survey instrument and to test the questionnaires. KEEA shares similar economic characteristics with the Cape Coast metropolis. The pilot study was conducted to ensure that the survey was clear and concise, to assess the time required to complete the questionnaire, and to be sure that the measurement items disclosed their intended meaning. The study also used the Cronbach Alpha reliability coefficient to show that the instrument was authentic.

Data Analysis

The study specifically employed Statistical Product and Service Solutions (SPSS) in organizing and analysing the data. Tables, graphs and charts were used to present outcomes of the analysis. Since the focus of the study is to establish relationships, regression model is applied to ascertain those tax educational variables that influence tax compliance. Moreover, because the study segregates tax compliance into four constituents, multiple regressions are used in this study.

Chapter Summary

The study adopted the quantitative approach as this approach allowed for the flexible treatment of data, in terms of comparative analyses, statistical analysis and repeatability of data collection in order to affirm reliability
(Partington, 2002). The standard multiple regression framework was used to test the various hypotheses in order to achieve the objectives of the study. This type of regression technique allowed the concurrent entry of different independent variables into the model and provided a basis for the analysis.

The dependent variable, tax compliance, had the following dimensions: committed tax compliance, capitulative tax compliance and creative tax compliance. Tax education was also represented by five proxies: general tax knowledge, fear appealing messages, convenience of tax compliance, cost of tax compliance and benefits of tax compliance. Tests for validity reduced these five proxies to three – general tax knowledge, fear appealing messages and convenience of tax compliance. The reliability tests produced scores of 0.796 for tax education and 0.698 for tax compliance.

The study area is the Cape Coast metropolis in the Central Region of Ghana. The total self-employed population of this metropolis is 60,330 (PHC, 2010). The self-employed without employees category of this population on which this study is based is about 28,355 (PHC, 2010). A sample size of 400 respondents is generated from this population using Yamane’s (1967) model. Purposive sampling technique is used to select the respondents. The data was collected through structured questionnaires. SPSS was used in organising and analysing the data. The results are presented in tables, graphs and charts.
CHAPTER FOUR
RESULTS AND DISCUSSION

Introduction

This chapter presents the data analysis of the study. The results are presented in tables and detailed analysis are made before and after the various relevant tables. The results of the hypotheses are presented and compared to prior relevant literature:

Descriptive Statistics

This section presents the data background and descriptive statistics of the data. Purposive sampling was employed in collecting the data, with a 100% response rate from the 400 respondents. The detailed description of the respondents is presented in the table below:

Table 4- Background Data on Self-Employed in Cape Coast Metropolis

<table>
<thead>
<tr>
<th>Variable</th>
<th>Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-------</td>
<td>--------</td>
<td>------</td>
</tr>
<tr>
<td>Male</td>
<td>206</td>
<td>51.5</td>
</tr>
<tr>
<td>Female</td>
<td>194</td>
<td>48.5</td>
</tr>
<tr>
<td>Total</td>
<td>400</td>
<td>100.0</td>
</tr>
</tbody>
</table>

2. Age

<table>
<thead>
<tr>
<th>Age</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>18 – 30</td>
<td>73</td>
<td>18.3</td>
</tr>
<tr>
<td>31 – 43</td>
<td>121</td>
<td>30.3</td>
</tr>
<tr>
<td>44 – 56</td>
<td>149</td>
<td>37.3</td>
</tr>
<tr>
<td>57 and above</td>
<td>57</td>
<td>14.1</td>
</tr>
<tr>
<td>Total</td>
<td>400</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Table 4 continued

3. Education

<table>
<thead>
<tr>
<th>Education</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>No formal education</td>
<td>37</td>
<td>9.3</td>
</tr>
<tr>
<td>J.H.S/Middle School</td>
<td>121</td>
<td>30.3</td>
</tr>
<tr>
<td>S.H.S/Technical</td>
<td>129</td>
<td>39.8</td>
</tr>
<tr>
<td>Tertiary</td>
<td>83</td>
<td>20.8</td>
</tr>
<tr>
<td>Total</td>
<td>400</td>
<td>100.0</td>
</tr>
</tbody>
</table>

4. Marital status

<table>
<thead>
<tr>
<th>Marital status</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Single</td>
<td>82</td>
<td>20.5</td>
</tr>
<tr>
<td>Married</td>
<td>222</td>
<td>55.5</td>
</tr>
<tr>
<td>Divorced</td>
<td>67</td>
<td>16.8</td>
</tr>
<tr>
<td>Widow/Widower</td>
<td>29</td>
<td>7.2</td>
</tr>
<tr>
<td>Total</td>
<td>400</td>
<td>100.0</td>
</tr>
</tbody>
</table>

5. Business Type

<table>
<thead>
<tr>
<th>Business Type</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Crop farming</td>
<td>18</td>
<td>4.5</td>
</tr>
<tr>
<td>Food Marketing</td>
<td>43</td>
<td>10.8</td>
</tr>
<tr>
<td>Animal farming</td>
<td>20</td>
<td>5.0</td>
</tr>
<tr>
<td>Poultry/Aquaculture</td>
<td>22</td>
<td>5.5</td>
</tr>
<tr>
<td>General trading</td>
<td>48</td>
<td>12.0</td>
</tr>
</tbody>
</table>

60
As shown in Table 4 above, with regard to gender, males were the dominant category with a total number of 206 (51.5%). There were 194 (48.5%) females. The dominance of male stemmed from the fact that men are considered family heads and they must work to cater for the family as acclaimed by Ghanaian culture. The informal sector where the self-employed operates is akin to the Ghanaian culture. The culture places responsibility of income stability and welfare of the family members in the hands of men. Therefore the male dominance is not surprising.

Regarding the age, 18.3 % of them fall within the age of 18 to 30, 31 to 43 (30.3%), 44 to 56 (37.3%), 57 and above (14.1%). From the age distribution, it is evident that the age range of 44 to 56 presents the highest opportunity for the self-employed. This can be related to the fact that it is within that bracket that individuals might have formally worked and gathered enough experience and resources to support their self-employed ventures. It is also revealing that only few people within the retiring age (14.1%) go into self-employment within the Cape Coast metropolis. In addition, on the issue of academic attainment, 20.8 % of respondents had attained tertiary level qualifications, while 39.8 % had secondary level qualifications, 30.3% have attained JHS or middle level qualification and 9.3% have no formal education. To expand and critically examine the results, 90.7% of the self-employed are formally educated whiles only 9.3% have no formal education.
Furthermore, the results from Table 4 indicate that majority of the self-employed (55.5%) within Cape Coast metropolis are married. The table specifically shows that under the analysis of the marital status, 20.5% are single, 55.5% are married, 16.8% are divorce and 7.2% are widows and widowers. Again, the table shows the statistical analysis of business activities or object of business of the respondents. From the analysis, it can be seen that 18 respondents representing 4.5% are engaged in crop farming, 10.8% are food farmers, animal farming constitute 5.5%, 5% are in poultry or aquaculture farming, 12% are into general trading while 62.2 % also into other forms of business activities.

Table 5 presents the results of the descriptive statistics. The Table specifically captures the mean, t-test statistic and median of the various variables.

Table 5- Descriptive Analysis

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean</th>
<th>T-Stats</th>
<th>Median</th>
</tr>
</thead>
<tbody>
<tr>
<td>General tax knowledge</td>
<td>3.591</td>
<td>1.617</td>
<td>3.667</td>
</tr>
<tr>
<td>Fear appealing message</td>
<td>4.863</td>
<td>40.91***</td>
<td>5.000</td>
</tr>
<tr>
<td>Convenience of tax</td>
<td>4.699</td>
<td>25.79***</td>
<td>5.000</td>
</tr>
<tr>
<td>Committed tax compliance</td>
<td>4.425</td>
<td>15.64***</td>
<td>5.000</td>
</tr>
<tr>
<td>Capitulative tax compliance</td>
<td>2.050</td>
<td>43.32***</td>
<td>1.000</td>
</tr>
<tr>
<td>Creative tax compliance</td>
<td>1.430</td>
<td>89.32***</td>
<td>1.000</td>
</tr>
<tr>
<td>Composite tax compliance</td>
<td>2.635</td>
<td>2.64***</td>
<td>2.667</td>
</tr>
</tbody>
</table>

*** Denotes significant at 1% level of significance

Source: Field Survey, Trawule (2014)
A six point Likert scale is employed in this study. Two tailed t-test is employed to determine whether or not mean scale responses are significantly different from zero (0). Regarding the general tax knowledge by the respondents, the mean of the self-employed is 3.59 (median = 3.67). The t-test statistic of 1.617 shows that, the mean is not statistically different from the point of indifference, the mid-point. This means that the self-employed within the Cape Coast metropolis were indifferent on their level of general tax education. Thus, they could not establish whether their level of general tax education is high or low. Again the mean score on knowledge of fear appealing messages is 4.86 (median = 5.00). The t-test statistic (40.91) associated with the mean of 4.89 reveals that the self-employed knowledge of fear appealing messages in relation to tax education in Ghana is high.

Furthermore, the table provides the descriptive statistics of the level of education on tax convenience. The table indicates that the mean of respondents on this content of education is 4.70 (median = 5.00). The t-test statistic (25.79) associated with the mean mark of 4.70 means that the level of tax education on tax convenience among the self-employed in the Cape Coast metropolis is high.

With reference to tax compliance the descriptive analysis capture committed compliance, capitulative compliance, creative compliance and overall tax compliance. The level of committed compliance among the self-employed within the study frame as measured by the mean mark is 4.43 (median = 5.00). The t-test score (15.64) associated with the mean score shows committed tax compliance. Thus, the self-employed do not complain much in complying with tax directives. Additionally, the table shows statistics
for capitulative compliance. As explained in the literature review this shows obedience to and payment of tax. The respondents have mean of 2.05 (median = 1.00).

The level of creative compliance among the respondents is measured by the mean with the score of 1.43 (median = 1.00). The t-test score (89.32) associated with the mean score shows that creative compliance among the self-employed in the Cape Coast is relatively low. The analysis of the overall tax compliance among the respondents is also captured on Table 5. Regarding the overall tax compliance, the mean mark of the self-employed is 2.64 (median = 2.67). The t-test statistic (2.64) associated with the mean mark shows that the overall tax compliance among the self-employed within the Cape Coast metropolis is low.

Factors Influencing Tax Compliance

This section presents the explanatory analysis for the results from the hypotheses formulated through the literature and outlined in chapter one.

The effects of Tax Education on Committed Tax Compliance

This section discusses the first objective of the study. The purpose of this objective is to determine how tax education affects the level of committed tax compliance among the self-employed within Cape Coast metropolis. Tax education for the purpose of this study is classified into three, namely, general tax knowledge, fear appealing messages and convenience of tax compliance. The interest of this study is to find the different effects of these components of tax education on committed tax compliance.

Table 6: Influence of Tax Education on Committed Tax Compliance
<table>
<thead>
<tr>
<th>Variable</th>
<th>Beta (β)</th>
<th>t-stats</th>
<th>Std. Error</th>
<th>P – value</th>
<th>Adjusted R²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>1.247</td>
<td>2.729</td>
<td>.457</td>
<td>.004</td>
<td>.573</td>
</tr>
<tr>
<td>GTK</td>
<td>.370</td>
<td>4.570</td>
<td>.081</td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td>FAM</td>
<td>-.256</td>
<td>-1.893</td>
<td>.135</td>
<td>.161</td>
<td></td>
</tr>
<tr>
<td>COC</td>
<td>.312</td>
<td>3.213</td>
<td>.097</td>
<td>.002</td>
<td></td>
</tr>
</tbody>
</table>

Sums of Square of regression (653.077), F-stat 87.991 (0.000)
Total sums of square (1139.750)
Fgtest: Chi2 Test = 71.7228  P-value >chi2(1)
Source: Field Survey, Trawule (2014)

Where:

- GTK is the general tax knowledge
- FAM is fear appealing messages
- COC is convenience of compliance

The model for this analysis therefore contains the three categories of tax education as predictors and committed tax compliance as dependent variable. As depicted in Table 6 below, all the three tax education categories have unique contributions to explaining the level of committed tax compliance. From Table 6, it can be observed that the overall fitness of the model is good. This is explained by the Adjusted R². This means that 57.3 percent of the behaviour in the level of commitment to tax compliance among the self-employed in Cape Coast metropolis is explained by general tax knowledge, fear appealing messages and convenience of tax compliance. Similarly, the Adjusted R² result also indicates that about 42.7 percent (100 – 57.3) of change in behaviour of committed tax compliance is explained by
other variables other than the predictors used in this study. In addition, the table shows a significant F-statistic.

The F-value explains whether the predictors collectively influence the level of committed tax compliance among the respondents. The F-value of 87.991 is statistically significant at 1 per cent level. The P-value of F-statistic is specifically 0.0000 which implies that general tax knowledge, fear appealing messages and convenience of compliance collectively influence committed tax compliance. The Farrar-Glauber Multicollinearity Chi2-test (Chi2 Test = 71.7228 P-Value > Chi2 (1) 0.0000) shows that there is no multicollinearity among the explanatory variables used in this analysis. That is, the predictor variables in this regression model are not correlated, meaning that one explanatory variable cannot be linearly predicted from the others.

The elements of tax education have significant influence on the level of committed tax compliance among the self-employed within the Cape Coast metropolis. From Table 6, GTK is the most influencing tax education category on the level of committed tax compliance. The GTK represents general tax education. It is evident from the table that there is a positive relationship between general tax education and committed tax compliance. Similarly, the level of significance of this category is less than one (1) percent. Specifically, it has a coefficient of 0.370 with p-value of 0.000. This implies that the general tax knowledge has a significant relationship with tax compliance among the respondents within the Cape Coast metropolis. It is therefore worthwhile to include general tax knowledge in planning tax education to enhance committed tax compliance.
Convenience of tax compliance, as shown in Table 6, also shows significant effect on committed tax compliance. Convenience of tax compliance has significant t-statistic coefficient. The sign on the coefficient is positive showing positive relationship between convenience of tax compliance and committed tax compliance.

Conversely, the analysis from Table 6 indicate that fear appealing messages in tax education as represented by ‘FAM’ has no significant effect on the level of committed tax compliance among the self-employed in the Cape Coast metropolis. This means that the use of threats or undue influence to influence the level of committed tax compliance may not be effective as per the results of the study.

The positive contribution of general tax education and convenience of tax compliance to committed tax compliance meets the study expectations. The findings are not only consistent with the study expectations but also confirm theoretical positions. The results are consistent with the theoretical position of the trans-theoretical model of change (TTM), according to (Brewer & Rimer, 2008). TTM posits that individuals in the contemplation and preparatory stages require teaching interventions that create awareness for the need to change and the cost and the benefits associated with the change (Brewer & Rimer, 2008). The theory explains that a teaching intervention may have positive influence only when it is suitable for a particular stage of the audience. The positive relationship may mean that the respondents are within the contemplation and preparatory stages where generic information about tax is needed for positive attitude towards taxation.
The results from the use of fear appealing messages, however, contradict the extended parallel process model (EPPM). According to this theory or model, messages which are fear appealing are effective means to behavioural change (Witte, 1994). The EPPM explained that since fear appealing messages draw attention to the risk(s) a person faces for performing or not performing a particular action, they are agents to behavioural change. The findings in this study predict contrary to the original propositions by the EPPM. The findings show that there is no significant effect of fear appealing messages on the level of committed tax compliance.

However, the results from the fear appealing messages is consistent with theoretical contribution to the EPPM by Murray-Johnson et al., (2004). According to that study, fear appealing messages do not automatically change behaviour positively. The consequence on behaviour changes is determined by three factors, namely susceptibility to the threat, severity of the threat and the possibility to control the associated risks. They explained that even though an individual may be susceptible to severe threat, the behaviour may not change if the risk can be circumvented. This is particularly true in the Ghanaian case where corruption and integrity of the tax officials are weakened (Tsen & Yeboah, 2007). An individual can easily have a way around these fear appealing messages. It is therefore not surprising that fear appealing messages do not have significant effect on committed tax compliance.

Besides the theoretical comparisons, the findings are comparable to empirical literature. For instance Machogu and Amayi (2013) examined the relationship between tax education and committed tax compliance. The committed tax compliance was measured from the degree of voluntary tax
compliance. Consistent to the findings in this study, they also found that tax behaviour could be enhanced if taxpayers understand tax laws better. This means that the positive effects of general tax knowledge and convenience of tax compliance on committed tax compliance confirm the results of Machogu and Amayi (2013).

A comparable study on committed tax compliance is by Olowookere and Fasina (2013) in Nigeria. The level of committed tax compliance was measured by the extent of voluntary compliance. Similar to the findings in this study, Olowookere and Fasina (2013) found that tax education significantly influenced the voluntary compliance of the taxpayers. Like Olowookere & Fasina (2013), Mengere (2014) also found that tax education on ‘Pay As You Earn’ (PAYE) positively enhance voluntary or committed tax compliance.

Although the results from this study have shown consistency with some empirical literature, it does disaffirm some other empirical evidences. For instance, the findings disaffirm the results of the study conducted by Brainyyah & Rusydi (2013). They discovered that general tax knowledge did not show any significant impact on tax compliance. Furthermore, unlike the findings in this study, Osebe (2013) empirically found that penalties and fines (fear appealing messages) had a positive impact on the tax compliances level. Similarly, Maseko (2014) discovered that tax knowledge has no correlation with the compliance with tax registration, but it showed a weak negative relationship with the compliance with filing. Maseko (2014) concluded that to enhance commitment to tax compliance among self-employed or SMEs, the concentration should be on providing SMEs with unique tax incentives rather than mere tax education.
Aside the above comparative explanations to the results of the study, the meaning and soundness of the findings can be deduced logically. For instance, the insignificant effect of fear appealing messages to committed tax compliance is logically valid. Committed tax compliance, according to McBarnet (2001), means willingness on the part of taxpayers to pay taxes with no complaint. It is undisputable that no individual will be committed to act or behave in a particular manner through threat or undue influence or coercion. Therefore fear appealing messages at best will cause taxpayers to comply with tax obligation but not willingly. Hence achieving voluntary or committed tax compliance requires a type of tax education which does not aim at frustrating or intensifying fear in tax payers.

The Effects of Tax Education on Capitulative Tax Compliance

The second objective of the study evaluates the effect of the tax education categories on capitulative tax compliance. This objective primarily focuses on evaluating the extent to which the tax education categories affect the level of capitulative tax compliance among the respondents within the Cape Coast metropolis. Capitulative tax compliance measures the extent to which a tax payer obeys, but pays tax reluctantly. The statistical and inferential analysis and discussions between the tax education components, as the predictors, and capitulative tax compliance, as dependent variables, are presented below:

Table 7-Influence of Tax Education on Capitulative Tax Compliance

<table>
<thead>
<tr>
<th>Variable</th>
<th>Beta (β)</th>
<th>t-stats</th>
<th>Std. Error</th>
<th>P – Adjusted value</th>
<th>R²</th>
</tr>
</thead>
</table>

70
Like predicting tax education on committed tax compliance, three tax education categories: general tax knowledge, fear appealing messages and convenience of tax compliance are used to predict capitulative tax compliance. The model presented in Table 7 indicates that all the predictors contribute significantly in explaining the extent of capitulative tax compliance. Thus, general tax knowledge, fear appealing messages and tax convenience have unique contribution to capitulative tax compliance. Unlike committed tax compliance where it is not affected by fear appealing messages, capitulative tax compliance is significantly affected by fear appealing messages. It can be seen from Table 7 that the estimation model is good. The fitness of the estimation can be deduced from the value of the Adjusted $R^2$.

Similarly, the F-statistic is significant. F-statistic is used to explain whether the independent variables or predictors collectively explain the response variable. Regarding this study, the F-statistic as presented in Table 7 is 98.476 with significant level of 0.000. A p-value of less than one percent, 5 percent or 10 percent is significant. In the case of this study, the p-value is less
than 1 percent confidence level. This implies that the predictors, namely, general tax knowledge, fear appealing messages and tax convenience jointly explains the change in behaviour of the self-employed within the Cape Coast metropolis in respect of capitulative tax compliance.

The Farrar-Glauber Multicollinearity Chi2-test (Chi2 Test = 29.2791 P-Value > Chi2 (1) 0.0000) shows that there is no multicollinearity among the explanatory variables used in this analysis. That is, the predictor variables in this regression model are not correlated, meaning that one explanatory variable cannot be linearly predicted from the others.

Table 7 shows that all the variables have significant coefficients. This means that all the predictors significantly affect the level of capitulative tax compliance among the self-employed within the Cape Coast metropolis. As explained under the first objective, the GTK, FAM and COC in the table are general tax knowledge, fear appealing messages and tax convenience respectively. The inferential discussions in this study are primarily on explaining the norms of the statistics of the variables, the meanings and implications, their relationships with the response or dependent variables and how they are situated in theories and other empirical comparisons.

The table provides statistics which explain the extent and nature of the relationship between general tax knowledge (GTK) and capitulative tax compliance. The coefficient of the causal relationship between general tax knowledge and capitulative tax compliance is negative. This means when the self-employed under consideration are educated on general tax issues, it will enhance voluntary tax compliance and reduce reluctant compliance.
The statistical coefficient of general tax education is -0.176 with p-value of 0.020. This implies that the coefficient is significant to explain the effect of general tax knowledge on capitulative tax compliance. The t-statistic for this variable as shown from the table is 2.339. This statistics is absolutely greater than 2. Therefore, with reference to this result, in tax education planning that purports to reduce tax payers’ reluctance to compliance, keen consideration should be given to general tax education.

The table also depicts the relationship between fear appealing messages as indicated by FAM. The table shows a coefficient of 0.213 with significant level of 0.002. This means that the coefficient is significant at less than 1 percent significance level. This suggests a positive relationship between fear appealing messages and capitulative tax compliance. Specifically, the coefficient explains that a percentage increase in fear appealing tax education causes about 0.213 compliance of tax by the self-employed but doing so reluctantly. Simply put, should tax education focus on fear appealing messages or threats, the tax payers may comply not committedly but rather unwillingly.

The above expected change in behaviour resulting from the fear appealing messages in tax education is quite rational as humans require freewill to act and take decisions and therefore will not be pleased if they are compelled to act by whatever means. The t-statistic for fear appealing messages shows that the relationship is relevant. The t-statistic is greater than 2 in absolute terms. The table provides that t-statistic of 3.185.

Similar to the relationship established by the general tax knowledge, the convenience of compliance also has negative effect on capitulative tax compliance.
From Table 7, the actual coefficient value for convenience of tax compliance education is negative. The coefficient statistic is -0.296 with p-value of 0.001. This means that the null hypothesis is rejected and the study concludes significant negative causal relationship between the study variables. The negative coefficient of 0.296 implies that when the tax payers’ (self-employed) knowledge about tax convenience is strengthened by one (1) percent, it will lead to 0.296 fall in the negative behaviour towards tax obligation. The relevance of the model and the causal relationship can be observed from the t-statistics. The t-statistics from the table shows a value of -3.264. In absolute terms, this statistic is greater than 2. This implies that the established causal relationship is relevant.

Having explained the statistical significance of the model presented in Table 7 and the descriptive analysis of the study variables in Table 4, comparative discussions are presented to identify the relevance of the study to the existing literature. The statistical analysis shows that both general tax knowledge and convenience of compliance have negative effect on capitulative tax compliance which is measured by the extent of tax payers’ unwillingness to pay tax. This finding is consistent with the expectations from the study. The study expected these tax education categories to enhance committed tax compliance and to minimise the unwillingness to paying tax. On the other hand, fear appealing messages have positive effect on capitulative compliance. This is similar to the study expectation as fear or threat has the potential to cause one to act positively but not in that person’s volition.
In addition, the findings have theoretical significance and consistency. The results from the study explain the relevance of the extended parallel process model. The model posits that “fear tactics” boost the level of arousal of recipients and also make them have the feeling that they are more susceptible to certain risks if they do not change or act in a required manner. It states that the individual will rationally evaluate the severity of the risk and act accordingly even if unwilling (Murray-Johnson et al., 2004).

The above theoretical assumptions are consistent with the identified relationship between fear appealing messages and capitulative tax compliance. The study has shown that indeed fear appealing messages cause the self-employed within the Cape Coast metropolis to honour their tax obligations unwillingly. This means that this study has contributed to the empirical evidences supporting this theory. Under objective one, it was evident that fear appealing messages had insignificant relationship with committed tax compliance and this is similar to the current finding. Rationally, commitment is based on mental power decision or volition. This cannot be achieved through the application of force or threats. It is therefore important for one to identify his audiences, their behavioural trend and the purpose of the education prior to deciding the content of the tax education. Again, tax compliance should not always be considered holistic but rather as a concept with dimensions. A particular tax education may be relevant to a particular dimension of tax compliance as proven by the relationship between fear appealing messages, committed tax compliance and capitulative tax compliance.
Similarly, the positive effect of fear appealing messages on capitulative tax compliance confirms the precontemplation stage of the TTM. At the precontemplation phase, TTM postulates that individuals are not ready to change and have no interest in any sort of help. According to Kristeller et al. (1992), a person in this phase is inclined to defending the existing bad habit(s) despite efforts to persuade for change and he does not deem it a problem. This means that tax authorities should not expect committed tax compliance from tax payers within this phase. At best they may endorse capitulative compliance as shown by the findings in this study. Therefore the findings suggest the application of both TTM propositions and EPPM’s fear tactics to boost compliance from these tax groups.

Despite the strong empirical arguments to support the relationship between fear appealing messages and capitulative tax compliance, the negative significant causal relationship between general tax knowledge, convenience of tax compliance and capitulative tax compliance provide evidence to the contrary. The negative relationship suggests that with education on general tax issues and education on convenience of tax, willingness to pay tax can be boosted without the need for ‘fear tactics’ as suggested by the extended parallel process model.

The validity of the above deduction is strengthened by the findings under objective 1, which reveal that tax payers’ commitment to tax compliance can be improved through general tax education and education on tax convenience. Simply, the ability to get the self-employed to pay tax is persuasion through tax education without the need for ‘fear tactics’. This confirms the self-efficacy assumptions under the trans-theoretical model.
(TTM) of change. Brewer and Rimer (2008) assert that a central part of the TTM theory is self-efficacy and it is enhanced through balanced decision making. This theoretical position supports the persuasive means of compliance rather than aggression.

The results provide further evidence to support the theory of planned behaviour (TPB). TPB posits that real behaviours are planned and informed by intentions and therefore to change behaviour is to first change the intentions which inform such behaviour (Brewer & Rimer, 2008). The theory explains further that when positive intentions are built, real behaviour is influenced positively. These postulations are true from the findings under both this and the first objective. General tax knowledge and knowledge about tax convenience positively influence tax compliance. These tax educational categories positively shape tax payers intentions which ultimately affect their compliance level. It is important to point out that although this study affirms intention-behaviour assumption of the theory of planned behaviour, the findings do not confirm that intention equates real behaviour as the subjects used in this study were real tax payers. Therefore the results may be different if samples other than real tax payers are used.

The findings can be situated in the empirical literature. The results of the study contradict the conclusions drawn by Tan and Chin-Fatt (2000). These authors used students as the subject of the study and examined the links between increase in tax knowledge and tax compliance. Tan & Chin-Fatt (2000) showed that increasing tax knowledge had no significant effect on the attitudes towards tax compliance. This contradiction in the results in both studies can be explained by the differences in the subjects used in the study.
While this study used real tax payers, Tan & Chin-Fatt (2000) used students. These authors' choice of subjects and focus of study were influenced by the assumption of intention of tax compliance equates real compliance as posited by the theory of planned behaviour which is not always true.

The differences in the results support the argument put forth in the problem that intention and real behaviour are not the same (Hagger et al., 2002). Thus, the argument that one’s positive compliance intention may change overtime or by circumstances. The study has proven the assertion that although intention may influence actions, it is not a good predictor of behaviour (Hagger et al., 2002).

Unlike Tan & Chin-Fatt (2000), the findings in this study confirm the results and conclusions drawn by Mukasa (2011). The scope of the study, sample size and the results of Mukasa were similar to the present study. It is therefore not surprising that the results are consistent. Like this study, Mukasa (2011) used real tax payers and focused on tax knowledge and tax compliance. The sample sizes were 330 and 400 for Mukasa (2011) and the current study respectively. The results from Mukasa (2011) showed a significant causative relationship between tax knowledge and willingness to pay tax.

A critical evaluation of the empirical comparison and discussions shows that the subjects within a sample frame significantly influence the outcome and conclusions of the study. Similarly, theoretical arguments should be placed in a context rather than being too generic. For instance, fear tactics as posited by EPPM, may be applicable in some context but not in all situations. Generally, the objective of evaluating the influence of tax education on capitulative compliance has been achieved.
The Effects of Tax Education on Creative Tax Compliance

Creative tax compliance, according to McBarnet (2001), means engaging in certain acts to minimize taxes by making the most of possibilities to define income in a different way and abstract expenditures that fall within the range of the tax laws. This section examines objective three of the study which seeks to “assess the influence of tax education of the self-employed in the Cape Coast metropolis” The study establishes a relationship between tax education and creative tax compliance. Like the previous objectives, tax education is categorised into general tax knowledge, fear appealing messages and convenience of tax compliance. The descriptive analysis on creative tax compliance, general tax knowledge, fear appealing messages and convenience of compliance has been provided in Table 4. Detailed explanations and discussions on these statistics have already been presented under that table. The statistical discussions based on Table 8 are presented below:

<table>
<thead>
<tr>
<th>Variable</th>
<th>Beta (β)</th>
<th>t-stats</th>
<th>Std. Error</th>
<th>P – value</th>
<th>Adjusted R²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>2.713</td>
<td>6.114</td>
<td>.444</td>
<td>.000</td>
<td>.498</td>
</tr>
<tr>
<td>GTK</td>
<td>.222</td>
<td>4.212</td>
<td>.053</td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td>FAM</td>
<td>-.128</td>
<td>-1.450</td>
<td>.088</td>
<td>.148</td>
<td></td>
</tr>
<tr>
<td>COC</td>
<td>-.311</td>
<td>-4.901</td>
<td>.063</td>
<td>.000</td>
<td></td>
</tr>
</tbody>
</table>

Sums of Square of regression (260.972)  F-stat  76.369 (0.000)

Total sums of square (524.040)
F-test: Chi\(^2\) Test = 218.5559  P-value \textgreater\textit{chi2} (15)

Source: Field survey, Trawule (2014)

The results in Table 8 show that all the tax education variables have significant relationship with creative tax compliance, although the variables have different directional effects on creative compliance. It is therefore apparent that these predictors have significant relation to creative tax compliance. Similar to capitulative tax compliance, all the independent variables excluding fear appealing messages influence creative tax compliance of the self-employed within the Cape Coast metropolis. It can be observed that the independent variables explain approximately 50% of changes in level of creative tax compliance. This means that the estimation model is relatively good. The Adjusted R\(^2\) statistics for the model is 0.498. This shows that 49.8 percent of the behavioural changes in the level of creative tax compliance can be explained by tax education.

The F-statistic measures whether or not the predictors or regressors jointly or collectively explain variations in the response variable. The significance of the F-statistics is measured by the p-value. In the context of this study, the F-statistics is 76.369 (with a p-value of 0.000). Since the p-value is less than 5 percent, it is deemed as significant. This portrays that the predictors used in this study, namely, general tax knowledge, fear appealing messages and convenience of tax compliance collectively affect the level of creative tax compliance among the self-employed within the Cape Coast metropolis.
The Farrar-Glauber Multicollinearity Chi2-test (Chi2 Test = 218.5559
P-Value > Chi2 (15) 0.0000) shows that there is no multicollinearity among
the explanatory variables used in this analysis. That is, the predictor variables
in this regression model are not correlated, meaning that one explanatory
variable cannot be linearly predicted from the others.

Furthermore, the table provides statistics explaining the relationship
between the tax education indicators and creative tax compliance. These
statistics show both the nature of the causal relationships and the significance
of the relationships. From the table, it can be observed that there is a
significant relationship between general tax knowledge and creative tax
compliance. There is a positive coefficient between general tax knowledge and
creative tax compliance. This means that when the level of general tax
knowledge is high, self-employed tax payers undertake creative tax
compliance (i.e. tax planning). The coefficient of the causal relationship is
0.222 with P-value of 0.000. The p-value of 0.000 suggests that the null
hypothesis of no significant effect is rejected. Therefore the alternative
hypothesis that general tax knowledge significantly affects creative tax
knowledge is upheld. The p-value also suggests that the coefficient is
significant to explain the effect of general tax knowledge on creative tax
compliance. By implication, the coefficient of 0.222 means that a 1 percent
increase in general tax knowledge leads to 0.222 increase in creative tax
compliance activities among the self-employed in Cape Coast. On the other
hand, a percentage decrease in the general tax knowledge also reduces the
activities of creative tax compliance among the tax payers.
The table also displays the t-statistics which show how relevant the established relationship is. The table shows t-statistics of 4.212. The inferential discussions on the relationship between general tax knowledge and creative tax compliance show that general tax education makes the taxpayers conscious of opportunities in reducing consequences of taxations or reducing their tax obligations. Therefore tax education planners should balance the content of general tax education if the purpose is to boost tax revenue.

It can also be observed from the table that there is no significant relationship between fear appealing messages and creative tax compliance. The coefficient of the relationship is -0.128. The nature of the relationship is negative. This negative relationship is not significant as shown by the corresponding p-value of 0.148. The p-value is even greater than 10 percent and therefore the study fails to reject the null hypothesis. Hence the study concludes that there is no significant causal relationship between fear appealing messages and creative tax compliance. Simply put, fear appealing messages do not affect creative tax compliance. This supports the insignificance of this variable in explaining creative tax compliance. The t-statistic is specifically -1.450 which in absolute terms is closer to 1 than 2.

Although the relationship shown by the coefficient of convenience of tax compliance is significant, the direction is similar to the fear appealing messages. The two variables have shown negative relationships with creative tax compliance. This means that apart from the general tax knowledge which has positive causal relationship with creative tax compliance, the remaining predictors show negative relationship. The coefficient of convenience of compliance is -0.311 with p-value of 0.000. The p-value means that the null
hypothesis formulated in this study about the relationship between convenience of compliance and creative tax compliance is rejected. It is therefore concluded that there is a significant negative causal relationship between these variables. The coefficient value of -0.311 shows that a percentage increase in the level of convenience of compliance will lead to a 0.311 decrease in creative tax compliance. This means that convenience tax education demotivates the aggressive means to reduce tax consequence.

The above deduction is sound in that tax payers undertake creative tax compliance strategies purposely to make the system and tax administration comfortable to their operation (McBarnet, 2001). Sometimes such tax payers would have to incur additional cost to engage the services of accountants or other experts in designing and implementing the creative strategies. Therefore, when the tax administration is convenient to the tax payers, it will likely reduce such activities.

The t-statistics of the causal relationship is also significant. This is supported by the significance of the coefficient.

The above statistical analysis shows that both fear appealing messages and convenience of compliance have negative effects on creative tax compliance whiles general tax knowledge contributes positively to creative tax compliance. These results are inconsistent with the study expectations. The study expected that fear appealing messages, for instance, would cause tax payers to engage in activities to minimise their tax obligations, however, the findings prove the contrary.
The results, however, have some theoretical consistency. Some of the findings under this objective confirm the intention-behaviour assumption of the theory of planned behaviour. The theory explains that the information an individual receives builds the intention and ultimately reflects in actions or becomes a trend in behaviour (Putra, 2012). This postulation is in line with the positive relationship between general tax knowledge and creative tax compliance. General tax knowledge provides the tax payer with not only how to honour his tax obligations but also opportunities to reorganise oneself to take advantage of certain known tax benefits. This knowledge articulates the desire (i.e. intention) for tax planning and may result in engaging in activities to minimise the overall tax obligations (i.e. real behaviour). This means that per the theory of planned behaviour, it is expected that general tax knowledge would positively predict creative tax compliance.

On the contrary, the finding on the relationship between fear appealing messages and creative tax compliance disaffirm the three factor considerations to actions as explained by the extended parallel process model (EPPM). The theory explains that when an individual is exposed to fear appealing messages, the person considers: susceptibility to such risk, the severity of the risk and whether they can either minimise the threat (response efficacy) or carry out the required action (self-efficacy). It posits that once the individual feels he is capable to act, he will suitably keep the risk under control (Murray-Johnson et al., 2004). As explained in the chapter two, creative tax compliance is a control mechanism to paying higher tax. That is to say, to minimise ones tax obligations. Drawing from the EPPM theory, it is the surest response to tax
threat and therefore expected that creative tax compliance activities should increase when fear appealing messages are intensified.

Contrary to the above theoretical expectation, the study has shown rather negative but insignificant causal relationship between fear appealing messages and creative tax compliance. This inconsistency means that the study provides no empirical evidence to support this assumption of the theory. Despite the inconsistency with EPPM, the observed negative relationship in this study is justifiable. The subjects within the sampling frame were self-employed who may not be able to withstand legal threats and penalties associated with misapplications of the tax laws to minimise tax burden. Although general tax knowledge may arouse their desire to undertake activities to minimise tax obligation, they may be discouraged from doing so due to the associated threats of consequence for misapplying the said tax laws.

The effect of convenience of compliance on creative tax compliance shows a similar direction to that of the fear appealing messages. These two tax educational indicators show negative influence on creative tax compliance. The result affirms the contemplation phase assumption of the trans-theoretical model (TTM). According to the TTM, during the contemplation phase, individuals happen to be on a seesaw, evaluating the advantages and disadvantages of changing their behaviour or quitting. Prochaska et al. (1997) assert that an individual will take action to change when there is greater degree of certainty that the accompanying benefits will exceed the cost. Relating these propositions to the findings, once the tax payers are certain on the tax convenience, they may be content with this benefit which is certain rather than incurring additional cost for hiring an expert to gain benefits which may often
be disputed by tax officials. This means once tax payers are educated on the extent of tax convenience, they may not strive to engage in tax creative activities. Hence the observed negative effect on creative tax compliance in this study is justified.

The findings are consistent with the study conducted by Mukasa (2011). Mukasa (2011) concluded in part that when tax payers are conversant with general tax laws, they will take technical tax decisions to enhance general tax compliance. Technical knowledge in tax compliance includes tax planning which is a key component of creative tax compliance. This means that knowledge of general tax laws have a significant causal relationship as observed in this study. The author specifically opined that there is a significant positive causal relationship between general tax knowledge and tax compliance. Mukasa (2011), however, saw a weak relationship between tax conveniences in compliance. It should be reiterated here that there are some dissimilarities in the focus and measurements between the present study and Mukasa’s (2011) study and therefore some inconsistencies are undisputable.

Similarly, Brainyyah and Rusydi (2013) used real tax payers in examining, among others, the relationship between tax complexity and tax knowledge on one side and tax compliance on the other side. Although this study used composite tax compliance rather than segregating it into dimensions including creative tax compliance, the findings can be comparable to some extent. For instance, consistent with the results in this study, Brainyyah and Rusydi (2013) also concluded that tax complexity (tax convenience) has significant relationship with tax compliance. The authors
however, did not find any evidence to support the relationship between general tax knowledge and tax compliance.

To conclude, it is evident from the overall discussions that the nature of the effect of tax education on tax compliance depends strongly on the type of tax compliance under consideration. Therefore the segregation of tax compliance into the dimensions by McBarnet (2001), is the right course. For instance, although general tax knowledge had positive effect on committed tax compliance and creative tax compliance, the relationship is negative with regards to capitulative compliance. Similarly, in respect of fear appealing messages, the causative relationship that exists between it and both committed and creative tax compliances is negative whiles that of capitulative tax compliance is positive. Again, it was observed that convenience of tax compliance has positive effect on committed tax compliance but negative effect on both capitulative and creative tax compliances.

It is therefore apparent for researchers to consider more empirical evidences into McBarnet (2001) tax compliance classifications, to inform policy formulation and effective tax education. Doing this will provide enough evidence-based studies to support tax education decision.

The Effects of Tax Education on Composite Tax Compliance

This is the fourth and last objective of the study. This objective seeks to achieve two things. First, it uses multiple regression to investigate how the various tax education categories used in this study affect the composite or overall tax compliance. Secondly, it uses structural equation modelling (SEM) to analyse the effect of overall tax education on composite tax compliance.
The direction of the relationship between each tax education category and the composite tax compliance is compared with the observed findings under the segregated tax compliance in objectives 1, 2 and 3. Thus, the effect of general tax knowledge, fear appealing messages and convenience of compliance on composite tax compliance is compared with such effects on committed tax compliance, capitulative tax compliance and creative tax compliance. Unlike the segregated tax compliance dimensions where empirical evidences are inadequate, there are enough evidences on composite tax compliance so both theoretical and empirical comparisons are presented in detail.

Table 9- Influence of Tax Education on Overall Tax Compliance

<table>
<thead>
<tr>
<th>Variable</th>
<th>Beta (β)</th>
<th>t-stats</th>
<th>Std. Error</th>
<th>P-value</th>
<th>Adjusted R²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>2.168</td>
<td>6.074</td>
<td>.357</td>
<td>.000</td>
<td>.637</td>
</tr>
<tr>
<td>GTK</td>
<td>.066</td>
<td>1.576</td>
<td>.042</td>
<td>.125</td>
<td></td>
</tr>
<tr>
<td>FAM</td>
<td>-.167</td>
<td>-2.360</td>
<td>.071</td>
<td>.019</td>
<td></td>
</tr>
<tr>
<td>COC</td>
<td>.163</td>
<td>3.195</td>
<td>.051</td>
<td>.002</td>
<td></td>
</tr>
</tbody>
</table>

Sums of Square of regression (210.662), F-stat 97.699 (0.000)
Total sums of square (330.710)

\text{F_{test}}: \text{Chi2 Test} = 87.1610 \quad \text{P-value} > \text{chi2 (3)}

The results of the standard regression estimation model are depicted by Table 9. The table shows that all the three tax education categories collectively contribute significantly in explaining the level of composite tax compliance. From Table 9, it is evident that the overall fitness of the model is good. This can be observed from the Adjusted $R^2$. The Adjusted $R^2$ statistic of 0.637 is relatively high.

Again, a significant F-statistic can be observed from the Table 9. The F-value explains whether the predictors collectively affect the extent of tax compliance among the respondents. The F-value of 97.699 is statistically significant at 1 per cent level. The F-statistic has p-value of 0.000 which implies that general tax knowledge, fear appealing messages and convenience of compliance collectively affect the behaviour of self-employed within the study area towards tax compliance. The Farrar-Glauber Multicollinearity Chi2-test (Chi2 Test = 87.1610 \quad \text{P-Value} > \text{Chi2 (3) 0.0000}) shows that there is no multicollinearity among the explanatory variables used in this analysis. That is, the predictor variables in this regression model are not correlated, meaning that one explanatory variable cannot be linearly predicted from the others.

The table shows that most of the independent variables significantly affect the level of tax compliance among the self-employed within the Cape Coast metropolis. From the table, GTK denotes general tax education, FAM represents fear appealing messages and COC represents tax convenience. The
Table shows the causative relationships that exist between each of these tax education categories and the overall or composite tax compliance.

Table 9 shows that general tax knowledge has an insignificant positive effect on overall tax compliance of the respondents. It means that, at best, general tax knowledge positively affect some dimensions of overall tax compliance. It means that the study fails to reject the null hypothesis of a no significant causal relationship.

The results in Table 9 show that general tax knowledge has significant relationships with committed tax compliance, capitulative tax compliance and creative tax compliance. Therefore, it becomes an indispensable variable when the target of compliance falls within such dimensions. The results means that tax education should be targeted at the right behaviours to be successful.

On the contrary, the table shows that tax convenience has a significant positive effect on overall or composite tax compliance. The nature of the relationship and how sensitive a change in tax convenience affects overall or composite tax compliance is measured by the coefficient of the tax convenience. As measured by beta (β), the coefficient statistic for tax convenience is 0.163. The coefficient is positive, implying a positive causal relationship between tax convenience and composite tax compliance. The attached p-value for the coefficient is 0.002 which means that the coefficient is significant at 1 percent significance level. The p-value shows that the null hypothesis formulated is rejected and therefore concludes that tax convenience positively affects composite tax compliance.

Unlike the other tax education variables discussed, Table 9 shows a converse relationship. It indicates that fear appealing messages in tax
education as denoted by FAM has negative significant effect on the level of composite tax compliance among the self-employed in the Cape Coast metropolis. The negative coefficient of 0.167 with p-value of 0.019 suggests that the relationship is significant. The p-value of 0.019 is less than 5 percent significance level. Therefore the null hypothesis of no significant relationship is rejected to uphold the alternative hypothesis. This means that the use of fear tactics in tax education negatively influence the level of composite tax compliance. The degree of how sensitive fear appealing messages affect tax compliance can be drawn from its coefficient. The negative coefficient of 0.167 means that a percentage increase in fear appealing messages in tax education reduces the level of tax compliance by 0.167. On the other hand, a decrease in fear appealing messages enhances tax compliance by 0.167.

Table 9 again shows a strong t-statistic, indicating the relevance of the causative relationship between fear appealing messages and composite tax compliance. It can specifically be observed that the t-statistic is greater than 2 (-2.360) in absolute terms. This suggests that the estimated relationship is relevant.

**Robustness Test**

Using STATA 13, path coefficients and their significances were obtained as seen in Table 10. From Table 10 the likelihood ratio test result (prob>chi2=0.2473) shows that the model is well fit, that is, the assumed relationship between the latent variable (tax education) and observed variables (GTK, FAM, COC) are supported by the data. The path coefficients show that tax education significantly explains total tax compliance at 1% level of
significance. The effect of tax education on total tax compliance is estimated to be 0.4917. This means that a unit increase in tax education increases tax compliance by 49.17%. The path coefficients further confirm the significant relationship between the observed variables GTK, FAM & COC and tax education.

Table 10- *Effect of Overall Tax Education on Composite Tax Compliance*

| Measurement       | Co. eff | Standard Error | z     | P>|Z| |
|-------------------|---------|----------------|-------|------|
| PCA1 <- TaxEduc   | 1.0000  | (constrained)  |       |      |
| PCA2 <- TaxEduc   | 0.5773  | 0.109187       | 63.99 | 0.000|
| PCA3 <- TaxEduc   | 0.8931  | 0.174169       | 5.13  | 0.000|
| TC <- TaxEduc     | 0.4917  | 0.12764        | -3.85 | 0.000|
| Likelihood ratio test | Chi2(2)= | 2.79           |       |      |
|                   | Prob>Chi2= | 0.2473        |       |      |

Source: Field Survey, Trawule (2014)

Having presented the robust statistical discussions, theoretical and empirical analysis are also explained. Although the negative effect of fear appealing messages and positive effect of tax convenience on composite tax compliance meet study expectations, the insignificant relationship observed about general tax knowledge is to the contrary.

The positive relationship between tax convenience and tax compliance confirms the contemplation assumption of the trans-theoretical model. The theory posits that individuals at the contemplation stage are at seesaw weighing the cost and benefits associated with quitting their current negative attitude (Prochaska et al., 1997). Once they are convinced that their change of
behaviour is rewarding and the aftermath is not fatal, they positively respond to opinions and information for change. Tax convenience enhances the benefits and reduces the complexity and difficulties associated with tax compliance. This makes the seesaw imbalance in favour of the benefits and positive attitudes towards tax compliance.

The study, however, did not find evidences to support the fear tactics assumption of the original extended parallel process model. The fear tactics assumption of the EPPM asserts that fear stimulates positive actions. Contrary to this, the study saw that fear rather strengthens negative attitude towards tax compliance. It is reported from Table 9 that fear appealing messages significantly discourage tax compliance. This means that EPPM is not applicable in explaining overall tax compliance behaviour. This disaffirmation is valid for the Ghanaian tax environment. As observed by Tsen & Yeboah (2007), the level of integrity of the tax officials in Ghana is low and therefore they are prone to condoning and conniving with tax defaulters to control the risk of non-compliance. Therefore, the excessive fear may cause the defaulters to form alliance with the unscrupulous officials to massage the situation.

On the other hand, the observed relationship between general tax knowledge and tax compliance is similar to the empirical evidence by Tan & Chin-Fatt (2000) in New Zealand. These authors examined, among others, the relationship between general tax knowledge and tax compliance. Their results showed that increasing tax knowledge had no significant effect on the attitudes towards tax compliance. This supports the conclusion drawn in this study.

Furthermore, although the results from the study show that fear appealing messages in tax education negatively affects overall tax compliance,
Osebe (2013) found the contrary. The author showed that fear appealing information such as penalties and fines positively affect tax compliance. The differences in the results may be affected by culture and environment of the respondents. In the Ghanaian case, the negative causative relationship is reflective. Fear appealing messages such as penalties and fines have existed in the Ghanaian tax system, however, the attitude towards tax compliance has been low. This caused the Ghana Revenue Authority (GRA) to administer tax amnesty in 2012/2013 to boost tax revenue.

Touching on the effect of overall tax education on composite tax compliance, the positive relationship between overall tax education and composite tax compliance in this study confirms that if the right tax education interventions are provided at the appropriate stage of change, then the overall tax compliance of individuals will be enhanced. This was drawn from the proposition of TTM. This finding is supported by Eriksen & Fallan (1996), who found that there is a correlation between fiscal knowledge and behaviours towards taxation. The results of this study therefore calls for comprehensive tax education policies that will ensure that tax payers and potential tax payers understand their tax obligations. The effect that education has is to increase knowledge thereby empowering the individual or the organisation, and stimulates a positive tax culture.

The discussions of the various objectives have revealed that for a successful tax education, the planners should consider, among others, the audience or target group, and the type of tax compliance to achieve. To achieve committed tax compliance, the key tax education dimensions include general tax knowledge and tax convenience whiles little emphasis is placed on
fear appealing messages. Similarly, fear appealing messages will cause tax payers to honour tax obligations reluctantly. One may be tempted to deduce that to boost tax revenue, capitulative compliance which is enhanced by fear appealing messages is very important and hence fear tactics should be employed on this group. However, there is an accompanying long-term cost. This capitulative group may eventually be used to these threats or contain the associated risk.

Generally, the study reveals that tax education affects composite tax compliance. A more effective way to ensure tax education is to incorporate tax education into the primary and high school curriculum in Ghana. This may include the roles that taxes have played in our nation’s history – how taxes affect people and the economy, how to file a simple tax return and tax rights and responsibilities.
Figure 2: An SEM chart showing the effect of overall tax education on composite tax compliance

Source: Field Survey, Trawule (2014)

Conclusion

This chapter has presented, analysed and discussed the descriptive statistics of the data used in this study and subsequently the explanatory analysis of the study variables. The results show the following:

For the first research objective, it is concluded that tax education significantly affect committed tax compliance, however, the direction of the relationship depends on the content of the tax education. Specifically, it is concluded that when the level of general tax knowledge and tax convenience are high, committed tax compliance among the self-employed within the Cape Coast metropolis will be enhanced. In addition, fear appealing messages weaken the tax payers’ (self-employed in the Cape Coast metropolis) commitment to comply with tax. Thus, fear tactics do not improve tax commitment as claimed by some researchers.

With regards to the second research objective, it is concluded that the level of general tax knowledge and tax convenience are antidotes to capitulative tax compliance and therefore correct capitulative tax compliance behaviour. In spite of the positive role by these tax education contents to correct capitulative behaviour, fear appealing messages in tax educations encourage capitulative tax compliance.

With reference to the third objective, it is concluded that only general tax knowledge positively affects creative tax compliance. Fear appealing
messages have negative influence on creative tax compliance. It is also concluded that tax convenience does not affect creative tax compliance.

Regarding the fourth and the final objective, the conclusion drawn on the relationship between general tax knowledge and composite tax compliance is that general tax knowledge does not affect composite tax compliance. However, fear appealing messages negatively affects composite tax compliance. Again, the conclusion on the causative relationship between tax convenience and composite tax compliance is that tax convenience positively affects overall or composite tax compliance.

In summary, it is concluded that tax education affects tax compliance. However, the nature of the relationship, whether positive or negative, depends on the type or the content of the tax education, the type of tax compliance to achieve and the behaviour of the audience. Generally, tax compliance segregated into committed tax compliance, capitulative tax compliance and creative tax compliance has significant bearings on overall tax compliance.
CHAPTER FIVE
SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Introduction

The concluding chapter of this study has four main sections: summary, conclusions, recommendations and suggestions for further studies. The summary section provides an overview of the scope and focus of the study, the key methods used and the key findings reported. The conclusion section provides remarks on each of the specific objectives, whether or not the objectives have been achieved and conclusions drawn. The chapter proceeds with specific recommendations emanating from the findings within the study. The recommendations are more specific to a named stakeholder or institutions. The fourth and last section presents the suggested direction for future studies.
Summary

The overall purpose of the study was to establish the relationship between tax education and tax compliance among the self-employed in the Cape Coast metropolis. The study sought to achieve four specific objectives. The first objective looked at the effect of tax education on committed tax compliance. The second objective assessed the influence of tax education on capitulative tax compliance. The third investigated the effect of tax education on creative tax compliance and the fourth objective examined tax education and the composite tax compliance. To address these study objectives, research hypotheses were formulated in this study.

A sample of 400 respondents were selected from a population of 28,355. The respondents were those within the self-employed category. The study used the sampling size model developed by Yamane (1967) to statistically determine the appropriate sample size from the population. Purposive sampling was used in selecting the respondents. A self-administered questionnaire was used as the main data collection instrument after a successful pilot study was performed.

The collected data on the background were statistically analysed using descriptive statistics such as frequencies and percentages. Analysis on the relationships between the three major tax education variables, namely, general tax knowledge, fear appealing messages and tax convenience and each of the tax compliance dimensions: committed tax compliance, capitulative tax compliance, creative tax compliance and composite tax compliance were done using standard multiple regression techniques. The tax education elements were used as independent variables whiles tax compliance dimensions used as
response or dependent variables. The study used Statistical Product and Service Solutions, version 17 (SPSS 17.0) for the data analyses.

Findings

A summary of the key findings of the study were as follows:

The first research objective was to determine the influence of tax education on committed tax compliance. The key findings in determining such relationship are as follows:

1. It showed that general tax education positively affect committed tax compliance.
2. Fear appealing messages has no significant effect on the level of committed tax compliance among the self-employed in the Cape Coast metropolis.
3. It was found that tax convenience has significant positive effect on committed tax compliance.

The second study objective was to evaluate the influence of tax education on capitulative tax compliance. The key findings were as follows:

1. The regression results showed that the independent variables jointly influence capitulative tax compliance. The results indicated that all the predictors contributed significantly in explaining the extent of capitulative tax compliance. Thus, general tax knowledge, fear appealing messages and convenience compliance have unique contribution to capitulative tax compliance.
2. It was observed from the results that general tax education negatively affect capitulative tax compliance.
3. The results again indicated that fear appealing messages in tax education has positive significant effect on the level of capitulative tax compliance among the self-employed in the Cape Coast metropolis.

4. Tax convenience has a significant negative effect on capitulative tax compliance.

The third objective was to assess the influence of tax education on creative tax compliance. The results revealed the following:

1. The model for the estimation revealed that regressing creative tax compliance on all the predictors showed that the independent variables have an association with creative tax compliance. The model revealed that most of the predictors have significant influence on creative tax compliance but at different significance levels.

2. It was revealed that general tax education positively affect creative tax compliance.

3. It was observed that fear appealing messages in tax education has negative insignificant effect on the level of creative tax compliance among the self-employed in the Cape Coast metropolis.

4. The findings reveal that tax convenience has significant negative effect on creative tax compliance among the self-employed in the metropolis.

The fourth and final objective was to investigate the effect of tax education on composite tax compliance. The major findings were as follows:
1. The regression results showed that there is a significant causative relationship between tax education and composite tax compliance. The results revealed that most of the predictors have significant influence on composite tax compliance but at different significance levels.

2. The study observed from the estimation model that general tax education has a positive but insignificant effect on composite tax compliance.

3. It was revealed that fear appealing messages in tax education has significant negative influence on the level of composite tax compliance among the self-employed in the Cape Coast metropolis.

4. The findings indicated that tax convenience has significant positive effects on composite tax compliance.

Conclusions

From the findings presented, the following conclusions can be drawn:

1. For the first research objective, it is concluded that tax education significantly affect committed tax compliance, however, the direction of the relationship depends on the content of the tax education. Specifically, it is concluded that when the level of general tax knowledge and tax convenience are high, committed tax compliance among the self-employed within the Cape Coast metropolis will be enhanced. Thus, improved tax education and convenience of paying tax, encourages tax compliance. Which means more education will
ensure tax compliance. The same applies when it becomes more convenient to pay taxes. For instance, in filing returns.

In addition, fear appealing messages weaken the tax payers’ (self-employed in the Cape Coast metropolis) commitment to comply with tax. The use of threats or undue influence to influence the level of commitment to tax compliance may not be effective per the results of the study. Thus, fear tactics do not improve tax commitment as claimed by some researchers. This could be as a result of the fact that in the past, penalties imposed have not worked or failed to yield the needed results.

2. With regards to the second research objective, it is concluded that the level of general tax knowledge and tax convenience are antidotes to capitulative tax compliance and therefore correct capitulative tax compliance behaviour. This means that tax payers are more likely to comply willingly when they are educated or when they realize it is more convenient to comply.

Despite the positive role by these tax education contents to correct capitulative behaviour, fear appealing messages in tax education encourage capitulative tax compliance. The use of threats or undue influence is an effective means to influence the level of capitulative tax compliance. This means when sanctions are applied, it encourages future tax compliance, although unwillingly.

3. With reference to the third objective, it is concluded that general tax knowledge positively affects creative tax compliance. This means tax payers with better tax knowledge, through education, are likely to
engage in tax avoidance practices. This means it is beneficial to tax payers to know the tax laws in order to better manage their tax liabilities.

Fear appealing messages have negative influence on creative tax compliance. This is explained to mean that when tax payers are confronted with fear appealing messages, it prevents them from engaging in creative tax compliance behaviours. The fear imposed in them prevent them from engaging in tax avoidance schemes. It is also concluded that tax convenience does not affect creative tax compliance. This means, there is no direct link between the level of convenience of paying the tax and engaging in tax avoidance activities. Thus, a tax payer will engage in tax avoidance schemes no matter how convenient it is to pay the tax.

4. Regarding the fourth and final objective, the conclusion drawn on the relationship between general tax knowledge and composite tax compliance is that general tax knowledge does not affect composite tax compliance. However, fear appealing messages negatively affect composite tax compliance. Again, the conclusion on the relationship between tax convenience and composite tax compliance is that tax convenience positively affects overall or composite tax compliance.

In summary, it is concluded that tax education affects tax compliance. However, the nature of the relationship, whether positive or negative, depends on the type or the content of the tax education, the type of tax compliance to achieve and the behaviour of the audience. Generally, tax compliance
segregated into committed tax compliance, capitulative tax compliance and creative tax compliance has significant bearings on overall tax compliance.

Recommendations

Based on the observed key findings and conclusions drawn above, the following recommendations are made:

1. The GRA should make the tax laws less complex to reduce cost of compliance and enhance tax convenience. This could be done by, for instance, distributing easy-to-read information leaflets and fliers. From the study, it is apparent that tax convenience is enhanced when the self-employed understand the tax laws.

2. The Ghana Education Service, in conjunction with the GRA, should introduce basic tax education as a compulsory course into the primary and high school curriculum in Ghana to boost general tax knowledge so as to enhance tax compliance. The education may include the roles that taxes have played in our nation’s history, how taxes affect people and the economy, how to file a simple tax return and tax rights and responsibilities.

3. The GRA can also boost tax knowledge by circulating updates on tax more frequently so as to improve voluntary or committed tax compliance and reduce capitulative tax compliance. From the study, general tax knowledge improves committed tax compliance and reduces the capitulative tax compliance behaviour of the self-employed.

4. The GRA can simplify the procedures involved in filing of tax returns as well as the paying of taxes to make tax more convenience to comply
with. This could be achieve, for instance, by employing the use of modern ICT for the computation and payment of taxes.

5. The GRA can make the physical locations of tax offices more conspicuous and accessible so as to enhance tax convenience. This could be done through localized advertisements of such offices.

6. The relevant authorities should ensure that tax offenders are punished to serve as deterrent to future offenders. The study reveals that the self-employed are not moved by fear-appealing messages, probably because they can escape punishment. Tax penalties must be enforced to increase compliance.

7. Tax payers should educate themselves more on the tax laws, so as to be able to engage in tax avoidance activities, in order to reduce their tax liabilities.

8. The GRA must know the tax payers including their tax compliance histories and attitude toward tax, so as to identify the educational needs for them, as not all tax education campaigns are successful for tax compliance. Some may require fear appealing messages, others may also need general tax knowledge.

**Suggestions for Further Research**

1. It is recommended that future studies should reconsider this topic and introduce additional tax education dimensions to increase the adjusted $R^2$. The highest recorded adjusted $R^2$ was 0.652 which means that the model could be improved if additional variables are introduced.
2. It is also suggested that researchers should segregate the tax compliance into the various dimensions so as to define their focus clearly. For instance to boost tax revenue, committed tax compliance and capitulative tax compliance should be the focus rather than creative tax compliance. Creative tax compliance may enhance overall compliance but reduce tax revenue because of the tax planning issues.

3. It is again suggested that future research should replicate the study in other jurisdictions and sectors of the economy as the current study is limited to the Cape Coast metropolis and the self-employed within the metropolis.

4. The current study took general tax form. One may estimate the tax compliance: committed, capitulative and creative from a narrowed scope such as PAYE and VAT compliance.
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APPENDIX A

QUESTIONNAIRE

Tax Compliance and Tax Education: A study of the self-employed in the Cape Coast Metropolis

I am a student of School of Business, University of Cape Coast pursuing Master of Commerce, accounting option. As part of the award of the master of commerce degree, I am to complete one year research in the area of accounting. Therefore I am currently working on a research in tax among SMEs within Cape Coast Metropolis. The data needed for achieving my specific objectives require me to solicit for information from you. I would be really grateful if you could kindly complete the questions below. Your responses will be used solely for the academic purpose and I assure you of confidentiality of information.

Instructions
1. A part from the personal data section, I have provided some amount of explanation to certain technical terms necessary for the completion of the questionnaire. You may also ask further questions for clarification.

2. Please tick in the appropriate boxes and write where specify.

SECTION A: PRELIMINARY DATA

1. Sex:
   Male [ ]
   Female [ ]

2. Age of respondents in years
   18 – 30 [ ]
   31 - 43 [ ]
   44 – 56 [ ]
   57 and above [ ]

3. Level of education:
   No formal education [ ]
   J.H.S/Middle School [ ]
   S.H.S/Technical [ ]
   Tertiary Level [ ]
   Other (Please specify)…………………………..

4. Marital Status:
   Single [ ]
   Married [ ]
   Divorced [ ]

5. What is the object of business?
SECTION B: ASSESSMENT OF TAX EDUCATION

Tax education: involves knowledge or awareness of tax laws, obligations, rights, benefits as well as consequences of tax. This knowledge can be obtained through: formal education and informal education such as televisions, radio, newspaper, seminar or workshops, banners, leaflets, announcement van, publicity material etc. The contents of these educations are presented below:

I. General Tax Knowledge

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<tr>
<th>Contents</th>
<th>Not At All</th>
<th>Very Low</th>
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<th>Somewhat</th>
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<tr>
<td>6. Have you been educated on whether or not your business activity is</td>
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### Fear Appealing Education

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<td>8. Are you aware that failure to pay your tax is punishable by law including, business closure, fines and jail sentence?</td>
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<td>9. Do you know any tax defaulter who has been punished by the law through</td>
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either closure of business, fined or jailed?

10. Have you been educated on tax evasion and the extent of its consequence on your business?

### III. Education on Convenience of Tax Compliance

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<tr>
<td>11. Do you know the physical location of tax office where you are to honour your tax obligation?</td>
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<td>12. Do you know how to file your tax returns?</td>
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### IV. Education on Cost of Tax Compliance
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<td>13. Are you aware of the associate cost of tax compliance such as time to spend on tax computation, cost of hiring accountant or consultant, the stress of uncertainty of whether you have thoroughly complied etc?</td>
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<td>V. Education on Benefits of Tax Compliance</td>
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<td>14. Are you aware of the benefits of tax compliance such as winning government contracts, tax clearance certificates, continuity of business, tax incentives, absence of fear and panic, tax planning process</td>
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SECTION C: ASSESSMENT OF TAX COMPLIANCE

Tax compliance is the degree to which the taxpaying community fulfils its tax obligation as specified in the suitable legal and regulatory provisions. The tax compliance is classified into the following:

1. Committed compliance: willingness on the part of taxpayers to pay taxes with no complaint.
2. Capitulative compliance: reluctantly obeying and making payments of taxes.
3. Creative compliance: engaging in certain acts to minimize taxes by making the most of possibilities to define income in a different way and abstract expenditures that fall within the range of the tax laws.

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<tbody>
<tr>
<td>Committed compliance:</td>
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<td>15. Do you pay your tax with no complains?</td>
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<td>Capitulative Compliance:</td>
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<td>16. Do you obey and make payment of your tax obligations reluctantly?</td>
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**Creative Compliance:**

17. Do you engage in activities to minimise your tax obligations such as tax planning and redefining your income?

Thank You for your time and responses.