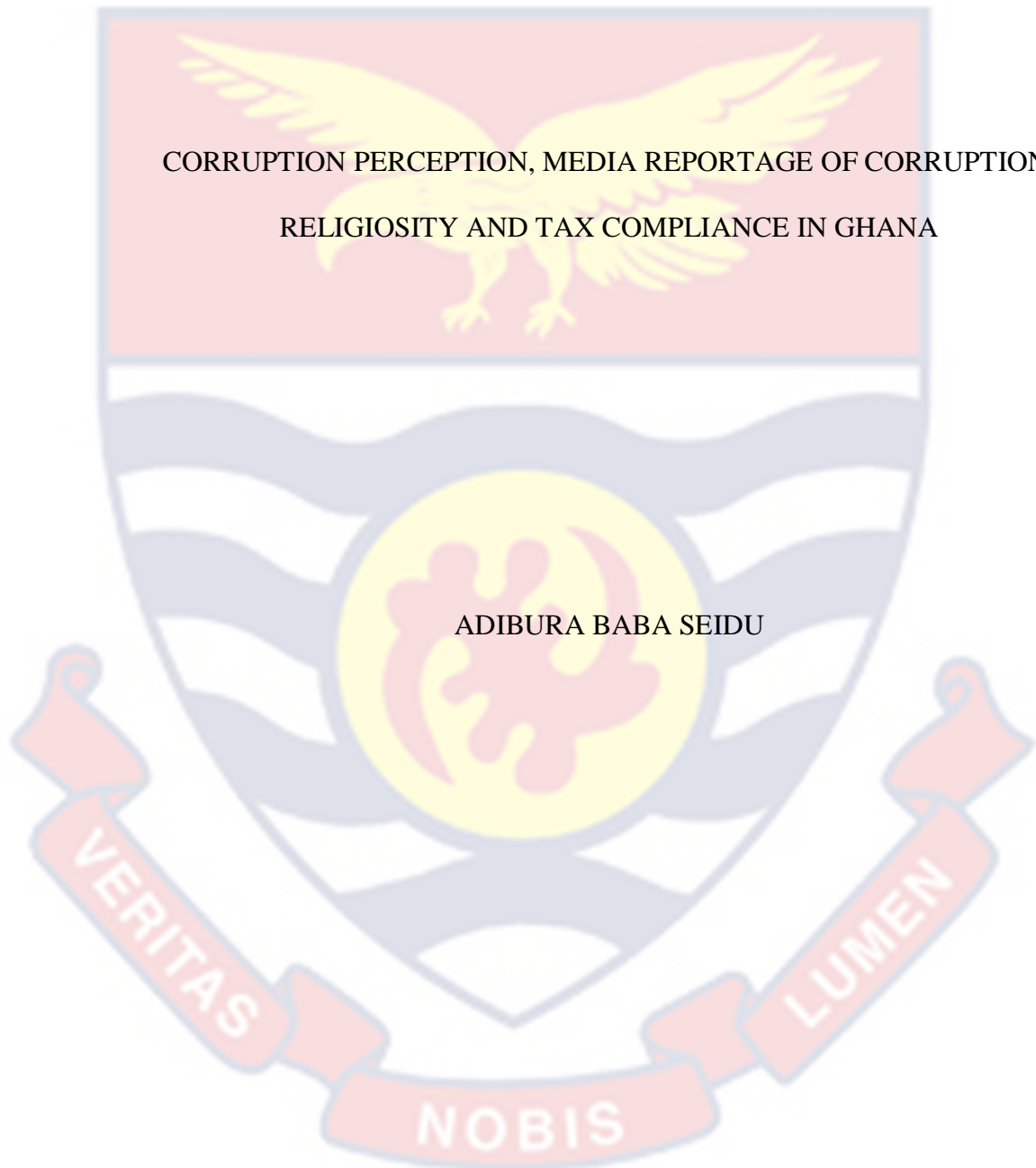


UNIVERSITY OF CAPE COAST



CORRUPTION PERCEPTION, MEDIA REPORTAGE OF CORRUPTION,  
RELIGIOSITY AND TAX COMPLIANCE IN GHANA

ADIBURA BABA SEIDU

2022



UNIVERSITY OF CAPE COAST



CORRUPTION PERCEPTION, MEDIA REPORTAGE OF CORRUPTION,  
RELIGIOSITY AND TAX COMPLIANCE IN GHANA

BY

ADIBURA BABA SEIDU

Thesis submitted to the School of Business, College of Humanities and Legal  
Studies, University of Cape Coast, in partial fulfilment of the requirements for  
the award of Doctor of Philosophy (Business Administration) degree

DECEMBER 2022

## DECLARATION

### Candidate's Declaration

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

Candidate's Signature: ..... Date: .....

Name: Adibura Baba Seidu

### Supervisors' Declaration

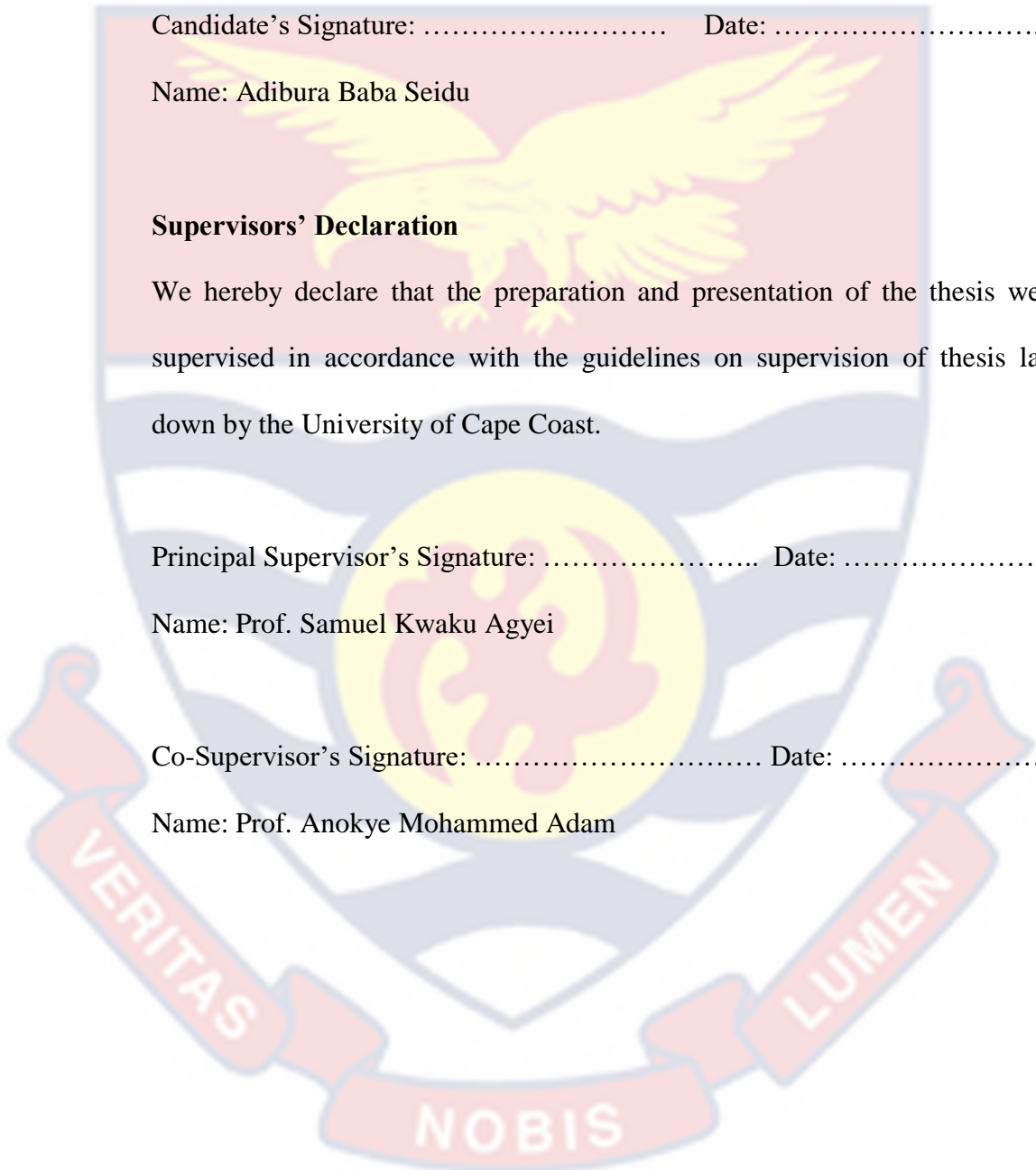
We hereby declare that the preparation and presentation of the thesis were supervised in accordance with the guidelines on supervision of thesis laid down by the University of Cape Coast.

Principal Supervisor's Signature: ..... Date: .....

Name: Prof. Samuel Kwaku Agyei

Co-Supervisor's Signature: ..... Date: .....

Name: Prof. Anokye Mohammed Adam



### ABSTRACT

The study investigated corruption perception, media reportage of corruption, religiosity and tax compliance in Ghana. The study was conceived on the premise that Ghana continues to face tax revenue bottlenecks arising from low tax compliance. This poor tax revenue has continued to negatively affect government budgets, programs and projects and contributed to the growing public debt. Quantitative analytical techniques and survey design were followed in this study. The research philosophy for this study was positivism. Primary data were collected and used for the study. A multi-stage sampling technique with proportionate allocation was employed to select a sample size of 887. Out of the 887 questionnaires administered, 755 were received and coded. The data were analysed with partial least square-based structural equation modelling (PLS-SEM). The investigation established that corruption inhibits voluntary tax compliance but could still augment enforced tax compliance through coercion and threat of sanctions. The study demonstrated that media framing could shape tax compliance behaviour amid corruption perception. It was also established that highly religious tax payers honour their tax obligation voluntarily amidst corruption perception. It is recommended that both tax administrators (Ghana Revenue Authority) and the political class should develop and effectively implement an anti-corruption framework including 'name and shame', and 'transparency in the asset declaration' through media coverage. Government should partner with both the media and religious bodies to develop positive tax compliance culture.

**KEY WORDS**

Corruption

Corruption Perception

Media Framing

Media Reportage of Corruption

Religiosity

Tax Compliance



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To my wife, Rejoice Maade Adibura and children, Wedam and Atudeweh Adibura, I say thank you for your immense emotional, social and physical support. Without your unflinching support, this journey and success will have remained a dream. Finally to my brother, Vincent Opare Larbi and his family as well as Enusah Abdulai.

## DEDICATION

To my dear wife, Rejoice Maade Adibura and children: Wedam and Atudeweh Adibura.





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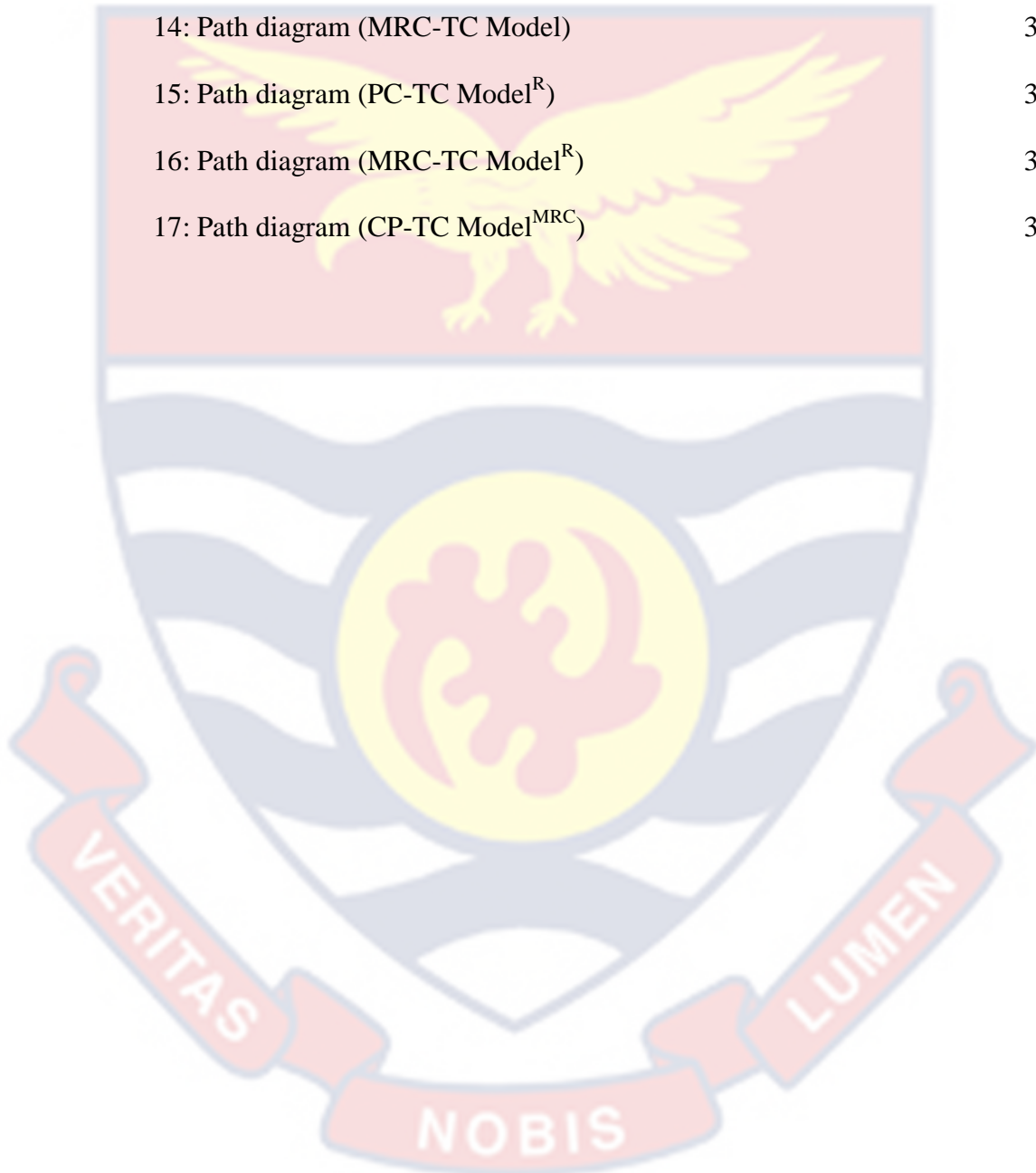
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## ACRONYMS

ADC: Administrative Corruption

ETC: Enforced Tax Compliance

EMPC: Episodic Media Reportage of Political Corruption

EMADC: Episodic Media Reportage of Administrative Corruption

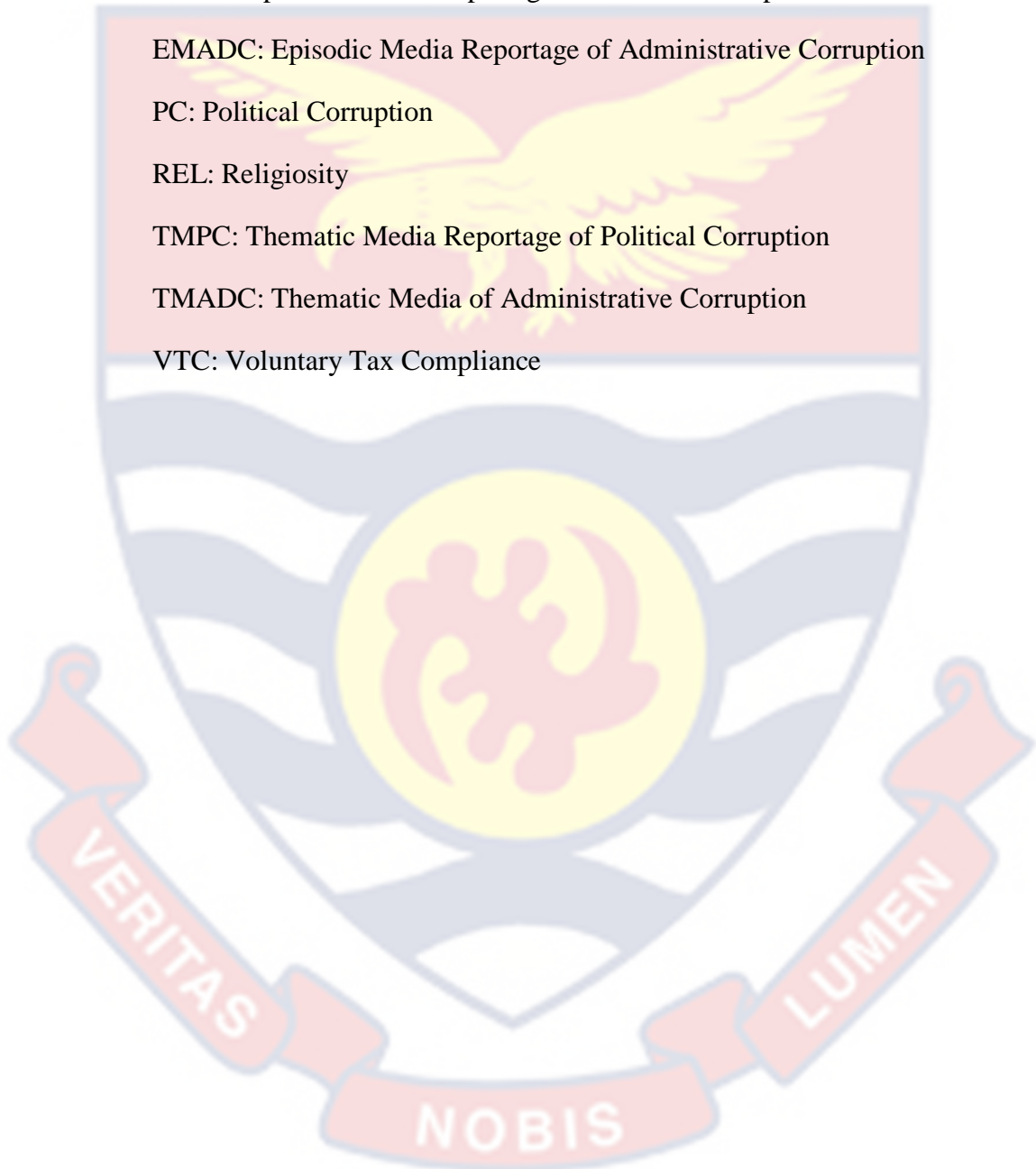
PC: Political Corruption

REL: Religiosity

TMPC: Thematic Media Reportage of Political Corruption

TMADC: Thematic Media of Administrative Corruption

VTC: Voluntary Tax Compliance





## CHAPTER ONE

### INTRODUCTION

Tax revenue is fundamental for the development of every economy and could shape government fiscal policy and strategy. Despite the fundamental role of tax in economic development, the mobilisation of tax revenue continues to be a daunting challenge to most countries, especially, sub-Saharan African economies (Ayuba, Saad & Ariffin, 2016). These challenges are reflected in the annual contribution of tax revenue to Gross Domestic Product (GDP). Ghana is among the countries in Sub-Saharan Africa with low tax revenue to GDP (Nyarkpoh, 2018), chiefly attributable to tax compliance behavioural challenges (Carsamer & Abbam, 2020; Dom, Custer, Davenport & Prichard, 2022). To help avert the challenges of low tax compliance, researchers have lately directed their attention to corruption perception (Jahnke & Weisser 2019), media reportage (Kneafsey & Regan, 2020) and religiosity (Carsamer & Abbam, 2020).

However, existing studies are silent in addressing the nexus between the multi-dimensionalities of both corruption and tax compliance dynamics. Moreover, there is a myopic view of how media reportage (thematic and episodic) of corruption could affect tax compliance behaviour. Tax literature is also yet to be enriched on how religiosity interacts with the corruption tax compliance nexus.. This study, therefore, seeks to contribute to the literature on the antecedents of tax compliance dynamics by investigating the interconnectedness of corruption perception, media reportage of corruption, religiosity and tax compliance. Findings from this study would therefore contribute to theory, practice and policy formulation concerning corruption perception, media reportage of corruption religiosity and tax compliance.

## Background to the Study

The economic, social, cultural and political development of every country is the responsibility of an established government (Almunia & Lopez-Rodriguez, 2018; Mohammad, Al-Zageba & Hamid, 2018). To ensure this development, governments require sustainable mechanisms to mobilise revenue. One of the fundamental mechanisms for revenue mobilisation is taxation (Imam & Jacobs, 2014; Litina & Palivos, 2016). The importance of tax in national development cannot, therefore, be overemphasized, because tax revenue constitutes a substantial portion of all revenue available to most governments (Inasius, 2019). This is particularly true for most developing countries, especially, African countries where traditional revenue sources (mainly from the export of raw materials) are usually insufficient in funding developmental projects (Ali, Fjeldstad & Sjursen, 2014; Sharma & Mitra, 2015).

Despite the important role of tax in the development of countries, the mobilisation of tax revenue continues to be a daunting challenge to most countries especially sub-Saharan African economies (Ameyaw, Korang, Twum & Asante, 2016; Ayuba et al 2016; Saibu, 2015). These challenges are reflected in the annual contribution of tax revenue to Gross Domestic Product (GDP). Commenting on this, the Organisation for Economic Co-operation and Development (OECD) indicated that the overall average percentage of tax to GDP in Africa stood at 17.2% in 2019 (OECD, 2020). This average is very low comparative to Europe's 40.3% and America's 34.3% within the same time frame.

Some researchers have attributed the low level of tax revenue to tax compliance challenges (Dom, *et al.*, 2022; OCED, 2020). Tax literature explains tax compliance to mean the ability of tax administration to exact (enforced) the due tax revenue and taxpayers' willingness (voluntary) to pay the due taxes (Lederman, 2018). The concept of tax compliance continues to engage the attention and investigation of academic researchers, tax administrators, policy think tanks and even government agencies (Amanamah, 2016; Jingyuan, 2022).

The growing interest in tax compliance studies is not surprising as it is the basis to improve tax revenue. Results from these studies attribute the low level of tax compliance to varying challenges. While some studies reveal that tax compliance is hampered by a low level of education and tax knowledge concerning record-keeping accuracy and filling of returns (Amanamah, 2016; Ameyaw & Dzaka, 2016), others have indicated that tax compliance challenge is as a result of poor tax administration and inefficient tax laws (Koranteng, Osei-Bonsu, Ameyaw, Ameyaw, Agyeman & Dankwa, 2017)..

Lately, academic researchers are drawing on the concepts from behavioural sciences in an attempt to explain the tax compliance behaviour of those liable to pay taxes (Le, Malesky & Pham, 2020). Notably, behavioural issues concerning taxpayer perception are gaining traction in tax compliance literature (Le *et al.*, 2020; Ayuba *et al.*, 2016). In behavioural studies, it is believed that individual perception and orientation play an integral role in defining actions and inactions (Besley, Ilzetzi & Persson, 2013; Jahnke & Weisser, 2019). According to Jahnke and Weisser (2019) amid these intention drivers, corruption is argued to have a significant influence.

Corruption according to Melgar, Rossi and Smith (2010) creates a culture of distrust among stakeholders towards related institutions and cements a damaging public perception that causes taxpayers to disengage from other reciprocal relationships with the government (Fjedstad & Tungodden, 2003; Torgler, 2006). Corruption creates inefficient tax system, erodes tax collection legitimacy, reduces corporate and personal citizens' willingness to pay their fair share of taxes and, as a result, lowers levels of tax compliance. (Kleven, Khan, & Kaul; OECD, 2019) Adeyeye and Otusanya (2015) therefore posit that corruption has become a major setback that hinders the mobilization of adequate tax revenue for socio-economic development and thereby remains one of the major bottlenecks afflicting tax administration particularly, in sub-Saharan Africa.

Corruption is relative and not absolute (Melgar, Rossi & Smith, 2010), as such the definition of corruption is dependent on the context such as economic, social, political and legal context (Melgar et al., 2010; Rosid, 2017). Nevertheless, corruption may be defined as the application of public funds and assets for personal gains or the exploitation of public positions for personal gains or benefits (Donchev & Ujhelyi, 2014; Dong, Dulleck & Torgler, 2012). Researchers often operationalise corruption based on the focus and research interest (Torgler & Valey, 2010; Urrea, 2007).

However, following the guidelines for measuring corruption developed by United Nation Development Programme (UNDP, 2008), corruption could be operationalised into political corruption and bureaucratic corruption while Transparency International (TI) operationalises corruption into grand, political, bureaucratic and petty corruption (TI, 2015). Whereas different

international bodies and experts use varied terminologies in classifying corruption, the conceptualisations are the same (Campbell & Saha, 2013; Olken & Pande, 2012; Overland, 2012; Alm & Liu, 2017).

Generally, corruption-related literature often uses the terms grand corruption and political corruption in reference to corruption at the upper echelon of government (Amudson, 1999; Campbell & Saha, 2013; Johnston, 2017; Olken & Pande, 2012; Perry, 2018; TI, 2015). Similarly, petty corruption, bureaucratic corruption and administrative corruption have been used interchangeably to refer to corruption among civil servants and public administrators (Adekoya & Enyi, 2020; Amudson, 1999; Flatters & Macleod, 1995; Jahnke & Weisser, 2019). Learning from these literature, this study conceptualises corruption as a multidimensional construct and operationalises it as political corruption and administrative corruption (Adekoya & Enyi, 2020; McKerchar, 2003; Weber, Fookan & Herrmann, 2014; Perry, 2018; Rosid, 2017).

Corruption assessment in the behavioural and social science literature is based on individuals' perceptions and orientation (Besley, Ilzetzki & Persson, 2013; Jahnke & Weisser, 2019; Rosid, 2017). Consequently, the identified corruption dynamics are assessed relative to the extent of taxpayers' perception. This study, therefore, argues that when citizens are distrustful of political actors at the upper levels of government as well as civil servants and government administrators arising from perceived corruption, their tax compliance behaviour may be affected (Aghion, Akcigit, Cage & Kerr, 2016; Alon & Hageman, 2013; Khlif & Amara, 2019; Torgler, 2011).

Moreover, the extent of taxpayers' perceived corruption (political and administrative corruption) may be influenced by the level and nature of corruption messages received. Information and social messages in contemporary times are transmitted through the media (Borah, 2011; Kneafsey & Regan, 2020; Zillmann, 2002). Media reportage could therefore influence the corruption perception of taxpayers and consequently, affect their compliance behaviour (Boukes, 2021; Goffman & Rodríguez, 2006; Miloš, Tommaso, Fabio & Jiří, 2020; Tewksbury & Scheufele, 2009). Media reportage is the nature and the extent to which media reports and disseminates information, events and other societal phenomena to its audience (Gangl & Kirchler, 2015; Iyengar, 1991).

In the communication literature, it has been documented that media reportage may convey news as a general (thematic) subject to the audience or report isolated events and or specific occurrences (episodic) and relate it to particular individual(s) or person(s) (Zillmann, 2002; Kneafsey & Regan, 2020). This study focuses on corruption-related news, events and occurrences reported by the media either thematic or episodic, and the extent to which such reports influence the tax compliance behaviour of its audience.

Similarly, individual personal attributes could also define the person's behavioural traits including assimilation of news. It has been documented in the literature that individual responses and actions are determined partly by their beliefs and culture (Neubert, Wu, Roberts, Frey & Foong, 2013; Wright & Quick, 2011). One outstanding belief that determines how one responds to external influencers is religiosity (Carsamar & Abbam, 2020). Hwang and Nagac (2021), define religiosity as the extent of the commitment of an

individual towards his or her religion, professed beliefs and the teachings of the religion, such that the individual's behaviour, actions and attitudes reflect such commitment. The religious association and commitment of taxpayers could either restrict or enhance the response to external stimuli such as corruption. Thus, the religiosity of taxpayers could interact with the relationship between corruption and tax compliance (Hannifah & Yudianto, 2019)

The analyses of the dynamics of corruption perception, media reportage of corruption, religiosity and tax compliance may be situated within a theoretical context. Following the assumptions from theories such as social exchange theory (SET), theory of planned behaviour (TPB), self-regulatory focus theory (SRFT), and framing effect theory (FET), the extent of perceived corruption, media reportage of corruption and religiosity could influence the level of tax compliance among taxpayers (Higgins, 1998). Drawing from the social exchange theory, individual taxpayers have a social contract with the government where individual citizens provide the government with revenue through taxation and in exchange for public goods and services. Power, mutual trust, and reciprocity are inherent in this social relationship.

Taxpayers may view corrupt practices as a breach of the social contract and may redefine their commitment to the relationship. Nevertheless, the government could also evoke its inherent powers in the social contract to compel or coerce these taxpayers to comply though reluctantly. This analysis suggests that theoretically there is a possible link between corruption and tax compliance. Some emerging studies on tax compliance have also suggested

that perceived corruption could significantly affect tax compliance behaviour (Alon & Hageman, 2013; McKerchar & Evans, 2009).

The theory of planned behaviour (TPB) also anchors the position of the social exchange theory. The TPB posits that individual behaviour is determined by his or her intention in performing a particular action (Downing-Matibag & Geisinger, 2009). The intention is defined in terms of attitude, subjective norms and controls (Eisenbeib & Brodbeck, 2014; Heeren, Jemmott, Mandeya & Tyler, 2007). Corruption may be part of the external influencers or subjective norms which could affect taxpayers' orientation and are likely to have consequences on the intention to pay tax (Montanaro & Bryan, 2014).

A critical evaluation of the central assumption of SRFT reveals that an individual's response or action is determined by situation cues which may be promotion or prevention focus (Higgins, 1997) SRFT suggests automatic response and consequence of a situational cue without considering other social messages, nature and extent of information flow (Higgins, 1998; Neubert, Wu & Roberts, 2013). The implication is that since corruption is an unfavourable cue, the manner of media reportage on corruption may either worsen taxpayers' compliance behaviour or change their compliance behaviour positively. Additionally, the religious orientation and ideology of taxpayers may also cause them to reregulate the focus consistent with the religious orientation. Thus, religiosity could either lubricate or undermine the intensity of perceived corruption with respect to tax compliance.

Similar to the corruption dynamics, the emerging studies in the field of media and communication which have followed the assumptions of framing



effect theory have revealed that the true consequences of media reportage is based on how the news is reported in the media (Boukes, 2021; Elbahnasawy, 2014). The theoretical structure of the framing theory reveals two fundamental framing tendencies: the thematic frame and episodic frame (Kim, Carvalho, & Davis, 2010; Shore, 2022). The media framing where the media reports on the general corruption atmosphere and government efforts to curtail the practice (thematic frame) is likely to adduce different compliance reactions than when specific corruption practices (episodic frame) about individuals are reported.

Despite the sound theoretical bases about the connection between corruption, media reportage of corruption and tax compliance, the empirical studies to validate the theoretical assertions are still limited (Alon & Hageman, 2013; Imam & Jacobs, 2014). The theoretical analysis of self-regulatory focus theory and the theory of planned behaviour shows further complexity in the corruption-tax compliance nexus as these theories suggest that, personal attribute such as taxpayers' religiosity and social messages, such as the extent of media reportage about corruption may determine the nature and extent of the relationship (Chan, Supriyadi & Torgler, 2017; Higgins, 1997). The empirical considerations of these complexities in prior studies are still in their infancy (Carsamer & Abbam, 2020; Chen, Power & Stomberg, 2015).

Similarly, although there are several studies on tax compliance in the Ghanaian literature, only few studies have focused specifically on corruption, corruption reportage, religiosity and their dynamics with tax compliance as evident in the theoretical literature (Carsamer & Abbam, 2020; Ibrahim, Musah & Abdul-Hanan, 2015; Nyarkpoh, 2018). It is therefore relevant not only for academic exercise but also critical for theory, policy and practice to

investigate the empirical dynamics of the interconnectedness of corruption, corruption reportage, religiosity and tax compliance.

Besides, tax compliance is anchored on some canons of taxation, pioneered by Smith (1776) and used extensively in tax literature. These cannons include economy, convenience, equity and certainty (Kirika, 2020; Fidiana, 2021). From the perspective of taxpayers, attention is focused on convenience, equity and certainty. The economy is assessed in relation to the cost of administering a tax handle which is outside the purview of taxpayers. Given, the foundational role of these canons, the expectation is that these factors are controlled for when estimating tax compliance. Surprisingly, these factors are often not considered in empirical analyses. Controlling for these cannons would provide evidence of the unique contribution of the variables of interest. In view of these, the current study would control for these canons to comprehensively assess the drivers of tax compliance.

The framework of the study and the analytical process is structured within the Ghanaian setting. The reasons for choosing Ghana as the study setting are as follows: firstly, Ghana is among the countries in Sub-Saharan Africa with low tax revenue to GDP (Ibrahim et al., 2015; Nyarkpoh, 2018). In Ghana, the overall percentage of tax to GDP in 2017 stood at 14.1% and 12.57% in 2018 compared to the average ratio of 17.2% in 2017 and 18.2% in 2018 in Africa (OECD, 2019; 2020). The implication is that Ghana has a low tax revenue base suggesting tax complex challenges. Secondly, the low tax revenue arising from low tax compliance continues to have an adverse spillover effect on the economy and is a threat to the continuity of essential services. This is evident in the high debt-to-GDP ratio of 67% in 2019, 76.7%

in 2020 and projected to be 81.5% by the close of 2021 (Awadzie, Garr & Tsoekeku, 2021).

Thirdly, the media reports on corruption are in ascendency coupled with the individual tax payers' corruption perception (Koranteng et al., 2017; Nyarkpoh, 2018). For instance, from 2012 through 2020, there have been various corruption reports from various sectors involving public officials. Some of these scandals include the Ghana Youth Employment Entrepreneurship Development Agency (GEEDA), Subah Info Solution Limited scandal in 2013 and 2014, the bus branding scandal in 2015, (Gordon, 2017; Myjoyonline, 2014), the missing contaminated oil at Bulk Oil Storage and Transportation Company (BOST) limited in 2017 (Rahman, 2018) and the recent missing excavators' scandal and Agyapa Royalty (myjoyonline, 2020). Additionally, in 2019, Ghana scored 41 points out of 100 in the corruption perception index collated by TI, (TI, 2020).

In this regard, the current study seeks to investigate how corruption perception, media reportage of corruption and religiosity influence tax compliance within the Ghanaian setting. Specifically, the study would focus on the direct effect of corruption perception and media reportage of corruption on tax compliance. Again, the moderating effect of religiosity and media reportage of corruption would be assessed on the corruption-tax compliance nexus. Besides, the study would also assess the interacting role of religiosity on the corruption reportage and tax compliance relationship.

### **Statement of the Problem**

Ghana continues to face tax revenue bottlenecks. Tax revenue mobilisation in Ghana is very low affecting government budgets, programs

and projects (Gbadago & Awunyo-Vitor, 2015; Litina & Palivos, 2016; Saibu, 2015). Ghana's tax revenue to Gross Domestic Product (GDP) saw its highest in recent years in 2017 at 14.1% (OECD, 2019). Even this high tax revenue is far below the 17.2% average benchmark in Africa for the same year. A critical comparative analysis of Ghana's tax revenue performance to the sub-region reveals ever alarming revenue mobilisation challenges.

Ghana's tax revenue to GDP was 12.2% (16.8%) for 2014; 13.1% (17.2%) for 2015; 13.7% (17.2%) for 2016; 14.1% (17.2%) for 2017; 12.57% (18.2%) for 2018; 12.28% (16.5) for 2019 and 9.8% as at June 2020 (OECD, 2019, 2020; World Bank, 2020) with African average in the parentheses and Ghana statistics outside the parentheses. These staggering statistics do not only show poor tax revenue performance but also unstable tax revenue achievement. The poor tax revenue performance has been attributed to poor tax compliance behaviour (Ayuba et al., 2016; Jahnke & Weisser, 2019).

Tax compliance is the ability of tax administration to exact (enforced) the due tax revenue and the willingness (voluntary) of tax payers to pay the due taxes (Inasius, 2019). These dynamics of tax compliance behaviour coupled with the associated adverse consequences warrant a critical investigation into how tax compliance can be enhanced and sustained. Plethora of tax literature within and outside Africa has shed light on how the menance of tax compliance can be surmounted (Andreoni, Erard & Feinstein, 1998; Devos, 2013; Almunia & Lopez-Rodriguez, 2018; Mohammad, Al-Zageba & Hamid, 2018) .

Although a stream of prior empirical studies on tax compliance has improved the understanding of tax compliance behaviour and its effects on tax

revenue mobilisation (Antwi, Inusah & Hamza, 2015; Gbadago & Awunyo-Vitor, 2015), the consequence of corruption in explaining tax compliance behaviour have largely remained theoretical assumptions (Baum, Gupta, Kimani & Tapsoba, 2017; Imam & Jacobs, 2014; Yesegat & Fjeldstad, 2016) with little empirical attention (Baum et al., 2017; Gupta, 2007). The few studies focusing on corruption have over-relied on macro-level analysis of corruption or corruption index (Amoh & Ali-Nakyea, 2019; Nyarkpoh, 2018) rather than micro-level analysis that incorporates taxpayers street-level corruption perception relevant for situational or contextual-based phenomena such as corruption (Donchev & Ujhelyi, 2014; Melgar et al., 2010; Rosid, 2017). This study therefore focuses on the self-employed who are identified as a group of taxpayers who face the challenge of making tax compliance decision.

Additionally, the multi-dimensional nature of corruption and tax compliance also provide justification for this study. Tax compliance literature operationalizes tax compliance as multi-dimensional, with voluntary and enforced compliance as the multi-dimensionalities (Lederman, 2018; Da-Silva, Guerreiro & Flores, 2019). These forms of compliance are recognized as joint drivers of revenue performance by tax authorities worldwide. Similarly, corruption literature also acknowledges the multi-dimensional nature of corruption by segregating the constructs into political and administrative (Rosid, 2017; Transparency International, 2015; UNDP, 2008). These forms of corruption classifications are regarded as relevant, since empirical evidence suggests that most developing countries, including those in Africa, often face such corruption challenges (Hyslop, 2005; Ogundiya, 2009).

Notwithstanding these, studies that relate corruption to tax compliance often measure these constructs unidimensionally (Alon & Hageman, 2013; Baum, Gupta, Kimani & Tapsoba, 2017; Cheng & Zeng, 2017). Nevertheless, the dynamics of the multi-dimensionality of corruption (Political and administrative) and each dimension of tax compliance (voluntary and enforced) are likely to differ. Empirical evidence to verify such claims is largely absent. Thus, the link between corruption and tax compliance behaviour is still unclear empirically. Consequently, more studies are needed to demonstrate how corruption explains tax compliance behaviour. This is the first thematic area of this study. This study, therefore, formulates specific objectives to contribute to addressing this empirical gap.

Furthermore, it is asserted that media reportage of corruption like other complex news tends to follow news frame where journalists present the news through interpretive packages to highlight some key aspects and make them more salient than others (Chen, Power & Stormberg, 2015; Kim & Willies, 2007; Kneafsey & Regan, 2020). This trend follows conveying news as a general (thematic) subject to the audience or report isolated events and or specific occurrences (episodic) and relate it to particular individual(s) or person(s) (Boukes, 2021; Chen, Power & Stormberg, 2015; Kim & Willies, 2007; Kneafsey & Regan, 2020) Shore, 2022).

Relatedly, media reportage on corruption could also affect tax compliance behaviour (Goffman, 2006; Kim & Willies, 2007). The nature and extent of media reportage on corruption affecting taxpayers' compliance behaviour may be dependent on the news framing (be it thematic or episodic). These considerations have not been articulated in tax literature. Further

complexity arises when tax compliance is operationalised as multidimensional constructs and defined in terms of voluntary and enforced compliance. It is unclear whether or not the same conclusion can be reached when the empirical investigation is developed from thematic and episodic frames and its connection with voluntary and enforced compliance.

Given the media reporting freedom in Ghana coupled with increasing reportage on corruption-related issues either specific such as GEEDA scandal, BOST scandal, SSNIT Scandals, Missing Excavators, Subah scandal and Tema Port Scandal (Gordon, 2017; Rahman, 2018) or general such as the establishment of special prosecutor's office, retooling of anti-corruption agencies such as Commission on Human Right and Administrative Justice (CHRAJ), it is not only useful for academic consumption but also for tax policy and practice to investigate its role in tax compliance behaviour. Unfortunately, there is a dearth of literature on the subject in Ghana. The current study seeks to extend the literature in Ghana formulating related objectives to address this empirical gap.

Additionally, studies on corruption have shown that media reportage on corruption can amplify the devastating effect of corruption (Čábelková & Hanousek, 2004). Similarly, the assumption of situation cues of self-regulatory focus theory also supports the position that media reportage could moderate the relationship between corruption and tax compliance (Bursztyn, Fiorin, Gottlieb & Kanz, 2015; Hannah et al., 2011; Higgins, 1998). Despite the theoretical evidence, empirical studies incorporating the interacting role of media reportage in the corruption-tax compliance nexus are virtually new in

the tax administration literature. This study, therefore, seeks to contribute to the literature by incorporating the interacting role of media reportage.

In addition to these, religiosity has been identified as an antecedent of tax compliance in the tax literature (Hwang & Nagac, 2021; Mohd-Ali, 2013; Modh-Ali & Pope, 2014; Nichoson, 2019). Literature within the Ghanaian settings has also documented the role of religiosity in tax compliance behaviour (Carsamer & Abbam, 2020; Mbilla, Gatsi, Arhin & Ayimpoya, 2018). Nevertheless, these studies have failed to recognise the interacting effect of religiosity on the corruption-tax compliance relationship (Carsamer & Abbam, 2020; Hwang & Nagac, 2021; Modhali, 2013; Modhali & Pope, 2014; Nichoson, 2019).

There are, however, theoretical bases to assume the possible moderating role of religiosity in the relationship between corruption and tax compliance behaviour. For instance, a critical review of the self-regulatory focus theory suggests that a taxpayer's level of commitment and association to his or her religion may augment or inhibit the tendency to drive either a promotion focus action or a prevention focus action (Higgins, 1997; 1998; Neubert, Wu & Roberts, 2013; Wright & Quick, 2011). Thus, amid perceived corruption, religiosity's role in promotion or prevention focus could either amplify or inhibit the tendency to act according to one's corruption perception in relation to tax compliance.

This suggests that theoretically, religiosity can serve as an moderating term in analysing the relationship between corruption and tax compliance. This theoretical linkage has not yet been validated empirically. It is therefore relevant to gain insight into the consequences of taxpayers' religiosity on the



corruption-tax compliance dynamics. Evidence from this investigation would not only showcase the advantage or otherwise of Ghanaian religious notoriety but also present the bases for developing tax policy without compromising taxpayers' religion.

Following the discussions and arguments so far, the effects of corruption perception and religiosity on tax compliance have been investigated. Moreover, few studies have examined the influence of media reportage on tax compliance. However, what is entirely missing from the existing literature is the nexus between the multi-dimensionalities of both corruptions (political and administrative) and tax compliance (voluntary and enforced). Again, there is opaque literature on the relationship between media reportage of corruption and tax compliance behaviour. Furthermore, the moderating roles of media reportage of corruption (thematic and episodic) and religiosity on the relationship between the multi-dimensionality of corruption and tax compliance are yet to be investigated. It is against these backdrops that the current study seeks to investigate the dimensionality of corruption, media reportage of corruption, religiosity and tax compliance dynamics.

### **Purpose of the Study**

The purpose of the study is to examine how corruption perception, media reportage of corruption, religiosity affect tax compliance in Ghana. The structure of this study follows a multipronged and multilevel framework in addressing the identified problems.

### **Research Objectives**

The specific research objectives are:

1. Examine the relationship between corruption perception and tax compliance behaviour in Ghana
2. Assess the relationship between media reportage of corruption (corruption reportage) and tax compliance behaviour in Ghana
3. Investigate the moderating role of taxpayers' religiosity in the relationship between corruption perception and tax compliance behaviour in Ghana
4. Determine the moderating role of taxpayers' religiosity in the relationship between media reportage of corruption and tax compliance behaviour in Ghana.
5. Analyse the moderating effect of media reportage of corruption in the relationship between corruption perception and tax compliance behaviour in Ghana

### **Research Hypotheses**

The hypotheses emanating from each specific objective are structured as follows:

1.  $H_{1a0}$ : Taxpayers' perception of political corruption has no significant effect on voluntary tax compliance in Ghana  
 $H_{1b0}$ : Taxpayers' perception of administrative corruption does not have a significant effect on voluntary tax compliance in Ghana  
 $H_{1c0}$ : There is no significant effect of Tax payers' perception of political corruption on enforced tax compliance in Ghana  
 $H_{1d0}$ : Taxpayers' perception of administrative corruption has no significant effect on enforced tax compliance in Ghana
2.  $H_{2a0}$ : Thematic media reportage of political corruption has no significant influence on voluntary tax compliance in Ghana

H<sub>2b0</sub>: Thematic media reportage of administrative corruption has no significant influence on voluntary tax compliance in Ghana

H<sub>2c0</sub>: Episodic media reportage of political corruption does not have a significant influence on voluntary tax compliance behaviour in Ghana

H<sub>2d0</sub>: Episodic media reportage of administrative corruption does not have a significant influence on voluntary tax compliance behaviour in Ghana

H<sub>2e0</sub>: There is no significant influence of thematic media reportage of political corruption on enforced tax compliance behaviour in Ghana

H<sub>2f0</sub>: There is no significant influence of thematic media reportage of administrative corruption on enforced tax compliance behaviour in Ghana

H<sub>2g0</sub>: Episodic media reportage of political corruption has no significant influence on enforced tax compliance behaviour in Ghana

H<sub>2h0</sub>: Episodic media reportage of administrative corruption has no significant influence on enforced tax compliance behaviour in Ghana

3. H<sub>3a0</sub>: Taxpayers' religiosity has no significant moderating role in the relationship between political corruption perception and voluntary tax compliance behaviour in Ghana

H<sub>3b0</sub>: Taxpayers' religiosity has no significant moderating role in the relationship between administrative corruption perception and voluntary tax compliance in Ghana

H<sub>3c0</sub>: There is no significant moderating effect of taxpayers' religiosity on the relationship between political corruption perception and enforced tax compliance behaviour in Ghana

H<sub>3d0</sub>: There is no significant moderating effect of taxpayers' religiosity in the relationship between administrative corruption perception and enforced tax compliance behaviour in Ghana

4. H<sub>4a0</sub>: There is no significant moderating role of taxpayers' religiosity on the effect of thematic media reportage of political corruption on voluntary tax compliance behaviour in Ghana

H<sub>4b0</sub>: There is a significant moderating role of taxpayers' religiosity on the effect of thematic media reportage of administrative corruption on voluntary tax compliance behaviour in Ghana

H<sub>4c0</sub>: There is no significant moderating role of taxpayers' religiosity on the effect of episodic media reportage of political corruption on voluntary tax compliance behaviour in Ghana

H<sub>4d0</sub>: There is no significant moderating role of taxpayers' religiosity on the effect of episodic media reportage of administrative corruption on voluntary tax compliance behaviour in Ghana

H<sub>4e0</sub>: Taxpayers' religiosity has no significant moderating role in the relationship between thematic media reportage of political corruption and enforced tax compliance behaviour in Ghana

H<sub>4f0</sub>: Taxpayers' religiosity has no significant moderating role in the relationship between thematic media reportage of administrative corruption and enforced tax compliance behaviour in Ghana

H<sub>4g0</sub>: Taxpayers' religiosity has no significant moderating role in the relationship between episodic media reportage of political corruption and enforced tax compliance behaviour in Ghana

H<sub>4h0</sub>: Taxpayers' religiosity has no significant moderating role in the relationship between episodic media reportage of administrative corruption and enforced tax compliance behaviour in Ghana

5. H<sub>5a0</sub>: There is no significant moderating effect of thematic media reportage of political corruption in the relationship between political corruption perception and voluntary tax compliance behaviour in Ghana

H<sub>5b0</sub>: Thematic media reportage of administrative corruption has no significant moderating role in the relationship between administrative corruption perception and voluntary tax compliance behaviour in Ghana

H<sub>5c0</sub>: Episodic media reportage of political corruption does not have a significant moderating role in the relationship between political corruption perception and voluntary tax compliance behaviour in Ghana

H<sub>5d0</sub>: Episodic media reportage of administrative corruption does not have a significant moderating role in the relationship between administrative corruption perception and voluntary tax compliance behaviour in Ghana

H<sub>5e0</sub>: There is no significant moderating effect of thematic media reportage of political corruption in the relationship between administrative corruption perception and enforced tax compliance behaviour in Ghana

H<sub>5f0</sub>: There is no significant moderating effect of thematic media reportage of administrative corruption in the relationship between administrative corruption perception and enforced tax compliance behaviour in Ghana

H<sub>5g0</sub>: Episodic media reportage of political corruption has no significant moderating effect in the relationship between political corruption and enforced tax compliance behaviour in Ghana

H<sub>5h0</sub>: Episodic media reportage of administrative corruption has no significant moderating effect in the relationship between administrative corruption perception and enforced tax compliance behaviour in Ghana

### **Significance of the Study**

The significance of the study focuses on the contributions of the study. The contributions of this study are presented in three facets. These are theoretical contributions, policy contributions and practical contributions to the field of taxation and tax administration. Thus, the significance of the study is seen in its contribution to theory, practice and policy formulation.

### **Theoretical contribution**

One major theoretical contribution of this study is the extension and empirical testing of assumptions relating to social exchange theory (SET) which have been borrowed to provide theoretical bases linking perceived corruption by taxpayers to tax compliance (Ayuba et al., 2016; Rahman, 2018). The SET assumes that mutual trust and power dynamics may redefine the social contract. Evidence from this study could extend the practicality of the foundational position of mutual trust in the social contract by investigating how a breach of mutual trust through perceived corruption could inhibit the tendency of taxpayers (citizens) to support the state through voluntary contribution (voluntary tax compliance). It may further provide evidence on how reciprocal reaction from the state through the evocation of the inherent power of sanctions could instil fear and thereby coerce taxpayers to reluctantly pay taxes (enforced compliance).

Furthermore, although SET assumes a social contract between citizens and the state, it fails to identify the multiplicity of actors within the state

architecture and how these actors could define the dynamics of this relationship. This study contributes to this tenet by classifying the state actors into political and administrative actors and further seeks to provide evidence about how these varied state actors could enhance the continuity or alter negatively this fundamental social contract through perceived corrupt practices. This may be evident through examining the relationship between political corruption and administrative corruption as against taxpayers' reaction through voluntary and enforced tax compliance.

The findings from this study could further provide an empirical understanding of the theory of planned behaviour (TPB) in explaining antecedents of tax compliance. Evidence from the empirical analysis in this study could extend our understanding of the subjective norms or externality assumption of TPB by investigating how corruption and media reportage of corruption emerging as external influencers could affect taxpayers' orientation and are likely to have consequences on the intention to pay tax.

Moreover, although self-regulatory focus theory (SRFT) assumes that individuals undergo a self-regulatory process to enhance happiness and minimise pain through the assumption of promotion focus and prevention focus (Higgins, 1997; 1998; Neubert, Wu & Roberts, 2013; Wright & Quick, 2011), what triggers promotion or prevention focus has remained an empirical issue. Findings from this study could contribute to the understanding of triggers of promotion or prevention focus by integrating perceived corrupt practices and media reportage of corruption as situational cues. Since perceived corrupt practices and media reportage of corruption may adduce individuals' reactions, the nature of the ultimate consequences on tax

compliance behaviour may provide foundational understanding in identifying promoters and preventers in tax compliance literature.

Additionally, despite the assumption that situation cues underlying SRFT tend to directly elicit either promotion focus or prevention focus, other factors could interact and affect the response. The findings in this study may provide empirical evidence for a clearer understanding of this extended assumption by incorporating religiosity (within factor) and media reportage of corruption (without factor) in the corruption-tax compliance literature. Again, this study is one of the few studies which seek to extend the relevance of framing effect theory in tax literature. This study operationalises media reportage of corruption according to news framing: thematic framing and episodic framing and further investigates the relationship of these framing dynamics with corruption and tax compliance.

#### **Policy contribution**

Tax policy has largely followed enforced compliance. This is possibly because it remains unclear drivers of voluntary compliance within the tax administration framework. Findings from this study may provide evidence on voluntary tax compliance to resonate the analytical attention to explore precisely how corruption perceptions by taxpayers and media reportage are systematically connected to voluntary tax compliance behaviour. The findings from this investigation could provide the basis to incorporate voluntary tax compliance targets in tax policy.

The findings from this study may also provide evidence about integrating media reporting structure in a tax compliance policy. By integrating news framing: thematic and episodic in the empirical analysis, the



findings could provide a clear understanding of the media's role in tax administration. This will serve as a basis for incorporating news-specific framing in tax policy to elicit compliance.

### **Practical contribution**

This study recognises that there is a knowledge gap in the micro-level analysis of the multidimensionality of corruption perception and tax compliance (Baum et al., 2017; Gupta, 2007; Imam & Jacobs, 2014). As such, the study seeks to assess micro-level taxpayers' multidimensional corruption perception to deepen the understanding of how the analysis could influence taxpayers' compliance behaviour and the extent to which media reportage on corruption affects tax compliance behaviour. Evidence from this study could inform tax administration strategies to boost compliance.

By following an evidence-based approach and context-specific data in the investigation, the findings from this study could provide a better understanding of the relevant implications of corruption perception, media reportage of corruption and religiosity on tax compliance behaviour. The evidence could be beneficial to the tax authorities and other tax administrators in their quest to increase tax revenue by improving tax compliance.

### **Delimitation of the Study**

The study focuses on corruption perception, media reportage of corruption, religiosity and tax compliance behaviour in Ghana. The study investigates the interconnectedness of these variables as well as the interacting role of media reportage of corruption and religiosity. This study operationalises corruption perception from two fundamental constructs: political corruption and administrative corruption. The scope of the media

reportage on corruption covers thematic media reportage and episodic media reportage. Religiosity in this study also focuses on the extent of the commitment of an individual towards his/her religion, professes beliefs and the teachings of the religion, such that the individual's behaviour, actions and attitudes reflect such commitment. Finally, tax compliance is used in this study to focus on voluntary and enforced compliance.

The literature and other evidence to be reviewed in this study are mainly those which focus on corruption perception, media reportage of corruption, religiosity and tax compliance. The extent of the review is also dependent on the research themes with an emphasis on inferential analysis and interacting investigation. The study therefore would not focus on reviewing the literature on taxation issues outside the thematic areas in this study.

#### **Limitations of the Study**

The study design is limited to survey design coupled with questionnaire administration to support the data collection. Positivist research paradigm coupled with quantitative analytical procedures is followed in this study. The qualitative research approach and the associated implications would not be considered in this study. The study focuses primarily on numerical data which are relevant for measuring the variables of interest and establishing relationships making qualitative data not suitable.

The unit of analysis for this study is the self-employed. Fairlie (2005), describes self-employed persons as those individuals who identify themselves as working for themselves in business and farming. The self-employed are blamed for the abysmal tax performance of most developing and emerging economies (Kamleitner, Korunka & Kirchler 2012) Ahmed, Chetty, Mobarak,

Rahman and Singhal (2012) posit that a substantial portion of the potential tax revenues in developing countries remain uncollected due mainly to the tax compliance challenges of the self-employed. In Ghana, the percentage contribution of the self-employed to tax revenue has hovered around 5% (ISSER, 2020). This percentage contribution of the self-employed is unimpressive compared to its contributions to employment creation and Gross Domestic Product (GDP). This evidence is a clear manifestation that the self-employed in Ghana are underperforming in terms of tax contribution. Thus, exploring the tax compliance dynamics of the self-employed is not only useful for academics but also critical for tax policy and practice purposes.

The study would, however, not deal with the self-employed in farming. This is because most farmers in Ghana are peasant farmers whose operations fall outside the tax net. Again, this study would not consider fixed-income earners such as employees though they are also taxpayers. Employees do not make tax compliance decisions on their income. The taxes are deducted at source and therefore could not provide relevant data to evaluate tax compliance via voluntary and enforced compliance. Similarly, large firms would not be incorporated into this study. Large companies are often subject to political and public scrutiny and therefore have very little option in their compliance behaviour.

Moreover, the interconnectedness among the research variables was examined with the Partial-Least Square Structural Equation Modelling (PLS-SEM). However, the choice of the estimation technique for this study does not provide consideration for constructs that interpret the covariance between related indicators. It is appropriate to use the PLS-SEM technique when the

primary interest of applying structural modelling is to determine how given independent variables provide predictions and explanations of particular dependent variables.

**Definition of Terms.** This sub-section provides the working definition of the relevant terms under this study.

**Corruption:** Corruption is the utilisation or application of public assets or resources for private gains or benefits (Perry, 2018).

**Political corruption:** According to Transparency International (2015) political corruption may be defined as the manipulation of institutions, policies, structures and rules in the resource allocation and financing by political decision-makers or political actors, to sustain their power, position or status, and wealth.

**Administrative corruption:** It is the extortion, misuse or abuse of public or administrative positions or office by officials other than political actors for personal benefits (Flatters & Macleod, 1995; Adekoya & Enyi, 2020).

**Corruption perception:** This is referred to as an individual's subjective views of corruption (Campbell, 2013).

**Tax compliance:** The ability of tax administration to exact the due tax revenue and the taxpayers' willingness to pay the due taxes (Inasius, 2019).

**Voluntary compliance:** the extent to which taxpayers are able and willing to comply with their tax obligations as and when they fall due without external pressure or enforcement (Da Silva, Guerreiro & Flores, 2019; Slemrod, 2019).

**Enforced compliance:** This is where taxpayers honour tax obligations for fear of being sanctioned (Slemrod, 2019).

**Media reportage:** Shore (2022) explains media reportage as the nature and the extent to which media reports and disseminates information, events and other societal phenomena to its audience (Gangl & Kirchler, 2015). Media reportage in this study is defined in terms of Thematic Frames and Episodic Frames (Boukes, 2021; Gross, 2008). Thematic reportage refers to news framing where the media present and portrays corruption issues by highlighting the systemic causes, the trends and the consequences of the corrupt acts (Chen, Powers, & Stomberg 2015; Iyengar, 1991; Kim & Willis, 2007). Episodic reportage on the other hand refers to the framing effect where the media present and portray corruption issues through either a specific event that serves as a representative anecdote of the broader issue (Iyengar, 1991; Zillmann, 2002; Boukes, 2021; Shore, 2022; Chen, Powers & Stomberg 2015).

**Religiosity:** According to Hwang and Nagac (2021), religiosity is defined as the extent of the commitment of an individual towards his or her religion, professes beliefs and the teachings of the religion, such that the individual's behaviour, actions and attitudes reflect such commitment.

### **Organisation of the Study**

This study is presented in six main chapters. Chapter one focuses on the general introduction which covers the background of the study, the research problem, the objectives of the study, the hypotheses, the scope of the study and the significance of the study. Chapter two captures the literature review which is structured into the theoretical review, empirical, conceptual,

knowledge gaps and conceptual framework. The research methodology is presented in Chapter three. Chapters four and five present the results and discussions respectively for the direct and moderating relationships. The final chapter: Chapter six, captures the summary, conclusions and recommendations.





## CHAPTER TWO

### LITERATURE REVIEW

#### Introduction

The study focuses on corruption perception, media reportage of corruption, religiosity and tax compliance in Ghana. This chapter discusses relevant literature within the study frame. The literature review provides the bases to establish the relationship between existing literature (prior research efforts and contributions) and the present study; draws critiques on the existing contributions and identifies relevant gaps that need to be filled (Parris & Peachey, 2013; Svejvig & Andersen, 2015). The purpose of the chapter is to explore the current development, synthesise and identify relevant gaps and demonstrate how the present study could contribute to filling those gaps. The chapter is structured into themes including theoretical review, conceptual review, empirical review, lessons learnt and knowledge gap and hypotheses development and conceptual framework.

#### Theoretical Review

According to Glaser, Bailyn, Fernandez, Holton and Levina (2013) theories are any organised set of concepts, principles and explanations of some aspect of human experience. From a different perspective, theories are seen as a way for understanding a concept to make an effective analysis and draw meaningful conclusions on a particular field of study (Deegan, 2013). Theory provides justifications for proposed relationships to support empirical hypotheses in research and the findings of which contribute to widening the understanding of the theories upon which these hypotheses were developed (Gay & Weaver, 2011). Similar to prior studies, the present study is also



grounded within a theoretical framework. The theories reviewed in this study are social exchange theory, self-regulatory focus theory, theory of planned behaviour, and framing effect theory.

### **Social exchange theory**

Social Exchange Theory (SET) can be traced to the early Twentieth Century (Baric, 2016). It is believed that SET was first applied in the field of sociology and psychology (Emerson, 1962). The theory originally emphasises the self-interest of the actors who engage in the social exchange and disregards the assumption of altruism and the consideration of emotion, including the contextual factors of the actors in the exchanges (Baric, 2016). The theory has however undergone some modifications over the years resulting in variations of some of its assumptions.

The variation in assumptions and direction of arguments is largely influenced by the discipline within which the theory is applied and the context of use (Mitchell & Mitchell, 2005; Homans, 1958; Zafirovski, 2005). The literature has also seen varying versions of SET with specific interests and focus such as Mauss' (1925) representations of social exchange, Levi-Strauss' (1949) social exchange, Blau (1964) and Homans (1965). Despite the differences in SET, there are still common fundamental tenets which underpin the theory. Of all the contributions, Homans (1965) is widely followed.

Homans' social exchange theory (SET) is rooted in both rational choice and behavioural psychology. Homans' SET posits that individual actors follow rational choices in their engagements and interactions, an assumption which is aligned with the rational economic tenet of the classic economic theory. According to Homans (1965), individuals' choices and the nature of

interaction in the social exchange are based on the outcome of the analysis of costs and benefits. This cost-benefit analysis is tied to the individual's experience and outcome of past relationships (Homans, 1965) and the expected future outcomes (Blau, 1964). The theory further assumes that social exchanges are characterised by mutual dependency, reciprocity, trust and social capital (Baric, 2016). These theoretical assumptions have been applied as a framework for understanding an individual's motivation to either continue or end relationships and to explain how such relationships, interactions and exchanges develop and change over time.

The dynamics of this relationship have been extended to explain the social interaction and exchanges between citizens and governments (Kirchler, 2007; Moscovici, 2001). Thus, one can view the engagement between citizens and governments as a social exchange relationship. In this social exchange relationship, individuals declare their incomes, providing the government with the bases to assess compliance, regulate and generate revenue through taxation, and in turn, the government is also expected to provide public goods and services as well as security and support to the individuals. Thus, there is an inherent mutual dependency and reciprocity in the relationship. When this reciprocity is altered, the parties are likely to alter their engagement.

Individuals may pay taxes because they value the goods provided by the government, and they recognise that their payments are necessary both to help finance the goods and services and to get others to contribute (Ayuba, Saad, & Ariffin, 2016). This suggests that the absence of provision of public goods and services by the government and misuse of the mobilised tax revenues violate the social contracts between citizens and the governments and

this may breed mistrust on the part of the taxpayer and thereby affect Government-Citizenry Relationship.

Within the social exchange framework, the probability of an individual's tax-compliant attitude is expected to be positively related to satisfaction with the provision of public goods and services and the application of tax revenue. The level of corruption perception could be one of the perceived misapplications of funds and dissatisfaction with public goods and services. This is considered a potential breach of the social contract and also eventually influences taxpayers' compliance behaviour, although the precise nature of the relationship is not yet understood.

It is important to acknowledge that there are several actors within the government's architecture which could cause mistrust and breach. These may be political actors and or administrative actors (Hayoz & Hug, 2007; Murphy & Torgler, 2004). The political actors include high-level state officials who are mostly elected and or appointed by those elected to serve the interest of the citizenry while the administrative actors include technocrats other than political actors. The operationalisation of government actors in the social exchange with the citizenry is crucial as the citizen response to mistrust and breaches such as misappropriation and corruption by political actors and administrative officials may differ.

Corruption perceptions involving political actors are more likely to elicit a strong and fierce response from the citizens than misappropriation and breach from administrative officials. Thus, the consequence of political corruption and administrative corruption in the social exchange relationship is likely to differ significantly. This may be explained by the fact that it is the

citizenry who elects and empowers these political actors to act on their behalf. As a result, any breach of that trust by the political actors is likely to elicit a more pronounced reaction on the part of the citizens. One such reaction would be to reciprocate the breach of trust by also refusing or altering their tax compliance behaviour.

Nevertheless, the consequence of taxpayers' response to the breach by the government may not be the same if tax compliance is viewed as a multi-dimensional construct: voluntary and enforced compliance (Roth et al., 1989; Song & Yarbrough, 1978). Similar to other relationships, social exchange relationship is grounded in power imbalances where the government is seen as the dominant force. Therefore, the unfavourable responses from taxpayers as a result of perceived corruption (political and administrative corruption) may be met with counter-reaction from the government through an evocation of threats and sanctions to compel the citizens to reluctantly comply. This implies that theoretically, enforced compliance may still be positive amid perceived corruption.

The tenets of social exchange theory are also relevant to explain the possible link between media reportage of corruption and tax compliance. Reports of sanctions and deterrence for tax malpractices including reported punishment for corrupt practices could strengthen social engagement as these may improve taxpayers' perception and tax compliance behaviour. This may also help deter individuals from engaging in evasion for fear of the social sanctions imposed once discovered and revealed publicly (Hashimzade, Myles, Page & Rablen, 2014).

However, the prevalence of reportage of corruption cases may be viewed by the citizens as mistrust and contractual breach arising from misuse of their taxes (Luttmer & Singhal, 2014). This could deepen taxpayers' corruption perception and as suggested by SET, the taxpayers may react by altering their social engagements with the state in a form of exhibiting negative compliance behaviour. The theoretical implication is that how the media frames and reports corruption issues have implications for tax compliance.

Generally, a media reportage that paints the government as corrupt and less trustworthy is more likely to serve as a disincentive to tax compliance (Boukes, 2020). However, when a subject of corruption has been framed and reported positively, taxpayers will be more likely to form a positive corruption perception of the government (Kneafsey & Regan, 2020). Thus, such a positive perception will in turn justify the moral grounds for voluntary tax compliance. The nature and direction of media reportage of corruption may be antecedents for explaining the dynamics of Government-Citizenry social exchange engagements

The discussions and the theoretical arguments have so far shown that the assumptions of the social exchange theory have provided strong theoretical bases for this study. Despite the sound contribution of the assumptions of social exchange theory to support the focus of this study, the theory has been subjected to some criticisms. According to Cropanzano and Mitchell (2005), SET has some systematic limitations. Cropanzano and Mitchell (2005) explained further that the systematic difficulties of SET emerge from the fact

that the core issues of SET have not been adequately articulated, tested and integrated empirically.

It has further been argued that despite the wide support for the framework of social exchange, the specific transmission mechanisms to explain social exchanges are currently not clear and its operations are ridden with theoretical ambiguities, structural challenges and methodological problems (Coyle-Shapiro & Conway, 2004). This is partly due to the narrow approach adopted, which usually concentrates on strict contribution-inducement and breach-reaction exchanges often measured through strictly defined correlations.

Despite these limitations, the theory is still widely used in the empirical literature. It is not surprising that proponents of social exchange theory suggest that rather than criticizing the theory, empirical studies should extend the implications of the theory by shaping the understanding of the dynamics of the social exchange relationships (Baric, 2016; Coyle-Shapiro & Conway, 2004; Cropanzano & Mitchell, 2005; Gobena, & Van Dijke, 2016; Gangl et al., 2015; Jimenez & Iyer, 2016). Marrying this recommendation within the specific constraints of SET coupled with the focus of this study; the present study could extend the theoretical implications of SET. In spite of the sound assumptions of the theory, social exchange theory fails to provide triggers of mistrust and breaches of the social contract.

This study does not only borrow the assumption of this theory but extends the implications by arguing that in the Government-Citizenry social relationship within the framework of taxation and compliance, citizens' corruption perception (political and administrative) and media reportage of

corruption may be fundamental triggers (Hayoz & Hug, 2007; Torgler, 2006). Moreover, although the theory reveals some fundamental tenets for social exchanges such as mutual dependency, reciprocity, trust and social capital (Baric, 2016), it is silent on the fact that sometimes there are power imbalances and dominant forces in the social contract. Thus the traditional view ignores the fact that there is often no level grounds in the social contract and therefore the party in breach may sometimes use its dominant force to restrain the aggrieved party to trigger a change in the relationship.

In respect of taxation; the traditional tenets of SET to a large extent hold only for voluntary compliance without recognising the power imbalances and dominant forces. This study would extend the frontiers of SET to incorporate power imbalances in social contracts by exploring how the government could counter the altered voluntary behaviour as a result of breaches by state actors. Power dynamics in the Government-Citizenry social contract in respect of taxation are skewed in favour of the government such that the government is clothed with the power of sanctions and threats to compel the citizens to comply even in situations where the government is seen to have breached its part of the bargain through corrupt activities of its actors. Thus, through power imbalances, the government can still whip taxpayers through enforced compliance.

The theory further assumes automatic response and consequence of a breach of the social contract. Thus, ignores the fact that the party's responses or reactions to breaches are influenced by other factors including their personal attributes. One of these personal attributes which could restrain a party's reaction to a breach by another contracting party is religious

orientation. These dynamics are absent in the assumptions of SET. A person's religious orientation serves as a locus of control that may define the extent of the reaction to external unfavourable forces (Carsamer & Abbam, 2020).

Almost all religions orient individuals to clearly distinguish between what is good and what is bad and not to respond to evil with evil. By implication, although the natural inclination for the government's breach of the social contract or misappropriation of tax revenue is to refuse to pay tax as drawn from the assumptions of SET, the taxpayers' religious orientation would restrain the taxpayers from automatically altering their tax paying behaviour. Thus, by integrating taxpayers' religiosity in the corruption perception-tax compliance nexus, the findings could extend the theoretical implication of SET.

#### **Self-regulatory focus theory**

The Self-Regulatory Focus Theory (SRFT) takes its root from the hedonic principle or hedonism and it is accredited to Tory Higgins (Higgins, 1997). SRFT was developed because hedonism failed to explain how individuals avoid pains and disadvantages as well as the inability to explain the seeming contradiction between the reaction to pains and pleasure (Cui & Ye, 2017; Higgins, 1997). SRFT posits that an individual's behaviour and motivation are defined by the person's regulatory focus (Higgins, 1997; Higgins, 1998). The SRFT explains the differences in the individuals' approaches or processes to being happy while at the same time working towards minimising pain (Hannah, Avolio & Walumbwa, 2011; Higgins, 1998).



The theory is developed from the assumption that individuals are motivated to minimise discrepancy which may exist between their ‘actual-end-states’ and their ‘desired-end-states’ which is termed maximising happiness and on the other hand widen the discrepancy or gap in their ‘actual-end-states’ and their ‘undesired end states’ called minimising pain (Higgins, 1989; Niemiec, Ryan & Deci, 2010). The theory is built on two central assumptions: the assumption of promotion focus and prevention focus. According to SRFT, these central assumptions reflect an individual’s orientation and different states of motivation and intention (Meyer, Becker, & Vandenberghe, 2004; Sue-Chan, Wood, & Latham, 2012).

Promotion and reward-oriented regulation reveal an individual ideal self-concept and may include the individual’s aspirations, hopes and wishes (Niemiec, Ryan & Deci, 2010; Sue-Chan, Wood, & Latham, 2012). Prevention-based regulation expresses the individual’s ought-self-concept and may also include individuals’ responsibility, duty and obligation. In an actual sense, the pleasurable-seeking focus regulates promotion-related goals processes while the pain-avoidance focus regulates prevention-related goals processes ((Higgins, 1989; Meyer, Becker, & Vandenberghe, 2004).

SRFT further provides that depending on the nature, regularity and persistency of the regulatory focus, a promotion-focus or prevention-focus may either be a chronic regulatory focus or situational regulatory focus (Higgins, 1998). The Chronic Regulatory Focus is a tendency which is gradually formed and relatively entrenched through a long-term process while the Situational Regulatory Focus is a tendency which is induced by specific

situational factors and is a short-term regulatory focus (Cui & Ye, 2017; Yao & Yue, 2009).

Higgins (1998) provided that an individual with a promotion orientation or self-focus would seek to achieve the highest level of compliance while a person with a strong prevention focus would try to minimise requirements. Although stable differences exist between pleasure-seeking focus or promotion focus and pain-avoidance focuses or prevention focus (Higgins et al. 2001; Shah and Higgins, 1997), the proponents of the self-regulatory focus theory (SRFT) have argued that the self-regulatory process of an individual can be influenced by the existing situational cues or contextual demands (Freitas & Higgins, 2002; Higgins, 1997; Higgins, 2001; Lam & Chiu, 2002). Therefore, both promotion focus and prevention orientation could be considered to be two determinants of different responses or outcomes among individuals under given situation cues or contextual demands.

The SRFT opines that the actions, attitudes and preferences of an individual in different contexts or situations depend on whether the individual is promotion-focused or prevention-focused. In the context of taxation, individuals or citizens expect the government to put their taxes to good use through the provision of public goods and services. When taxpayers trust the government to honour this obligation, they would voluntarily pay their taxes as they would view the government as promoting their interest and pleasure. Following the assumption of longevity and persistence of regulatory focus when this trust in government persists for a reasonable period or changes over time taxpayers may form either chronic or situational voluntary tax-paying behaviour (Cui & Ye, 2017; Yao & Yue, 2009).

Nevertheless, it is generally acknowledged that tax is not a pleasurable obligation. Therefore, when individual taxpayers do not trust the government in the management of their taxes augmented through corrupt practices of state actors, they will view tax contribution to be a waste of their resources, thereby causing them pain and leading to forming a prevention-focus attitude. This suggests that when the situation cues become demotivating, taxpayers are likely to behave negatively toward voluntary tax compliance and also work to minimise their exposure to enforced compliance. By implication since corruption is an unfavourable cue, perceived corruption is likely to trigger prevention orientation, therefore, causing taxpayers to regulate pain-avoidance focuses by altering their compliance behaviour.

It is also believed that situational regulatory focus is context-oriented and therefore the focus could change with changes in the situational cues. Therefore when the demanding context continues to become unfavourable through widespread media reportage of corruption, even those taxpayers who are promotion-oriented may eventually change or reregulate their focus to prevention focus. In essence, media reportage of corruption could likely have a significant influence on taxpayers' compliance behaviour (Cui & Ye, 2017; ; Higgins, 1997; Lam & Chiu, 2002).).

Although the theory recognises situation cues, it fails to articulate the individual characteristics and attributes as well as other environmental factors which are likely to curtail the natural expected response to a situational cue. One environmental factor which may augment or restrain the natural expected response to an unfavourable situation cue like corruption is the nature of media reportage of corruption. When a subject of corruption has been framed

and reported positively, it is likely to restrain taxpayers' expected natural response to their corruption perception about the government (Cui & Ye, 2017; Yao & Yue, 2009).

Similarly, when the media consistently frames the government and its officials as corrupt, it is more likely to augment or enhance the taxpayers' expected natural response to their corruption perception about the government leading to tax non-compliance behaviour. The theoretical implication is that media reportage of corruption could serve as an interacting term in the relationship between corruption perception and tax compliance (Cui & Ye, 2017; Freitas & Higgins, 2002 Higgins et al. 2001; Higgins & Shah, 1997; Yao & Yue, 2009).

Again, religious orientation as one of the attributes of taxpayers could also interact in a manner to moderate the relationship between corruption perception and tax compliance. Although the natural inclination of taxpayers to corrupt activities by state actors is to avoid the payment of taxes as espoused by SRFT, drawing from Carsamer and Abbam (2020), taxpayers' religious orientation is likely to play role in the taxpayers' compliance decisions in response to such corruption perception. This implies that SRFT could be extended to incorporate taxpayers' personal attributes such as religious belief in responding to unfavourable situational cues such as corruption perception.

### **Theory of planned behaviour (TPB)**

The theory of planned behaviour is a social behavioural theory that explains why people usually engage in certain lifestyles. The theory was propounded by Ajzen in 1991 as a continuation of the theory of reason action.

The TPB is based on the assumption that human beings usually behave sensibly, that they take account of available information, and that they, implicitly or explicitly, consider the implications of their actions. The theory posits that individual behaviour is determined by intention (Downing-Matibag & Geisinger, 2009). This theory further postulates that a person's intention to exhibit certain behaviour is the most important immediate determinant of an action (Ajzen, 2005).

TPB further assumes that intentions are a function of three basic determinants: personal one (attitudes); one that reflects social influence (subjective norms); and a third that deals with a locus of control (behavioural control). It is believed that people intend to exhibit behaviour when they evaluate the outcome positively, experience social pressure to do it, and believe that they have the means and opportunities to do so and are supported by other sources of influence (controls) (Ajzen, 2005). These envelopes of planned behaviour: attitude, social influence and behavioural control are shaped by individuals' interactions, experiences and social messages and play an integral role in defining actions and inactions (Besley & Persson, 2013; Eisenbeib, & Brodbeck, 2014).

Following these theoretical considerations, taxpayers' compliance behaviour may be explained within the framework of the theory of planned behaviour. Relating the assumptions to the focus of this study, taxpayers' attitudes and perceptions which could influence taxpayers' intention and orientation is the level of perceived corruption. According to Jahnke and Weisser (2019), amid these intention drivers, corruption is argued to have a

significant influence on the framework of intention (Alon and Hageman, 2013 ; Besley, Ilzetzki, & Persson, 2013).

The implication is that widespread perceived corrupt practices which could affect taxpayers' orientation are likely to have a consequence on the intention to comply with their tax obligation (Heeren, Jemmott, Mandeya & Tyler, 2007; Montanaro & Bryan, 2014). Taxpayers' compliance intention and attitude would be evaluated from a cost-benefit analysis. The contributions of TPB suggest that the level of corruption may influence voluntary tax compliance behaviour (Collins & Carey, 2007; Montanaro & Bryan, 2014). If taxpayers perceive that tax funds are mismanaged through corruption, there will be a high level of non-compliance and internal resistance to even enforced compliance. Thus, theoretically, there is a possible link between corruption, and tax compliance (Alon & Hageman, 2013; DeBacker, Heim & Tran, 2015; McKerchar & Evans, 2009).

Another fundamental assumption of the TPB is about social norms. Social norms cover perceived or actual pressure from the environment, approval or disapproval from others, and what is being practised by others (Collins & Carey, 2007). Fishbein and Ajzen (1977) suggested that subjective norm affects intentions based on social pressure to engage or not to engage in a certain act. From the theory of planned behaviour, the subjective norm is a function of expectations that are perceived by individuals where one or more people around them approve of certain behaviour and motivate the individual to comply (Bryan, Kagee & Broaddus, 2006). The subjective norm in relation to tax compliance is built through the influence of the people around, friends,

professionals, tax administrators and the flow of information about tax administration (Bryan et al., 2006; Osman, Mohammed & Fadzil, 2016).

This suggests that the flow of information within the tax environment and the society defines the framework of the subjective norms and may determine or shape an individual's perception, and orientation and could play an integral role in the person's actions and inactions (Besley, Ilzetzi & Persson, 2013; Eisenbeib & Brodbeck, 2014). The dynamics of these social messages, communications and flow of information have changed through media reportage. The media is alarmingly defining the social order and norm. It is gradually becoming the closest environment to individuals including taxpayers. This environment provides vital information for social awareness.

The media serves as the environment within which information is generated and shared for an informed decisions. This is because there are societal values and messages disseminated within the media landscape (Gangl & Kirchler, 2015). Thus media reportage about corruption and corruption-related practices could affect taxpayers' social norms and tax compliance behaviour (Iyengar, 1991; Kim & Willis, 2007; Marandu, Mbekomize & Ifezue, 2015; Osman, Mohammed & Fadzil, 2016). The implication is that taxpayers are more likely to redefine their tax compliance behaviour when their level of awareness of corruption-related practices is enhanced through media reportage.

Besides attitude and social norms, locus of control is another fundamental element of intention as espoused by the theory of planned behaviour. The locus of control encompasses interventions which could amplify or restrain intention in response to triggers of individual attitudes and

forces of the environment (Wu & Roberts, 2013; Wright & Quick, 2011). One such intervening control is religiosity. Although tax as economic development phenomenon is irreligious (Tomes, 1985), religious practices, norms and beliefs are making inroads into economic development and analysis (Riahi-Belkaoui, 2004).

Religiosity provides internal control or self-efficacy to define behavioural intention (Carsamer & Abbam, 2020). This is probably due to the fact that regardless of the type of religion, individual religious faith and belief are expected to provide the individual with an internal control to clearly distinguish between what is good and what is bad behaviour. Religious identity emphasises or highlights intimidation of embarrassment as a fundamental sanction, and therefore discourages illegal behaviour such as non-tax compliance or tax cheating (Benk, Yüzbas & McGee, 2017).

Religious commitment could either restrict or enhance the response to external stimuli. The religiosity of taxpayers could therefore interact with the relationship between corruption and tax compliance. Thus, a critical evaluation of the assumptions of TPB shows that religiosity could moderate the relationship between corruption and tax compliance. Similarly, the media framing of corruption could also play an interacting role to either amplify or inhibit the individual taxpayers' compliance behaviour in response to corruption-related news. For instance, when corruption-related news paints the government and its officials as deeply involved in corrupt activities, taxpayers are likely to alter their voluntary compliance behaviour and vice-versa. This interacting dynamics of media reportage of corruption has been ignored within the tenets of TPB. This is however articulated within the framing effect theory.



### **Framing effect theory**

The framing effect theory has its root in communication studies (De Vreese, 2005). The theory was first put forth by Goffman, under the title of Frame Analysis (Goffman, 2006). It has enjoyed prominence as one of the important mechanisms in media reportage. The Framing Effect Theory (FET) suggests that how news is presented to the audience (called the frame) influences the choices people make about how to process that information (Tewksbury & Scheufele, 2009). The framing approach focuses on realising attitudinal changes. Using the framing effect theory, Goffman and Rodríguez (2006) argued that people tend to have a positive attitude when an object is instrumental for core values (positive cognitions). On the contrary, negative cognitions result in a negative attitude. Based on this analysis Borah, (2011) argued that media alter recipients' cognitives by repeatedly covering certain attributes of an object.

The framing theory posits that journalists rely on news frames when covering complex news to help report large and varying news in easy-to-understand and interpretative packages (Kim & Willis, 2007). According to Entman (2010), the framing approach makes media reports inevitably highlight some aspects of news or an issue to make these aspects more salient than others. The theoretical structure of the framing theory reveals two fundamental framing tendencies: thematic frame and episodic frame (Boukes, 2021; Gross, 2008; Kim, Carvalho & Davis, 2010; Shore, 2022).

Thematic framing refers to the presentation and reportage of news by focusing on systemic causes, consequences and trends (Boukes, 2021; Iyengar, 1991). Thematic framing covers expert analyses of the contextual conditions

of the news, the systematic evidence of the widespread outcomes and the statistical trends, discussion of the associated risk factors and the social indicators, as well as the presentation of a community-level and a policy-based remedies (Kim & Willis, 2007). Media experts believe that when the news provides adequate and relevant background information about the issues, the contextual conditions present and the widespread consequences, thematic media reportage could improve the public understanding of the systemic risk factors associated with the issue (Boukes, 2021; Iyengar, 1991; Shore, 2022; Zillmann 2002).

Episodic framing however focuses on the presentation and reportage of issues either through a specific event that represents an anecdote of broader news or issue or a specific story that could serve as the face of the entire issue (Boukes, 2021; Iyengar, 1991; Shore, 2022). Following Zillmann (2002), episodic media reportage may achieve some level of exemplification effects in reaching the audiences and may also have implications on the behaviour of the audiences as they become aware of the issues under consideration (Shore, 2022).

Another integral aspect of the theory is that recipients of media reports (thematic and episodic frame) adapt their attitude in tandem with the news framing (Iyengar, 1991; Shore, 2022). One would expect recipients of news about an event to change their attitudes based on new arguments or directions introduced by the media (Boukes, 2021; Entman, 2010; Waterton & Watson, 2013; Goffman, 2006). Following these theoretical arguments, it can be argued that people including taxpayers are influenced by the news media (Iyengar, 1991; Kim & Willis, 2007; Zillmann, 2002).

Therefore, the choices that people make in connection to tax payments are also linked with media reports. Thus, if media reports paint the government and its officials as corrupt, the news may evoke feelings to resist the desire to pay taxes. However, when media reports portray the government as less corrupt and/or convey news about government interventions and policies to tackle corruption and positive results from the fight against corruption including sanctions, citizens including taxpayers would have a positive view of the use of their tax revenues and may translate into high tax paying culture.

Corruption has become a chronic societal problem and therefore the influence through generic reportage (thematic framing) may not carry the same effect on the audience perception as isolated report (episodic framing). By following episodic reportage, taxpayers are more likely to personalise the consequence of corruption as they may overlook the societal dimensions (Shah, Kwak, Schmierbach, & Zubric, 2004). Relating to tax compliance behaviour, personalising responsibility for corrupt activity could also reinforce the existing public perceptions about corrupt tax practices (Schnittker, 2008; Walker & Read, 2002).

This may condition the taxpayers to describe chronic economic problems such as corruption not as deep-seated economic vices and conditions, but as a mere idiosyncratic outcome. This may cause taxpayers who would be part of the news audiences to hold the state responsible by changing their tax compliance behaviour. The theoretical implication is that by segregating media reportage into thematic and episodic, this study could

deepen the theoretical understanding of the significant role of media framing in the corruption-tax payers' compliance nexus.

### **Conceptual Review**

This section examines some of the key concepts of the study. Some of the key concepts include tax compliance and tax performance in Ghana, corruption perception, corruption and tax compliance, media reportage of corruption, Media reportage of corruption and tax compliance, and finally, taxpayers' religiosity and tax compliance. These variables of interest are discussed and operationalised per the framework of this study.

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

Tax compliance is the bases for tax revenue performance and predicts the success or otherwise of tax revenue mobilization efforts. In order to arrest poor tax revenue performance, the root cause which is tax compliance behaviour should be improved. Tax compliance is a term that enjoys a plurality of definitions, hence there is no straightforward meaning to tax compliance. As a result, the definition of tax compliance is mostly dictated by tax authorities and tax payers' motivation, interests, and assumptions as well as the legal and jurisdictional factors (Roth, Scholz & Witte, 1989; Slemrod, 2019). Bodea and LeBas (2016) define tax compliance to mean the ability of tax authorities to exact the right amount of tax from potential taxpayers.

This definition leans more toward the enforcement powers of tax authorities (Kirchler, 2007). A more comprehensive definition was provided by Inasius (2019). Inasius defines tax compliance as the ability of the tax administration to exact the due tax revenue and the taxpayers' willingness to pay the due taxes. Unlike the traditional view of tax compliance that

emphasizes enforced compliance (i.e. the ability of tax administration to extract the due tax revenue), the contribution of Inasius (2019) reveals multidimensionality of tax compliance as exhibited by the ability of tax administration to extract the due tax revenue (enforced compliance) and the taxpayers' willingness to pay the due taxes (voluntary compliance).

This study follows the definition of Inasius (2019) as it rightly segregates compliance from both voluntary and enforced perspectives. Voluntary tax compliance is viewed in this study to mean the extent to which a taxpayer will be able and willing to comply with its tax obligations as and when they fall due without external pressure or enforcement. It is the type of compliance where taxpayers make full disclosure of their taxable activities willingly without any coercion (Kirchler, 2008; Inasius, 2019; Da Silva, Guerreiro & Flores, 2019).

On the other hand, enforced tax compliance is used in this study to mean tax compliance other than voluntary compliance where taxpayers honour tax obligations for fear of being sanctioned (Da Silva, Guerreiro & Flores, 2019; Slemrod, 2019). With enforced compliance, taxpayers often evaluate the sanctions, probability of occurrence and severity of the occurrence to inform their tax compliance behaviour. These tax compliance complexities are believed to have strong implications on tax revenue mobilization and performance (Almunia, & Lopez-Rodriguez, 2018; Koranteng, Osei-Bonsu, Ameyaw, Ameyaw, Agyeman & Dankwa, 2017; Asare & Sakae, 2015).

### **The concept of corruption and corruption perception**

Corruption has existed since human governance. According to Campbell and Saha (2013), corruption has probably been as old as the government itself and no country or economy is immune from corruption-related issues. In fact, no country has and would have a perfect score on the corruption perception index (CPI). The Transparent International Index (TII) has revealed that about two-thirds of countries assessed for CPI scored less than 50 points out of 100 points. This demonstrates how critical corruption is and affects almost all facets of governance and administration including tax administration.

Although it is easy to conclude on the existence and the future dynamics of corruption as well as how it impedes economic development, it is very difficult to define the term corruption as the meaning is influenced by a range of legal and cultural rubrics (Melgar, Rossi & Smith, 2010; Rosid, 2017). Thus, there is no universality to the definition of corruption and consensus on the definition of corruption (United Nations Development Programme, UNDP, 2008). Corruption can be defined from several perspectives: socio-cultural perspective, legal perspective and economic perspective (Melgar et al., 2010).

Corruption in the context of this study focuses on the economic perspective. According to Werlin (1973), corruption may be defined as the utilisation or application of public assets or resources for private gains or benefits. It is also defined as unauthorised or illegal profiteering by government or public officials who misuse their offices to make personal or private gains (Blackburn, Bose & Emranul, 2010). It is operationalised in this

study as the abuse, misuse and unauthorised use of public authority or position for private benefits or illegal profiteering from the public position. The difficulty in getting a precise definition for corruption also suggests multidimensional characteristics of corruption. UNDP (2008) identified grand corruption and petty corruption as the two sub-constructs to operationalise corruption while Transparency International (TI) also categorised corruption into four constructs: grand, political, bureaucratic and petty corruption. (Harring, 2014)

It is clear from these two major contributions of the United Nation Development Program (UNDP) and Transparency International (TI) that the fundamental structure of corruption is either political or administrative (Amudson, 1999; Harring, 2014). Given the fact that in Ghana the main drivers of corruption are political elements and administrative processes, this study, therefore, categorises corruption into two: Political corruption and Administrative or bureaucratic corruption. These corruption constructs are fundamental to taxpayers' compliance behaviour.

Political corruption in this study is defined as illegal profiteering, misusing or abusing public authority or power by political decision-makers and their actors either grand or petty for personal or private pecuniary gain. According to TI (2015), political corruption may be defined as the manipulation of institutions, policies, structures and rules in the resource allocation and financing by political decision-makers or political actors, to sustain their power, position or status, and wealth. Political corruption represents the misuse or abuse of public authority or power by high-level public officials and political actors including ministers of state or senior

officials for personal or private pecuniary gain (Khlif & Amara, 2020; Litina & Palivos, 2016; UNDP, 2008). The political actors include high-level state officials who are mostly elected and or appointed by those elected to serve the interest of the citizenry.

Political corruption is one of the most daunting and destructive but unresolved corruption menace. It is considered a direct betrayal of the citizenry and public trust (Sole-Olle & Sorribas-Navarro, 2018). Corruption at the echelons of government and public institution recklessly erode the citizenry's trust in government and political actors resulting in dysfunctional behaviour from the citizens (Khlif & Amara, 2020; Litina & Palivos, 2016). One expected dysfunctional behaviour from citizens in response to political corruption is that the citizens would not support government agenda and action (Harring, 2014). According to Harring (2014), high perceived political corruption could make them less willing to make economic sacrifices such as taxation to support the government.

Similarly, administrative corruption could also have an implication on citizens' behaviour. Administrative or general corruption is the extortion, misuse or abuse of public or administrative positions or office by officials other than political actors for personal benefits (Flatters & Macleod, 1995). It is the extortion of payments and funds by a public or non-political official in their day-to-day works and interactions with the public often called 'grease'. Similar to political corruption, administrative corruption is generally linked to the manipulation, misuse and abuse of public funds and administrative process including tax revenue mobilisation and application.



Literature has documented the difficulty in determining or quantifying corruption (Urta, 2007; Campbel & Saha, 2013). As a result, studies in the social sciences have and continue to assess corruption based on an individual's subjective views, referred to as perception (Campbell & Saha, 2013).

Corruption perception in this study focuses on taxpayers' views on corruption occurrence at the upper echelon of government (Political) and the administrative level.

### **Corruption and tax compliance**

During the previous decades, there has been a prolific literature both theoretical and empirical on the relationship between corruption and taxation. It finds that widespread corruption harms the culture of compliance, thereby increasing tax evasion (Aghion et al., 2016). Tax exemptions perceived to be the result of a bribe undermine the trust in government and compliance with tax laws (DeBacker, Heim & Tran, 2015); Again, corruption fosters the development of the informal sector and therefore erodes the potential tax base (Ayuba, Saad & Ariffin, 2016). Sen Gupta (2007) finds that, among other factors (such as per capita GDP, the ratio of agriculture to GDP, trade openness and foreign aid), corruption is a significant determinant of a country's revenue performance.

Besley and Persson (2014) discuss why developing countries tax so little, examining considerations such as the economic structure of these economies, political factors (including the strength of institutions, fragmented policies, and a lack of transparency due to weak news media), and sociological and cultural influences (such as a weak sense of national identity and a poor norm for compliance). The authors find a strong negative correlation between

corruption and the tax revenue-to-GDP ratio. They attribute this correlation to corrupt systems of government that face resistance to increasing taxes. These pieces of evidence show the relationship between corruption dynamics and tax revenue. As discussed throughout this study, the present study seeks to explore micro-level data to investigate the dynamics.

### **Media reportage of corruption and tax compliance**

The media is often considered the fourth arm of government. It is the platform to educate and create public awareness. Media reports disseminate news to the audience to make informed decisions. The news could either have positive or negative implications on the audience and the economy. The reviewed self-regulatory focus theory suggests that media reportage could serve as situation cues which could develop negative orientation in the taxpayers and negatively affect their tax compliance behaviour (Brockner & Higgins, 2001).

An emerging trend in the media reportage landscape follows the assumptions of framing theory which dictates that the true consequence of media reportage is based on how the news is reported in the media (Scheufele, 1999; Zhang & Jin, 2017; Zillmann, 2002). Some studies have operationalised media reportage into macro-level frames and micro-level frames (Kim et al., 2007; Scheufele, 1999). Others have also categorised media reportage into thematic and episodic reportages (Zhang & Jin, 2017).

It is believed that media reportage of corruption like other complex news tends to follow a news frame where journalists present the news through interpretative packages to highlight some key aspects and make them more salient than others (Kim & Willis, 2007). This trend follows thematic and

episodic approaches (Gross, 2008). Therefore, in the context of the present study, media reportage is defined in terms of Thematic Frames and Episodic Frames (Boukes, 2021; Shore, 2022).

Thematic reportage refers to news framing where the media present and portrays corruption issues by highlighting the systemic causes, the trends and the consequences of the corrupt acts (Boukes, 2021; Chen, Power & Stomberg, 2015; Iyengar, 1991; Kim & Willis, 2007). In covering corruption issues, thematic reportage may also include expert analyses and interrogation of the contextual conditions, evidence of the widespread, analysis of trends, risk factors and policy-based remedies. Thematic reportage frames news as a generalised or systemic challenges faced by society in general and therefore attributes responsibility to the entire society.

Episodic reportage on the other hand refers to the framing effect where the media present and portray corruption issues through either a specific event that serves as a representative anecdote of the broader issue (Boukes, 2022; Iyengar, 1991; 2009; Zillmann, 2002; Shore, 2022). In respect of corruption, the episodic reportage will highlight specific corruption issues to exemplify them to the wider audience. Thus, while thematic media reportage of corruption may generalise corruption as a societal problem, episodic media reportage of corruption may individualise corruption menace and attribute responsibility to the individuals involved.

Conceptualising media reportage of corruption into the thematic and episodic construct could influence taxpayers' thoughts and feelings about the corruption menace (Iyengar, 1991; Shah et al., 2004) and have the potential to improve their understanding and consequently their tax compliance behaviour.

It is believed that the effect of thematic reportage and episodic reportage of corruption to taxpayers' compliance behaviour may differ. It is therefore useful to operationalise media reportage of corruption not as a single construct but as a multidimensional construct from the perspective of thematic and episodic media reportage (Yin, Wemah & Abugre, 2016).

### **Taxpayers' religiosity and tax compliance**

The theoretical review has revealed that individual personal characteristics influence a person's intentions and actions. The self-regulatory focus theory (SRFT) posits that individuals undergo a self-regulatory process through their exposures, beliefs and culture which define their characteristics (Higgins, 1997; 1998; Neubert, Wu & Roberts, 2013; Wright & Quick, 2011). One fundamental personal belief and exposure is the person's level of religiosity.

According to Cassamer and Abbam (2020), religiosity may be defined as the extent of the commitment of an individual towards his/her religion, professes beliefs and the teachings of the religion, such that the individual's behaviour, actions and attitudes reflect such commitment. Religiosity could determine the extent to which one assimilates news, and information as well as responds to external influencers. Thus, religiosity may affect individuals' intentions and actions.

The religious commitment of taxpayers could either restrict or enhance the response to external stimuli such as corruption. Thus, the religiosity of taxpayers could interact with the dynamics of corruption, media reportage of corruption and tax compliance. This deduction is consistent with some prior literature. It was concluded by Torgler (2006) that countries which have high

religious commitment had significantly lower rates of crime and greater tax payments. It has also been justified in the literature that taxpayers pay their taxes as a sense of religious and moral obligations (Benk et al., 2017; Mohd-Ali & Pope, 2014).

This study conceptualises religiosity from the general perspective where taxpayers are assessed as either religious or non-religious according to the response to the items on the scale. Thus, this study does not segregate taxpayers according to any specific religion. The study follows this approach because it is believed that almost all religions teach their members to uphold high moral standards including honouring their tax obligations. By implication, although the government may breach the social contract through misappropriation of tax revenue, these religions still encourage their members not to act according to the breach but still become tax compliant as a religious duty. Thus, the segregation may not present significantly different results. Moreover, religion is one of the sensitive areas in society, segregating the taxpayers into religious sects and presenting results therefrom could trigger emotions through religious embarrassment especially when the conclusion suggests that members of a particular region do not honour their tax obligations or some are more tax compliant than others.

### **Empirical Review**

The study reviews empirical literature based on the thematic areas of the study. These are corruption and tax compliance, media reportage of corruption and tax compliance behaviour, interacting role of religiosity in tax compliance and the moderating role of media reportage of corruption in tax compliance literature

### Corruption and tax compliance

This thematic issue of the literature reflects the first objective of the study. The literature review is presented based on the prior research efforts about this objective, the hypotheses emerging from the theoretical and the empirical discussions and the review of the fundamental concepts.

Rosid (2017) conducted a PhD study focusing on corruption perception and tax non-compliance behaviour in Indonesia. The study was conceived from the fact that corruption and tax non-compliance are major challenges for developing economies. Rosid argued that despite the challenges emerging from these phenomena, there is a limited empirical study about these relationships. Rosid operationalised corruption from five dimensions. Three major findings emerged from the study. First, Rosid revealed that high corruption and tax non-compliance exist in Indonesia. Secondly, the study revealed that the corruption perception of taxpayers undermines the intention of taxpayers to accurately report their income and influences their attitude and subjective norms toward tax compliance. Finally, the study found that grand corruption, grand tax corruption and general corruption affect the intentional underreporting of income.

The study of Rosid (2017) is one of the comprehensive studies in the corruption-tax compliance literature. The study has demonstrated the relevance of corruption integration in tax regulation and strategies. It is also one of the closest studies to the present study. The findings from this study may be relevant for the discussion of the findings which will emanate from the present study. Rosid (2017) recognised the multidimensional nature of corruption and therefore segregated corruption into its different levels. Rosid

found that all the dimensions of corruption significantly drive the intention to underreport.

Despite the sound contribution of the study of Rosid (2017), the composition of the unit of analysis might have skewed the findings. More than 50% of the participants in the study of Rosid were salaried workers. These fixed-income earners (salaried workers) do not make tax compliance decisions on their income and therefore their compliance intention may not translate into non-compliance. Their taxes are deducted at source and therefore could not provide relevant data to evaluate tax compliance.

Furthermore, Rosid failed to recognise the multidimensional characteristics of tax compliance (Da Silva, Guerreiro & Flores, 2019) even though such a different level of analysis was considered in the measurement of corruption. Marrying the different levels of corruption to the multidimensional nature of tax compliance may yield different results from what has been reported in the study of Rosid and may further deepen the understanding of the relationship between corruption and tax compliance. Segregating tax compliance into its dimensions and modelling them separately would not only contribute to sound policy formulation but also extend the theoretical implication of the social exchange theory (SET). The assumption of power imbalances and dominance of SET could define possible differences in the effect of corruption on voluntary and enforced compliance (Roth et al., 1989; Song & Yarbrough, 1978).

Taxpayers' response to perceived corruption may result in high voluntary non-compliance; however, this unfavourable response from taxpayers as a result of perceived corruption may be met with counter-reaction

from the government through the evocation of threats and sanctions to compel the citizens to reluctantly comply. This implies that theoretically, enforced compliance may still be positive amid perceived corruption but a similar conclusion and inference cannot be drawn for voluntary tax compliance. Thus, it is useful for both policy and theory to estimate the corruption-tax compliance nexus by operationalising both corruption and tax compliance at different levels of occurrence.

Baum, Gupta, Kimani and Tapsoba (2017) investigated the effects of corruption on the state's capacity to raise revenue, building on the existing empirical literature using a new (cross-country) and more disaggregated data set. Baum et al. (2017) further analysed the effect of establishing relevant public institutions which seek to improve tax compliance. The study found that consistent with the existing literature, corruption is negatively associated with overall tax revenue and most of its components. This relationship is predominantly influenced by the way corruption interacts with tax compliance. The empirical findings from Baum et al. (2017) are supported by some studies such as Picur and Riahi-Belkaoui (2006). The implication then is that the negative effect of corruption on tax revenue generation through compliance is embedded in empirical literature in various countries.

Although Baum et al. (2017)'s study is one of the comprehensive literature on the link between corruption and tax compliance, the use of a general focus or macro-level corruption perception index (CPI) to measure corruption does not reflect tax-specific situations. The CPI is based on a poll of polls and may not relevantly, accurately and consistently reflect the position of taxpayers who were the subject of Baum et al. (2017)'s investigation. This



challenge is exemplified by Mishler and Rose (2008) who stressed methodological reservations associated with CPI's reliance on surveying elites in businesses, international non-governmental organisations (INGOs), non-governmental organisations (NGOs), as well as governmental organisations who may not be relevant or have no first-hand knowledge of how to respond to the corruption survey questions. This study, therefore, seeks to develop taxpayers' specific corruption perception and interrogate the consequence of tax compliance behaviour.

In China, Cheng and Zeng (2017) observed that though the Government has adopted a "zero tolerance" attitude towards corruption and has rolled out several measures to deal with the menace to enhance tax compliance, the practice is still of major concern. The empirical results showed that there is a significant negative correlation between corruption and tax compliance. Thus, a high level of corruption may lead to high tax non-compliance and vice-versa. The practical implication is that pursuing an anti-corruption strategy could be beneficial in increasing tax revenue.

The evidence from the study of Cheng and Zeng (2017) suggests that anti-corruption strategies are critical to reducing tax revenue loss. Conversely, high corruption perception drives tax non-compliance behaviour. Although the findings in the study of Cheng and Zeng provide empirical bases to assume a connection between corruption and tax compliance, they have over-relied on macro-level analysis of corruption or corruption index similar to some prior studies (Ali et al., 2014; Baum et al., 2017; Nyarkpoh, 2018) rather than micro-level analysis relevant for situational or contextual based phenomenon such as corruption (Donchev & Ujhelyi, 2014; Melgar et al., 2010; Rosid,

2017). The present study, therefore, conducts micro-level analysis using data from self-employed to provide evidence about taxpayers' response to corruption perception.

In a related study, Jahnke and Weisser (2019) intimated that revenue from taxation is critical for economic development in Sub-Saharan Africa. Jahnke and Weisser (2019) argued that one obstacle to improving voluntary tax compliance can be extortion and bribes by public officials. In view of these motivations, Jahnke and Weisser (2019) investigated the effect of petty corruption on tax morale in sub-Saharan Africa. The authors used macro-level data and conducted both direct-level and mediation analyses.

The study showed that petty corruption erodes or undermines tax morale. The effect of petty corruption is low on tax morale in countries and regions where fewer people engage in petty corruption and high where corruption is prevalent. It was further found that taxpayers' negative reactions to compliance become significant when corruption is pervasive and limit access to essential public goods and services. The authors concluded that petty corruption does not only have a direct influence on tax morale but also undermines taxpayers' confidence in the tax authorities and therefore indirectly affects tax morale.

Like the studies of Picur and Riahi-Belkaoui (2006) and Rosid (2017), Jahnke and Weisser (2019) also recognised different levels of corruption. The authors focused on one of the sub-constructs of corruption-petty corruption. Jahnke and Weisser also considered tax compliance behaviour as a multidimensional construct and focused on voluntary tax compliance (tax morale). The present follows the lessons in the study of Jahnke and Weisser

(2019) to conceptualise both corruption and tax compliance. The findings from the present study could be situated within the context of Jahnke and Weisser (2019).

Although the study of Jahnke and Weisser (2019) recognised the multidimensionality of both corruption and tax compliance, their investigation was limited to one sub-construct of each of these phenomena (corruption and tax compliance). It is therefore unclear from the study of Jahnke and Weisser (2019) how the dynamics of the relationship would be when different sub-constructs are incorporated. Moreover, the use of macro-level data failed to recognise street-level corruption perception. This present study argues that to provide comprehensive evidence about the corruption-tax compliance relationship both street-level effects of corruption perception and all facets of corruption and tax compliance dimensionalities should be incorporated. So far these dynamics have not been considered concurrently in the literature. This current study, therefore, seeks to extend the investigation by integrating these facets of the relationship.

Empirical evidence on the relationship between corruption and tax compliance is not common in Ghanaian literature. Nevertheless, there are some fragments of evidence which could be reviewed to situate the current study. Amoh and Ali-Nakyea (2019)'s study is the closest study to the present study in Ghana. The authors focused on the relationship between corruption and tax evasion and considered the effect of corrupt activities on tax evasion. The study used data from the World Economic Forum Executive Opinion Survey, World Development Indicator and Bank of Ghana. The study, therefore, used macro-level data which were developed from five-dimensional

corruption indicators from five questions: Diversion of the public funds, ethical issues, favouritism by government officials, organised crime and bribes and irregular payments.

The study of Amoh and Ali-Nakyea (2019) revealed that corrupt activities in Ghana significantly cause tax evasion. It was further revealed that corruption in Ghana exhibit all five dimensionalities of corruption, namely, diversion of the public funds, ethical issues, favouritism by government officials, organised crime and bribes and irregular payments. The study of Amoh and Ali-Nakyea and its findings are fundamental for the present study. The findings from the present study would be benchmarked against studies such as Amoh and Ali-Nakyea (2019).

Nevertheless, Similar to other prior studies (Ali et al., 2014; Baum et al., 2017; Cheng & Zeng, 2017; Jahnke & Weisser, 2019; Nyarkpoh, 2018). Amoh and Ali-Nakyea (2019)'s study used macro-level data rather than micro-level data which would have incorporated street-level corruption perception relevant for taxpayers situational or contextual analyses (Donchev & Ujhelyi, 2014; Melgar et al. 2010; Rosid, 2017). Moreover, although Amoh and Ali-Nakyea (2019) considered dimensionality in corruption, they failed to recognise different levels of corruption (Baum et al., 2017; Jahnke & Weisser, 2019; Rosid, 2017; TI, 2015; UNDP, 2008).

The different levels of corruption would likely elicit varying responses or reactions from taxpayers. Therefore, operationalising corruption into its different levels would comprehensively provide more insight into the corruption-tax compliance nexus and the bases for more focused tax reforms and strategies to minimise the implications of corrupt activities on tax

compliance and revenue mobilisation. Thus, by incorporating these dynamics coupled with the varying tax compliance dimensionality, the present study becomes one of the foundational studies focusing on the dimensionalities of corruption and tax compliance framework in Ghana.

### *Lessons learnt and hypotheses development on corruption and tax compliance*

This section presents the lessons learnt from both theoretical and empirical review and how these lessons define the framework for developing the hypotheses emerging from the specific objectives. The purpose of the hypotheses is to provide evidence of the theoretical contributions of the study and how it is situated within the empirical literature. The hypotheses would provide evidence of the practical reality of theoretical assumptions by either affirming or disaffirming tenets from the theoretical considerations.

The first focus of this study is to examine the relationship between corruption perception and tax compliance behaviour among taxpayers (self-employed) in Ghana. Addressing this specific objective requires the test of relationship which should be supported by theoretical assumptions and or empirical evidence. It is learnt from the social exchange theory (SET) as reviewed under the theoretical review that the probability of an individual's tax-compliant attitude is expected to be positively related to satisfaction with the provision of public goods and services and the application of tax revenue. It is further learnt from SET that the level of corruption could be considered as a potential breach of the social contract and also eventually influences taxpayers' compliance behaviour, although the precise nature of the relationship is not yet understood.

Therefore, if a taxpayer knows or perceives that people in important positions engage in corrupt practices associated with revenue mobilisation, the commitment to comply will be weaker. Nevertheless, the citizen response to mistrust and breaches such as misappropriation and corruption may differ depending on the actors of government: political actors and administrative officials. Corruption involving political actors is more likely to elicit a strong and fierce response from the citizens than misappropriation and breach from administrative officials. One such reaction would be to reciprocate the breach of trust by also refusing or altering their tax compliance behaviour. Following these theoretical lessons, this study argues that political corruption and administrative corruption could have a significant effect on tax compliance.

Nevertheless, the consequence of taxpayers' response to the breach by the government may not be the same if tax compliance is viewed as a multi-dimensional construct: voluntary and enforced compliance (Roth et al., 1989; Song & Yarbrough, 1978). Due to power imbalances in the social exchanges, unfavourable responses from taxpayers as a result of perceived corruption (political and administrative corruption) may be met with counter-reaction from the government through the evocation of threats and sanctions to compel the citizens to reluctantly comply. This implies that theoretically, enforced compliance may still be positive amid perceived corruption.

The overall lesson is that the corruption-tax compliance nexus is complex with the magnitude and direction potentially defined by the operationalisation of the constructs and the actors within the relationship. Even though the empirical literature has largely supported the connection between corruption and tax compliance, they have often failed to recognise the

dimensionality of corruption and tax compliance (Da Silva, Guerreiro & Flores, 2019; Jahnke & Weisser, 2019; Rosid, 2017; Transparency International, 2015; Ullah, 2022).

It is further learnt from the empirical literature that the existing studies often focus on the macro-level analysis of corruption or corruption index instead of micro-level data which would incorporate street-level corruption perception relevant for taxpayers situational or contextual analyses (Ali et al., 2014; Baum et al., 2017; Nyarkpoh, 2018). The current understanding is that corruption and tax compliance have multi-dimensions and each dimension is likely to elicit different responses and exhibit different outcomes (McKerchar, 2003; Weber, Fookan & Herrmann, 2014; Rosid, 2017; Transparency International, 2015; UNDP, 2008). This study, therefore, follows the theoretical lessons and current understanding of the empirical literature to propose four relationships between these phenomena and hypothesises in their alternative forms as follows:

H<sub>1a0</sub>: Perceived political corruption has a significant effect on voluntary tax compliance in Ghana

H<sub>1b0</sub>: Perceived political corruption has a significant effect on enforced tax compliance in Ghana

H<sub>1c0</sub>: There is a significant relationship between perceived administrative corruption and voluntary tax compliance in Ghana

H<sub>1d0</sub>: There is a significant relationship between perceived administrative corruption and enforced tax compliance in Ghana

These theoretical relationships between corruption and tax compliance are amplified further by theories such as self-regulatory focus theory (SRFT)

and the theory of planned behaviour. It is learnt from the SRFT that the nature or level of perceived corruption is a situation cue which could make taxpayers either prevention or promotion-focused. Thus, SRFT also predicts a link between corruption and tax compliance behaviour. Moreover, following the reviewed assumptions of the theory of planned behaviour (TPB), taxpayers' attitudes and perceptions which could influence taxpayers' intention and orientation is the level of perceived corruption. It is therefore learnt from TPB that a wide spread of perceived corrupt practices could affect taxpayers' compliance orientation and compliance (Heeren, Jemmott, Mandeya & Tyler, 2007; Montanaro & Bryan, 2014).

### **Media reportage of corruption and tax compliance behaviour**

This section focuses on the second thematic area of the study. It discusses the theoretical lessons from the theoretical review which underpin this objective and develops relevant hypotheses. The section would also review prior research efforts to determine the gaps and operationalises relevant concepts.

Although there are strong theoretical bases to investigate the relationship between media reportage and tax compliance behaviour in Ghana, the empirical evidence is still in its infancy. Most of the prior research efforts have either focused on media reportage and corruption or corruption and tax compliance outside the Ghanaian setting. Several studies have examined the relationship between media reportage and corruption (Elbahnasawy, 2014; Kalenborn & Lessmann, 2013; Tufekci & Wilson, 2012). However, evidence



about the effect of media reportage on tax compliance is virtually absent in Ghana.

The empirical review under this theme, therefore, focuses mostly on studies outside the Ghanaian setting to identify gaps and widen the implications of the findings. One of the main contributors to media reportage and tax literature is Chen, Power and Stomberg (2015). Chen, Power and Stomberg (2015) investigated the determinants of negative news reports of corporate-level taxes and the extent to which firms react to media reports and scrutiny. The study was conceived from the fact that prior studies have described media as either an information intermediary or a provider of entertainment. Their study, therefore, sought to investigate which of these roles surface when the media is presenting news about corporate income taxes. The study developed a selection model to investigate the key firm-level characteristics which may drive the probability of negative news reporting about the firm.

The findings of Chen, Power and Stomberg (2015) recognised from the theoretical perspective the fundamental role of media reportage on tax compliance behaviour. However, their findings could not support such intuitive reasoning and theory. Nevertheless, the structure of Chen, Power and Stomberg (2015) presents opportunities for further interrogation given the sound theoretical positions. Chen, Power and Stomberg (2015)'s study further recognised the media framing effect on tax compliance. They defined their media framing from the perspective of negative news and positive news.

However, emerging evidence in communication studies (Boukes, 2021; Peter & Zerback, 2020) is following Goffman (2006) to operationalise

media framing into episodic and thematic frames. The proponents of the framing effect theory have argued that presenting news by highlighting salient issues and treating them with peculiarity (episodic) is likely to elicit different effects and responses from the audience compared to presenting the news as a general problem (thematic). Thus, the present study seeks to extend the scope of Chen, Power and Stomberg by operationalising media reportage from both episodic and thematic lenses.

Moreover, Chen, Power and Stomberg (2015)'s study skewed the news to firm-specific negative news and firm-level reaction. This makes the implications of the study and extrapolation limited. It is also natural that firms would react to repositioning themselves to redeem their public image when they received negative media attention in respect of taxation. Thus, implications from such analyses would be limited to practice. The present study revises this approach by shifting attention to the policymakers and administrators of policy with an emphasis on media reportage on corruption and the consequence on taxpayers' compliance behaviour. This approach is not only supported in theory but also widens the policy implications due to its appeal to different stakeholders within the tax compliance value chain.

Situating media bias and tax compliance in the Czech Republic literature, Miloš, Tommaso, Fabio and Jiří (2020) investigated the extent to which media bias influences tax compliance. The authors adopted a simulation approach where they used an experimental laboratory to assess the exposure of taxpayers to biased news about the government and its actions and the effect on tax compliance. Milos et al. (2020) followed framed laboratory experiment

used by Harrison and List (2004) to classify tax payers into three groups according to the extent and nature of news exposure.

The first group was exposed to positive news, the second group was exposed to negative news and the third group which was the control group was not exposed to any biased news. Thus, their exposure is characterised by news which does not carry any bias. This framed approach according to the authors circumvents endogeneity problems and selection biases arising from analysing naturally occurring data. They, therefore, used the first and the second groups as the treatment groups and the third group as the control group. Milos et al. (2020) further followed the literature (Alm, Bloomquist & McKee, 2015) to manipulate the experimental news where top stories are reported and ran consistently on screens in a repeated tax game.

It was found that those taxpayers who were exposed to the positive news exhibited significantly more tax compliant behaviour than the control group. The study further revealed that taxpayers' exposure to negative news, does not prompt any significant response in comparison to the neutral condition. In their explanation of this rather unexpected finding, they argued that participants or taxpayers perceive media negativity in the news selection, reporting and tonality as media norms rather than exceptional news and therefore do not have a significant influence on their compliance behaviour. Overall, Milos et al. (2020) concluded that news biased about the government and its actions act as psychological priming and therefore play a critical role in the taxpayers' compliance decisions.

The study of Milos et al. (2020) also followed media framing by conceptualising media reporting into negative bias, positive bias and neutral

news reporting. The findings affirm the theoretical position that differences in media framing could have different implications on the news audience including taxpayers as evidenced by the the different effects of negative news bias and positive news bias. On this strength, it is not only a theoretical question to extend media framing to tax compliance literature but also to deepen the empirical understanding of the role of media in influencing tax compliance.

The results and conclusions drawn by Milos et al. (2020) disaffirm the findings of Chen, Power and Stomberg (2015) even though these two studies adopted similar operationalisation of media framing (negative and positive media news). The differences in the findings and the conclusions may be attributed to the approach and the subject of the measurement of the news framing. As identified and discussed in the review of Chen, Power and Stomberg, the authors focused on firms as the subject of the news reporting and framing while Milos et al. (2020) appropriately used the government as the subject of the news and framing to observe taxpayers reaction.

The present study seeks to follow the approach used by Milos et al. (2020) where the investigation presents the government and its agents as the subject of the news and its framing to observe the reaction of the taxpayers. Nevertheless, instead of the negative, positive and neutral framing, the present study would rather follow Goffman (2006)'s framing effect theory to operationalise media framing into episodic and thematic. As opined by Milos et al. (2020), although they defined framing by negative, positive and neutral news, the authors recognised the limitations of such conceptualisation. Milos

et al. (2020) concluded that taxpayers perceived negativity in news as a mere norm rather than an exceptionality to require their response.

Moreover, even though Milos et al. (2020)'s study also used self-employed who are a relevant taxpayer group, the inclusion of fixed-income earners in their study might have clouded the true effect of the media reporting. As argued in the previous reviews, fixed-income earners or employees have very little say in making tax compliance decisions as their taxes are deducted at source. The present study, therefore, limits its unit of analysis to the self-employed. The self-employed is chosen as an important taxpayer group because they are the group of taxpayers who face choice of making compliance decisions.

In the European tax environment, Kneafsey and Regan (2020) also examined the media's role in shaping taxpayers' attitudes toward tax avoidance with emphasis placed on corporate-level avoidance. The study found that media framing plays a significant role in shaping the citizens' attitudes. Kneafsey and Regan (2020) operationalised media framing from two perspectives: nationalistic framing and cross-border framing. Their findings suggest that different media frames generate different responses from the audience. This seems to synchronise with the framework of the present study. However, Kneafsey and Regan (2020)'s study failed to link the media framing to taxpayers' compliance behaviour. The authors mainly used the judicial decision on Apple tax avoidance scheme as a mere news item to develop their framing and determine respondents' reactions to the differences in the news framing.

Furthermore, like several of the reviewed studies, although Kneafsey and Regan (2020) recognise the role of media framing, they seem to follow different operationalisation. It can be learnt that defining framing from the perspective of episodic and thematic is more skewed to communication studies with limited application in tax literature. This reinforces the need for replication of the conceptualisation in the tax literature especially when tying the response to corruption which some people consider as a general problem or social canker and others view it as an individualised problem.

In the Ghanaian literature, studies on media reportage and tax compliance are relatively new. There is virtually no readily available empirical study that has specifically sought to explore the dynamics of these phenomena. The empirical discussion in the Ghanaian study is just an inference from some other studies. One of these studies is Asamoah (2020). Though Asamoah's study focused on the link between corruption and media reportage, its implication can be extended to cover relevant lessons of tax compliance dynamics.

Though the study is not directly related to tax compliance, the structure of Asamoah (2020)'s study provides insight about a connection between corruption and media reportage which is one of the themes of the present study (media reportage of corruption). Asamoah (2020) argued that in a democratic dispensation, the mass media is the watchdog which could curtail the menace of corruption. The author, therefore, sought to investigate the constructive role of mass media in the fight against political corruption in an emerging democracy. The study employed a purely qualitative approach and thematic analysis.

The findings revealed that media reporting is part of the problem and solution to the problem of political corruption. It was found that media reportage creates disincentives for corruption by creating a forum for discussing anti-corruption, exposing actual or perceived political corruption, creating public awareness of corruption, mobilising for anti-corruption strategies and reforms and calling or demanding political accountability. Asamoah (2020) further found that media biased reporting could also aggravate the problem and may just peddle propaganda. Additionally, the study revealed that failure to conduct a consistent investigation and follow-up on specific political corruption scandals undermines the fight against corruption.

Asamoah (2020)'s study is one of the few studies which have shown the empirical connection between media reportage and corruption. The evidence in Asamoah (2020)'s study becomes an important benchmark for empirical discussion and comparison. A critical evaluation of the focus and the findings shows that the effect of media reportage on corruption is dependent on the nature and type of reporting. The present study follows this lesson coupled with the assumptions of framing theory to develop sub-constructs for media reportage of corruption and extend the dynamics within the framework of tax compliance. The current study also recognises that the scope of corruption is not limited to political corruption unlike in the study of Asomah (2020).

*Lessons learnt and hypotheses development on media reportage of corruption and tax compliance behaviour*

The second thematic area of the current study focuses on the extent to which media reportage of corruption influences taxpayers' compliance behaviour. Investigating this relationship requires inferential analysis and a hypothesis-testing framework supported by theoretical and empirical considerations. This section summarises the theoretical lessons and the empirical evidence which underscore these thematic issues and framework for developing relevant hypotheses from this objective.

This study follows lessons from the situational cue assumption which is proposed by SRFT and social norm or order proposed by the TPB, social exchange theory and framing effect theory to develop a hypothesis testing framework for media reportage of corruption and tax compliance behaviour. It is learnt from the reviewed literature that the tenets of social exchange theory are also relevant to explain the possible link between media reportage of corruption and tax compliance. The theoretical implication of SET as learnt from the literature is that how the media frames and reports corruption issues have implications for tax compliance.

Generally, a media reportage that paints the government as corrupt and less trustworthy is more likely to serve as a disincentive to tax compliance (Fišar, Reggiani, Sabatini & Špalek, 2020). However, when a subject of corruption has been framed and reported positively, taxpayers will be more likely to form a positive corruption perception of the government. Thus, such a positive perception will, in turn, justify the moral grounds for voluntary tax compliance. The nature and direction of media reportage of corruption may be



antecedents for explaining the dynamics of Government-Citizenry social exchange engagements.

This theoretical connection is also supported by the self-regulatory focus theory (SRFT). It is also believed that situational regulatory focus is context-oriented and therefore the focus could change with changes in the situational cues. Therefore when the demanding context continues to become unfavourable through widespread media reportage of corruption, even those taxpayers who are promotion-oriented may eventually change or reregulate their focus to prevention focus. In essence, media reportage of corruption could likely have significant influence on taxpayers' compliance behaviour. Although both the SET and SRFT have shown strong theoretical bases to assume a relationship between media reportage of corruption and tax compliance, they do not shed light on how the nature of media reportage or framing could exhibit a different effect on the dimensions of tax compliance behaviour.

This theoretical lapse is however cured by the framing effect theory. It is learnt from the framing effect theory that framing tendencies: thematic frames and episodic frames (Gross, 2008; Kim, Carvalho & Davis, 2007) could have a different effects on tax compliance dimensions. The literature review has revealed that corruption has become a chronic societal problem and therefore the influence through generic reportage (thematic framing) may not carry the same effect on the audience perception as an isolated report (episodic framing). By following episodic reportage, taxpayers are more likely to personalise the consequence of corruption as they may overlook the societal dimensions (Shah, Kwak, Schmierbach & Zubric, 2004).

The empirical literature also recognises the relationship between media reportage and tax as articulated in the theoretical literature (Chen, Power & Stomberg, 2015; Kneafsey & Regan, 2020; Miloš et al., 2020). However, these studies focus on media or news in general rather than corruption reportage. The tax literature has not also situated media framing and the consequence on tax compliance behaviour. Consolidating the theoretical lessons and the development in the empirical literature, this study predicts that media framing (thematic and episodic frames) could have a significant effect on tax compliance dimensions (voluntary and enforced compliance). The study, therefore, hypothesises the framework in alternative forms as follows:

H<sub>2a0</sub>: Thematic media reportage of political corruption has a significant influence on voluntary tax compliance in Ghana

H<sub>2b0</sub>: Thematic media reportage of administrative corruption has a significant influence on voluntary tax compliance in Ghana

H<sub>2c0</sub>: There is a significant influence of thematic media reportage of political corruption on enforced tax compliance in Ghana

H<sub>2d0</sub>: There is a significant influence of thematic media reportage of administrative corruption on enforced tax compliance in Ghana

H<sub>2e0</sub>: Episodic media reportage of political corruption has a significant influence on voluntary tax compliance in Ghana

H<sub>2f0</sub>: Episodic media reportage of administrative corruption has a significant influence on voluntary tax compliance in Ghana

H<sub>2g0</sub>: Episodic media reportage of political corruption has a significant influence on enforced tax compliance in Ghana

H<sub>2h0</sub>: Episodic media reportage of administrative corruption has a significant influence on enforced tax compliance in Ghana

### **Interacting role of religiosity in tax compliance literature**

Although some studies have focused on the effect of tax payers religiosity on tax compliance, investigation into the interacting role of religiosity is limited if not entirely absent. While some empirical studies on taxpayers' religiosity and compliance may be used to project the possible interacting role of religiosity, religiosity's role in the relationship between media reportage and tax compliance remains theoretical issues. This is surprising as there are theoretical bases for conducting such investigations.

Muslichah (2015) conducted a study to investigate how tax simplification and the taxpayers' religiosity affect the taxpayers' compliance behaviour in Malang in East Java. The author was motivated by the fact that tax compliance is fundamental for revenue mobilisation to meet public expenditures. Therefore, the author considered that it was relevant to explore factors which could influence compliance and perceived tax simplification and religiosity as a possible driving force. Muslichah's study revealed that religiosity has a positive significant effect on taxpayers' compliance behaviour. The author extended its analysis by introducing religiosity as a moderator and investigated how its influences the relationship between tax simplifications and taxpayers' compliance behaviour. This analysis showed that religiosity is a significant moderator between tax simplification and taxpayers' compliance behaviour.

Muslichah (2015)'s study is one of the closest studies to the focus of the present study. Similar to the present study, Muslichah (2015) considered

taxpayers' religiosity not only as a direct precursor to tax compliance but also as playing a moderating role. Muslichah (2015)'s study further confirms the theoretical extension of the self-regulatory focus theory advanced in the present. Thus, taxpayers' religious orientation is a locus of control which could amplify or restrain intention in response to triggers of individual attitudes and forces of the environment (Wu, Roberts & Frey, 2013; Wright & Quick, 2011).

Despite the similarity between the study of Muslichah (2015) and the present study, the current study seeks to extend the tax compliance antecedents beyond the tax simplification used by Muslichah (2015). The present study identifies both corruption perception and media reportage of corruption as fundamental antecedents in respect of tax compliance framework. It, therefore, seeks to extend and revise the scope and framework of Muslichah (2015) to investigate the moderating role of taxpayers' religiosity in the relationship between corruption and tax compliance nexus at one end and, media reportage on corruption and tax compliance as another strand. This extension is not only useful for theoretical understanding but also deepens policy framework as it opens the opportunity to integrate other non-traditional compliance drivers.

A further comprehensive analysis was conducted by Hannifah and Yudianto (2019). Hannifah and Yudianto (2019) study found that taxpayers' religiosity, their nationalism, and their perceptions of tax corruption have a significant influence on taxpayer compliance. The authors conducted a further analysis using a partial test and it revealed that taxpayers' religiosity and nationalism have a significant positive influence on taxpayer compliance,

while taxpayers' tax corruption perception exhibited a negative effect on taxpayer compliance.

Hannifah and Yudianto (2019)'s study presents relevant evidence about the role of religiosity and corruption on tax compliance. Hannifah and Yudianto (2019) have also identified corruption as an antecedent or driver of tax compliance behaviour although their study did not recognise the differences in the level of corruption or dimensionality of corruption. The present study is therefore seen as an extension of the evidence found in the study of Hannifah and Yudianto (2019) where both corruption and tax compliance are operationalised according to multi-dimensionality.

Moreover, unlike Muslichah (2015)'s study where religiosity is considered as having both direct and indirect role in the tax compliance mechanism, Hannifah and Yudianto (2019)'s study focused on the direct relationship between religiosity and tax compliance. The interaction role of religiosity is crucial as it is unlikely that any economy can reach zero levels of corruption and corruption-free media reportage. In view of this, it is important to identify factors which could either amplify or restrain the expected natural reaction to perceive corruption and media reportage of corruption in respect of tax compliance behaviour. This has not received much empirical attention.

In the United State, Hwang and Nagac (2020) also investigated the relationship between the Religiosity of taxpayers and Tax Compliance. The study intended to analyse taxpayers' religiosity as a potential factor affecting tax compliance in the United States (US). The study was conceived from the fact that earlier studies in the 1990s have demonstrated that one of the foundational tax compliance puzzle is "why so many individuals pay their

taxes” and not “why people evade taxes.” Taxpayer religiosity was identified as a possible in unvailing the tax compliance puzzle.

Hwang and Nagac measured tax compliance as the difference between income reported in tax data (internal revenue service data) and census data. These data were used to analyse how church adherence rates (religiosity) affect tax compliance at the country level in the USA. The econometric analysis was conducted using standard multiple regression. Hwang and Nagac found that the religiosity level in a country has a significant negative effect on tax evasion. Thus, religiosity is a deterrent factor to tax evasion.

The findings from the study of Hwang and Nagac (2020) show that taxpayers’ religiosity is an inhibitor to tax evasion. Thus, taxpayers’ religious commitment or adherence is a deterrent to tax evasion. This evidence and conclusion present an empirical basis to extrapolate the role of religiosity in inhibiting expected natural responses to negative stimuli including acting on perceived corruption and media reportage of corruption. Thus, the study of Hwang and Nagac (2020) is an important benchmark for empirical comparison to either affirm or disaffirm this assertion and extrapolation.

The present study, therefore, follows the lessons from the study of Hwang and Nagac (2020) to argue that taxpayers' religiosity could moderate the effect of corruption perception and media reportage of corruption on tax compliance. Despite the positive lessons from Hwang and Nagac (2020), the present study departs from the country-level data streams used in the study of Hwang and Nagac (2020). The present study posits that since the country-level data used by Hwang and Nagac (2020) include church adherence data of both taxpayers and non-taxpayers, the findings and conclusion may not present a

true result of taxpayers' compliance behaviour in respect of their religiosity. Therefore, this current study would use taxpayers' specific data to measure all the study variables.

In the Ghanaian context, there is a paucity of evidence about the role of religiosity in the tax compliance literature. Carsamer and Abbam (2020)'s study is one of the most comprehensive studies in Ghanaian literature. Carsamer and Abbam (2020) sought to provide insight to critical drivers of tax compliance. The paper focused on assessing the suitability of how religion and religiosity of taxpayers within the small and medium-scale enterprises (SMEs) cycle can influence their tax compliance in Ghana. Carsamer and Abbam (2020) therefore attempted to obtain insights into the perceptions of managers or entrepreneurs of SMEs about how Ghanaian religious notoriety translates into tax compliance. Surprisingly, the results revealed that Ghanaian religious notoriety does not provide a significant explanation for SMEs' tax compliance behaviour.

The study of Carsamer and Abbam (2020) also reveals one critical variable in tax compliance discourse as religiosity. In fact, Ghanaians are noted to be religious and therefore very primary to extend the scope of antecedents of tax compliance literature to taxpayers' religiosity. However, Carsamer and Abbam found no significant relationship between religiosity and tax compliance. This finding largely contradicts the existing evidence in the literature (Hannifah & Yudianto, 2019; Muslichah, 2015). Although religiosity did not exhibit a significant direct relationship with tax compliance behaviour, can same conclusion be reached within an interacting analysis? As advanced and reviewed in some of the prior studies (Muslichah, 2015), besides the direct

link, taxpayers' religious orientation could also play an interacting role between antecedents of tax compliance and tax compliance behaviour.

Religious identity emphasises or highlights intimidation of embarrassment as a fundamental sanction, and therefore discourages illegal behaviour such as non-tax compliance or tax cheating (Benk, Yüzbas & McGee, 2017; Murphy & Torgler, 2004). Religious commitment could either restrict or enhance the response to external stimuli such as factors influencing corruption perception. The religiosity of taxpayers could interact with the relationship between corruption and tax compliance. Thus, a critical evaluation of the assumptions of TPB shows that religiosity could moderate the relationship between corruption and tax compliance.

*Lessons learnt and hypothesis development of the moderating role of religiosity in tax compliance literature*

The third and fourth thematic issues in this study are operationalised and presented in this section. The fourth thematic issue focuses on the moderating role of taxpayers' religiosity in the relationship between corruption perception and tax compliance behaviour in Ghana while the fifth issue seeks to determine the moderating role of taxpayers' religiosity in the relationship between media reportage of corruption and tax compliance behaviour in Ghana.

The framework of these investigations follows the lessons from both the theoretical and empirical lessons discussed in the previous sections of this chapter. Some of the key theoretical lessons can be drawn from the SRFT and TPB. It is learnt that SRET suggests automatic response and consequence of a situational cue such as corruption. It thus ignores the fact that a party's



responses or reactions to situational cues are influenced by other factors including their personal attributes. One of these personal attributes which could restrain a party's reaction to a situational cue by another contracting party is religious orientation. Although these dynamics are absent in the assumptions of SRFT, it presents the basis for extending the theoretical tenets of SRFT.

It is also learnt from the review of the assumption of TPB that a person's religious orientation serves as a locus of control that may define the extent of the reaction to external unfavourable forces (Carsamer & Abbam, 2020). Almost all religions orient individuals to clearly distinguish between what is good and what is bad and not to respond to evil with evil. By implication, although the natural inclination to the government's breach of the social contract or misappropriation of tax revenue is to refuse to pay tax as drawn from the assumptions of SET, the taxpayers' religious orientation could restrain the taxpayers from automatically altering their tax paying behaviour. Thus, by integrating taxpayers' religiosity in the corruption perception-tax compliance nexus, the findings could extend the theoretical implication of SRFT and TPB.

Although some studies have focused on the effect of taxpayers' religiosity on tax compliance, investigation of the moderating role of religiosity on corruption perception-tax compliance nexus is limited if not entirely absent (Mohd-Ali & Pope, 2014; Morgan, 2007; Muslichah, 2015). This study, therefore, builds on the theoretical lessons coupled with the paucity of empirical evidence to investigate the moderating role of religiosity

on the relationship between corruption perception and tax compliance and formulates its alternative hypotheses as follows:

H<sub>3a0</sub>: Taxpayers' religiosity has a significant moderating role in the relationship between political corruption perception and voluntary tax compliance in Ghana

H<sub>3b0</sub>: Taxpayers' religiosity has a significant moderating role in the relationship between administrative corruption perception and voluntary tax compliance in Ghana

H<sub>3c0</sub>: There is a significant interacting effect of taxpayers' religiosity in the relationship between political corruption perception and enforced tax compliance in Ghana

H<sub>3d0</sub>: There is a significant interacting effect of taxpayers' religiosity in the relationship between administrative corruption perception and enforced tax compliance in Ghana

Besides the moderating effect of religiosity on the corruption perception and tax compliance nexus, the reviewed literature shows that religiosity could also have an implication on media reportage of corruption and tax compliance relationship. For instance, drawing on the theoretical assumption of TPB, taxpayers' religious orientation serve as a locus of control that may define the extent of the reaction to external unfavourable forces (Carsamer & Abbam, 2020). Thus, even though there could be widespread media reportage of corruption, taxpayers who are committed to their religious orientation may not automatically respond to such external stimuli. Thus, the level of religious commitment could restrain the effect of media reportage of corruption on tax compliance behaviour.

Moreover, religious orientation as one of the attributes of taxpayers could also interact in a manner to moderate the relationship between media reportage of corruption and tax compliance. Although the natural inclination of taxpayers to the media reportage of corrupt activities by state actors is to avoid the payment of taxes as espoused by SRFT, taxpayers' religious orientation is likely to play a role in the taxpayers' compliance decision in response to such media reportage of corruption. This implies that SRFT could be extended to incorporate taxpayers' personal attributes such as religious belief in responding to unfavourable situational cues such as media reportage of corruption.

Despite the theoretical justifications, comprehensive empirical study about the moderating role of religiosity on the media reportage-tax compliance nexus is still in its infancy. However, testing the theoretical arguments within an empirical context is not only relevant in theory but critical for policy and practice. Religious identity emphasises or highlights intimidation of embarrassment as a fundamental sanction, and therefore discourages illegal behaviour such as non-tax compliance or tax cheating (Benk, Budak, Yüzba & Mohd-Ali, 2016; Benk, Yüzbas & McGee, 2017; Torgler & Murphy, 2004).

The religious commitment therefore could either restrict or enhance the response to external stimuli. It can therefore be learnt that despite high media reportage of corruption, some taxpayers may still honour their tax obligations as a religious obligation rather than as duties to the state. Thus, the level of taxpayers' religiosity can change the magnitude and direction of the relationship between media reportage of corruption and tax compliance. Incorporating religiosity in the corruption tax compliance nexus would not

only showcase the advantage or otherwise of Ghanaians religious notoriety but help fashion out tax policies that do not compromise on taxpayer religious orientation. The present study, therefore, contributes to the literature by introducing religiosity in estimating the media reportage on the corruption-tax compliance nexus and hypothesised as follows:

H<sub>4a0</sub>: There is a significant moderating role of taxpayers' religiosity on the effect of thematic media reportage of political corruption on voluntary tax compliance behaviour in Ghana

H<sub>4b0</sub>: There is a significant moderating role of taxpayers' religiosity on the effect of thematic media reportage of administrative corruption on voluntary tax compliance behaviour in Ghana

H<sub>4c0</sub>: Taxpayers' religiosity has a significant moderating role in the relationship between thematic media reportage of political corruption and enforced tax compliance behaviour in Ghana

H<sub>4d0</sub>: Taxpayers' religiosity has a significant moderating role in the relationship between thematic media reportage of administrative corruption and enforced tax compliance behaviour in Ghana

H<sub>4e0</sub>: There is a significant moderating role of taxpayers' religiosity on the effect of episodic media reportage of political corruption on voluntary tax compliance behaviour in Ghana

H<sub>4f0</sub>: There is a significant moderating role of taxpayers' religiosity on the effect of episodic media reportage of administrative corruption on voluntary tax compliance behaviour in Ghana

H<sub>4g0</sub>: Taxpayers' religiosity has a significant moderating role on the relationship between episodic media reportage of political corruption and enforced tax compliance behaviour in Ghana

H<sub>4h0</sub>: Taxpayers' religiosity has a significant moderating role in the relationship between episodic media reportage of administrative corruption and enforced tax compliance behaviour in Ghana

### **Moderating role of media reportage of corruption in tax compliance literature**

The previous sections have thoroughly reviewed the empirical literature on the subjects of corruption perception, media reportage of corruption and tax compliance. The earlier empirical reviews have presented a discussion of prior research efforts about corruption and tax compliance (Amoh & Ali-Nakyea, 2019; Baum et al., 2017; Cheng & Zeng, 2017; Jahnke & Weisser, 2019; Rosid, 2017) and media reportage of corruption and tax compliance (Chen, Power & Stomberg, 2015; Kasper et al., 2014; Kneafsey & Regan, 2020; Milos et al., 2020). The discussions have revealed a paucity of empirical literature that investigates the interacting role of media reportage of corruption in the relationship between corruption perception and tax compliance in and outside Ghanaian literature.

Most of the existing studies have either focused on media reportage and corruption or corruption on tax compliance. Several studies have examined the relationship between media reportage and corruption (Elbahnasawy, 2014; Kalenborn & Lessmann, 2013; Nam, 2012; Tufekci & Wilson, 2012). However, evidence about the interaction role of the media reportage of corruption is still limited. Considering the interacting role of

media reportage of corruption in the corruption perception and tax compliance nexus is crucial as taxpayers' corruption perception can be amplified or inhibited by the media framing of corruption-related news (Marandu, Mbekomize & Ifezue, 2015; Osman, Mohammed & Fadzil, 2016).

The current study, therefore, contributes to the literature by incorporating media reportage of corruption in understanding the dynamics of corruption perception and tax compliance framework. Moreover, corruption would continue to exist even when the target of 'zero tolerance is achieved. Therefore, a multipronged approach involve]ng relevant interacting terms such as media reportage of corruption is critical to minimise the incidence of corruption and the severity of the impact of corruption. This fundamental empirical concern is integrated into the present study to contribute to curing the lapses.

Furthermore, in the study of Mishler and Rose (2008) which focused on corruption measurement and experience, the authors echoed how media reportage could amplify corruption perception. Mishler and Rose (2008) proposed what they termed 'echo chamber' corruption perceptions. By the 'echo chamber,' the authors explained how perception about national corruption could be shaped or amplified by factors including media reportage and eventually captured in the corruption perception index. Thus, although Mishler and Rose did not focus on the interacting role of media reportage of corruption in the corruption and tax compliance relationship, the evidence in their study shows that media reportage influences corruption.

This inference is consistent with the assumption of self-regulatory focus theory (SRFT). The extended argument from the SRFT suggests that

taxpayers' reaction to situation cues such as corruption may be articulated or inhibited by factors including environmental factors. One such environmental factor is how the media frames corruption-related news. The theoretical implication is that media framing could moderate how corruption perception affects tax compliance behaviour. Surprisingly, this theoretical postulation is yet to be confirmed in the empirical literature. Empirical interrogation of this theoretical assertion is one of the foundational issues in the present study.

***Lessons learnt and hypotheses development on the interacting role of media reportage of corruption on the corruption and tax compliance behaviour nexus***

The interacting role of media reportage of corruption is the third thematic area of the current study and it focuses on the extent to which media reportage of corruption could influence the relationship between corruption perception and taxpayers' compliance behaviour. The literature review provides valuable lessons to guide the empirical and hypothesis framework of this interacting effect model. Lessons from SRFT, TPB and framing effect theory provide theoretical foundations for the interacting role of media reportage in the relationship between perceived corruption and tax compliance behaviour. It is learnt from the theoretical review that although SRFT recognises situation cues, it fails to articulate the other social messages and the extent and nature of information flow which are likely to curtail or amplify the natural expected response to a situational cue.

Drawing from the theoretical arguments, one environmental factor which may augment or restrain the natural expected response to an unfavourable situation cue like corruption is the nature of media reportage of

corruption. Media reportage on the government's intervention to fight the menace of corruption and favourable outcomes could restrain or curtail the natural expected response of taxpayers from high corruption perception. However, the potential negative response to corruption perception could be amplified through negative media reportage of corruption.

Further lessons can be drawn from the TPB in relation to social norms. The media is alarmingly defining the social order and norm. It is gradually becoming the closest environment to individuals including taxpayers. This environment provides vital information for social awareness and reshaping the social norm. The media serves as the environment within which information is generated and shared for an informed decision (Gangl & Kirchler, 2015). Thus the extent and nature of media reportage about corruption and corruption-related practices (positive or negative) could either inhibit or amplify taxpayers' corruption perception and ultimately define the dynamics of their tax compliance behaviour (Iyengar, 1991; Kim & Willis, 2007; Marandu, Mbekomize & Ifezue, 2015; Osman, Mohammed & Fadzil, 2016).

Extending the theoretical lessons through the integration of media framing reveals the unique role of media frames: thematic and episodic in shaping the understanding of the interacting effect of media reportage on the corruption-tax compliance nexus. For instance, personalising responsibility for corrupt activity could change the public perceptions to focus on corrupt activities as isolated events characteristics of some unpatriotic individuals who must be dealt with for their evil deeds. (Schnittker, 2008; Walker & Read, 2002). The theoretical implication is that by segregating media reportage into thematic and episodic, this study could deepen the theoretical understanding of



the interacting role of media framing in the corruption-tax payers' compliance nexus.

Empirically, there is no comprehensive study to integrate these theoretical dynamics and complexity into the corruption and tax compliance nexus in and across the current study setting. Most of the existing studies have either focused on media reportage and corruption or corruption on tax compliance. Several studies have examined the relationship between media reportage and corruption (Elbahnasawy, 2014; Kalenborn & Lessmann, 2013; Tufekci & Wilson, 2012). However, evidence about the interaction role of the media reportage of corruption is still limited.

Nevertheless, considering the interacting role of media reportage of corruption in the corruption perception and tax compliance nexus is crucial as taxpayers' corruption perception can be amplified or inhibited by the media framing of corruption-related news (Marandu, Mbekomize & Ifezue, 2015; Osman, Mohammed & Fadzil, 2016). The current study, therefore, contributes to the literature by incorporating media reportage of corruption in understanding the dynamics of corruption perception and tax compliance framework. This extension is crucial as corruption would continue to exist even when the target of 'zero tolerance of corruption' is achieved. This fundamental empirical concern is therefore integrated into the present study to enriched tax compliance literature on the determinants of tax compliance. This study, therefore, presents its empirical hypotheses in alternative forms about the interacting role of media reportage of corruption as follows:

H<sub>5a0</sub>: There is a significant moderating effect of thematic media reportage of political corruption perception in the relationship between political corruption perception and voluntary tax compliance behaviour in Ghana

H<sub>5b0</sub>: Thematic media reportage of administrative corruption has a significant moderating role on the relationship between administrative corruption perception and voluntary tax compliance behaviour in Ghana

H<sub>5c0</sub>: Episodic media reportage of political corruption has a significant moderating role on the relationship between political corruption perception and voluntary tax compliance behaviour in Ghana

H<sub>5d0</sub>: Episodic media reportage of administrative corruption has a significant moderating role on the relationship between administrative corruption perception and voluntary tax compliance behaviour in Ghana

H<sub>5e0</sub>: There is a significant moderating effect of thematic media reportage of political corruption perception in the relationship between administrative corruption perception and enforced tax compliance behaviour in Ghana

H<sub>5f0</sub>: There is a significant moderating effect of thematic media reportage of administrative corruption in the relationship between administrative corruption perception and enforced tax compliance behaviour in Ghana

H<sub>5g0</sub>: Episodic media reportage of political corruption has a significant moderating effect in the relationship between political corruption perception and enforced tax compliance behaviour in Ghana

H<sub>5h0</sub>: Episodic media reportage of administrative corruption has a significant moderating effect in the relationship between administrative corruption perception and enforced tax compliance behaviour in Ghana

### Conceptual Framework

The overall literature review and discussions have provided insight and lessons about the current development in the tax compliance literature and its antecedents such as corruption perception, media reportage of corruption and religiosity. These insights and lessons are seen to have implications for the focus of this study. The study, therefore, follows the lessons to trim the structure of the study. The lessons are the bases for developing the conceptual framework. The conceptual framework of this study follows a multi-level analysis structure that facilitates direct and interacting modelling as depicted in Figure 2. The framework provides understanding and clearer insight into the dynamics of the relationship among the study variables.

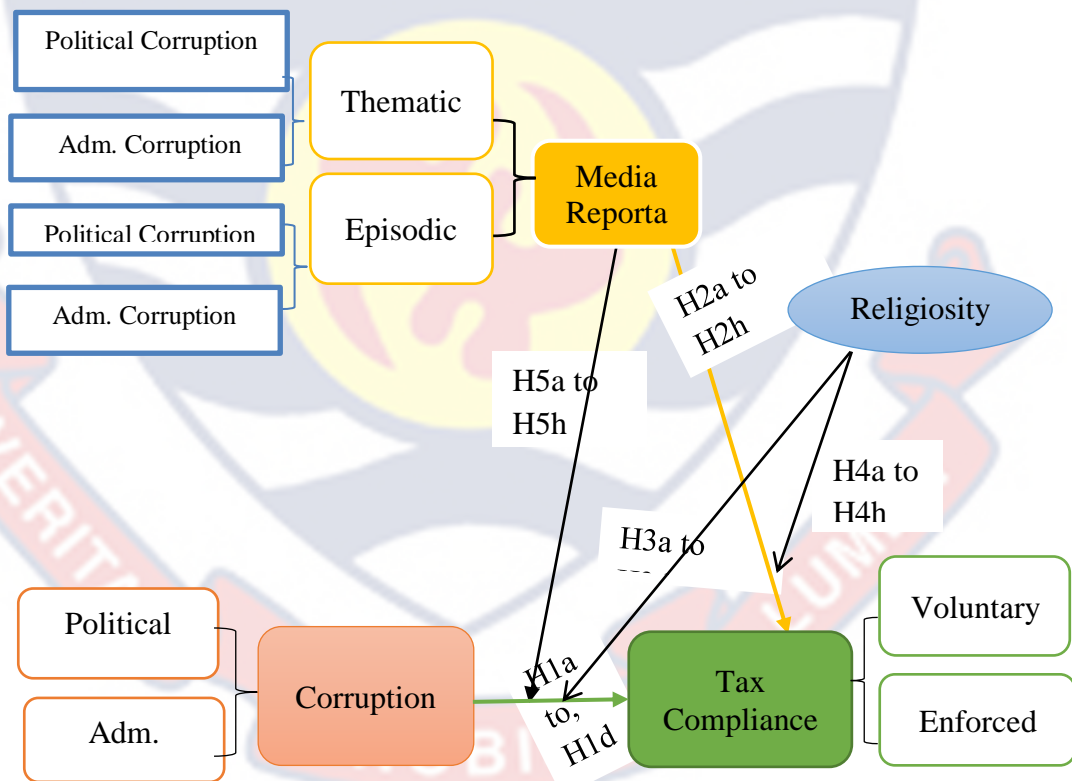


Figure 1: Conceptual Framework

Source: Author’s Construct (2022)

From the framework and lessons learnt from the literature review, corruption constructs are expected to have a direct relationship with tax compliance variables defined in terms of voluntary and enforced compliance exhibited in Figure 2. The figure also shows that corruption is operationalised as a multidimensional construct and defined in terms of political corruption and administrative corruption. Corruption-tax compliance nexus is tested using Hypotheses  $H_{1a0}$  to  $H_{1d0}$  to show how corruption constructs affect voluntary tax compliance while  $H_{1c0}$  to  $H_{1e0}$  capture the influence of corruption proxies on enforced tax compliance. Thus, a multilevel estimation would be implemented as reflected in Figure 2.

It can also be observed that another direct relationship is captured by the link between media reportage of corruption and tax compliance behaviour. Eight hypotheses are developed to test this relationship consistent with the hypotheses development framework discussed earlier in chapter two. These hypotheses  $H_{2a0}$  to  $H_{2d0}$  seek to test the empirical relationship between media reportage of corruption and voluntary tax compliance behaviour while  $H_{2e0}$  to  $H_{2h0}$  also depict the extent to which media reportage constructs influence enforced tax compliance behaviour. It can also be seen that media reportage of corruption has been categorised into thematic (Political and administrative) media reportage and episodic (Political and administrative) media reportage. This reflects the insight from the conceptual review and the framing theory.

Besides the direct modelling, the framework in Figure 2 also captures the moderation model or interacting effect. Following the literature review, the study identified two moderators: religiosity and media reportage of corruption. Religiosity serves as an interactor in the relationship between corruption

perception and tax compliance. This is also exhibited by hypotheses:  $H_{3a0}$  to  $H_{3b0}$  and  $H_{3b0}$  to  $H_{3b0}$  for voluntary tax compliance and enforced tax compliance respectively.

It can also be observed from Figure 2 that religiosity is exhibiting moderating role in the relationship between media reportage of corruption and tax compliance. Hypotheses  $H_{4a0}$  to  $H_{4d0}$  operationalise the interacting role of religiosity on the relationship between media reportage of corruption and voluntary tax compliance. Hypotheses  $H_{4e0}$  to  $H_{4h0}$  are about enforced tax compliance. Finally,  $H_{5a0}$  to  $H_{5d0}$  investigate the moderating effect of media reportage on the relationship between corruption perception and voluntary tax compliance while  $H_{5e0}$  to  $H_{5h0}$  investigate the interacting effect of media reportage on the corruption perception and enforced tax compliance relationships respectively. These moderation analyses are based on the lessons from the literature. The literature review revealed that media reportage of corruption could have both a direct effect on tax compliance and an indirect effect through interaction with corruption perception.

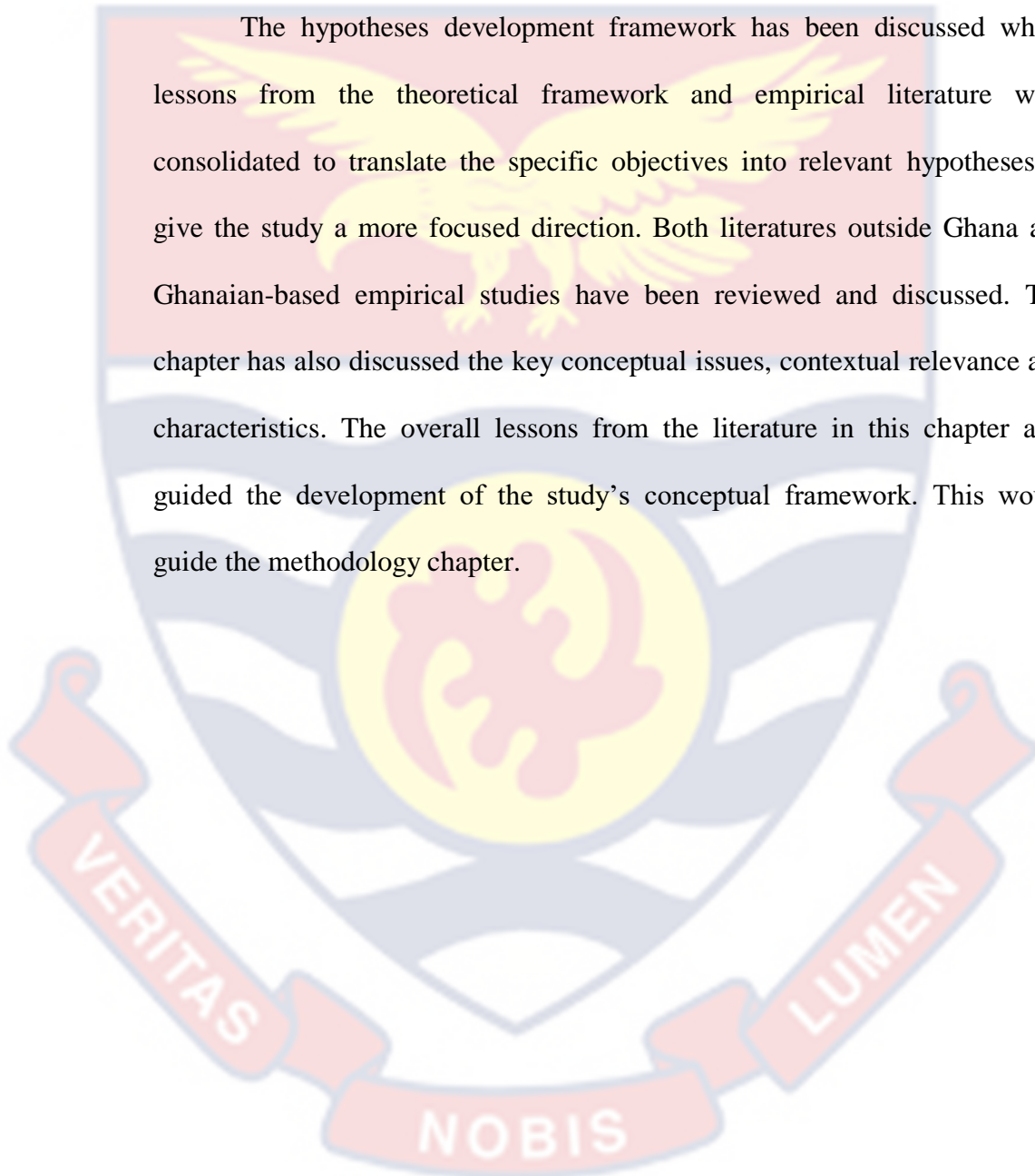
Overall, the conceptual framework exhibited in Figure 2 provides a pictorial view of the direction of the present study and the structure of the thematic areas of the study. This framework would also form the bases for developing the research methodology and designing the study instrument.

### Chapter Summary

The chapter presented relevant literature about corruption, media reportage of corruption, religiosity and tax compliance behaviour. This chapter has shown that there are strong theoretical bases to investigate the dynamics of corruption, media reportage, religiosity and tax compliance behaviour. Some

of the fundamental theories reviewed in this chapter include the theory of planned behaviour, self-regulatory focus theory, social exchange theory and framing theory. The assumptions from these theories have been borrowed to substantiate the relationship theoretically.

The hypotheses development framework has been discussed where lessons from the theoretical framework and empirical literature were consolidated to translate the specific objectives into relevant hypotheses to give the study a more focused direction. Both literatures outside Ghana and Ghanaian-based empirical studies have been reviewed and discussed. The chapter has also discussed the key conceptual issues, contextual relevance and characteristics. The overall lessons from the literature in this chapter also guided the development of the study's conceptual framework. This would guide the methodology chapter.



## CHAPTER THREE

### RESEARCH METHODS

#### Introduction

This study focuses on corruption perception, media reportage of corruption, religiosity and tax compliance in Ghana. The previous chapter provided a critical review of the relevant literature, synthesised the literature and identified relevant gaps in knowledge associated with the focus of this study. The investigation of the thematic structure in this study within the gaps identified requires sound methodology. The chapter discusses the methods and approaches which are relevant to the investigation. The literature provides that a sound methodology serves as a conduit to collect, measure, analyze, interpret and discuss relevant data which underpin an investigation (Lunenburg & Irby, 2011; Teddlie & Tashakkori, 2008).

The chapter has been structured to reflect the techniques and models for addressing the specific objectives and testing the hypotheses. The chapter is developed within the framework of the three big questions: What, Why and How? The chapter is organised into sections such as the study context, study philosophy, Study approach, study design, study population, sample and sampling technique, data collection, sources of data and measurement, and data analysis procedures.

#### Research Philosophy

Scientific investigation is grounded in philosophical thinking. Research philosophy is the research paradigm that defines the assumptions of the researcher's view of the world in contributing to knowledge (Saunders, Lewis & Thornhill, 2012). Research philosophy emphasizes the lens through which

researchers understand knowledge and view the world (Egbert & Sherry, 2013). According to Holden and Lynch (2004), these assumptions of the researcher about the nature of social reality and view of the world predicate all other assumptions underlying a scientific inquiry.

Although these research paradigms or philosophical assumptions are hidden in the thought of a researcher or an investigator, these assumptions need thorough consideration since the assumptions largely predict the research direction and nature (Easterby-Smith, Thorpe & Jackson, 2012). All scientific-based investigations are expected to be underscored by a particular philosophy of worldview or knowledge to inform how the research is designed. The philosophical foundation clarifies the fundamental questions on how the research or the study should be designed and defines the appropriateness of the research approach and design based on the specific objectives of the study. The research philosophy may help the researcher to build on existing research designs or develop a new one altogether. According to Easterby-Smith et al. (2012), the research philosophy guides the researcher to develop a meaningful plan to follow and about how the research should be structured.

Creswell (2017) stresses that researchers need to fully understand and appreciate the scientific implications of different philosophical assumptions on the choice of research techniques, procedures and methods. For instance, when a researcher assumes objectivity for the worldview and building of knowledge, the likely methodological approach would be quantitative (Saunders et al., 2012). Similarly, where a researcher perceives that the acceptable knowledge is subjective, then the researcher aligns the view with the interpretive stance and therefore would follow a qualitative approach (Creswell, 2017)



A fundamental lesson from these discussions is that research philosophy or paradigm is critical to conduct research and there are different kinds of research paradigms. Following the literature, there are three fundamental philosophies or research paradigms. These are positivism, interpretivism and pragmatism (Modell, 2017). This study is informed by the positivist worldview. The positivist worldview believes in the generation of universal laws to explain phenomena of interest (Creswell, 2017). Besides, it believes that facts can be measured and quantified to aid statistical generalizations (Saunders et al., 2012). Consistent with the positivist paradigm, this study adopts an objectivist approach to scientific inquiry, where the researcher seeks to scientifically construct and measure research variables of interest (including corruption, media reportage of corruption, religiosity and tax compliance) and make statistical inferences (Kapel, 2015; Lewis, 2015).

The objectivity of the research process is also reflected in the approach to data gathering, and the independence of the observer in the process of scientific enquiry. Notably, the use of structured questionnaires produces precise and highly structured data about the research variables to aid measurement and quantification (Gangwar, Date, & Ramaswamy (2015). Additionally, the use of structured instruments in gathering data reduces the extent of subjectivity in the research process since responses obtained from the research participants are not subject to their unique interpretations and perspectives) as in the case of interviews and focused discussions (Kapel, 2015; Lewis, 2015).

Moreover, the positivist stance has traditionally been associated with the quantitative approach to research, especially where researchers seek to establish predictive or causal relationship between and among variables (Bryman & Bell, 2014; Creswell & Poth, 2017). The primary objective in this current study is to assess the causal factors of tax compliance, following testable propositions about drivers such as corruption perception, media reportage of corruption and religiosity (Da-Silver, Guerreiro, & Flores, 2019; Chen, Powers, & Stomberg 2015; Hwang & Nagac, 2021).

Furthermore, the positivist worldview aligns with the deductive approach to reasoning, where scientific inquiries commence with a theory and corresponding hypothesis about the constructs of the theory (Creswell & Poth, 2017; Kapel, 2015; Lewis, 2015). Consistent with this reasoning, the current study adopts the social exchange theory, theory of planned behaviour, self-regulatory focus theory and framing effect theory in examining the phenomena of interest. Accordingly, 32 hypotheses are formulated about the constructed theories, the validation of which will eventually substantiate the theories in the current research context (Bryman & Bell, 2014; Creswell & Poth, 2017; Kapel, 2015).

### **Research Design**

The provision of a practical outline or framework for in-depth and adequate resolution of research problems informs research design (Fink, 2000; Poth, 2019). Sarantakos (2005) and Creswell and Poth (2016) defined research design as the basic arrangement of a research project and the manner every variable in the study is accessed or analysed. According to Fink (2000) research design fosters the validity and reliability of the study through

accurate and unbiased assessment of every stage of the study. In succinct terms, Creswell (2017) affirms that research design entails the overall plan, strategy or approach the researcher employed to retrieve valuable data for the purpose of resolving research problems.

The research design outlines the various steps researchers follow to test hypotheses or answer the research questions. It is the framework that connects research hypotheses or research questions to the strategy for testing or answering the questions. There are various types of research designs including cross-sectional, exploratory, survey, explanatory, descriptive and experimental design. The researcher determines the choice of study design. However, it is fundamental to make the choice based on the research philosophy, research approach, the focus of the research objectives and research problem. Considering the specific objectives coupled with the philosophical underpinning of the study, the explanatory design is chosen as suitable for this study.

Explanatory research design deals with causal relationships among variables (Saunders, Lewis & Thornhill, 2017). Again, it helps to enhance understanding of a given subject, decipher how and why a particular phenomenon happens, and forecast future events (Saunders, Lewis & Thornhill, 2017). According to Zikmund, Babin, Carr and Griffin (2013), an explanatory design is used to assess and measure respondents' perceptions, feelings, opinions and thoughts, useful in describing the characteristics of a large population.

Furthermore, the appropriateness of a survey design is also related to the choice of the research paradigm and the research approach. This study

employed post-positivist philosophy coupled with the quantitative approach which requires numerical data and objective investigation and inferential analysis (Cooper & Schindler, 2011). Accordingly, the explanatory design was chosen to investigate how taxpayers' (self-employed) perceptions and opinions about corruption, media reportage of corruption and religiosity affect tax compliance.

### **Research Approach**

The study or research approach refers to the analytical procedures, model and data analysis choice emanating from the research philosophy. There are three fundamental types of research approaches (Creswell, 2013). These are quantitative, qualitative and mixed research approach. Gill and Johnson (2006) provide that there is no one best research approach to social science research. Similarly, not all research approaches are appropriate for all studies (Graue, 2015). The literature suggests that the choice of a research approach should be defined by the research problem, research philosophy, and the data gathering procedure (Denscombe, 2014; Flick, 2015; Parvaiz, Mufti & Wahab, 2016). According to Denscombe (2014), the best research approach is largely based on the focus of the study, the rationale and the nature of the data to be used in the study.

This current study follows a quantitative research approach. A quantitative research approach is an analytical approach of an inquiry which is based on establishing a relationship or testing a theory linking variables or phenomena measured with numerical terms and analysed with statistical procedures (Creswell, 2013). Babbie (2013) opines that the quantitative research approach uses numerical or quantitative data to explain situations or

events in terms of cause-and-effect relationships to understand realities objectively. This research approach allows flexibility in data treatment, comparative analyses, and repeatability of the data collection to sustain reliability. The quantitative research approach follows a systematic procedure to investigate relationships (Bell & Bryman, 2007).

There are fundamental justifications for employing this approach in this study. First, all the specific objectives in the present study require numerical data for the measurement of the relevant constructs or variables of interest which is consistent with the quantitative approach (Kapel, 2015; Lewis, 2015). The study also seeks to measure the variables of interest (corruption, media reportage of corruption, religiosity and tax compliance) and establish statistical relationships among them. Secondly, the focus of the study seeks to estimate cause and effect relationships making the choice of quantitative approach quite appropriate. According to Creswell (2017) where the problem under investigation or the objectives of the study require an investigation into factors that influence the outcome of a given phenomenon, then the quantitative approach becomes suitable. Thus study seeks to formulate testable propositions concerning expected relationships that may be present among the variables.

Thirdly, the quantitative approach is borne out of positivism which entails deductive reasoning, object-based research and numerical analysis of projected perception. In effect, the quantitative research approach steers clear of speculation or presupposition (Bryman, 2006; Denzin & Lincoln, 2011; Howell, 2013). Its overarching focus is objectivity, the critical examination of a phenomenon based on fundamental principles of science which often

culminate in reliable and well-validated findings. This is consistent with the operationalised objectives of this study.

Finally, the study is also interested in knowing whether corruption and media reportage of corruption could catalyse or diminish the level of tax compliance. It also investigates interacting models of media reportage and religiosity in building a profile for tax compliance. Addressing these objectives and meeting these intended focuses can only be obtained reliably through statistical analysis (inferential analysis). This will also necessitate the use of structures capable of collecting quantitative data to arrive at objective and non-speculative results.

The quantitative research approach was employed in this study by developing constructs relevant to measure the variables of interest quantitatively. The study followed the existing literature to develop instruments to measure each of the variables (Litina, & Palivos, 2016; Rubin & Babbie, 2013). Furthermore, to meet the requirements of a quantitative research approach, the study used a data collection instrument capable of collecting numerically based data from the respondents consistent with this research approach (Easterby-Smith, Thorpe, & Jackson, 2012; Flick, 2015). The study formulated relevant hypothesis testing models as per the focus of the specific objectives in line with the quantitative approach and subject to higher-order statistical analysis.

### **Study Context**

The study focused on corruption, media reportage of corruption, religiosity and tax compliance in Ghana. This focus needs to be directed and discussed within a study context or study domain. A study context also termed

a study domain is a space or field where a study takes place or the field where respondents are drawn to answer questions relevant to the research process (Pratomo, 2018). The usefulness of a study context could determine the relevance or the accuracy of a researcher's responses or findings to the research problem (Ahren & Chapman, 2006; Pratomo, 2018).

The study was conducted within the context of individual taxpayers. The unit of analysis for this study within the individual taxpayers is self-employed. The study did not consider fixed-income earners such as employees though they are also taxpayers. Employees do not make tax compliance decisions on their income. The taxes are deducted at source and therefore could not provide relevant data to evaluate tax compliance via voluntary and enforced compliance. Similarly, large companies are often subject to political and public scrutiny and therefore have very little option in their compliance behaviour.

Therefore, the study was conducted in the context of the self-employed who have the responsibility of making a choice about their tax compliance decision. The informal sector which is dominated by the self-employed accounts for about 90% of the economic activities in the private sector in Ghana and plays a critical role in Ghanaian economic development (Abor & Quartey, 2010; Carsamer & Abbam, 2020). An advantage of the self-employed over other taxpayers is that they could have a wider tax net and their compliance decision could have significant implications on tax revenue in Ghana.

Registrar General's Department report on businesses in Ghana revealed that about 92% of businesses which have been registered in Ghana

are within the category of informal sector operators (Adjei, 2012; Fuseini, 2015). Again, the informal sector in Ghana contributes to about 80% of employment in Ghana and about 70% of the Gross Domestic Product (GDP) (Abor & Quartey, 2010; Fuseini, 2015). These statistics and data provide a sound impression that the informal sector operators in Ghana could have great potential for improved tax revenue growth and as such tax policy formulated to enhance compliance among this group of taxpayers could address the rather dwindling tax fortunes in Ghana (OECD, 2019; 2020).

### **Population of the Study**

A study population refers to aggregate members of an event, object or group of participants, people or experts with clearly defined goals or objectives (Ary, Jacobs, Sorensen & Walker, 2014). Ary et al. (2014) description reveals that population could refer to a universe of people, objects, firms, and management staff, which forms the smallest unit of the composite group from which a sample, is to be selected. Creswell (2015) posited that there are two basic types of population, namely: target population and accessible population. A target population is used in research as representing a large group of individuals upon which a researcher could generalise research findings. On the other hand, according to Ary et al. (2014) and Mohajan (2018), an accessible population is used in connection with members of the target population readily accessible for participation in a given research project.

The self-employed operators in Ghana constituted the target population for this study. In line with Osei-Boateng (2012) and Wahabu (2017), it is however difficult to account for the population of self-employed taxpayers in



Ghana due to the limited nature of record keeping of the informal sector as well as the inability of our tax system to identify and rope in all potential self-employed into the tax net. However, the number of self-employed businesses in Ghana, constituting the target population size of this study, is estimated to be Six hundred and twenty-six thousand, three hundred and eighty-two (626,382) (Minta, 2020).

However, since the unit of analysis of this study is on tax compliance, the accessible population is all the self-employed in business and professional practice registered and captured on the tax roll of the Ghana Revenue Authority. This is consistent with the approaches adopted by Inasius (2019), Wahabu, (2017), Rosid, Evans and Tran-Nam (2016) in related tax compliance studies. The study, therefore, relied on the tax roll of GRA to project the total accessible population of these self-employed within the study frame as Fifty-two thousand, five hundred and seventy-one (52,571) for the year 2021 (GRA, 2021).

### **Sampling Procedure**

One fundamental fact about every research is the fact that it is impractical to include all the members of the accessible population as participants in a study especially when the population is large (Bryman, 2012; Mohajan, 2018; Okpeyo et al., 2019). Selecting a small group or unit out of the total population to represent the population is the sample. The findings from a comprehensive study by Mohajan (2019), revealed that good sample size is inextricably linked to the success of any research because it facilitates the homogeneity of data, reduces cost, and enhances the administration of instruments and coordination of the entire literary work. Most importantly,

according to Bryman (2019), the selection of a sample befitting the population of a study improves the quality of the entire process and fosters accurate results.

The process through which the sample is extracted from the study population is known as sampling (Kraska & Neuman, 2011). The technique for selecting an appropriate sample size to represent the study population with the intention of determining the characteristics or limitations of the complete population is the sampling technique. Both the sample size and the sampling technique are fundamental for research as they could influence the study outcomes. According to White (2013), a study with either an under-sized or over-sized sample could produce unreliable estimates, findings and conclusions. However, there is no ideal sample size appropriate for all studies as not all studies have the same population, problem of investigation and objectives (Bryman & Bell, 2007).

Although there is no universality in ideal sample size, it is expected that quantitative-based studies should have a larger sample size than qualitative studies (Lewis, 2015). Literature however guides in determining the appropriate sample to be chosen for every study, taking into consideration the population size, the nature of data and the degree of accuracy (Krejcie & Morgan, 1970; Adam, 2020). This study, therefore, follows Adam's (2020) survey formula in determining the appropriate sample size that would allow for generalization about the population and expressed in Eqn (1) as;

$$n = \frac{N}{1+N\epsilon^2} \quad (1)$$

where

n = minimum returned sample size

$N = \text{Population size} = 52,571$

$e = \text{the degree of accuracy expressed as a proportion} = 0.03$

$p = \text{the number of standard deviations that would include all possible values in the}$

$\text{range} = 4$

$t = \text{t-value for the selected alpha level or confidence level at 95\%} = 1.96$

$\varepsilon = \text{adjusted margin of error } [\varepsilon = (\frac{pe}{t})]$

$$\rightarrow \varepsilon = \left(\frac{4(0.03)}{1.96}\right) = 0.06122$$

$$\rightarrow n = \frac{52,571}{1+52,571\varepsilon^2}$$

$$n = \frac{52,571}{1+52,571(0.06122)^2} = 266$$

This study employs a sample size of Two hundred and sixty-six (266) as per Adam (2020) and adjusted upward for possible non-response rate. As a result, the required sample size is adjusted to account for potential non-responses from the research participants. Existing literature on tax compliance has often revealed lower response rates due to the sensitive nature of the subject matter (Gupta, 2015; Houston & Tran, 2001; Onu, Oats, Kirchler & Hartmann, 2019). According to Gupta (2015), tax surveys usually produce low response rates of about 30% suggesting that about 70% of potential respondents either do not respond to the surveys or end up providing invalid responses.

By implication, it would be imprudent to administer the same number of questionnaires as the required sample size. To adjust the sample size to account for non-response, the study increased the required sample size by the

expected rate of non-responses of 70%. Consequently, the study recomputes the new sample size, using a sample size of 266 adjusted for a 70% non-response rate and expressed in Eqn(2):

$$SS_a = \frac{100}{ERR} X RSS \quad (2)$$

where  $SS_a$  is the Adjusted Sample Size

ERR is the Expected Response Rate, it is given as 30%

RSS is the Required Sample Size, which is given as:

$$SS_a = \frac{100}{30} X 266 = 887 \quad (3)$$

The adjusted sample size for the study is Eight hundred and eighty-seven (887). The sample size of 887 is selected by employing a multi-stage sampling technique. Multi-stage sampling is a process of selecting samples from several sampling techniques (Clark & Adler, 2011). The multi-stage sampling technique uses two or more sampling techniques suitable for the study. The two fundamental techniques used in multi-stage sampling are the cluster and simple random sampling techniques

The two fundamental techniques used in multi-stage sampling are cluster and simple random sampling techniques. According to Battaglia (2008), a multi-stage sampling technique follows a sequential order along a hierarchical level. Battaglia (2008) has provided a structure for the multi-stage sampling:

- 1) First at a country-level grouping;
- 2) second at census track sub-group,
- 3) thirdly at block sub-sub-group;
- 4) fourthly at the household sub-sub-sub group, and

5) ultimately within-household level.

This sampling technique has no specific procedural structure. However, its application in a given study requires that the researcher has a clear understanding of how different sampling techniques can be applied simultaneously to a study. This sampling technique is suitable for this study as the study uses data from dissimilar groups but with comparable characteristics. The multi-stage sampling technique is applied in the current study by applying cluster sampling first to the sampling frame. The accessible population is thereby divided into geographical areas. Thus, to obtain nationwide coverage of the accessible population, the study groups the taxpayers across the country into three categories: Northern or Savana Belt, Middle Belt and Coastal Belt with associated regions. The study follows the traditional ten (10) regions adopted by the Ghana Revenue Authority (GRA) for its reportage of tax performance, rather than the current sixteen (16) regions (GRA, 2021). Table 1 presents a breakdown of the self-employed within the various regions in Ghana.

**Table 1: Geographical Concentration of Self-Employed**

| Belt          | Regions       | Self-Employed |
|---------------|---------------|---------------|
| Northern Belt | Northern      | 1,337         |
|               | Upper West    | 357           |
|               | Upper East    | 1,001         |
| Middle Belt   | Brong Ahafo   | 3,559         |
|               | Eastern       | 4,240         |
|               | Ashanti       | 11,063        |
| Coastal Belt  | Western       | 3,354         |
|               | Central       | 3,459         |
|               | Volta         | 1,798         |
|               | Greater Accra | 22,403        |
| Total         |               | 52,571        |

Source: Author's Construct (2022)

In applying the multi-stage sampling in selecting the sample size of 887, the study follows the following steps:

- i. First, stratified sampling is employed to divide the entire country into three zones or areas: Northern Belt, Middle Belt and Coastal Belt with associated regions
- ii. Second, purposive sampling is used to purposively select one region from each zone or belt. The purposive selection criterion is based on the regions with the highest number of taxpayers (self-employed) in each of the clusters. The results from applying the purposive criterion are shown in Table 2

**Table 2: Purposive Selection of Regions in Clusters**

| Belt          | Regions       | Self-Employed | Selected Region |
|---------------|---------------|---------------|-----------------|
| Northern Belt | Northern      | 1,337         | Northern        |
|               | Upper West    | 357           |                 |
|               | Upper East    | 1,001         |                 |
| Middle Belt   | Brong Ahafo   | 3,559         | Ashanti         |
|               | Eastern       | 4,240         |                 |
|               | Ashanti       | 11,063        |                 |
| Coastal       | Western       | 3,354         | Greater Accra   |
|               | Central       | 3,459         |                 |
|               | Volta         | 1,798         |                 |
|               | Greater Accra | 22,403        |                 |
| Total         |               | 52,571        |                 |

Source: Author's Construct (2022)

- iii. Third, allocate the sample size of 887 among the selected regions based on the number of taxpayers (self-employed) in each of the selected regions as a percentage of the total self-employed from the selected regions. The results of the allocation are captured in Table 3.

**Table 3: Selected Regional Distribution of Sample Size of 887**

| Region        | Self-Employed | Percentage Allocation | Sample Size |
|---------------|---------------|-----------------------|-------------|
| Northern      | 1,337         | 3.80%                 | 34          |
| Ashanti       | 11,063        | 31.80%                | 282         |
| Greater Accra | 22,403        | 64.40%                | 571         |
| <b>Total</b>  | <b>34,803</b> | <b>100%</b>           | <b>887</b>  |

Source: Author's Construct (2022).

- iv. Fourth, the selected regional sample size is further reallocated among the tax offices in the region proportionately through the stratified sampling technique.

The results are captured in Table 4.

**Table 4: Distribution of Selected Regional Sample Size Among Tax Offices**

| Region      | Tax Office       | Tax Payers    | Percentage  | Sample Size |
|-------------|------------------|---------------|-------------|-------------|
| Northern    | TO 1             | 406           | 30%         | 10          |
|             | TO 2             | 717           | 54%         | 18          |
|             | TO 3             | 214           | 16%         | 6           |
|             | <b>SUB-TOTAL</b> | <b>1,337</b>  | <b>100%</b> | <b>34</b>   |
| Ashanti     | TO 1             | 1,450         | 13%         | 37          |
|             | TO 2             | 3,750         | 34%         | 96          |
|             | TO 3             | 1,601         | 15%         | 42          |
|             | TO 4             | 1,793         | 16%         | 45          |
|             | TO 5             | 994           | 9%          | 25          |
|             | TO 6             | 322           | 3%          | 8           |
|             | TO 7             | 281           | 2%          | 6           |
|             | TO 8             | 870           | 8%          | 23          |
|             | <b>SUB-TOTAL</b> | <b>11,063</b> | <b>100%</b> | <b>282</b>  |
| Greater Acc | TO 1             | 557           | 2%          | 11          |
|             | TO 2             | 228           | 1%          | 6           |
|             | TO 3             | 1,464         | 6%          | 34          |
|             | TO 4             | 261           | 1%          | 6           |
|             | TO 5             | 691           | 3%          | 17          |
|             | TO 6             | 1,535         | 7%          | 40          |
|             | TO 7             | 1,258         | 6%          | 34          |
|             | TO 8             | 276           | 1%          | 6           |
|             | TO 9             | 60            | -           | 0           |
|             | TO 10            | 1,051         | 5%          | 29          |
|             | TO 11            | 1,796         | 8%          | 46          |
|             | TO 12            | 2,079         | 9%          | 51          |
|             | TO 13            | 2,125         | 10%         | 57          |
|             | TO 14            | 788           | 4%          | 22          |

|                  |               |             |            |
|------------------|---------------|-------------|------------|
| TO 15            | 580           | 3%          | 17         |
| TO 16            | 1,122         | 5%          | 29         |
| TO 17            | 41            | -           | 0          |
| TO 18            | 947           | 4%          | 22         |
| TO 19            | 1,730         | 8%          | 46         |
| TO 20            | 2,794         | 12%         | 69         |
| TO 21            | 1,020         | 5%          | 29         |
| <b>SUB-TOTAL</b> | <b>22,403</b> | <b>100%</b> | <b>571</b> |

Source: Author's Construct (2022)

- v. Finally, the study employs a simple random selection technique to select the sample for each of the tax offices relative to the Northern, Ashanti and Greater Accra regions. For each of the selected tax offices, the list of all self-employed is collected and numbered, starting from one to the number of self-employed on its tax roll. For example, tax office one in the Northern region has seventy self-employed on its tax roll. As such, the self-employed in this office would be numbered from one (1) to seventy (70). The same numbering process is repeated for each of the selected tax offices. Thereafter, the sample is selected from the total list and numbered to reflect the sample size determined per each tax office as indicated in Table 4. The selection is based on a pre-determined computer-based sampling interval. The choice of simple random sampling is to give each self-employed in the selected tax office an equal chance of being part of the survey, thereby paving way for the findings from the study to be easily generalised amongst all self-employed.

#### **Data Collection Instrument**

Data collection is an organised framework for collecting data which are relevant to the focus of the study, research philosophy, objectives and mode of analysis from respondents. Creswell and Poth (2016) indicated that the data collection instrument is inextricably linked to a well-validated study. Design of tools for data collection is paramount in research. Commenting on



the relevance of instruments for data collection, Gangwar, Date, & Ramaswamy (2015) posited that there are several ways of retrieving valuable primary data from the field or study area. It involves the process of getting raw information, either in soft or hard copies, to resolve research problems. Hence, Creswell and Poth (2016) indicated that the instrument must be designed to adequately elicit relevant information concerning the phenomenon under study.

There are various types of instruments for data collection including interview schedules and questionnaires. This study uses a questionnaire for data collection. The questionnaire consists of a list of questions formulated according to the study objectives and the hypotheses that are to be answered by the respondents (Mawusi & Kwadwo, 2020). The questionnaire is suitable to respond to research questions which are confidential, sensitive and less expensive (Sarantakos, 2005). The study follows the existing literature and available inventories or instruments to structure its questionnaire to deepen the relevance of the questions on the questionnaire.

The questions on the questionnaire are primarily close-ended. Close-ended questions are questions which provide the respondents with options to choose the responses. These types of questions are exhaustive, guarantee accuracy, unidimensional, and mutually exclusive responses (Becker & Watts, 1999). These questions would save the participants' time as they would not require much time and thinking in responding to the questions. It is also easy to code and analyse the responses emerging from close-ended questions. The questionnaire is designed into six (6) sections, A to F.

Section A of the questionnaire gathers data about the respondents' profiles or biographic data. Questions on tax compliance are presented in Section B. Section C is devoted to collecting data about the corruption construct while Section D covers questions for collecting data on media reportage on corruption. Questions on religiosity are captured in section E. Section F contains questions about cannons of taxation.

The constructs on the scales are measured using a Likert scale. According to Yates (2004), Likert scale is used to assess and measure the variables where numbers are assigned to those qualitative constructs. The overall score for each variable is determined by summing the scores of all the respondents in respect of the items on the scale. The scaling in this study follows Shakespeare-Finch and Obst (2011) by ensuring that differences exist between the low-scoring and the high-scoring participants' responses on each of the items included in the index. This study uses a 5-point Likert scale for assessment and measurement where the respondents can choose from 1 to 5 to rate their agreement with the statements on the scale enlisted on the questionnaires. One (1) denotes strongly disagree and five (5) represent strongly agree.

The 5-point Likert scale is used to measure the four variables of interest and the control variables. These variables are tax compliance, corruption, media reportage of corruption, religiosity and cannons of taxation. Extracts of the items for the measurement of these variables are as follows:

### **Tax compliance**

Tax compliance in this study is operationalised by two main constructs: voluntary compliance and enforced compliance. A 5-item scale

adapted from Isbell (2017) is used in this study to measure voluntary tax compliance. The responses from this scale are measured on a 5-point Likert scale with ranges from 1 to 5. 1 denotes strongly disagree, 2- disagree, 3- weak agreement, 4-agree and 5-strongly agree. A 5-point Likert scale is used to also measure enforced tax compliance similar to voluntary tax compliance. The responses ranged from strongly disagree (1) to strongly agree (5). A 4-item scale adapted from Isbell (2017) is used in this study to measure enforced tax compliance.

### **Corruption**

Corruption is also measured on a 5-point Likert scale similar to tax compliance. The responses from this scale also range from strongly disagree (1) to strongly agree (5). Corruption is operationalised by two main constructs: political corruption and administrative corruption. A 5-item scale adapted from Lambsdorff (2006) and Seligson (2006) is used in this study to measure each of the corruption constructs: political corruption and administrative corruption.

### **Media reportage of corruption**

Media reportage of corruption is operationalised by two constructs with two sub-constructs each. These are thematic media reportage (operationalized into political and administrative) and episodic media reportage (operationalized into political and administrative). The scales for media reportage of corruption are developed from the principles found in Benjamin (2007) and Cozma and Kozman (2015). A 15-item or statement scale is used to measure the four sub-constructs of media reportage. The responses are measured on a 5-point Likert scale ranging from strongly disagree (1) to strongly agree (5).

### **Religiosity**

A 5-item scale is used to measure religiosity. The scale is developed to reflect how this study has operationalised religiosity. The instrument is adapted from Torgler (2006). These items are measured on a 5-point Likert scale with responses ranging from strongly disagree (1) to strongly agree (5).

### **Cannons**

The cannons of taxation are used as control variables and are measured using three constructs: certainty, convenience and equity. A 13-item scale is used to measure these three constructs. These items are measured on a 5-point Likert scale with responses ranging from strongly disagree (5) to strongly agree (1). Reversing the likert scale responses to 5 to 1 is to deal with the challenges of common method bias (Saunders, Lewis & Thornhill, 2016).

### **Pretest**

A pretest is fundamental for the instrument validation process. It is used in this study as a prerequisite for the final approval of the questionnaire. Pretesting is used to determine the appropriateness of the questionnaire in collecting the required data. The study conducts the pretest before the main data collection is conducted. The purpose of the pretest is to test the adequacy, validity and reliability of the designed questionnaire to elicit the needed responses. A pretest is relevant even though the study relies on the existing literature or instruments to design most of the questionnaire items. The study uses the pretest to identify question(s) which are challenging, ambiguous and misleading and could lead to biased responses. It seeks to make the final questionnaire friendly so that the respondents can answer the questions with

ease, and ensure that the data from the administration of the questionnaire are recorded properly and correctly (Saunders et al., 2012).

The study further uses the pretest to determine the flow and reasonableness of the questions, their relevance in collecting the required data, and the respondent's attention. During the pretest, the study provides review questions to help validate and evaluate the questionnaire. The review questions include an assessment of the ease at which the respondents answer the questions on the questionnaire, the average time taken to complete the questionnaire and the clarity of the instructions in completing the questionnaire. The results of the pretest and the responses to the review questions are used for the post-pretest review with the supervisors to refine the questionnaire.

The study used ninety (90) self-employed, selected from Cape Coast metropolis to conduct the pretest. This represents about 10 per cent of the main sample making it relevant. The pre-test took place from 6<sup>th</sup> April to 28<sup>th</sup> April 2022. The selection of Cape Coast was influenced by the fact that self-employed in the Cape Coast metropolis have similar characteristics with those within the target population so their observations and challenges are likely to be similar. The pretest contributes to ensuring the reliability and validity of the instrument

### **Validity and Reliability of Instrument**

Validity and reliability are important parts of the research process. Mohajan (2018) provides that both reliability and validity are inestimably linked to the relevance of research. Validity may involve the face and content validity while reliability may focus on the internal consistency between and

among items in the instrument (Ary et al., 2014; Mohajan, 2018). These facets of validity are critical for research outputs and the evaluation of research findings.

To achieve content and face validity, the instrument was developed following the existing scales which have already been validated in respect of variables such as corruption, religiosity and tax compliance. Variables for media reportage and the canons of tax were developed following principles or tenets espoused in literature. The draft instrument is further validated by the research supervisors and finally pretested.

Despite going through the process of ascertaining the validity of the questionnaire, there is the need to use statistical computation to ascertain whether the questionnaire item is reliable. Cronbach Alpha is used to test the extent of reliability. Ary et al. (2014) attested to the conceptual relevance of using Cronbach Alpha to measure the reliability coefficient of the instruments. Additionally, Sullivan (2011) and Creswell (2015) also observed that Cronbach Alpha has the inherent benefit of ascertaining the reliability of an instrument through the computation of correlates of each of the items contained in a questionnaire based on the results of the pre-test. The Cronbach's alpha score is between 0 and 1. This is determined before any main test can be used. The results from the Cronbach alpha are compared with the range in Table 5.

**Table 5: Reliability Scale Range**

| Cronbach Alpha Range    | Interpretation |
|-------------------------|----------------|
| $\alpha \geq 0.9$       | Excellent      |
| $0.9 > \alpha \geq 0.8$ | Good           |
| $0.8 > \alpha \geq 0.7$ | Acceptable     |
| $0.7 > \alpha \geq 0.6$ | Questionable   |
| $0.6 > \alpha \geq 0.5$ | Poor           |
| $0.5 > \alpha$          | Unacceptable   |

Source: Hambuda (2017)

The results from the pre-test were also used to determine the reliability of the instruments through Cronbach alpha tests. Table 6 captures these reliability scores. It can be observed that all the scales have acceptable Cronbach alpha values.

**Table 6: Scale Reliability Analyses**

| Latent Variables | Cronbach's alpha | Conclusion |
|------------------|------------------|------------|
| VTC              | 0.834            | Good       |
| ETC              | 0.804            | Good       |
| PC               | 0.854            | Good       |
| ADC              | 0.872            | Good       |
| TMPC             | 0.801            | Good       |
| TMADC            | 0.811            | Good       |
| EMPC             | 0.863            | Good       |
| EMADC            | 0.799            | Acceptable |
| REL              | 0.821            | Good       |
| CERT             | 0.736            | Acceptable |
| CON              | 0.756            | Acceptable |
| EQU              | 0.717            | Acceptable |

Source: Author's Construct (2022)

### Data Collection Procedures

The study followed a self-administration procedure to administer its questionnaire. However, where the respondent could neither read nor write, but showed readiness to participate, the research assistants aided such participants in the completion of the instrument. The study used three (3)

months to collect the data from the field, commencing in May and ending in July, 2022.

Due to the wide coverage of the study and the adoption of a self-administered questionnaire, the study engaged the services of field research assistants. Twenty (20) field research assistants were engaged to assist in the distribution and collection of the questionnaires. The research assistants were paid stipends for their involvement. These assistants were allocated to the selected regions per the sample size allocation determined. Table 7 shows the allocation of field research assistants following the sample size determined for each region.

**Table 7: Allocation of Field Research Assistants According to Sample Size**

| Region        | Taxpayers | Sample Size | Allocation | No. of Research Assistants |
|---------------|-----------|-------------|------------|----------------------------|
| Northern      | 1,337     | 34          | 4%         | 1                          |
| Ashanti       | 11,063    | 282         | 32%        | 6                          |
| Greater Accra | 22,403    | 571         | 64%        | 13                         |

Source: Author's Construct (2022)

The questionnaires were distributed to the field research assistants to cater for each day's schedule and additions for spoiled questionnaires. The questionnaires were delivered to selected participants at their place of operations. The research assistants used tactful questions to enquire and identify the owners at the business premises. Although the priority was to hand over the questionnaires in person to the owners, the questionnaire was left at the place of business when the owner was not available on several attempts. Several attempts were used to mean three (3) visits. In the situation where respondents were ready to complete the questionnaire instantly when delivered, the research assistants stayed on and collected same. Nevertheless, others were collected by schedule or appointment.



Seven hundred and fifty-five (755) out of 887 of the administered questionnaires were received and processed. Thus, giving the response rate of 85% which is higher than the thirty per cent (30%) benchmark in tax compliance studies (Gupta, 2015). The distribution of the participants is captured in Table 8.

**Table 8: Distribution of Respondents**

| Region        | Taxpayers | Sample Size | Actual Participants | Participation Per Sample |
|---------------|-----------|-------------|---------------------|--------------------------|
| Northern      | 1,337     | 34          | 31                  | 92.3%                    |
| Ashanti       | 11,063    | 282         | 227                 | 80.6%                    |
| Greater Accra | 22,403    | 571         | 497                 | 87.0%                    |

Source: Author's Construct (2022).

### **Ethical Considerations**

Ethics have become an important concept grounded in research (Lapan & Quartaroli, 2009). Research ethics check research misconducts such as misrepresenting the data, distorting research results, breaching the anonymity of respondents or participants and breaching confidentiality. As a social science-based research, the use of humans is a necessity and therefore a high level of ethical standards needs to be upheld.

Punch (2013) intimates that social science research involves collecting data from people and about people, hence, researchers must protect their research participants; develop trust with them; promote the integrity of research; guard against misconduct and impropriety; cope with new and challenging issues (Israel & Hay, 2006). To ensure this, the researcher sought the consent of the research participants before the data-gathering process took place.

Respondents were provided with the insight about the focus of the study and the purpose of the data collection. Throughout the research, the

study provided that participation was voluntary and that participants could exit at any point of the process. Thus, under no circumstance were participants coerced to participate in the study. The principle of anonymity is duly followed. The study followed all reasonable steps to protect the identity of the participants throughout the data collection process. The participants were not allowed to disclose their identity in a form of writing their names on the completed questionnaire. All participants were assured of confidentiality. Above all, the researcher obtained ethical clearance from the ethics committee of the school of graduate studies, University of Cape Coast, Ghana. The provisions of the ethics committee were duly followed in the data-gathering process.

#### **Data Processing and Analysis**

Data entry is one of the sensitive issues in the research process which require sound ethical compliance. The researcher ensured that the data entered into the Smart PLS Statistical Software is the same as the data supplied by the respondents to uphold data integrity. The completed questionnaires were arranged and numbered from 1 to the last questionnaire. To ensure consistency between the data responses and the entry into the software, the data entry was done solely by the researcher. The completed questionnaires were entered into the software chronologically according to the assigned numbers. When a particular questionnaire was completed and entered into the software, it was marked as entered with 'Red Ink'

The data collected from the questionnaire administration would be meaningless unless such data undergo statistical refining and rigorous analytical processing. Following the nature of the objectives and hypotheses

testing framework, the study employs a high-order statistical analysis to conduct the investigation (Hair, Black, Babin & Anderson, 2010). The study used Structural Equation Modeling (SEM) through path analysis to address the objectives of the study. SEM is a statistical approach for estimating relationships using statistical data consistent with fundamental assumptions of standard multiple regression (Bartholomew, 1999). SEM uses a statistical framework that combines standard regression and exploratory factor or confirmatory factor analysis (Kang & Ahn, 2021). According to Kang and Ahn (2021), SEM could be used to determine the relationships between one or more independent variables and one or more dependent variables.

SEM specifications and models follow two streams: Partial Least Square (PLS) based (PLS-SEM) and Covariance based (CB-SEM). This study seeks to test the direct relationship among the variables of interest according to the underlying theoretical tenets. These analyses require interrogation of the variance emanating from the cause-and-effect relationship. This makes the use of PLS-SEM suitable. Besides, unlike CB-SEM, PLS-SEM makes no assumptions about data distribution since it is a non-parametric method. Most often social science data tend to deviate from the multivariate normal distribution and by implication, evaluating a path model using CB-SEM amidst nonnormal data can lead to underestimated standard errors and inflated goodness-of-fit measures (Hair et al., 2020). Again, the PLS-SEM technique is preferred to the CB-SEM where theory regarding the underlying research model is less developed (Hair et al., 2020). In relation to this study, modelling of the indirect relationship where religiosity and media reportage of corruption moderate corruption perception and tax compliance behaviour is not captured

in any of applicable theories underpinning this study. Again, one seldom find in literature any study that focuses on such indirect relationships. Therefore, all the estimations and tests of the hypotheses in this are conducted using PLS-SEM and coded through Smart PLS software.

### **Estimation assumptions and diagnostics**

Similar to all SEM analyses, PLS-SEM has some foundational assumptions which should be tested through diagnostic analyses. The nature of the assumption and diagnostic tests are presented according to the specific model: Measurement model and structural model. The study, therefore, discusses the fundamental assumptions and appropriate diagnostic tests to be conducted to evaluate the assumptions.

#### ***Pre-diagnostic tests on the measurement model***

The assumptions and diagnostics of the measurement model primarily seek to evaluate the extent to which the model specified in the study is supported by the underlying data of the study (Kang & Ahn, 2021). This makes measurement model evaluation very fundamental in SEM. Since this study follows PLS-SEM, the criteria for assessing the measurement model are based on PLS-SEM diagnostics. PLS-SEM requires four (4) measurement assumptions. These are indicator reliability, internal consistency, convergent validity and discriminant validity.

One fundamental assumption of SEM is that the constructs or the latent variables significantly explain the variance of the respective observed variables. This assumption is tested through the assessment of indicator reliability. The indicator reliability criterion is considered the first step in evaluating the measurement model. It measures the extent to which the latent

variable explains the variance in each of the associated indicators. The indicator reliability (IR) is therefore an indication of the commonality of the indicator and the construct. The mathematical estimation of IR is based on the loading score (i.e. the square of the loading). Generally, IR above 50% is acceptable, however, studies in social science can even be less than 50% (Hair Jr et al., 2020; Hulland, 1999).

It is further assumed that the scale used to measure the construct will generate similar results in repeated trials. This assumption is tested through an assessment of the internal consistency of the scale. The internal consistency criterion measures the ability of the scale of the observed variables to generate similar results in repeated trials. Studies widely use Cronbach alpha and the composite reliability test ( $\rho_c$ ) alternatively. However, emerging studies have criticised Cronbach alpha as being too conservative and the composite reliability test ( $\rho_c$ ) as being too liberal (Dijkstra & Henseler, 2015; Hair Jr et al., 2020). To minimise the effect of these limitations on the assessment of the measurement model, this study employs these tests concurrently as control checks.

The third diagnostic test of the measurement model is convergent validity. Convergent validity assesses how the construct or latent variable converges to explain the variance of the observed variables. The study uses the conventional average variance extracted (AVE) to measure the convergent validity. The AVE is the commonality of the latent variable or construct. The acceptable score for AVE is 0.50 (Hair et al., 2020).

The final assumption of the PLS-SEM is that the latent variables are distinct from one another. The study, therefore, conducts discriminant validity

to test this assumption. Discriminant validity assesses the distinctiveness of a construct from other constructs or latent variables in model specification. This study follows the recommended Heterotrait–Monotrait ratio (HTMT) of correlations (Henseler et al. 2015) and cross-loading to evaluate the discriminant validity. The threshold for HTMT is  $<0.9$ . Thus, the farther away the score is from 1 the better the distinctiveness. Similar implications apply to the cross-loading. The norm for cross-loading is that an observed variable should load higher on its own latent variable than any other latent variable in the model.

#### *Post-diagnostic tests on the structural model*

Besides the measurement model assessment, the study also tested the assumptions underlying the structural model specifications. One fundamental reason for assessing the structural model is to avoid or minimise the effect of spurious estimates. The post-diagnostic tests for the structural model include collinearity, significance and relevance of the structural model, explanatory power, predictive power and effect size.

The specification and estimation of SEM is based on the assumption that there is no collinearity problem in the structural model. The collinearity problem is sensitive to PLS-SEM since the path coefficients of PLS-SEM are based on ordinary least squares (OLS) which may generate spurious coefficients under multicollinearity situations (Sarstedt & Mooi, 2019). The study, therefore, conducted the diagnostic test to assess the collinearity situation to determine the fitness of the specifications to avoid spurious regression and biased estimates. The collinearity test was conducted using the Variance inflation factor (VIF). The conclusion criterion is that a VIF score

greater than 5 is a symptom of a multi-collinearity problem:  $VIF > 5$  (Becker, Ringle, Sarstedt & Völckner, 2015).

The second structural model diagnostic test (post-diagnostic test) is based on the assumption of the significance and relevance of the model. The significance is built on the standard errors of bootstrapping. The study tested the assumption of significance through the assessment of the p-values of the coefficients. The estimates become significant when the p-value is less than 5% and 1% within the confidence interval of 95% and 99% respectively. The 5% and 1% denote significance and strong significance respectively. It is further assumed that all the path coefficients are within the relevant range. The coefficients are relevant when they lie between -1 and +1. When the score is closer to -1, it indicates a strong negative relationship and closer to 1 shows a strong positive relationship. The study, therefore, used the magnitude of the path coefficient to determine the relevance.

Another post-diagnostic test is based on the assumption of the relevance of the predictors in explaining the variance of the endogenous variable. This assumption is tested using the coefficient of determination in post-estimation analysis. There is no universal threshold for the coefficient of determination or R-square, even though some researchers have suggested that the closer the value to 1, the better (Hair et al., 2011). Nevertheless, it has also been acknowledged that an R-square of about 0.10 is acceptable (Hair et al., 2020) especially when the other pre and post-diagnostics tests support the specifications.

PLS-SEM assumes stability of the structural model. Determining the confirmation of this assumption requires post estimation diagnostic test. This

is assessed through the evaluation of the predictive relevance and power of the model. This study, therefore, follows the Q-square to determine the model's predictive relevance. The norm is that a model has predictive power when the Q-square is greater than zero. The study further conducted a post-diagnostic analysis to determine the importance of the predictors in explaining the observed constructs of the structural model. This is done using the F-square. It has been suggested that F-square is realistic and appropriate when it is greater than zero (0) (Aguinis et al., 2005; Kenny, 2018). The study, therefore, followed the rubrics of F-square to test the effect size of the predictors in explaining the endogenous variables in the models.

### **Model Specifications for Testing Hypothesis Framework**

The study presents the model specifications suitable for testing the hypotheses formulated from the research objectives. The models were formulated according to the specific objectives and associated hypotheses. The broad specifications were based on endogenous variables. Since the study operationalises tax compliance (dependent variable) as voluntary tax compliance (VTC) and enforced tax compliance (ETC), each test was specified twice: the VTC model and the ETC model. The specifications were as follows:

#### **Objective one**

This objective examines the relationship between the level of corruption perception and the level of tax compliance among taxpayers in Ghana. Four hypotheses are formulated from this objective. The first two hypotheses relate to voluntary tax compliance and the other two for the



enforced tax compliance. The hypotheses for the voluntary tax compliance model are recalled as:

$H_{1a0}$ : Tax payers' perception of political corruption has no significant effect on voluntary tax compliance in Ghana

$H_{1b0}$ : Tax payers' perception of administrative corruption does not have a significant effect on voluntary tax compliance in Ghana

The study formulates the first model (Eqn 4) to test the hypotheses:

$H_{1a0}$  and  $H_{1b0}$  expressed as

$$VTC_i = \alpha_i + \beta_1 PC_i + \beta_2 ADC_i + \beta_3 Cer_i + \beta_4 Con_i + \beta_5 Equ_i + \varepsilon \quad (4)$$

VTC is the outcome or dependent variable and denotes voluntary tax compliance. PC and ADC are political corruption and administrative corruption respectively. They denote the independent variables. Cert, Con, and Equ are vectors of control variables denoting certainty, convenience, and equity.  $\varepsilon$  is the error term.

$\beta_1, \beta_2, \dots, \beta_5$  denote the sensitivities of VTC to the respective variables. The magnitude and the level of significance of ' $\beta_1$  and  $\beta_2$ ' determines the extent of influence of political corruption, and administrative corruption on voluntary tax compliance. It is expected that PC and ADC would exhibit negative coefficient (' $\beta_1$  and  $\beta_2$ ') suggesting that PC and ADC negatively affect voluntary tax compliance behaviour. i.e.  $\beta_1$  and  $\beta_2 < 0$  and  $\beta_3, \beta_4,$  and  $\beta_5 > 0$

The study further formulates ETC model to test the two other hypotheses. These hypotheses are recalled as:

$H_{1c0}$ : There is no significant effect of Tax payers' perception of political corruption on enforced tax compliance in Ghana

$H_{1d0}$ : Tax payers' perception of administrative corruption has no significant effect on enforced tax compliance in Ghana

Model two (Eqn 5) is also specified to test  $H_{1c0}$  and  $H_{1d0}$  and it is expressed as follows:

$$ETC_i = \alpha_i + \beta_1 PC_i + \beta_2 ADC_i + \beta_3 Cer_i + \beta_4 Con_i + \beta_5 Equ_i + \varepsilon \quad (5)$$

ETC is enforced tax compliance and denotes the dependent variable

The rest of the variables remain as described under Eqn 4.

$\beta_1, \beta_2, \beta_3, \beta_4$  and  $\beta_5 > 0$

### **Objective two**

The second objective of the study seeks to assess the relationship between media reportage of corruption and tax compliance behaviour in Ghana. Eight hypotheses have been developed from this objective and estimated from two models: VTC Model and ETC Model. The hypotheses for the VTC model are recalled as follows:

$H_{2a0}$ : Thematic media reportage of political corruption has no significant influence on voluntary tax compliance in Ghana

$H_{2b0}$ : Thematic media reportage of administrative corruption has no significant influence on voluntary tax compliance in Ghana

$H_{2c0}$ : Episodic media reportage of political corruption does not have a significant influence on voluntary tax compliance in Ghana

$H_{2d0}$ : Episodic media reportage of administrative corruption does not have a significant influence on voluntary tax compliance in Ghana

Hypotheses:  $H_{2a0}$ ,  $H_{2b0}$ ,  $H_{2c0}$  and  $H_{2d0}$  are tested using model specifications in Eqn 6 and expressed as:

$$VTC_i = \alpha_i + \beta_1 TMPC_i + \beta_2 TMADC_i + \beta_3 EMPC_i + \beta_4 EMADC_i + \beta_5 Cer_i + \beta_6 Con_i + \beta_7 Equ_i + \varepsilon \quad (6)$$

TMPC, TMADC, EMPC and EMADC are thematic media reportage of political corruption, thematic media reportage of administrative corruption, episodic media reportage of political corruption, episodic media reportage of administrative corruption respectively and represent the exogenous variables or the independent variables. The rest of the variables remain as described under Eqn 4.

$\beta_1, \beta_2, \dots, \beta_7$  represent the sensitivities of VTC to the respective variables. The coefficient and the level of significance of  $\beta_1, \beta_2, \beta_3$  and  $\beta_4$  exhibit the nature and significance of how TMPC, TMADC, EMPC and EMADC affect VTC. The apriori of the estimation are as follows:

$$\beta_1, \beta_2, \beta_3, \text{ \& } \beta_4 < 0, \beta_5, \beta_6, \text{ \& } \beta_7 > 0$$

ETC model is also specified to test the other four hypotheses. These hypotheses are recalled as:

$H_{2e0}$ : Thematic media reportage of political corruption has no significant influence on enforced tax compliance in Ghana

$H_{2f0}$ : Thematic media reportage of administrative corruption has no significant influence on enforced tax compliance in Ghana

$H_{2g0}$ : Episodic media reportage of political corruption does not have a significant influence on enforced tax compliance in Ghana

$H_{2h0}$ : Episodic media reportage of administrative corruption does not have a significant influence on enforced tax compliance in Ghana

Model two (Eqn 7) is also specified to test  $H_{2e0}, H_{2f0}, H_{2g0}$  and  $H_{2h0}$ . It is expressed a follows:

$$ETC_i = \alpha_i + \beta_1 TMPC_i + \beta_2 TMADC_i + \beta_3 EMPC_i + \beta_4 EMADC_i + \beta_5 Cer_i + \beta_6 Con_i + \beta_7 Equ_i + \varepsilon \quad (7)$$

The rest of the variables remain as described under Eqn 4 and Eqn 5.

The apriori of the estimation are as follows:

$$\beta_1, \beta_2, \beta_3, \beta_4, \beta_5, \beta_6, \text{ and } \beta_7 > 0$$

### Objective three

The third objective seeks to analyse the interacting effect of religiosity on the relationship between corruption perception and tax compliance behaviour in Ghana. Four hypothesis are formulated from this objective. The first two hypotheses are tested using VTC model while the other two are estimated with the ETC model. The first two hypotheses are recalled as:

H<sub>3a0</sub>: Tax payers' religiosity has no significant moderating role on the relationship between political corruption perception and voluntary tax compliance in Ghana

H<sub>3b0</sub>: Tax payers' religiosity has no significant moderating role on the relationship between administrative corruption perception and voluntary tax compliance in Ghana

The study specifies the fifth model (Eqn 8) to test H<sub>3a0</sub> and H<sub>3b0</sub> and presented as follows:

$$VTC_i = \alpha_i + \beta_1 PC_i + \beta_2 ADC_i + \beta_3 REL_i + \beta_4 PC_i^R + \beta_5 ADC_i^R + \beta_6 Cer_i + \beta_7 Con_i + \beta_8 Equ_i + \varepsilon \quad (8)$$

REL is religiosity and denotes the moderator of the model. PC<sup>R</sup> and ADC<sup>R</sup> are the PC and ADC moderated by Religiosity (REL). The rest of the variables remain as described under Eqn 4.

The apriori of the estimation are as follows:

$$\beta_1, \text{ and } \beta_2 < 0, \beta_3, \beta_4, \beta_5, \beta_6, \beta_7 \text{ and } \beta_8 > 0$$

The ETC model is also specified to test the other two hypotheses.

These hypotheses are recalled as:

$H_{3c0}$ : Tax payers' religiosity has no significant moderating role on the relationship between political corruption perception and enforced tax compliance in Ghana

$H_{3d0}$ : Tax payers' religiosity has no significant moderating role on the relationship between administrative corruption perception and enforced tax compliance in Ghana

The study specifies the sixth model (Eqn, 9) to test  $H_{3c0}$  and  $H_{3d0}$  and presented as:

$$\begin{aligned} ETC_i = & \alpha_i + \beta_1 PC_i + \beta_2 ADC_i + \beta_3 REL_i + \beta_4 PC_i^R + \beta_5 ADC_i^R + \beta_6 Cer_i \\ & + \beta_7 Con_i + \beta_8 Equ_i \\ & + \varepsilon \end{aligned} \quad (9)$$

The rest of the variables remain as described under Eqn 4 and Eqn 8

The apriori of the estimation are as follows:

$$\beta_1, \beta_2, \beta_3, \beta_4, \beta_5, \beta_6, \beta_7 \text{ and } \beta_8 > 0$$

#### **Objective four**

The fourth objective seeks to determine the interacting role of tax payers' religiosity in the relationship between media reportage and tax compliance behaviour in Ghana. Eight hypotheses have been formulated to address this objective. The first four hypotheses are tested through VTC model and recalled as:

H<sub>4a0</sub>: There is a significant moderating role of tax payers' religiosity on the effect of thematic media reportage of political corruption on voluntary tax compliance behaviour in Ghana

H<sub>4b0</sub>: There is a significant moderating role of tax payers' religiosity on the effect of thematic media reportage of administrative corruption on voluntary tax compliance behaviour in Ghana

H<sub>4c0</sub>: There is a significant moderating role of tax payers' religiosity on the effect of episodic media reportage of political corruption on voluntary tax compliance behaviour in Ghana

H<sub>4d0</sub>: There is a significant moderating role of tax payers' religiosity on the effect of episodic media reportage of administrative corruption on voluntary tax compliance behaviour in Ghana

Eqn 10 is employed to test the H<sub>4a0</sub>, H<sub>4b0</sub>, H<sub>4c0</sub> and H<sub>4d0</sub>. The model is specified as follows:

$$\begin{aligned}
 VTC_i = & \alpha_i + \beta_1 TMPC_i + \beta_2 TMADC_i + \beta_3 EMPC_i + \beta_4 EMADC_i + \beta_5 REL_i \\
 & + \beta_6 TMPC_i^R + \beta_7 TMADC_i^R + \beta_8 EMPC_i^R + \beta_9 EMADC_i^R \\
 & + \beta_{10} Cer_i + \beta_{11} Con_i + \beta_{12} Equ_i \\
 & + \varepsilon
 \end{aligned} \tag{10}$$

where

TMPC<sup>R</sup>, TMADC<sup>R</sup>, EMPC<sup>R</sup> and EMADC<sup>R</sup> are TMPC, TMADC, EMPC and EMADC moderated by Religiosity. The rest of the variables remain as described under Eqn 4 and Eqn 8.

The apriori of the estimation are as follows:

$\beta_1, \beta_2, \beta_3,$  and  $\beta_4, < 0, \beta_5, \beta_6, \beta_7, \dots$  and  $\beta_{12} > 0$

The ETC model is formulated to test the remaining four hypotheses of the fourth objective of study. The hypotheses are recalled as follows:

H<sub>4e0</sub>: Tax payers' religiosity has no significant moderating role on the relationship between thematic media reportage of political corruption and enforced tax compliance behaviour in Ghana

H<sub>4f0</sub>: Tax payers' religiosity has no significant moderating role on the relationship between thematic media reportage of administrative corruption and enforced tax compliance behaviour in Ghana

H<sub>4g0</sub>: Tax payers' religiosity has no significant moderating role on the relationship between episodic media reportage of political corruption and enforced tax compliance behaviour in Ghana

H<sub>4h0</sub>: Tax payers' religiosity has no significant moderating role on the relationship between episodic media reportage of administrative corruption and enforced tax compliance behaviour in Ghana

The model specified in Eqn 11 is used to test the H<sub>4e0</sub>, H<sub>4f0</sub>, H<sub>4g0</sub> and H<sub>4h0</sub> and expressed as follows:

$$\begin{aligned}
 ETC_i = & \alpha_i + \beta_1 TMPC_i + \beta_2 TMADC_i + \beta_3 EMPC_i + \beta_4 EMADC_i + \beta_5 REL_i \\
 & + \beta_6 TMPC_i^R + \beta_7 TMADC_i^R + \beta_8 EMPC_i^R + \beta_9 EMADC_i^R \\
 & + \beta_{10} Cer_i + \beta_{11} Con_i + \beta_{12} Equ_i \\
 & + \varepsilon
 \end{aligned}
 \tag{11}$$

Where;

The variables remain as described under Eqn 5 and Eqn 10

The apriori of the estimation are as follows:

$\beta_1, \beta_2, \beta_3, \beta_4, \beta_5, \beta_6, \beta_7, \dots$  and  $\beta_{12} > 0$

**Objective five**

The fifth and last objective focuses on the interacting role of media reportage of corruption on the relationship between corruption perception and tax compliance. The study specifies VTC model and ETC model to test the hypotheses emanating from the objective. The VTC model is used to test the following hypotheses:

H<sub>5a0</sub>: There is no significant interacting effect of thematic media reportage of political corruption on the relationship between political corruption perception and voluntary tax compliance in Ghana

H<sub>5b0</sub>: Thematic media reportage of administrative corruption has no significant moderating role on the relationship between administrative corruption perception and voluntary tax compliance in Ghana

H<sub>5c0</sub>: Episodic media reportage of political corruption does not have a significant moderating role on the relationship between political corruption perception and voluntary tax compliance in Ghana

H<sub>5d0</sub>: Episodic media reportage of administrative corruption has no significant moderating role on the relationship between administrative corruption perception and voluntary tax compliance in Ghana

Eqn 12 is specified to test the hypotheses: H<sub>5a0</sub>, H<sub>5b0</sub>, H<sub>5c0</sub> and H<sub>5d0</sub>

$$\begin{aligned}
 VTC_i = & \alpha_i + \beta_1 PC_i + \beta_2 ADC_i + \beta_3 TMPC_i + \beta_4 TMADC_i + \beta_5 EMPC_i \\
 & + \beta_6 EMADC_i + \beta_7 PC_i^{TMPC} + \beta_8 ADC_i^{TMADC} + \beta_9 PC_i^{EMPC} \\
 & + \beta_{10} ADC_i^{EMADC} + \beta_{11} Cer_i + \beta_{12} Con_i + \beta_{13} Equ_i \\
 & + \varepsilon
 \end{aligned}
 \tag{12}$$

where:

$PC^{TMPC}$ ,  $ADC^{TMADC}$ ,  $PC^{EMPC}$ , and  $ADC^{EMADC}$  are PC and ADC moderated by thematic media reportage of political corruption, thematic media reportage of



administrative corruption, episodic media reportage of political corruption and episodic media reportage of administrative corruption.

The rest of the variables remain as described in Eqn 4 and Eqn 6

The apriori of the estimation are as follows:

$$\beta_1, \beta_2, \beta_3, \dots, \beta_{10}, < 0, \beta_{11}, \beta_{12}, \text{ and } \beta_{13} > 0$$

The ETC model is used to test the following hypotheses:

$H_{3e0}$ : Thematic media reportage of political corruption has no significant moderating role on the relationship between political corruption perception and enforced tax compliance in Ghana

$H_{3f0}$ : There is no significant interacting effect of thematic media reportage of administrative corruption on the relationship between administrative corruption perception and enforced tax compliance in Ghana

$H_{3g0}$ : Episodic media reportage of political corruption has no significant interacting effect on political corruption perception and enforced tax compliance in Ghana

$H_{3h0}$ : Episodic media reportage of administrative corruption has no significant interacting effect on administrative corruption perception and enforced tax compliance in Ghana.

The study employs Eqn 13 to test the  $H_{3e0}$ ,  $H_{3f0}$ ,  $H_{3g0}$  and  $H_{3h0}$  and the model expressed as:

$$\begin{aligned} ETC_i = & \alpha_i + \beta_1 PC_i + \beta_2 ADC_i + \beta_3 TMPC_i + \beta_4 TMADC_i + \beta_5 EMPC_i \\ & + \beta_6 EMADC_i + \beta_7 PC_i^{TMPC} + \beta_8 ADC_i^{TMADC} + \beta_9 PC_i^{EMPC} \\ & + \beta_{10} ADC_i^{EMADC} + \beta_{11} Cer_i + \beta_{12} Con_i + \beta_{13} Equ_i \\ & + \varepsilon \end{aligned} \quad (13)$$

where:

The variables remain as described in Eqn 12

The apriori of the estimation are as follows:

$$\beta_1, \beta_2, \beta_3, \beta_4, \beta_5, \dots, \beta_{13} > 0$$

### Chapter Summary

This chapter has discussed the relevant methodologies which are suitable for the focus of the study, research problem, objectives and hypotheses. Post-positivism underpinned the philosophical orientation of the study which is known for fostering broad-based and holistic study with rich findings and objectivity. Consistent with the research paradigm, the quantitative approach and explanatory design has been adopted and discussed. The sample and sampling technique and the bases for the approach have been articulated through a multistage sampling framework. Structural equation model (SEM) operationalised through PLS-SEM had been adopted with the application discussed in this chapter. Smart PLS statistical software is the bases for data entry and analysis. The next chapter would apply these methodologies to test the hypotheses.

## CHAPTER FOUR

### RESULTS AND DISCUSSION OF CORRUPTION PERCEPTION, MEDIA REPORTAGE OF CORRUPTION AND TAX COMPLIANCE

#### Introduction

This study focuses on examining corruption perception, media reportage of corruption, religiosity and tax compliance in Ghana. This chapter presents the data analyses and discussion of the results of the first and second objectives of the study. The first objective reflects the relationship between corruption perception and tax compliance behaviour in Ghana. The second objective focuses on the effect of media reportage of corruption (corruption reportage) and tax compliance. The chapter presents the data analyses, presentation of the results and discussions of the findings emanating from these objectives. The chapter is in two thematic phases. The first phase analyse, present and discuss the results of the first objective. The second phase presents and discusses the results of the second objective. The background data of the respondents is presented followed by the diagnostics test and the main results estimated with the PLS-SEM.

#### Demographic Characteristics of the Respondents

This section of the chapter presents and discusses the background data of the respondents in the data collection process. The study administered a total of 877 questionnaires. However, out of the 887 administered, 755 of them were collated giving a response rate of 85%. The foundational statistics of the respondents (self-employed) as captured in Table 10 were gender,

marital status, level of education, working experience and age. All the participants answered these background questions. Thus, all the 755 questionnaires received and collated responded to gender, marital status, level of education, working experience and age.

**Table 9: Background of Respondents**

| Background data                    | Frequency | Percentage |
|------------------------------------|-----------|------------|
| <b>Gender</b>                      |           |            |
| Male                               | 260       | 34         |
| Female                             | 495       | 66         |
| <b>Marital Status</b>              |           |            |
| Single                             | 220       | 29         |
| Married                            | 476       | 63         |
| Divorce                            | 38        | 5          |
| Widowed                            | 21        | 3          |
| <b>Level of Education</b>          |           |            |
| No Formal Education                | 182       | 24         |
| Up to Secondary level              | 434       | 58         |
| Diploma and Above                  | 139       | 18         |
| <b>Working Experience in Years</b> |           |            |
| Up to 5 years                      | 271       | 36         |
| 6-10 years                         | 347       | 46         |
| 11-20 years                        | 86        | 11         |
| More than 20 Years                 | 51        | 7          |
| <b>Age</b>                         |           |            |
| Up to 30 years                     | 112       | 15         |
| 31-40 years                        | 193       | 26         |
| 41- 50 years                       | 244       | 32         |
| Above 50 years                     | 201       | 27         |

Source: Field Survey (2022)

It can be observed from Table 10 that majority (66%) of respondents were females while males constituted the minority (34%). Specifically, 495 of

the self-employed are females as against 260 male participants. The significant difference in the number of female and male participants in absolute terms suggests that the majority of self-employed in Ghana are females. Additionally, the majority of the self-employed (476) are married representing 63% and 220 of the participants (29%) are single. Thirty-eight (38) of these participants representing 5% are divorced while 21 of them (3%) are widowed. These explain the diversity in the self-employed categories in Ghana.

The greater number (347) of the self-employed have worked for 6 to 10 years representing 46% while a significant number (271), representing 36% have also worked for up to 5 years. 86 of the respondents (11%) have had 11 to 20 years of working experience and finally, and 51 of these respondents (7%) have worked for more than 20 years. With regards to age, it is observed from Table 10 that, only 112 of the self-employed representing 15% are less than 30 years of age. A greater number (434) of the self-employed have gone through formal education up to the secondary level. 139 of the self-employed, 18% have experience of tertiary level education. 182 of the self-employed, representing 24% have never experienced any form of formal education. It can be concluded that the majority of the self-employed in Ghana are literate.

Comparatively, the age group with the highest self-employed is 41 to 50 Years bracket. This age group has a total number of 244 respondents representing 32%, followed by the above 50-year group with the number of 201 (27%). 198 of the respondents are aged 31 to 40 years. This suggests that majority of the self-employed in Ghana are above 30 years.

### Descriptive Statistics

The descriptive characteristics of the variables are presented and explained to understand the nature and the scores level of the variables of interest and vectors of control as generated from the participants' responses.

The results are captured in Table 10.

**Table 10: Descriptive Statistics**

| Latent Variables | Mean  | Median | Std. dev | CoV*  |
|------------------|-------|--------|----------|-------|
| VTC              | 3.652 | 4.000  | 0.880    | 0.241 |
| ETC              | 3.820 | 4.000  | 0.738    | 0.193 |
| PC               | 2.140 | 2.000  | 0.964    | 0.451 |
| ADC              | 2.783 | 2.800  | 1.188    | 0.427 |
| TMPC             | 3.941 | 4.000  | 0.657    | 0.167 |
| TMADC            | 2.352 | 2.000  | 0.678    | 0.287 |
| EMPC             | 4.039 | 4.000  | 0.709    | 0.175 |
| EMADC            | 3.975 | 4.000  | 0.652    | 0.164 |
| REL              | 2.934 | 3.000  | 0.922    | 0.315 |
| CON              | 3.210 | 3.133  | 0.922    | 0.304 |
| CERT             | 3.742 | 3.800  | 0.873    | 0.237 |
| EQU              | 3.867 | 4.000  | 0.628    | 0.163 |

Note: \*CoV denotes coefficient of variation

Source: Field Survey (2022)

It can be observed from Table 10 that the mean score for both voluntary tax compliance (VTC) and the enforced tax compliance (ETC) are relatively high. However, the mean score of ETC is higher than the VTC. Moreover, the standard deviation and coefficient of variation for VTC is higher than the ETC. This suggests that the individual observations or scores

from the respondents have higher deviation for the VTC than the ETC. Thus, in comparison with ETC, VTC is not stable. The relatively lower VTC than ETC may be accounted by some fundamental antecedents of these tax compliance constructs as may be explored in subsequent sections.

Table 10 further provides that administrative corruption (ADC) has a mean value of 2.783 which is higher than political corruption (PC). This should not be misconstrued to mean that political corruption perception is lower than administrative corruption (ADC). The findings should be situated in the context of tax compliance. The taxpayers whose opinions have been reported deal directly with tax officials (administrators of tax compliance) and therefore are more likely to project a high perception in terms of taxation than the political class. This extrapolation is consistent with the coefficient of variation (CoV). Despite the lower mean score and standard deviation of PC, its CoV is higher than ADC. This suggests that there is a high degree of dispersion of the individual responses of taxpayers in respect of PC than the ADC.

Contrary to the corruption constructs, it can be observed that thematic media reportage of political corruption (TMPC) has a higher mean score than the thematic media reportage of administrative corruption (TMADC). This may be attributed to the fact that the media spotlight on corruption is often skewed toward the political class than the administrative officials. This assertion and implication are affirmed by the mean scores of the episodic media reportage of political corruption (EMPC) and the episodic media reportage of administrative corruption (EMADC). EMPC has a higher mean

score than EMADC. The taxpayers' religiosity (REL) has a low mean score while all the control variables are relatively high mean scores.

## **Results and Discussions**

The study follows the structural equation modelling (SEM) using the PLS-SEM method to analyse the two research objectives (Objective one and two). The analysis follows two frameworks: Measurement model assessment and structural model assessment.

### **Corruption perception and tax compliance (CP-TC)**

Having presented the background data, the study proceeds to present and discuss the results of the first objective of the study. This objective seeks to examine the relationship between corruption perception and tax compliance behaviour in Ghana. Under this investigation, corruption is operationalised as political corruption (PC) and administrative corruption (ADC) while tax compliance is conceptualised as voluntary tax compliance (VTC) and enforced tax compliance (ETC). It is important to state that the observed variables for voluntary tax compliance (VTC) are VTC1, VTC2, VTC3, VTC4 and VTC5 while enforced tax compliance (ETC) are ETC1, ETC2, ETC3, and ETC4. Similarly, political corruption (PC) is loaded with five observed variables denoted as PC1, PC2, PC3, PC4 and PC5 while administrative corruption (ADC) is also measured by three observed variables represented by ADC1, ADC2, ADC3, ADC4 and ADC5.

#### ***Measurement model assessment of Corruption perception and tax compliance (CP-TC Model).***

The measurement model primarily seeks to evaluate the extent to which the model specified in the study is supported by the underlying data of



the study (Kang & Ahn, 2021). This makes measurement model evaluation very fundamental in SEM. The criteria for assessing the measurement model are dependent on the type of SEM: Partial Least Square (PLS) or Covariance Based (CB). This study follows PLS-SEM and therefore employs PLS-based measurement criteria. These are indicator reliability, internal consistency, convergent validity and discriminant validity. These criteria are used to assess corruption perception and the tax compliance model (CP-TC Model).

*Indicator reliability, internal consistency and convergent validity of the CP-TC Model*

The indicator reliability criterion is considered the first step in evaluating the measurement model. It measures the extent to which the latent variable explains the variance in each of the associated indicators. The indicator reliability (IR) is, therefore, an indication of the commonality of the indicator and the construct. The mathematical estimation of IR is based on the loading score (i.e. the square of the loading). Generally, IR above 50% is acceptable, however, studies in social science can even be less than 50% (Hair Jr et al, 2020; Hulland, 1999). Secondly, the internal consistency criterion measures the ability of the scale of the observed variables to generate similar results in repeated trials. Studies widely use Cronbach alpha (CA) and the composite reliability test ( $\rho_c$ ) alternatively. As a rule, both indicators must attain a score equal to or above 0.70. However, emerging studies have criticised Cronbach alpha as being too conservative and the composite reliability test ( $\rho_c$ ) as being too liberal (Dijkstra & Henseler, 2015; Hair Jr et al., 2020). To minimise the effect of these limitations on the assessment of the

measurement model, this study employed these tests concurrently as control checks.

The third assessment test of the measurement model is convergent validity. Convergent validity assesses how the constructs or latent variables converge to explain the variance of the observed variables. The study uses the conventional average variance extracted (AVE) to measure the convergent validity. The AVE is the commonality of the latent variable or construct. The acceptable score for AVE is 0.50 (Hair et al 2020). The results have been captured in Table 11.

**Table 11: Indicator reliability, internal consistency and convergent validity (CP-TC Model)**

| Indicators | Loading | IR    | AVE   | CA    | rho_c |
|------------|---------|-------|-------|-------|-------|
| VTC        |         |       | 0.771 | 0.926 | 0.944 |
| VTC1       | 0.882   | 0.778 |       |       |       |
| VTC2       | 0.873   | 0.762 |       |       |       |
| VTC3       | 0.896   | 0.803 |       |       |       |
| VTC4       | 0.852   | 0.726 |       |       |       |
| VTC5       | 0.887   | 0.787 |       |       |       |
| ETC        |         |       | 0.750 | 0.889 | 0.923 |
| ETC1       | 0.853   | 0.728 |       |       |       |
| ETC2       | 0.891   | 0.794 |       |       |       |
| ETC3       | 0.853   | 0.728 |       |       |       |
| ETC4       | 0.867   | 0.752 |       |       |       |
| PC         |         |       | 0.819 | 0.945 | 0.958 |
| PC1        | 0.876   | 0.767 |       |       |       |
| PC2        | 0.909   | 0.826 |       |       |       |
| PC3        | 0.931   | 0.867 |       |       |       |
| PC4        | 0.931   | 0.867 |       |       |       |
| PC5        | 0.877   | 0.769 |       |       |       |
| ADC        |         |       | 0.795 | 0.936 | 0.951 |
| ADC1       | 0.896   | 0.803 |       |       |       |
| ADC2       | 0.916   | 0.839 |       |       |       |
| ADC3       | 0.924   | 0.854 |       |       |       |
| ADC4       | 0.866   | 0.750 |       |       |       |
| ADC5       | 0.854   | 0.729 |       |       |       |
| CON        |         |       | 0.656 | 0.826 | 0.884 |
| CON1       | 0.796   | 0.634 |       |       |       |

|       |       |       |       |       |       |
|-------|-------|-------|-------|-------|-------|
| CON2  | 0.799 | 0.638 |       |       |       |
| CON3  | 0.824 | 0.679 |       |       |       |
| CON4  | 0.82  | 0.672 |       |       |       |
| CERT  |       |       | 0.635 | 0.866 | 0.897 |
| CERT1 | 0.82  | 0.672 |       |       |       |
| CERT2 | 0.845 | 0.714 |       |       |       |
| CERT3 | 0.792 | 0.627 |       |       |       |
| CERT4 | 0.795 | 0.632 |       |       |       |
| CERT5 | 0.728 | 0.530 |       |       |       |
| EQU   |       |       | 0.657 | 0.826 | 0.884 |
| EQU1  | 0.848 | 0.719 |       |       |       |
| EQU2  | 0.823 | 0.677 |       |       |       |
| EQU3  | 0.799 | 0.638 |       |       |       |
| EQU4  | 0.77  | 0.593 |       |       |       |

Source: Field Survey (2022)

It can be observed from the results that all the observed variables exhibit relatively high IRs. All the IR exceed the threshold of 50% (i.e. indicator loading greater than 0.708). Specifically, the range of the IR as captured in Table 11 is  $0.530 \leq IR \leq 0.867$ . The results also show that all the latent variables or constructs have strong internal consistency as evident in the high-reliability scores. All the constructs have reliability scores greater than 0.7 thresholds under both Cronbach alpha and the composite reliability test ( $\rho_c$ ). Again, it is evident in Table 11 that all the latent variables have strong validity scores. The range of the AVE is  $0.635 \leq AVE \leq 0.819$ .

#### *Discriminant validity of the CP-TC Model*

The final measurement assessment criterion is discriminant validity. Discriminant validity assesses the distinctiveness of a construct from other constructs or latent variables in model specification. This study follows the recommended Heterotrait–Monotrait ratio (HTMT) of correlations (Henseler et al., 2015) and cross-loading to evaluate the discriminant validity. The threshold for HTMT is  $< 0.9$ . Thus, the farther away the score is from 1 the

better the distinctiveness. Similar implications apply to the cross-loading. The norm for cross-loading is that an observed variable should load higher on its own latent variable than any other latent variable in the model. Table 12 reports the results of HTMT whereas the output for the cross-loading is shown in Appendix B.

**Table 12: HTMT of CP-TC Model**

| Constructs | ADC   | CERT  | CON   | EQU   | ETC   | PC    |
|------------|-------|-------|-------|-------|-------|-------|
| ADC        |       |       |       |       |       |       |
| CERT       | 0.184 |       |       |       |       |       |
| CON        | 0.277 | 0.160 |       |       |       |       |
| EQU        | 0.059 | 0.262 | 0.151 |       |       |       |
| ETC        | 0.172 | 0.356 | 0.195 | 0.340 |       |       |
| PC         | 0.601 | 0.118 | 0.176 | 0.071 | 0.055 |       |
| VTC        | 0.069 | 0.263 | 0.303 | 0.366 | 0.387 | 0.197 |

Source: Field Survey (2022)

Table 12 shows the statistics of the scores from HTMT. All the statistics fall within the acceptable threshold. The range of the HTMT is  $0.055 \leq \text{HTMT} \leq 0.601$ . This suggests that all the indicators and the constructs attained discriminant validity acceptability scores.

#### ***Structural model assessment of the CP-TC Model***

Having satisfied all the measurement assessment criteria, the study proceeds to interrogate the soundness of the structural specifications. One fundamental reason for assessing the structural model is to avoid or minimise the effect of spurious estimates. As noted earlier, the study follows PLS-SEM throughout the estimation process including criteria for structural model

assessment. The diagnostic tests for the structural model include collinearity, significance and relevance of the structural model, explanatory power and predictive power.

*Path coefficient and significance, VIF,  $f^2$  and  $R^2$  for CP-TC Model*

The collinearity criterion is fundamental for structural fitness. The assumption is that a good structural model should not exhibit a multicollinearity problem. This is sensitivity to PLS-SEM since its path coefficients are based on ordinary least squares (OLS) which may generate spurious coefficients under multicollinearity situations (Sarstedt & Mooi, 2019). The study, therefore, assesses the collinearity situation to determine the fitness of the model specifications to avoid spurious regression and biased estimates. The collinearity is assessed in this study using the Variance inflation factor (VIF). The conclusion criterion is that a VIF score greater than 5 is a symptom of a multicollinearity problem:  $VIF > 5$  (Becker, Ringle, Sarstedt & Völckner, 2015).

Having determined that there is no collinearity problem, the study proceeds to conduct the second diagnostic test. The second structural model diagnostic is the test of the significance and relevance of the model. The significance is built on the standard errors of bootstrapping. The estimates become significant when the p-value is less than 5% and 1% within the confidence interval of 95% and 99% respectively. The 5% and 1% denote significance and strong significance respectively. The coefficients are relevant when they lie between -1 and +1. When the score is closer to -1, it indicates a strong negative relationship and closer to 1 shows a strong positive relationship.

The study proceeds to assess the explanatory power. The explanatory power measures the variance in the endogenous variable attributable to the predictors. It is assessed using the coefficient of determination ( $R^2$ ). The  $R^2$  generally falls between 0 and 1. There is no universal threshold for  $R^2$ , even though some researchers have suggested that the closer the value to 1, the better (Hair et al., 2011). Nevertheless, it has also been acknowledged that an  $R^2$  of about 0.10 is acceptable (Hair et al., 2020) especially when the other pre and post-diagnostics tests support the specifications. The study further conducted a post-diagnostic analysis to determine the importance of the predictors in explaining the observed constructs of the structural model. This is done using the F-square. It has been suggested that F-square is realistic and appropriate when it is greater than zero (0) (Aguinis et al., 2005; Kenny, 2018). The path coefficient, VIF,  $F^2$  and  $R^2$  statistics for the two models (VTC and ETC) are reported in Table 13. The path diagram confirming the path coefficient is also reported in appendix C.

**Table 13: Path coefficient and significance, VIF,  $f^2$ , and  $R^2$  for PC-TC Model**

| Path        | Beta      | Std. dev. | T stat | P values | $f^2$ | VIF   |
|-------------|-----------|-----------|--------|----------|-------|-------|
| PC -> ETC   | 0.107**   | 0.043     | 2.513  | 0.012    | 0.010 | 1.474 |
| PC -> VTC   | -0.208*** | 0.043     | 4.884  | 0.000    | 0.038 | 1.474 |
| ADC -> ETC  | 0.153***  | 0.042     | 3.627  | 0.000    | 0.019 | 1.539 |
| ADC -> VTC  | -0.141*** | 0.043     | 3.306  | 0.001    | 0.017 | 1.539 |
| CERT -> ETC | 0.255***  | 0.034     | 7.503  | 0.000    | 0.074 | 1.087 |
| CERT -> VTC | 0.189***  | 0.040     | 4.782  | 0.000    | 0.042 | 1.087 |
| CON -> ETC  | 0.089**   | 0.036     | 2.461  | 0.014    | 0.009 | 1.085 |

|            |          |       |       |       |       |       |
|------------|----------|-------|-------|-------|-------|-------|
| CON -> VTC | 0.210*** | 0.032 | 6.510 | 0.000 | 0.052 | 1.085 |
| EQU -> ETC | 0.224*** | 0.041 | 5.503 | 0.000 | 0.058 | 1.069 |
| EQU -> VTC | 0.246*** | 0.039 | 6.225 | 0.000 | 0.072 | 1.069 |

|     | $R^2$ | Adj. $R^2$ |
|-----|-------|------------|
| ETC | 0.187 | 0.182      |
| VTC | 0.218 | 0.213      |

Source: Field Survey (2022)

Note: Adj., Std dev., T stats,  $f^2$  and VIF denote adjusted, standard deviation, T statistics, effect size and Variance Inflation Factor. \*\* and \*\*\* denote significance of 5% and 1% respectively.

The results show that all the VIF values are less than the 5 thresholds suggesting that there is no collinearity challenge. The VIF figures produced are  $1.069 \leq VIF \leq 1.539$ . It can be seen from Table 13 that all the predictors including the control variables are significant at 1%, other than PC -> ETC and CON -> ETC which are significant at 5%. The path coefficients and the corresponding p-values in Table 13 support the significance of the model specifications. The magnitude of the path coefficients falls within the threshold of -1 to +1. The range of path coefficients of all predictors exhibits relevance:  $-0.210 \leq PC \leq 0.257$ . The results further show that both VTC and ETC models have satisfactory adjusted  $R^2$  values. The results further show that each of the exogenous variables has a unique contribution to the R-square as each of them has F-square greater than zero (0).

#### *Predictive Power for CP-TC Model*

The next criterion assesses the predictive power of the model. The study follows the Q-square to determine the model's predictive power. The

norm is that a model has predictive power when the Q-square is greater than zero. The results of this analysis have been reported in Table 14.

**Table 14: Predictive Power for CP-TC Model**

| Indicators | Q <sup>2</sup> predict |
|------------|------------------------|
| ETC1       | 0.097                  |
| ETC2       | 0.124                  |
| ETC3       | 0.148                  |
| ETC4       | 0.141                  |
| VTC1       | 0.148                  |
| VTC2       | 0.149                  |
| VTC3       | 0.188                  |
| VTC4       | 0.146                  |
| VTC5       | 0.141                  |

Source: Field Survey (2022)

From Table 14, each of the indicators of the endogenous variable has Q<sup>2</sup> greater than zero (0) suggesting that the model has significant predictive power.

#### **Interpretation and discussions of the results of the CP-TC Model**

From Table 13, the path coefficient of PC to VTC is negative and significant ( $\beta = -0.21$ ,  $p\text{-value} < 0.01$ ). This suggests that political corruption has a significant, but negative influence on the voluntary tax compliance behaviour of taxpayers in Ghana. It further implies that the study rejects the null hypothesis that taxpayers' perception of political corruption has no significant effect on voluntary tax compliance in Ghana. Consequently, it is concluded that political corruption undermines voluntary tax compliance. Specifically, a unit change in the standard deviation of political corruption would lead to about 0.21 decrease in the standard deviation of voluntary tax compliance and vice-versa.

It can further be observed from Table 13 that administrative corruption (ADC) to VTC has a negative and significant path coefficient ( $\beta = -0.14$ ,  $p$ -



*value* < 0.01). Since this path coefficient is significant at 1% (see the *p*-values in Table 13), the study rejects the null hypothesis that taxpayers' perception of administrative corruption does not have a significant effect on voluntary tax compliance in Ghana. This implies that an increase in the standard deviation of administrative corruption would lead to 0.14 point decrease in the standard deviation of voluntary tax compliance in Ghana. The controls also exhibit a significant positive effect on voluntary tax compliance even though the magnitude of the relationship with VTC differs.

Table 13 further present the results of the second model (enforced tax compliance model). The path coefficient of political corruption (PC) to ETC is positive and significant ( $\beta = 0.11$ , *p-value* < 0.01). This coefficient is positive indicating that political corruption has a positive effect on the enforced tax compliance behaviour of taxpayers in Ghana. It means that the null hypothesis that taxpayers' perception of political corruption has no significant effect on enforced tax compliance is rejected. The implication is that political corruption could enhance enforced tax compliance in Ghana. Thus, a unit change in the standard deviation of political corruption would lead to about 0.11 increase in the standard deviation of enforced tax compliance and vice-versa.

Regarding administrative corruption (ADC) to ETC, the path coefficient from Table 13 is positive and significant ( $\beta = 0.15$ , *p-value* < 0.05). The study rejects the null hypothesis that taxpayers' perception of administrative corruption does not have a significant effect on enforced tax compliance in Ghana. This means that holding other factors constant, a change in the standard deviation of administrative corruption would lead to 0.15

increase in the standard deviation of enforced tax compliance in Ghana. The three control variables: certainty (CERT), convenience (CON) and equity (EQU) also exhibited a positive effect on enforced tax compliance.

These findings show that both political corruption and administrative corruption have a significant negative effect on the level of voluntary tax compliance (VTC) in Ghana. These findings are consistent with the study's expectations. Corruption is a disincentive to voluntarily contribute to support state machinery as the citizens may perceive that such voluntary contribution may be misapplied by the government. Thus, taxpayers like all other citizens would rationally be restrained of some sort in paying their taxes knowing that such revenue would be applied for personal gains. Therefore, the negative relationship between corruption perception (political corruption and administrative corruption) reflects the apriori of this study.

The findings support the results and conclusions of some earlier studies (Alon & Hageman, 2013; Amoh & Ali-Nakyea, 2019; Baum et al., 2017; Cheng & Zeng, 2017; Jahnke & Weisser, 2019; Rosid, 2017). Similar to the findings in this study, Alon and Hageman, (2013) also revealed that higher levels of corruption and higher levels of particularized trust (reliance on friends and family) were associated with lower levels of tax compliance. Rosid (2017) also demonstrated that the corruption perception of taxpayers undermines the intention of taxpayers to accurately report their income and influences their attitude and subjective norms toward tax compliance.

The findings also have theoretical implications. One possible reason for the strong negative relationship between corruption perception (political and administrative) and voluntary tax compliance is associated with social

exchange theory (SET). SET suggests that governments can increase tax compliance by providing goods and services that citizens demand in a more efficient and accessible manner (Gobena & Van Dijke, 2016; Gangl, Hofmann & Kirchler, 2015). This implies that taxpayers may feel betrayed when their tax revenues are misapplied through corrupt activities and they may respond to such mistrust by altering their voluntary tax compliance behaviour. Thus, the evidence of the negative corruption-voluntary tax compliance nexus found in this study affirms the proposition of social exchange theory.

Another possible reason for the negative relationship between corruption perception and voluntary tax compliance is that taxpayers' attitude toward tax compliance is positively related to satisfaction with the provision of public goods and services and the application of tax revenue. Corruption is generally considered a disservice to citizens. Therefore, corruption could be considered as a potential breach of the social contract and consequently influences taxpayers' compliance behaviour. Thus, the significant negative effect of corruption perception constructs (political and administrative) on voluntary tax compliance implies that when taxpayers know or perceive that people in important positions engage in corrupt practices associated with revenue mobilisation, the commitment to comply will be weaker and may not be willing to pay their taxes.

Although most taxpayers cannot assess the exact value of what they receive in return for taxes paid, they have general impressions and attitudes concerning their own and others' terms of trade with the government. Perceived corruption at tax payers' level is an impression that they are not receiving desired value from their taxes and according to proponents of SET,

taxpayers may adjust their commitment to the relationship with the government through restraints in the payment of taxes. Thus, the negative response of taxpayers to corruption as found in this study reflects the feelings that such tax payment is unjust and revenue misused. The policy and practical implication of the findings are that tax policy to draw out voluntary tax compliance should integrate micro-level data from taxpayers including their corruption perception dynamics.

The study further demonstrates that, unlike the voluntary tax compliance response, corruption perception (political and administrative) exhibited a positive effect on enforced tax compliance. Although in practice these findings are not expected as corruption is generally viewed as a negative antecedent of tax compliance, the evidence in this study has confirmed the contrary, which is in line with the study expectation. However, this should not be misconstrued that high corruption perception is a positive driver of tax compliance. The results may reflect the government interventions in the face of high corruption perception to drive tax compliance.

There is limited empirical evidence for empirical comparison as most of the existing studies have either used macro-level data with no segregation of corruption and tax compliance sub-constructs which may not reflect actual taxpayers' perceptions (Ali et al 2014; Amoh & Ali-Nakyea, 2019; Baum et al., 2017; Cheng & Zeng, 2017; Jahnke & Weisser, 2019; Nyarkpoh, 2018) or used micro-level data with no tax compliance sub-constructs (Alon & Hageman, 2013; Donchev & Ujhelyi, 2014; Melgar et al., 2010; Rosid, 2017).

However, emerging evidence suggests that tax compliance may be a multi-dimensional construct operationalised as enforced compliance and

voluntary compliance (Da Silva, Guerreiro & Flores, 2019; Inasius, 2019; Slemrod, 2019). Similarly, the current understanding is that corruption is multi-dimensional and each dimension is likely to elicit different responses (UNDP, 2008 and TI, 2015; Brierley, 2020; Rosid, 2017; Ullah, 2022; Villeneuve, Mugellini & Heide, 2020). The implication is that the dynamics of corruption and each dimension of tax compliance (voluntary versus enforced) are likely to differ. The findings from this study have affirmed this intuitive reasoning and assertion.

The findings imply that marrying the different levels of corruption to the multidimensional nature of tax compliance may yield different results from what has generally been documented. Thus, the differences in the evidence about the effect of corruption on voluntary tax compliance at one end and enforced tax compliance at another end deepen the understanding of the relationship between corruption and tax compliance. Consolidating the findings on the corruption perception (political and administrative corruption) and tax compliance (voluntary and enforced tax compliance), the unique contribution of this study is that taxpayers' response to perceived corruption may result in high voluntary non-compliance but may not necessarily alter enforced compliance in the same direction. This evidence provides new insight into the assumption of social exchange theory which traditionally assumes that a breach of mistrust (through corruption) would lead to a negative response from citizens or taxpayers through compliance.

The evidence implies that due to power imbalances and dominance in the social contract, although taxpayers' response to perceived corruption may result in high voluntary non-compliance, this unfavourable response from

taxpayers as a result of perceived corruption may be met with counter-reaction from the government through the evocation of threats and sanctions to compel the citizens to reluctantly comply. This implies that theoretically, enforced compliance may still be positive amid perceived corruption but similar conclusions and inferences cannot be drawn for voluntary tax compliance. Thus, it is useful for both policy and theory to estimate the corruption-tax compliance nexus by operationalising both corruption and tax compliance at different levels of occurrence.

Further theoretical implication of the findings is that segregating tax compliance into its different dimensions and modelling them separately would not only contribute to sound policy formulation but also extend the theoretical implication of the social exchange theory (SET). The extended assumption of power imbalances and dominance of SET, therefore, explains the differences in the effect of corruption on voluntary and enforced compliance (Inasius, 2019; Slemrod, 2019). The evidence from this study shows that the corruption-tax compliance nexus is a complex relationship with the magnitude and direction potentially defined by the operationalisation of the constructs and the actors within the relationship. The current understanding from the findings in this study further provides that corruption and tax compliance have multi-dimensions and each dimension is likely to elicit different responses and exhibit different outcomes.

#### **Media reportage of corruption and tax compliance (*MRC-TC*)**

The previous section presented and discussed the results emanating from the first objective of the study (corruption perception-tax compliance nexus). This section reports, interprets and discusses the results of the second

objective of the study. This objective seeks to assess the relationship between media reportage of corruption and tax compliance behaviour in Ghana. Tax compliance is conceptualised as voluntary tax compliance (VTC) and enforced tax compliance (ETC). Media reportage of corruption has been measured as: thematic media reportage of political corruption (TMPC), thematic media reportage of administrative corruption (TMADC), episodic media reportage of political corruption (EMPC) and episodic media reportage of administrative corruption (EMADC).

The observed variables for voluntary tax compliance (VTC) are VTC1, VTC2, VTC3, VTC4 and VTC5 while enforced tax compliance (ETC) are ETC1, ETC2, ETC3, and ETC4. Similarly, thematic media reportage of political corruption (TMPC) is also loaded with five observed variables denoted as TMPC1, TMPC2, TMPC3, TMPC4 and TMPC5 while thematic media reportage of administrative corruption (TMADC) is also measured by four observed variables represented by TMADC1, TMADC2, TMADC3 and TMADC4. The control variables are loaded on their respective observed variables. Certainty is loaded on five observed variables (CERT1 to CERT5), convenience is loaded on four observed variables (CON1 to CON4) and equity is also loaded on four observed variables (EQU1 to EQU4).

***Measurement model assessment of media reportage of corruption and tax compliance (MRC-TC)***

Similar to the pre-diagnostic tests conducted under the first objective, four assessment tests are conducted on the measurement models. The measurement assessment criteria are indicator reliability, internal consistency,

convergent validity and discriminant validity. These diagnostics tests are conducted on the MRC-TC model.

*Indicator reliability, internal consistency and convergent validity of the MRC-TC model*

The indicator reliability (IR) criterion is assessed to determine the appropriateness of each observed variable in measuring the associated construct. It shows how the latent variable or the construct explains the variance in each of the corresponding indicators. Mathematically, the IR is estimated based on the loading score (i.e. the square of the loading). The general rule is that the IR value is acceptable when it is greater than 50%. Assessment of internal consistency is the second diagnostic test to determine the soundness of the measurement model. This criterion measures the ability of the indicators measuring the construct to produce similar scores under repeated trials.

Similar to the assessment under the first objective, the study employs Cronbach alpha (C.A) and the composite reliability test ( $\rho_c$ ) to conduct the test. The acceptability criteria is for both Cronbach alpha and the composite reliability test ( $\rho_c$ ) to attain a minimum score of 0.70. The third diagnostic test for assessing the measurement model is convergent validity. Convergent validity measures the extent to which the constructs or latent variables converge to explain the variance of the observed variables. The average variance extracted (AVE) is used in this study to measure the convergent validity. The acceptable score for AVE is 0.50 (Hair et al 2020). These composite results have been reported in Table 15.



**Table 15: Indicator reliability, internal consistency and convergent validity of MRC-TC**

| Indicators | Loading | IR    | AVE   | CA    | rho_c |
|------------|---------|-------|-------|-------|-------|
| VTC        |         |       | 0.771 | 0.926 | 0.944 |
| VTC1       | 0.882   | 0.778 |       |       |       |
| VTC2       | 0.873   | 0.762 |       |       |       |
| VTC3       | 0.896   | 0.803 |       |       |       |
| VTC4       | 0.852   | 0.726 |       |       |       |
| VTC5       | 0.887   | 0.787 |       |       |       |
| ETC        |         |       | 0.751 | 0.889 | 0.923 |
| ETC1       | 0.853   | 0.728 |       |       |       |
| ETC2       | 0.891   | 0.794 |       |       |       |
| ETC3       | 0.853   | 0.728 |       |       |       |
| ETC4       | 0.867   | 0.752 |       |       |       |
| TMPC       |         |       | 0.756 | 0.838 | 0.903 |
| TMPC1      | 0.862   | 0.743 |       |       |       |
| TMPC2      | 0.844   | 0.712 |       |       |       |
| TMPC3      | 0.901   | 0.812 |       |       |       |
| TMADC      |         |       | 0.722 | 0.868 | 0.911 |
| TMADC1     | 0.890   | 0.792 |       |       |       |
| TMADC2     | 0.924   | 0.854 |       |       |       |
| TMADC3     | 0.848   | 0.719 |       |       |       |
| TMADC4     | 0.722   | 0.521 |       |       |       |
| EMPC       |         |       | 0.775 | 0.903 | 0.932 |
| EMPC1      | 0.882   | 0.778 |       |       |       |
| EMPC2      | 0.904   | 0.817 |       |       |       |
| EMPC3      | 0.887   | 0.787 |       |       |       |
| EMPC4      | 0.847   | 0.717 |       |       |       |
| EMADC      |         |       | 0.678 | 0.841 | 0.894 |
| EMADC1     | 0.833   | 0.694 |       |       |       |
| EMADC2     | 0.811   | 0.658 |       |       |       |
| EMADC3     | 0.828   | 0.686 |       |       |       |
| EMADC4     | 0.820   | 0.672 |       |       |       |
| CON        |         |       | 0.656 | 0.826 | 0.884 |
| CON1       | 0.796   | 0.634 |       |       |       |
| CON2       | 0.799   | 0.638 |       |       |       |
| CON3       | 0.824   | 0.679 |       |       |       |
| CON4       | 0.820   | 0.672 |       |       |       |
| CERT       |         |       | 0.635 | 0.866 | 0.897 |
| CERT1      | 0.820   | 0.672 |       |       |       |
| CERT2      | 0.845   | 0.714 |       |       |       |
| CERT3      | 0.792   | 0.627 |       |       |       |
| CERT4      | 0.795   | 0.632 |       |       |       |
| CERT5      | 0.728   | 0.530 |       |       |       |
| EQU        |         |       | 0.657 | 0.826 | 0.884 |
| EQU1       | 0.848   | 0.719 |       |       |       |
| EQU2       | 0.823   | 0.677 |       |       |       |
| EQU3       | 0.799   | 0.638 |       |       |       |
| EQU4       | 0.770   | 0.593 |       |       |       |

Source: Field Survey (2022)

The results show that all the observed variables attain reliable indicator score marks. Specifically, all the IR values are greater than the 50% threshold (i.e. indicator loading greater than 0.708). The IR range for the measurement model in Table 16 is  $0.530 \leq IR < 0.854$ . The results from the table indicate strong internal consistency for all the constructs. All the constructs have reliability scores greater than 0.7 thresholds under both Cronbach alpha and the composite reliability test ( $\rho_c$ ). It can be observed from the statistics in Table 15 that the constructs have strong convergent validity as exhibited by the relatively high AVE scores. The AVE values in Table 15 have a range of:  $0.635 \leq AVE \leq 0.775$ .

#### *Discriminant validity of the MRC-CT Model*

Another foundational assumption to test as part of the measurement model evaluation is the discriminant validity. The study employs Heterotrait–Monotrait ratio (HTMT) of correlations (Henseler et al., 2015) and cross-loading to evaluate the discriminant validity. The HTMT values range between 0 and 1. The closer the score to zero the better the distinctiveness. Regarding cross-loading, the assessment norm is that an observed variable should load higher on its own latent variable than any other latent variable in the model. The result has been captured in Table 16 for HTMT but the cross-loading statistics are presented in Appendix B.

**Table 16: HTMT (MRC-TC Model)**

| Constructs | CERT  | CON   | EMADC | EMPC  | EQU | ETC | TMADC | TMPC |
|------------|-------|-------|-------|-------|-----|-----|-------|------|
| CON        | 0.160 |       |       |       |     |     |       |      |
| EMADC      | 0.321 | 0.313 |       |       |     |     |       |      |
| EMPC       | 0.309 | 0.286 | 0.550 |       |     |     |       |      |
| EQU        | 0.262 | 0.151 | 0.432 | 0.482 |     |     |       |      |

|       |       |       |       |       |       |       |             |
|-------|-------|-------|-------|-------|-------|-------|-------------|
| ETC   | 0.356 | 0.195 | 0.707 | 0.532 | 0.340 |       |             |
| TMADC | 0.056 | 0.229 | 0.098 | 0.156 | 0.088 | 0.064 |             |
| TMPC  | 0.417 | 0.352 | 0.439 | 0.627 | 0.439 | 0.475 | 0.112       |
| VTC   | 0.263 | 0.303 | 0.506 | 0.481 | 0.366 | 0.387 | 0.230 0.469 |

Source: Field Survey (2022)

The HTMT results in Table 16 also support the conclusion that the constructs meet the discriminant validity test. All the HMTM statistics are consistent with the threshold. The range of the HTMT is  $0.056 \leq \text{HTMT} \leq 0.627$ . This suggests that all the indicators and constructs attain discriminant validity.

***Structural model assessment - media reportage of corruption and tax compliance (MRC-TC Model)***

Having confirmed the appropriateness of the measurement model, the study assesses the structural specifications to determine the suitability of the structural model to test the hypotheses. The study follows the structural model evaluation criteria in PLS-SEM for the diagnostic tests. The foundational criteria to test are collinearity, significance and relevance of structural model, explanatory and predictive power.

***Path coefficient and significance, VIF,  $f^2$  and  $R^2$  for MRC-TC Model***

The collinearity test is fundamental for assessing structural fitness. The collinearity diagnostic test is based on the variance inflation factor (VIF). The assumption is that the model specification is robust when there is no collinearity problem. It has been recommended that when the VIF score is not greater than 5, then, it is safe to assume that there is no serious multicollinearity problem (Becker, Ringle, Sarstedt, & Völckner, 2015). The study further tests the assumption of significance and relevance of the model to provide reasonable assurance of the estimates generated from the model. It

is assumed that the model has significance when the variables of interest have significant coefficients defined in terms of 1% and 5% significant levels for strong significance and moderate significance respectively. The relevance of the model is also assessed on magnitude between -1 and +1. When the path coefficients fall within this threshold (-1 and +1), then, the model is assumed to be relevant.

The goodness of the structural model is also exhibited in the explanatory power. The study assesses the explanatory power using the coefficient of determination of adjusted  $R^2$ . The adjusted  $R^2$  generally falls between 0 and 1. It is acknowledged that an  $R^2$  of about 10% is acceptable (Hair et al, 2020) especially when the other pre and post-diagnostics tests support the specifications. The study follows this threshold to evaluate the explanatory power of the model. The importance of the predictors in explaining the observed constructs of the structural model is evaluated. This is done using the F-square. It has been suggested that F-square is realistic and appropriate when it is greater than zero (0) (Aguinis et al., 2005; Kenny, 2018). These results are presented in Table 17. However, the path diagram is presented in Appendix 3.

**Table 17: Path coefficient and significance, VIF,  $f^2$  and  $R^2$  for MRC-TC Model**

| Path        | Beta    | Std. dev. | T stats | P values | $f^2$ | VIF   |
|-------------|---------|-----------|---------|----------|-------|-------|
| CERT -> ETC | 0.094** | 0.038     | 2.476   | 0.013    | 0.013 | 1.231 |
| CERT -> VTC | 0.062   | 0.040     | 1.55    | 0.121    | 0.005 | 1.231 |
| CON -> ETC  | -0.033  | 0.031     | 1.08    | 0.280    | 0.002 | 1.170 |
| CON -> VTC  | 0.074** | 0.033     | 2.22    | 0.026    | 0.007 | 1.170 |

|              |           |       |       |       |       |       |
|--------------|-----------|-------|-------|-------|-------|-------|
| EMADC -> ETC | 0.468***  | 0.052 | 9.019 | 0.000 | 0.275 | 1.436 |
| EMADC -> VTC | 0.235***  | 0.041 | 5.743 | 0.000 | 0.057 | 1.436 |
| EMPC -> ETC  | 0.181***  | 0.042 | 4.345 | 0.000 | 0.034 | 1.727 |
| EMPC -> VTC  | 0.158***  | 0.047 | 3.352 | 0.001 | 0.022 | 1.727 |
| EQU -> ETC   | -0.008    | 0.047 | 0.162 | 0.871 | 0.001 | 1.295 |
| EQU -> VTC   | 0.084**   | 0.041 | 2.064 | 0.039 | 0.008 | 1.295 |
| TMADC -> ETC | 0.060**   | 0.029 | 2.056 | 0.040 | 0.006 | 1.049 |
| TMADC -> VTC | -0.130*** | 0.041 | 3.147 | 0.002 | 0.024 | 1.049 |
| TMPC -> ETC  | 0.120**   | 0.050 | 2.417 | 0.016 | 0.016 | 1.643 |
| TMPC -> VTC  | -0.153*** | 0.051 | 3.019 | 0.003 | 0.021 | 1.643 |

|     | $R^2$ | Adj. $R^2$ |
|-----|-------|------------|
| ETC | 0.445 | 0.440      |
| VTC | 0.329 | 0.323      |

Source: Field Survey (2022)

Note: Adj., VIF denote adjusted, and Variance Inflation Factor. \*\* and \*\*\* denote significance of 5% and 1% respectively.

From Table 17 the results show that all the VIF values are less than the threshold of 5 suggesting that there is no collinearity challenge. The range of the VIF is  $1.049 \leq VIF \leq 1.727$ . The path coefficients in Table 17 suggest that all the predictors (variables of interest) including the control variables are significant except CERT -> VTC, CON -> ETC and EQU -> ETC. The range of path coefficients of all predictors exhibit relevance:  $-0.210 \leq PC \leq 0.257$ . . The statistics from table 17 further show that the two models: VTC and ETC have satisfactory adjusted  $R^2$  values. The closeness to either extreme end indicates the extent of the relevance of the coefficient. The results further

show that each of the predictors has a unique contribution to the R-square as each of them has F-square greater than zero

#### *Predictive power of MRC-TC Model*

The final criterion used to assess the soundness of the structural specifications is the predictive power of the model. The q-square test is used in this study to determine the model's predictive power. The model is assumed to have predictive power when the Q-square is greater than zero. The Q-square test statistics are captured in Table 18.

**Table 18: Predictive Power (MRC-TC Model)**

| Indicators | Q <sup>2</sup> predict |
|------------|------------------------|
| ETC1       | 0.301                  |
| ETC2       | 0.326                  |
| ETC3       | 0.313                  |
| ETC4       | 0.339                  |
| VTC1       | 0.210                  |
| VTC2       | 0.243                  |
| VTC3       | 0.274                  |
| VTC4       | 0.228                  |
| VTC5       | 0.229                  |

Source: Field Survey (2022)

It can be seen from Table 18 that all the Q-square values are greater than zero suggesting that the model has predictive power.

#### **Interpretation and discussions of the results MRC-TC model**

The path coefficients and significance as shown in Table 17 indicate that TMPC ( $\beta = -0.15$ ,  $p$ -value  $< 0.05$ ) and TMADC ( $\beta = -0.13$ ,  $p$ -value  $< 0.05$ ) have a negative influence on voluntary tax compliance. This means that the null hypotheses that thematic media reportage of political corruption and administrative corruption have no significant effect on voluntary tax compliance are rejected. The implication is that thematic media reportage of political corruption and administrative corruption could undermine the level of

voluntary tax compliance in Ghana. Thus, a unit increase in thematic media reportage of political corruption would lead to about 0.15 decrease in voluntary tax compliance, all other things being equal. Furthermore, holding other factors constant, a unit increase in thematic media reportage of administrative corruption would lead to about 0.13 decrease in voluntary tax compliance.

The voluntary tax compliance model further captures the testing hypotheses of episodic media reportage of corruption and voluntary tax compliance. The path coefficients of the VTC model depicted in Table 17 show that EMPC ( $\beta = 0.16$ ,  $p\text{-value} < 0.05$ ) and EMADC ( $\beta = 0.23$ ,  $p\text{-value} < 0.05$ ) have a positive and significant effect on VTC. The study, therefore, rejects the null hypothesis that episodic media reportage of political corruption and administrative corruption do not have a significant influence on voluntary tax compliance behaviour in Ghana. This implies that episodic media reportage of political corruption and administrative corruption could improve voluntary tax compliance behaviour in Ghana. All other things being equal, a unit increase in episodic media reportage of political corruption could lead to 0.16 increase in voluntary tax compliance. On the other hand, when there is a unit decrease in episodic media reportage of administrative corruption, it would lead to a 0.23 increase in voluntary tax compliance, all other things being equal.

Table 17 further presents the results of the second model (enforced tax compliance model). It can be observed from the structural model (ETC model) in Table 17 that the path coefficient for TMPC ( $\beta = 0.12$ ,  $p\text{-value} < 0.05$ ) and TMADC ( $\beta = 0.06$ ,  $p\text{-value} < 0.05$ ) have positive significant effects on ETC.

These findings specifically imply that the study rejects the two related null hypotheses that thematic media reportage of political corruption and administrative corruption have no significant effects on enforced tax compliance in Ghana. Consequently, it is concluded that thematic media reportage of political corruption and administrative corruption positively influence enforced tax compliance. Thus, holding other factors constant, a unit increase in thematic political corruption would lead to about 0.12 increase in the level of enforced tax compliance and vice-versa. Moreover, all other things being equal, a unit increase in media reportage of administrative corruption would lead to 0.06 increase in enforced tax compliance in Ghana.

The causal relationship between episodic media reportage of corruption and enforced tax compliance is also presented in Table 27. The path coefficients of EMPC ( $\beta = 0.18$ ,  $p\text{-value} < 0.05$ ) and EMADC ( $\beta = 0.47$ ,  $p\text{-value} < 0.05$ ) also have a positive and significant influence on enforced tax compliance. This means that the null hypotheses that episodic media reportage of political corruption and administrative corruption have no significant influence on enforced tax compliance behaviour in Ghana are rejected. The implication is that episodic media reportage of political corruption and administrative corruption are significant drivers of enforced tax compliance. Thus, holding other factors constant, a unit increase in the level of episodic media reportage of political corruption would lead to about 0.18 improvement in enforced tax compliance and vice-versa. Again, holding other factors constant, an improved episodic media reportage of administrative corruption would lead to 0.47 increase in enforced tax compliance in Ghana and vice-versa.



Overall these findings have strong implications and significance. The findings partly meet the study expectation and are partly inconsistent with the study apriori. The study expected episodic media reportage of political corruption and episodic media reportage of administrative corruption to have a negative effect on voluntary tax compliance and a positive one on enforced tax compliance. This expectation is affirmed by the empirical findings in this study in respect of enforced tax compliance. However, the positive effect of episodic media reportage on voluntary tax compliance found in this study is contrary to the study's expectations.

In the tax empirical literature, the findings are surprising as the general conclusion does not support the positive effect of media reportage of corruption on tax compliance (Chen, Power & Stomberg, 2015; Kaspera et al., 2014; Miloš et al., 2020). The general assertion is that media reportage of corruption could undermine tax compliance through high corruption perception. The findings in this study present novel evidence suggesting that the nature and direction of the effect of media reportage of corruption on tax compliance may be dependent on media framing either thematic or episodic media reportage of corruption.

These unique contributions have strong theoretical implications. The findings extend the social exchange theory (SET) to media reportage and tax compliance nexus. One foundational criticism of the traditional assumptions of SET is that despite the wide support for the framework of social exchange, the specific transmission mechanisms to explain the social exchanges are currently not clear and its operations are ridden with theoretical ambiguities, structural challenges and methodological problems (Coyle-Shapiro &

Conway, 2004). This is partly due to the narrow approach adopted, which usually concentrates on strict contribution-inducement and breach-reaction exchanges often measured through strictly defined correlations.

The findings have expanded the theoretical implication of SET suggesting that social contract is not altered strictly by contribution-inducement and breach-reaction exchanges but also by the situational cues of such breaches and contributions. It is evident that when government and the media landscape continue to project corruption as a personalized problem rather than the societal systemic problem and respond appropriately in dealing with the perpetrators, taxpayers would still react positively despite the apparent breach. Thus, post-breach interventions are as potent as the prevention of breaches in the social exchanges as found in this study.

Regarding the thematic media reportage of corruption and tax compliance, the findings have shown that thematic media reportage of corruption (thematic media reportage of political corruption and administrative corruption) has a significant negative influence on the level of voluntary tax compliance in Ghana. The implication is that an increase in the standard deviation of the dynamics of thematic media reportage of corruption could decrease the standard deviation of voluntary tax compliance. These findings affirm the study's apriori to the effect that when media framing portrays corruption as a general societal problem with no apparent solution in sight (thematic media reportage), taxpayers may also take an entrenched negative attitude toward voluntary compliance. This assertion and expectation reflect the findings drawn from this study.

The study revealed further that thematic media reportage of corruption (political and administrative) has a positive significant influence on enforced tax compliance. This suggests that a unit increase in the dynamics of thematic media reportage of corruption would lead to an increase in enforced tax compliance and vice-versa. The results and conclusions also have empirical relevance. For instance, although the study of Chen, Power and Stomberg (2015) did not introduce news framing, they concluded a significant relationship between news and tax compliance. The findings in this study support other prior studies (Kasper et al., 2014; Kneafsey & Regan, 2020).

Similar to the findings in this study, Kneafsey and Regan (2020) found that media framing plays a significant role in shaping citizens' attitudes. However, the findings contradict some other empirical evidence (Chen, Power & Stomberg, 2015; Milos et al., 2020). The findings disaffirm the earlier conclusions drawn by Milos et al. (2020), one of the closest studies to this current study. Milos et al. (2020) introduced media framing by segregating news frames into negative, positive and unbiased news. It was found that those taxpayers who were exposed to the positive news exhibited significantly more tax compliance behaviour than the control group. The study further revealed that taxpayers' exposure to negative news, does not prompt any significant response in comparison to the neutral condition.

Despite the inconclusiveness in the empirical comparison, the findings have strong theoretical implications. The findings extend the implication of social exchange theory (SET) to media reportage and tax compliance nexus. Following the tenets of SET, the prevalence of reportage of corruption cases may be viewed by the citizens as mistrust and contractual breach arising from

misuse of their taxes (Luttmer & Singhal, 2014). This breach might have deepened the taxpayers' corruption perception and therefore, the negative effect on voluntary tax compliance is seen as the natural reaction of taxpayers in altering their social engagements with the state in a form of exhibiting negative compliance behaviour. Thus, the nature and direction of media reportage of corruption may be antecedents for explaining the dynamics of Government-Citizenry social exchange engagements.

Further implications of the findings relate to the thematic media reportage of corruption and enforced tax compliance nexus. The positive significant relationship found between thematic media reportage of corruption and enforced tax compliance integrates the assumption of power imbalances and dominance force into the framework of social exchange theory in explaining the government-citizenry relationship. Drawing from the assumption of power imbalances and dominant force incorporated into social exchange theory (SET), the government could still force taxpayers to comply even under an atmosphere of high thematic media reportage of corruption. This extension is affirmed by the empirical evidence found in this study (thematic media reportage of corruption-enforced tax compliance nexus). Thus, even when taxpayers take entrenched non-compliant positions in the face of thematic media reportage of corruption, the government could evoke its power of sanction to still coerce taxpayers to comply albeit reluctantly.

The findings further provide evidence about the nature and direction of the relationship between episodic media reportage of corruption and tax compliance. The evidence shows that both episodic media reportage of political corruption and episodic media reportage of administrative corruption

have a significant positive effect on the level of compliance (voluntary tax compliance and enforced tax compliance) in Ghana. The findings imply that holding other factors constant, a unit increase in the standard deviation of the episodic media reportage of corruption could increase the standard deviation of tax compliance.

The findings further affirm the significance of framing effect theory and the contribution of minimising or amplifying the consequence of negative occurrence. The Framing Effect Theory (FET) suggests that how news is presented to the audience (called the frame) influences the choices people make about how to process that information (Tewksbury & Scheufele, 2009). This theoretical assumption supports the findings in this study. Overall, the findings in this study have demonstrated that when the media uses thematic media framing, it could activate negative reactions and cause the taxpayers to readjust their compliance consistent with the news (i.e. exhibiting negative tax compliance behaviour). On the other hand, an improved reportage through episodic framing could lead to what Fiske (1982) described as positive 'schema triggered effect' or inference from positive cognitive (Fevyer & Aldred, 2020; Peeters, 1991) which results in a positive outcome (i.e. positive tax compliance behaviour).

Another implication of the findings is that recipients of media reports (thematic and episodic frame) adapt their attitude in tandem with the news framing. The evidence supports the general assumption that recipients of news about an event would ordinarily change their attitudes based on new arguments or directions introduced by the media (Boukes, 2021; Fevyer & Aldred, 2020).

These findings have crystallised the assertion that choices that people make in connection to tax payment or compliance are indeed linked to the nature of the media report. Thus, if media reports paint the government and its officials as corrupt, the news may evoke feelings to resist the desire to pay taxes. However, when media reports portray the government as less corrupt and or convey news about government interventions and policies to tackle corruption and positive results from the fight against corruption including sanctions, taxpayers would have a positive view of the use of their tax revenues and may translate into high tax paying culture.

The findings show that media framing is fundamental in improving tax compliance in Ghana. This implies that the findings have extended the relevance of the framing effect theory within the framework of tax compliance. The negative effect of thematic media reportage of corruption (political and administrative corruption) on voluntary tax compliance suggests that when the framing is skewed toward the fact that corruption is a deep-seated societal problem with systematic evidence of the widespread outcomes and the statistical trends (thematic), the taxpayers may feel that no matter what, their contribution would be misapplied and therefore seek an alternative remedy to avoid tax compliance (voluntary). Thus, thematic media reportage of corruption undermines voluntary tax compliance.

Conversely, when the framing highlights specific sanctions and penalties meted out to perpetrators of corruption and isolated positive outcomes (episodic framing), taxpayers would still exhibit high tax compliance behaviour (voluntary and enforced). Thus, this study has demonstrated the relevance of media reportage and framing in achieving high tax compliance

culture. The media framing should therefore be integrated as part of the overall tax compliance strategies.

### Chapter Summary

This chapter presented and discussed the model frameworks, the prior diagnostics, and the results. The chapter discussed the results of the first two objectives of the study: corruption and tax corruption and media reportage of corruption and tax compliance. The results were presented in Tables and Figures. The goodness-of-fit indices of all the models were reported and discussed. The measurement models were all evaluated including the structural models. The study revealed that corruption perception has a significant influence on tax compliance, however, the nature and direction of the effect are dependent on the type of corruption perception (political and administrative corruption) and the tax compliance (voluntary tax compliance and enforced tax compliance).

The chapter also demonstrated that media reportage of corruption is an important antecedent to tax compliance. However, the nature of media framing is a major determinant of the direction of the media reportage-tax compliance nexus. The chapter explained the theoretical implications of all the findings and how they are situated within the empirical literature. The next chapter presents and discusses the results of the remaining objectives.

## CHAPTER FIVE

### RESULTS AND DISCUSSION OF MODERATING TERMS: RELIGIOSITY AND MEDIA REPORTAGE OF CORRUPTION

#### Introduction

This chapter presents and discusses the results of three objectives of the study which emphasise the moderating effect of religiosity and media reportage of corruption. The first phase of the analyses and discussions focus on the moderating role of taxpayers' religiosity in the relationship between corruption perception and tax compliance behaviour in Ghana. The second theme involves the moderating role of taxpayers' religiosity in the relationship between media reportage and tax compliance behaviour in Ghana. The chapter concludes by presenting and discussing the results of the moderating effect of media reportage and religiosity on the relationship between corruption perception and tax compliance behaviour in Ghana. The results are presented in Tables and Diagrams. The background data of the respondents have already been analysed, presented and discussed in the previous chapter. The results of the three objectives were estimated using the PLS-SEM.

#### Results and Discussions

##### Corruption perception and tax compliance: moderating role of religiosity

This section of the chapter focuses on the third objective which seeks to examine the moderating role of taxpayers' religiosity in the relationship between corruption perception and tax compliance behaviour in Ghana. Similar to the specifications and analyses in the preceding chapter, the proxies for corruption is political corruption (PC) and administrative corruption



(ADC) while the proxies for tax compliance are voluntary tax compliance (VTC) and enforced tax compliance (ETC). The interacting term (religiosity) is measured on a unit scale.

These constructs and the corresponding proxies are used to develop the models. Voluntary tax compliance (VTC) is measured by five (5) observed variables: VTC1, VTC2, VTC3, VTC4 and VTC5 while enforced tax compliance (ETC) is also measured by four (4) observed variables: ETC1, ETC2, ETC3, and ETC4. Five (5) observed variables are also used to measure political corruption (PC): PC1, PC2, PC3, PC4 and PC5 while administrative corruption (ADC) is also measured by three observed variables represented by ADC1, ADC2, ADC3, ADC4 and ADC5. Religiosity (REL) is also loaded by five observed variables, denoted as REL1, REL2, REL3, REL4 and REL5.

The control variables are loaded on their respective observed variables. Certainty is loaded on five observed variables (CERT1 to CERT5), convenience is loaded on four observed variables (CON1 to CON4) and equity is also loaded on four observed variables (EQU1 to EQU4). These proxies are integrated into the structural specifications for the model of corruption perception and tax Compliance relationship moderated by religiosity (CP-TC Model<sup>R</sup>)

#### ***Measurement model assessment (CP-TC Model<sup>R</sup>)***

Measurement assessment evaluates the suitability of the measurement model for the underlying data of the study (Kang & Ahn, 2021). This makes measurement model evaluation important in PLE-SEM. The fundamental criteria for these diagnostics are indicator reliability, internal consistency,

convergent validity and discriminant validity. These criteria are used to assess the CP-TC Model<sup>R</sup>.

*Indicator reliability, internal consistency and convergent validity of CP-TC Model<sup>R</sup>*

The first diagnostic test is to determine the indicator reliability of the observed variables in the measurement model. Indicator reliability (IR) assesses the magnitude of the variance emerging from the relationship between a latent variable and each of the corresponding observed variables. The IR is estimated as the square of the loading of the observed variable on the latent variable. IR greater than 50% is considered appropriate and acceptable (Hair et al., 2020; Hulland, 1999).

A further diagnostic test is conducted on the internal consistency of the observed variables in measuring the latent variable through repeated trials. The study follows the widely used Cronbach alpha and the composite reliability test ( $\rho_c$ ) to assess internal consistency (Dijkstra & Henseler, 2015; Hair et al. 2020). The acceptable score is for both the Cronbach alpha and the composite reliability test ( $\rho_c$ ) to attain at least 0.7 marks. The study also conducts a diagnostic test on convergent validity to determine how a latent variable converges to explain the variance of the observed variables. This diagnostic test is based on the conventional average variance extracted (AVE). The AVE is the commonality of the latent variable or construct. The acceptable score for AVE is 0.50 (Hair et al., 2020). Table 19 presents the results of the indicator reliability, internal consistency and convergent validity analyses.

**Table 19: Indicator reliability, internal consistency and convergent validity of CP-TC Model<sup>R</sup>**

| Indicators | Loading | Indicator Reliability | AVE   | CA    | rho_c |
|------------|---------|-----------------------|-------|-------|-------|
| VTC        |         |                       | 0.771 | 0.926 | 0.944 |
| VTC1       | 0.882   | 0.778                 |       |       |       |
| VTC2       | 0.873   | 0.762                 |       |       |       |
| VTC3       | 0.896   | 0.803                 |       |       |       |
| VTC4       | 0.852   | 0.726                 |       |       |       |
| VTC5       | 0.887   | 0.787                 |       |       |       |
| ETC        |         |                       | 0.750 | 0.889 | 0.923 |
| ETC1       | 0.853   | 0.728                 |       |       |       |
| ETC2       | 0.891   | 0.794                 |       |       |       |
| ETC3       | 0.853   | 0.728                 |       |       |       |
| ETC4       | 0.867   | 0.752                 |       |       |       |
| PC         |         |                       | 0.819 | 0.945 | 0.958 |
| PC1        | 0.876   | 0.767                 |       |       |       |
| PC2        | 0.909   | 0.826                 |       |       |       |
| PC3        | 0.931   | 0.867                 |       |       |       |
| PC4        | 0.931   | 0.867                 |       |       |       |
| PC5        | 0.877   | 0.769                 |       |       |       |
| ADC        |         |                       | 0.795 | 0.936 | 0.951 |
| ADC1       | 0.896   | 0.803                 |       |       |       |
| ADC2       | 0.916   | 0.839                 |       |       |       |
| ADC3       | 0.924   | 0.854                 |       |       |       |
| ADC4       | 0.866   | 0.750                 |       |       |       |
| ADC5       | 0.854   | 0.729                 |       |       |       |
| REL        |         |                       | 0.715 | 0.900 | 0.926 |
| REL1       | 0.863   | 0.745                 |       |       |       |
| REL2       | 0.812   | 0.659                 |       |       |       |
| REL3       | 0.820   | 0.672                 |       |       |       |
| REL4       | 0.862   | 0.743                 |       |       |       |
| REL5       | 0.868   | 0.753                 |       |       |       |
| CON        |         |                       | 0.656 | 0.826 | 0.884 |
| CON1       | 0.796   | 0.634                 |       |       |       |
| CON2       | 0.799   | 0.638                 |       |       |       |
| CON3       | 0.824   | 0.679                 |       |       |       |
| CON4       | 0.820   | 0.672                 |       |       |       |
| CERT       |         |                       | 0.635 | 0.866 | 0.897 |
| CERT1      | 0.820   | 0.672                 |       |       |       |
| CERT2      | 0.845   | 0.714                 |       |       |       |
| CERT3      | 0.792   | 0.627                 |       |       |       |
| CERT4      | 0.795   | 0.632                 |       |       |       |
| CERT5      | 0.728   | 0.530                 |       |       |       |
| EQU        |         |                       | 0.657 | 0.826 | 0.884 |
| EQU1       | 0.848   | 0.719                 |       |       |       |
| EQU2       | 0.823   | 0.677                 |       |       |       |
| EQU3       | 0.799   | 0.638                 |       |       |       |
| EQU4       | 0.770   | 0.593                 |       |       |       |

Source: Field Survey (2022)

All the observed variables exhibit relatively high IRs in Table 19. The IR of all the observed variables exceeds the 50% threshold (i.e. indicator loading greater than 0.708). The range of IR for the assessed variables is  $0.593 \leq IR \leq 0.867$ . It can also be seen from Table 19 that all the constructs exhibit strong internal consistency with the reliability scores from both tests greater than the traditional threshold of 0.7. The results in Table 19 further show that all the latent variables have strong validity scores. The range of the AVE is  $0.635 \leq AVE \leq 0.819$ .

*Discriminant validity of CP-TC Model<sup>R</sup>*

The last diagnostic test of the measurement model is discriminant validity. Discriminant validity assesses the distinctiveness of a construct from other constructs or latent variables in model specification. This study follows the recommended Heterotrait–Monotrait ratio (HTMT) of correlations (Henseler et al., 2015) and cross-loading to evaluate the discriminant validity. The threshold for HTMT is  $< 0.9$ . Thus, the farther away the score is from 1 the better the distinctiveness. Similar implications apply to the cross-loading. The norm for cross-loading is that an observed variable should load higher on its own latent variable than any other latent variable in the model. Table 20 reports the results on HTMT whereas the output for the cross-loading is shown in Appendix B.

**Table 20: HTMT (CP-TC Model<sup>R</sup>)**

| Latent Variables | ADC   | CERT  | CON   | EQU   | ETC   | PC    | REL   |
|------------------|-------|-------|-------|-------|-------|-------|-------|
| ADC              |       |       |       |       |       |       |       |
| CERT             | 0.184 |       |       |       |       |       |       |
| CON              | 0.277 | 0.160 |       |       |       |       |       |
| EQU              | 0.059 | 0.262 | 0.151 |       |       |       |       |
| ETC              | 0.172 | 0.356 | 0.195 | 0.340 |       |       |       |
| PC               | 0.601 | 0.118 | 0.176 | 0.071 | 0.055 |       |       |
| REL              | 0.412 | 0.200 | 0.422 | 0.267 | 0.224 | 0.305 |       |
| VTC              | 0.069 | 0.263 | 0.303 | 0.366 | 0.387 | 0.197 | 0.512 |

Source: Field Survey (2022)

All the HTMT scores fall within the acceptable threshold. The range of the HTMT is  $0.055 \leq \text{HTMT} \leq 0.601$ . This suggests that all the indicators and constructs attain discriminant validity.

#### ***Structural model assessment of CP-TC Model<sup>R</sup>***

Having justified the suitability of the measurement model for the constructs, the study proceeds to assess the soundness of the structural specifications. One fundamental reason for assessing the structural models is to avoid or minimise the effect of spurious estimates. As noted earlier, the study follows SEM-PLS throughout the estimation process including criteria for structural model assessment. The diagnostic tests for the structural model include collinearity, significance and relevance of the structural model, and predictive power.

*Path coefficient and significance, VIF,  $f^2$  and  $R^2$  for the CP-TC Model<sup>R</sup>*

One fundamental assumption for the PLE-SEM is the assumption that the structural model has no collinearity challenges. This is tested using the Variance inflation factor (VIF) analysis. The conclusion criterion for VIF analysis is that a model has no serious multi-collinearity problem when the VIF score is not greater than 5. Having determined that there is no collinearity problem, the study proceeds to conduct the second diagnostic. The second structural model diagnostic is the test of the significance and relevance of the model. The significance is built on the standard errors of bootstrapping. The coefficients are relevant when they lie between -1 and +1. When the score is closer to -1, it indicates a strong negative relationship and closer to 1 shows a strong positive relationship.

The study proceeds to assess the explanatory power. The explanatory power measures the variance in the endogenous variable attributable to the predictors. It is assessed using the coefficient of determination ( $R^2$ ). The  $R^2$  generally falls between 0 and 1. There is no universal threshold for  $R^2$ , even though some researchers have suggested that the closer the value to 1, the better (Hair et al., 2011). It has however been acknowledged that  $R^2$  of about 10% is acceptable (Hair et al., 2020) especially when the other pre and post-diagnostic tests support the specifications. Effect size analysis is a fundamental determination of the relevance of the predictors in a model. It is used to determine the unique contribution of the predictors, including interacting terms to the R-square. The traditional approach for determining the effect size is the F-square. It has been suggested that F-square is realistic and appropriate when it is greater than zero (Aguinis et al., 2005). The study, therefore, follows the rubrics of F-square to test the effect size of the

predictors and interacting terms in the models. The results for all these tests are summarised in Table 21. The path coefficient model is however presented in Appendix C.

**Table 21: path coefficient and significance, VIF,  $f^2$  and  $R^2$  for PC-TC**

| Model <sup>R</sup>      |                         |                              |         |          |       |       |
|-------------------------|-------------------------|------------------------------|---------|----------|-------|-------|
| Path                    | Beta                    | Std. dev.                    | T stats | P values | $f^2$ | VIF   |
| ADC -> ETC              | 0.140***                | 0.044                        | 3.221   | 0.001    | 0.015 | 1.628 |
| ADC -> VTC              | -0.243***               | 0.038                        | 6.336   | 0.000    | 0.055 | 1.628 |
| CERT -> ETC             | 0.251***                | 0.036                        | 6.964   | 0.000    | 0.068 | 1.134 |
| CERT -> VTC             | 0.153***                | 0.036                        | 4.236   | 0.000    | 0.031 | 1.134 |
| CON -> ETC              | 0.074**                 | 0.038                        | 1.951   | 0.051    | 0.006 | 1.185 |
| CON -> VTC              | 0.110***                | 0.033                        | 3.371   | 0.001    | 0.015 | 1.185 |
| EQU -> ETC              | 0.215***                | 0.044                        | 4.916   | 0.000    | 0.051 | 1.121 |
| EQU -> VTC              | 0.174***                | 0.037                        | 4.771   | 0.000    | 0.041 | 1.121 |
| PC -> ETC               | 0.105**                 | 0.045                        | 2.33    | 0.020    | 0.009 | 1.556 |
| PC -> VTC               | -0.155***               | 0.037                        | 4.218   | 0.000    | 0.024 | 1.556 |
| REL -> ETC              | 0.050                   | 0.049                        | 1.026   | 0.305    | 0.002 | 1.463 |
| REL -> VTC              | 0.418***                | 0.035                        | 11.947  | 0.000    | 0.182 | 1.463 |
| ADC <sup>R</sup> -> ETC | -0.018                  | 0.052                        | 0.348   | 0.728    | 0.001 | 1.427 |
| ADC <sup>R</sup> -> VTC | 0.075**                 | 0.037                        | 2.012   | 0.044    | 0.006 | 1.427 |
| PC <sup>R</sup> -> ETC  | -0.038                  | 0.046                        | 0.825   | 0.409    | 0.002 | 1.367 |
| PC <sup>R</sup> -> VTC  | 0.087**                 | 0.04                         | 2.162   | 0.031    | 0.008 | 1.367 |
|                         | <b><math>R^2</math></b> | <b>Adj. <math>R^2</math></b> |         |          |       |       |
| ETC                     | 0.190                   | 0.182                        |         |          |       |       |
| VTC                     | 0.342                   | 0.335                        |         |          |       |       |

Note: Adj., Std dev., T stats,  $f^2$  and VIF denote adjusted, standard deviation, T statistics, effect size and Variance Inflation Factor. \*\* and \*\*\* denote significance of 5% and 1% respectively.

Source: Field Survey (2022)

The results show that all the VIF values are less than the 5-mark threshold suggesting that there are no collinearity challenges. The range of the

VIF is  $1.121 \leq VIF \leq 1.628$ . The results in Table 21 also indicate that all the predictors including the control variables are significant, other than REL  $\rightarrow$  ETC,  $ADC^R \rightarrow$  ETC and  $PC^R \rightarrow$  ETC which are insignificant. The magnitude of the path coefficients fall within the threshold of -1 to +1. The range of path coefficients (PathC) of all predictors exhibit relevance:  $-0.243 \leq PathC \leq 0.417$ . The results also show that all the VIF values are less than the 5-mark threshold suggesting that there are no collinearity challenges. The results further show that both VTC and ETC models have satisfactory adjusted  $R^2$  values. Again, each of the independent variables and interacting terms has a unique contribution to the R-square as each of them has F-square greater than zero (0).

#### *Predictive power of CP-TC Model<sup>R</sup>*

The study further tests the predictive power of the model. The study employs Q-square to assess the model's predictive power. The norm is that a model has predictive power when the Q-square is greater than zero. The results of this analysis have been reported in Table 22.

**Table 22: Predictive Power (CP-TC Model<sup>R</sup>)**

| Indicators | Q <sup>2</sup> predict |
|------------|------------------------|
| ETC1       | 0.084                  |
| ETC2       | 0.115                  |
| ETC3       | 0.143                  |
| ETC4       | 0.139                  |
| VTC1       | 0.267                  |
| VTC2       | 0.22                   |
| VTC3       | 0.284                  |
| VTC4       | 0.254                  |
| VTC5       | 0.198                  |

Source: Field Survey (2022)



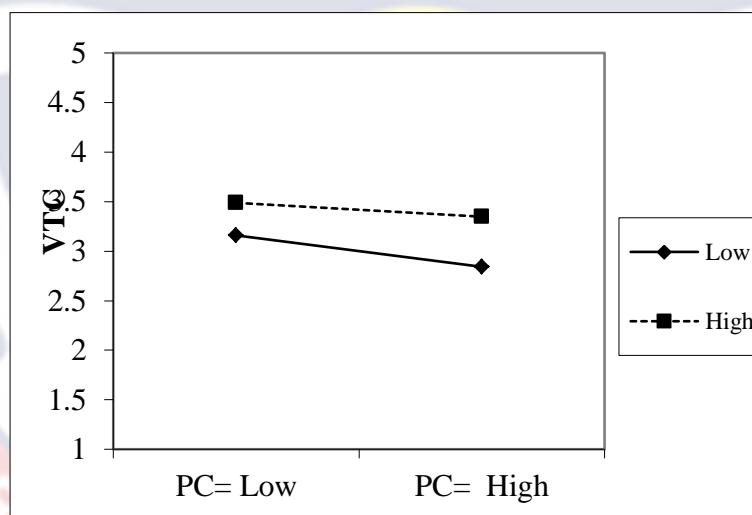
Each of the endogenous variables (voluntary tax compliance and enforced tax compliance) has  $Q^2$  greater than zero (0). This implies that the two structural models (VTC model and ETC model) have significant predictive power. The range of the  $Q^2$  is  $0.084 \leq VIF \leq 0.284$ .

### **Interpretation and discussions of the results of CP-TC Model<sup>R</sup>**

The study first tests the first two hypotheses through the voluntary tax compliance model (VTC). The path coefficients of political corruption (PC), administrative corruption (ADC), religiosity (REL), political corruption moderated by religiosity ( $PC^R$ ) and administrative corruption moderated by religiosity ( $ADC^R$ ) are significant at 5%. The path coefficients of PC, ADC, REL,  $ADC^R$  and  $PC^R$  are -0.16, -0.24, 0.42, 0.08 and 0.09. The path coefficients in this model for PC and ADC are similar to those in the direct model. The moderator exhibited a significant positive influence on voluntary tax compliance. The path coefficients of the two corruption constructs moderated by religiosity ( $PC^R$  and  $ADC^R$ ) are significant and positive on VTC. The path coefficients of the interacting terms are  $PC^R$  ( $\beta = 0.09$ ,  $p$ -value  $< 0.05$ ) and  $ADC^R$  ( $\beta = 0.08$ ,  $p$ -value  $< 0.05$ ) on voluntary tax compliance.

The study, therefore, rejects the null hypothesis that taxpayers' religiosity has no significant moderating role in the relationship between political corruption perception and voluntary tax compliance behaviour in Ghana. Specifically, the study, therefore, rejects the null hypothesis that taxpayers' religiosity has no significant moderating role in the relationship between political corruption perception and voluntary tax compliance behaviour in Ghana. Consequently, it is concluded that taxpayers' level of

religiosity significantly moderates the relationship between political corruption perception and voluntary tax compliance. The path coefficient of the moderating term of 0.09 is positive contrary to the negative coefficient of political corruption of -0.16. This reflects the simple slope in the moderating plot of Figure 3. It can be observed from the plot in Figure 3 that a high level of religiosity makes the relationship flatter as the moderating term of -0.09 weakens the negative effect of political corruption on voluntary tax compliance. Thus, a lower level of religiosity strengthens the negative effect of political corruption on voluntary tax compliance (i.e. steeper relationship) and a higher level of religiosity weakens the negative effect of political corruption (i.e. making the relationship flatter).



*Figure 2: Simple slope for religiosity moderating in political corruption and voluntary tax compliance relationship*

Source: Field Survey (2022)

The results further indicate that the path coefficient of administrative corruption moderated by religiosity is significant. This implies that the study again rejects the null hypothesis that taxpayers' religiosity has no significant moderating role in the relationship between administrative corruption

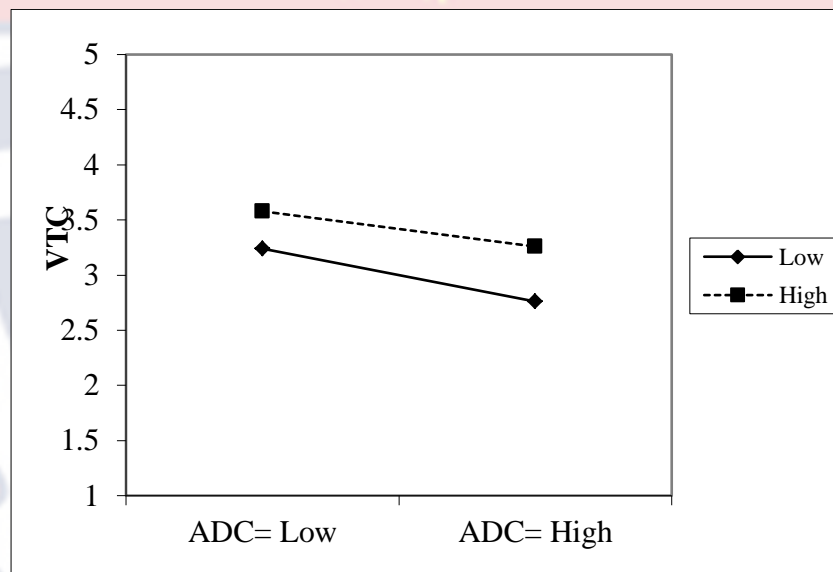
perception and voluntary tax compliance in Ghana. This means that the effect of taxpayers' administrative corruption perception on their voluntary tax compliance is dependent on the level of religiosity, all other things being equal. The coefficient of the moderating term ( $ADC^R$ ) of 0.08 is positive and significant.

This is inconsistent with the direction of the direct relationship between administrative corruption and voluntary tax compliance of -0.24. This shows that taxpayers' religiosity could inhibit the negative consequence of administrative corruption perception on voluntary tax compliance. Religiosity has the propensity to reduce the extent of the negative consequence of administrative corruption by 0.08 leading to an overall effect of -0.16. The results are consistent with the moderating term plot as captured in Figure 4. It can be learnt from Figure 4 that a high level of taxpayers' religiosity shrinks the negative effect of administrative corruption on voluntary tax compliance shifting the moderating line from relatively steeper to flatter.

The results further indicate that the path coefficient of administrative corruption moderated by religiosity is significant. This implies that the study again rejects the null hypothesis that taxpayers' religiosity has no significant moderating role in the relationship between administrative corruption perception and voluntary tax compliance in Ghana. This means that the effect of taxpayers' administrative corruption perception on voluntary tax compliance is dependent on the level of religiosity, all other things being equal. The moderating term ( $ADC^R$ ) of 0.08 is positive. This is inconsistent with the direction of the direct relationship between administrative corruption and voluntary tax compliance of -0.24. This shows that taxpayers' religiosity

could inhibit the negative consequence of administrative corruption perception on voluntary tax compliance.

Religiosity has the propensity to reduce the extent of the negative consequence of administrative corruption by 0.08 leading to an overall effect of -0.16. The results are consistent with the moderating term plot as captured in Figure 4. It can be learnt from Figure 4 that a high level of taxpayers' religiosity shrinks the negative effect of administrative corruption on voluntary tax compliance shifting the moderating line from relatively steeper to flatter.



*Figure 3: Simple slope for religiosity moderating in administrative corruption and voluntary tax compliance relationship*

Source: Field Survey (2022)

The implication is that taxpayers with high corruption perceptions (political and administrative) could still honour their tax obligations voluntarily if they are highly religious.

Regarding the enforced tax compliance model, political corruption and administrative corruption moderated by religiosity exhibited insignificant negative effects on enforced tax compliance. This suggests that the study fails

to reject the null hypothesis that there is no significant moderating effect of taxpayers' religiosity on the relationship between political corruption perception and enforced tax compliance behaviour, as well as between administrative corruption perception and enforced tax compliance in Ghana.

The study, therefore, concludes that highly religious taxpayers do not require compulsion to respond positively to tax compliance (enforced tax compliance).

These findings show that both political corruption and administrative corruption moderated by religiosity have a significant positive effect on the level of voluntary but negative and insignificant on enforced tax compliance in Ghana. The findings are partly consistent with the study's expectations. All the dominant religions in Ghana require honesty and preach that members should not pay evil with evil. Therefore, even when government misapplies tax revenue (evil acts), religious taxpayers may still honour their tax obligation as a religious duty and leave vengeance to God. Drawing from this assertion, the study expected highly religious taxpayers to still commit to tax obligations in the midst of corruption. This expectation is partly affirmed by the findings of the positive moderating role of religiosity in the voluntary model. However, the expectation of such a significant positive effect on the enforced tax compliance model was not met.

Although the empirical literature has not documented moderating evidence of religiosity on the relationship between corruption perception and tax compliance, religiosity has been identified as an antecedent of tax compliance in the tax literature (Hwang & Nagac, 2021; Modhali, 2013; Modhali & Pope, 2014; Nichoson, 2019). Ghanaian literature has also

documented the role of religiosity in tax compliance behaviour (Carsamer & Abbam, 2020). These make the findings not surprising. Nevertheless, these studies have failed to recognise the interacting effect of religiosity on the corruption-tax compliance relationship (Carsamer & Abbam, 2020; Hwang & Nagac, 2021; Modhali, 2013; Modhali & Pope, 2014; Nichoson, 2019).

The findings suggest that amid perceived corruption, religiosity's role in promotion or prevention focus as argued in self-regulatory focus theory (SRFT) could affect the compliance behaviour of taxpayers according to the dictate of corruption perception. This suggests that theoretically, religiosity is expected to serve as a moderating term in analysing the relationship between corruption and tax compliance as found in this study. Nevertheless, the evidence in this study implies that moderating religiosity in the relationship between corruption perception and tax compliance is only significant for voluntary tax compliance though it exhibited inhibition in both compliance constituents. It may be concluded that religiosity enhances tax compliance behaviour and inhibits tax non-compliance.

The differences in the nature and direction of the moderating effect of religiosity on voluntary and enforced tax compliance present new insight into the role of religiosity in the corruption-tax compliance nexus. The findings imply that the moderating role of religiosity is dependent on the operationalisation of tax compliance. Thus, drawing conclusion on the role of religiosity on omnibus tax compliance without segregating the tax compliance constituents may be misleading and the implications doubtful. This may explain why some studies such as Carsamer and Abbam (2020) did not find a significant effect of religiosity on tax compliance.

The findings also extend the social exchange theory. One fundamental limitation to the traditional tenets of SET is that the specific transmission mechanisms to explain the social exchanges are currently not clear and its operations are ridden with theoretical ambiguities, structural challenges and methodological problems (Coyle-Shapiro & Conway, 2004). This is partly due to the narrow approach adopted, which usually concentrates on strict contribution-inducement and breach-reaction exchanges often measured through strictly defined correlations. For instance, the theory further assumes automatic response and consequence of a breach of the social contract. However, the inhibition of religiosity to the apparent expected negative automatic response presents a new extended view of SET. The findings imply that the party's responses or reactions to breaches including misuse of tax revenue through corruption are influenced by other personal attributes such as religiosity.

Further possible reason for the strong moderating role of religiosity in restraining the negative effect of corruption perception on tax compliance found in this study is that taxpayers' religious orientation serves as a locus of control that may define the extent of the reaction to external unfavourable forces (Carsamer & Abbam, 2020) such as corruption. Almost all religions orient individuals to clearly distinguish between what is good and what is bad and respond not evil with evil. By implication, although the natural inclination for the government's breach of the social contract or misappropriation of tax revenue is to refuse to pay tax as drawn from the assumptions of SET, the taxpayers' religious orientation would restrain the taxpayers from automatically altering their tax paying behaviour. Thus, by integrating

taxpayers' religiosity in the corruption perception-tax compliance nexus, the findings have extended the theoretical implication of taxpayers' inherent orientation and attribute.

### **Media reportage of corruption and tax compliance: moderating role of religiosity**

The previous section discussed the results of the third objective of the study which emphasises the moderating role of religiosity on the relationship between corruption perception and tax compliance. This section presents and discusses the results of the fourth objective of the study. This objective seeks to determine the moderating role of taxpayers' religiosity in the relationship between media reportage and tax compliance behaviour in Ghana.

The first phase focuses on voluntary tax compliance while the second phase also estimates the enforced tax compliance model. Each model is specified using two broad exogenous variables (thematic media reportage and episodic media reportage) and a vector of controls. The observed variables for voluntary tax compliance (VTC) are VTC1, VTC2, VTC3, VTC4 and VTC5 while enforced tax compliance (ETC) are ETC1, ETC2, ETC3, and ETC4. Similarly, thematic media reportage of political corruption (TMPC) is also loaded with three observed variables denoted as TMPC1, TMPC2, and TMPC3 while thematic media reportage of administrative corruption (TMADC) is also measured by five observed variables represented by TMADC1, TMADC2, TMADC3, TMADC4 and TMADC5.

Episodic media reportage of political corruption (EMPC) is also loaded with four observed variables denoted as EMPC1, EMPC2, EMPC3, and EMPC4 while episodic media reportage of administrative corruption



(EMADC) is also measured by four observed variables represented by EMADC1, EMADC2, EMADC3, and TMADC4. Religiosity (REL) is also loaded by five observed variables, denoted as REL1, REL2, REL3, REL4 and REL5. The control variables are loaded on their respective observed variables. Certainty is loaded on five observed variables (CERT1 to CERT5), convenience is loaded on four observed variables (CON1 to CON4) and equity is also loaded on four observed variables (EQU1 to EQU4). These proxies are integrated into the structural specifications for the model of media reportage of corruption and tax Compliance relationship moderated by religiosity (MRC-TC Model<sup>R</sup>)

#### ***Measurement model assessment of MRC-TC Model<sup>R</sup>***

Prior to the main estimation, the study assesses the appropriateness of the measurement model through diagnostic testing. Four diagnostic tests are conducted to determine indicator reliability, internal consistency, convergent validity and discriminant validity. The diagnostics tests are conducted on the measurement models of media reportage of corruption and tax compliance as moderated by religiosity (MRC-TC Model<sup>R</sup>).

#### ***Indicator reliability, internal consistency and convergent validity of MRC-TC Model<sup>R</sup>***

The study first assesses indicator reliability (IR) of all the observed variables in measuring the associated construct. The general rule is that the IR value is acceptable when it is greater than 50%. However, some studies have documented that in social science, the acceptable threshold could be less than 50% (Hair et al., 2020; Hulland, 1999). The second diagnostic test focuses on the internal consistency of the scales for the measurement. This criterion

measures the ability of the indicators measuring the construct to produce similar scores under repeated trials. The study uses Cronbach alpha and the composite reliability test ( $\rho_c$ ) to conduct the test. The acceptable score is for both the Cronbach alpha and the composite reliability test ( $\rho_c$ ) to attain at least 0.70 marks. Convergent validity is also assessed as part of the measurement evaluation. The average variance extracted (AVE) is used in this study to measure the convergent validity. The acceptable score for AVE is 0.50 (Hair et al., 2020). These results have been reported in Table 23.

**Table 23: Indicator reliability, internal consistency and convergent validity of MRC-TC Model<sup>R</sup>**

| Indicators | Loading | Indicator Reliability | AVE   | CA    | $\rho_c$ |
|------------|---------|-----------------------|-------|-------|----------|
| VTC        |         |                       | 0.771 | 0.926 | 0.944    |
| VTC1       | 0.882   | 0.778                 |       |       |          |
| VTC2       | 0.873   | 0.762                 |       |       |          |
| VTC3       | 0.896   | 0.803                 |       |       |          |
| VTC4       | 0.852   | 0.726                 |       |       |          |
| VTC5       | 0.887   | 0.787                 |       |       |          |
| ETC        |         |                       | 0.751 | 0.889 | 0.923    |
| ETC1       | 0.853   | 0.728                 |       |       |          |
| ETC2       | 0.891   | 0.794                 |       |       |          |
| ETC3       | 0.853   | 0.728                 |       |       |          |
| ETC4       | 0.867   | 0.752                 |       |       |          |
| TMPC       |         |                       | 0.756 | 0.838 | 0.903    |
| TMPC1      | 0.862   | 0.743                 |       |       |          |
| TMPC2      | 0.844   | 0.712                 |       |       |          |
| TMPC3      | 0.901   | 0.812                 |       |       |          |
| TMADC      |         |                       | 0.722 | 0.868 | 0.911    |
| TMADC1     | 0.890   | 0.792                 |       |       |          |
| TMADC2     | 0.924   | 0.854                 |       |       |          |
| TMADC3     | 0.848   | 0.719                 |       |       |          |
| TMADC4     | 0.722   | 0.521                 |       |       |          |
| EMPC       |         |                       | 0.775 | 0.903 | 0.932    |
| EMPC1      | 0.882   | 0.778                 |       |       |          |
| EMPC2      | 0.904   | 0.817                 |       |       |          |
| EMPC3      | 0.887   | 0.787                 |       |       |          |
| EMPC4      | 0.847   | 0.717                 |       |       |          |
| EMADC      |         |                       | 0.678 | 0.841 | 0.894    |
| EMADC1     | 0.833   | 0.694                 |       |       |          |
| EMADC2     | 0.811   | 0.658                 |       |       |          |

|        |       |       |       |       |       |
|--------|-------|-------|-------|-------|-------|
| EMADC3 | 0.828 | 0.686 |       |       |       |
| EMADC4 | 0.820 | 0.672 |       |       |       |
| REL    |       |       | 0.715 | 0.900 | 0.926 |
| REL1   | 0.863 | 0.745 |       |       |       |
| REL2   | 0.812 | 0.659 |       |       |       |
| REL3   | 0.820 | 0.672 |       |       |       |
| REL4   | 0.862 | 0.743 |       |       |       |
| REL5   | 0.868 | 0.753 |       |       |       |
| CON    |       |       | 0.656 | 0.826 | 0.884 |
| CON1   | 0.796 | 0.634 |       |       |       |
| CON2   | 0.799 | 0.638 |       |       |       |
| CON3   | 0.824 | 0.679 |       |       |       |
| CON4   | 0.820 | 0.672 |       |       |       |
| CERT   |       |       | 0.635 | 0.866 | 0.897 |
| CERT1  | 0.820 | 0.672 |       |       |       |
| CERT2  | 0.845 | 0.714 |       |       |       |
| CERT3  | 0.792 | 0.627 |       |       |       |
| CERT4  | 0.795 | 0.632 |       |       |       |
| CERT5  | 0.728 | 0.530 |       |       |       |
| EQU    |       |       | 0.657 | 0.826 | 0.884 |
| EQU1   | 0.848 | 0.719 |       |       |       |
| EQU2   | 0.823 | 0.677 |       |       |       |
| EQU3   | 0.799 | 0.638 |       |       |       |
| EQU4   | 0.770 | 0.593 |       |       |       |

Source: Field Survey (2022)

The results show that all the observed variables have reliable indicators. Specifically, all the IR values are greater than the 50% threshold (i.e. indicator loading greater than 0.708). The IR range for the measurement model in Table 23 is  $0.530 \leq IR \leq 0.854$ . The results from the table indicate strong internal consistency for all the constructs. All the constructs have reliability scores greater than 0.7 thresholds under both Cronbach alpha and the composite reliability test ( $\rho_c$ ). It can be observed from the statistics in Table 23 that the constructs have strong convergent validity as exhibited by the relatively high AVE scores. The AVE values in Table 34 have a range of:  $0.635 \leq AVE \leq 0.775$ .

*Discriminant validity of MRC-CT Model<sup>R</sup>*

The measurement model also assumes discriminant validity. The Heterotrait–Monotrait ratio (HTMT) of correlations (Henseler et al., 2015) and cross-loading analyses are used to test this assumption and evaluate the discriminant validity. The HTMT values range between 0 and 1. The closer the score to zero the better the distinctiveness. Regarding cross-loading, the assessment norm is that an observed variable should load higher on its own latent variable than any other latent variable in the model. Table 24 captures results on HTMT.

**Table 24: HTMT (MRC-TC Model<sup>R</sup>)**

|       | CERT  | CON   | EMADC | EMPC  | EQU   | ETC   | REL   | TMADC | TMPC  |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| CERT  |       |       |       |       |       |       |       |       |       |
| CON   | 0.160 |       |       |       |       |       |       |       |       |
| EMADC | 0.321 | 0.313 |       |       |       |       |       |       |       |
| EMPC  | 0.309 | 0.286 | 0.550 |       |       |       |       |       |       |
| EQU   | 0.262 | 0.151 | 0.432 | 0.482 |       |       |       |       |       |
| ETC   | 0.356 | 0.195 | 0.707 | 0.532 | 0.340 |       |       |       |       |
| REL   | 0.200 | 0.422 | 0.375 | 0.338 | 0.267 | 0.224 |       |       |       |
| TMADC | 0.056 | 0.229 | 0.098 | 0.156 | 0.088 | 0.064 | 0.331 |       |       |
| TMPC  | 0.417 | 0.352 | 0.439 | 0.627 | 0.439 | 0.475 | 0.383 | 0.112 |       |
| VTC   | 0.263 | 0.303 | 0.506 | 0.481 | 0.366 | 0.387 | 0.512 | 0.230 | 0.469 |

Source: Field Survey (2022)

The HTMT results in Table 24 also support the conclusion that the constructs meet the discriminant validity test. All the HMTM statistics are consistent with the threshold. The range of the HTMT is  $0.056 \leq \text{HTMT} \leq 0.707$ . This suggests that all the indicators and constructs attain discriminant validity tests.

### *Structural model assessment of MRC-TC Model<sup>R</sup>*

Having satisfied the appropriateness of the measurement model, the next important criterion is to assess the soundness of the structural specifications to test the study hypotheses. Collinearity, significance and relevance of structural model and predictive power are the various diagnostics test to be performed following the PLS-SEM diagnostic tests in this study.

#### *Path coefficient and significance, VIF, $f^2$ , and $R^2$ for MRC-TC Model<sup>R</sup>*

Structural model assessment requires that there are no collinearity challenges in a model. This is assessed on the bases of the correlation between the predictors and the exogenous constructs. The study uses the variance inflation factor (VIF) to test for possible critical collinearity problems. It has been recommended that when the VIF score is not greater than 5 then there is the assurance of no serious collinearity challenges.

The appropriateness of the estimation output is dependent on the significance and relevance of the structural model. The study, therefore, tests the assumption of significance and relevance of the model. It is assumed that the model has significance when the variables of interest have significant coefficients defined in terms of 1% and 5% significant levels for strong significance and moderate significance respectively. The relevance of the model is also assessed on magnitude between -1 and +1. When the path coefficients fall within this threshold (-1 and +1), then, the model is assumed to be relevant.

The study further assesses the explanatory power to determine the goodness of the structural model. The study assesses the explanatory power using the coefficient of determination of adjusted  $R^2$ . The  $R^2$  generally falls

between 0 and 1. It is acknowledged that an  $R^2$  of 10% is acceptable (Hair et al., 2020) especially when the other pre and post-diagnostics tests support the specifications. The study follows this threshold to evaluate the explanatory power of the model. The study conducts further tests to determine the effect size of the predictors including the moderating term in the models. Particulaely, this test determines the relevance of the additional term introduced (.i.e. the moderating term). In an moderating model specification, the test of effect size tells the unique contribution of moderating term to the model. The study uses F-square to determine the effect size. It is recommended that an F-square of greater than zero is a realistic and appropriate effect size (Aguinis et al., 2005; Kenny, 2018). The results of these tests are presented in Table 25. However, the path diagram is presented in Appendix C.

**Table 25: Significance and relevance, VIF and  $f^2$  of the MRC-TC ModeM<sup>R</sup>**

|              | Beta     | Std. dev. | T stats | P values | $f^2$ | VIF   |
|--------------|----------|-----------|---------|----------|-------|-------|
| CERT -> ETC  | 0.101*** | 0.036     | 2.826   | 0.005    | 0.014 | 1.289 |
| CERT -> VTC  | 0.074    | 0.038     | 1.916   | 0.055    | 0.007 | 1.289 |
| CON -> ETC   | -0.012   | 0.032     | 0.385   | 0.700    | 0.001 | 1.265 |
| CON -> VTC   | 0.015    | 0.033     | 0.441   | 0.659    | 0.001 | 1.265 |
| EMADC -> ETC | 0.498*** | 0.044     | 11.210  | 0.000    | 0.294 | 1.554 |
| EMADC -> VTC | 0.211*** | 0.039     | 5.397   | 0.000    | 0.047 | 1.554 |
| EMPC -> ETC  | 0.170*** | 0.041     | 4.118   | 0.000    | 0.029 | 1.812 |
| EMPC -> VTC  | 0.122*** | 0.045     | 2.732   | 0.006    | 0.014 | 1.812 |
| EQU -> ETC   | 0.002    | 0.045     | 0.054   | 0.957    | 0.001 | 1.324 |
| EQU -> VTC   | 0.068    | 0.040     | 1.710   | 0.087    | 0.006 | 1.324 |
| REL -> ETC   | -0.051   | 0.041     | 1.233   | 0.217    | 0.003 | 1.380 |
| REL -> VTC   | 0.270*** | 0.033     | 8.082   | 0.000    | 0.087 | 1.380 |
| TMADC -> ETC | 0.090**  | 0.040     | 2.228   | 0.026    | 0.010 | 1.469 |

|                           |                      |                           |       |       |       |       |
|---------------------------|----------------------|---------------------------|-------|-------|-------|-------|
| TMADC -> VTC              | -0.018               | 0.036                     | 0.503 | 0.615 | 0.001 | 1.469 |
| TMPC -> ETC               | 0.116**              | 0.045                     | 2.589 | 0.010 | 0.014 | 1.737 |
| TMPC -> VTC               | -0.114**             | 0.048                     | 2.374 | 0.018 | 0.012 | 1.737 |
| EMADC <sup>R</sup> -> ETC | -0.007               | 0.052                     | 0.139 | 0.889 | 0.000 | 1.646 |
| EMADC <sup>R</sup> -> VTC | 0.096**              | 0.038                     | 2.526 | 0.012 | 0.001 | 1.646 |
| TMPC <sup>R</sup> -> ETC  | -0.078               | 0.052                     | 1.487 | 0.137 | 0.007 | 1.944 |
| TMPC <sup>R</sup> -> VTC  | 0.087**              | 0.044                     | 1.977 | 0.048 | 0.003 | 1.944 |
| EMPC <sup>R</sup> -> ETC  | 0.061                | 0.074                     | 0.818 | 0.414 | 0.004 | 1.582 |
| EMPC <sup>R</sup> -> VTC  | 0.091**              | 0.040                     | 2.275 | 0.023 | 0.002 | 1.582 |
| TMADC <sup>R</sup> -> ETC | 0.080                | 0.046                     | 1.759 | 0.079 | 0.010 | 1.666 |
| TMADC <sup>R</sup> -> VTC | 0.084**              | 0.041                     | 2.064 | 0.039 | 0.010 | 1.666 |
|                           | <b>R<sup>2</sup></b> | <b>Adj. R<sup>2</sup></b> |       |       |       |       |
| ETC                       | 0.456                | 0.447                     |       |       |       |       |
| VTC                       | 0.391                | 0.381                     |       |       |       |       |

Note: Adj., Std dev., T stats,  $f^2$  and VIF denote adjusted, standard deviation, T statistics, effect size and Variance Inflation Factor. \*\* and \*\*\* denote significance of 5% and 1% respectively.

Source: Field Survey (2022)

The results show that all the VIF values are less than the threshold score of 5. Suggesting that there are no collinearity challenges. The range of the VIF is  $1.265 \leq VIF \leq 1.944$ . The path coefficients in Table 25 show that majority of the exogenous variables exhibited a significant relationship with voluntary and enforced tax compliance (endogenous variables). The magnitude of all the predictors fall between -1 and +1 suggesting that the path coefficients are relevant. The range of the path coefficients is  $-0.070 \leq \text{PathC} \leq 0.500$ . The table again shows that the two models: VTC and ETC have satisfactory adjusted  $R^2$  values. The results in the table indicate that each of the independent variables and moderating term has a unique contribution to R-square as the F-square values are greater than zero (0).

*Predictive power of MRC-TC Model<sup>R</sup>*

The final criterion used to assess the soundness of the structural specifications is the predictive power of the model. The q-square test is used in this study to determine the model's predictive power. The model is assumed to have predictive power when the Q-square is greater than zero. The Q-square test statistics are captured in Table 26.

**Table 26: Coefficient of Determination (MRC-TC Model<sup>R</sup>)**

| Indicators | Q <sup>2</sup> predict |
|------------|------------------------|
| ETC1       | 0.300                  |
| ETC2       | 0.319                  |
| ETC3       | 0.301                  |
| ETC4       | 0.319                  |
| VTC1       | 0.263                  |
| VTC2       | 0.271                  |
| VTC3       | 0.310                  |
| VTC4       | 0.286                  |
| VTC5       | 0.242                  |

Source: Field Survey (2022)

It can be seen from Table 26 that all the Q-square values are greater than zero suggesting that the model has predictive power.

#### **Interpretation and discussions of the results of MRC-TC Model<sup>R</sup>**

The study first analyses the results of the hypotheses emanating from the voluntary tax compliance mode (VTC). The predictors in the specification as reported in Table 25 are the thematic media reportage of political corruption (TMPC), thematic media reportage of administrative corruption (TMADC), episodic media reportage of political corruption (EMPC), episodic media reportage of administrative corruption (EMADC), religiosity, thematic media reportage of political corruption moderated by religiosity (TMPC<sup>R</sup>), thematic media reportage of administrative corruption moderated by religiosity (TMADC<sup>R</sup>), episodic media reportage of political corruption moderated by



religiosity (EMPC<sup>R</sup>), episodic media reportage of administrative corruption moderated by religiosity (EMADC<sup>R</sup>), and three control variables.

The estimates in Table 25 indicate that thematic media reportage of political corruption (TMPC), thematic media reportage of administrative corruption (TMADC), episodic media reportage of political corruption (EMPC), episodic media reportage of administrative corruption (EMADC) retained their original directional relationships with voluntary tax compliance but the magnitude of the coefficients relatively dissimilar to the direct analyses conducted under objective two.

The moderator (religiosity) also showed significant positive path coefficient in the relationships between TMPC and VTC ( $\beta = 0.087$ ,  $p$ -value  $< 0.05$ ). This suggests that the formulated null hypothesis that there is no significant moderating role of taxpayers' religiosity on the effect of thematic media reportage of political corruption on voluntary tax compliance behaviour in Ghana is rejected. Rejecting the null hypothesis means that religiosity is a significant moderating term which influences the direction and magnitude of the relationship between thematic media reportage of political corruption and voluntary tax compliance. It is therefore concluded that religious taxpayers would still honour their tax obligations voluntarily when the media reports systemic nature of political corruption. The nature of the moderating role of religiosity on thematic media reportage of political corruption and voluntary tax compliance relationship is vividly portrayed in Figure 5. It can be observed that a high level of religiosity makes the moderating plot flatter (i.e. decreasing the negative effect) and vice-versa.

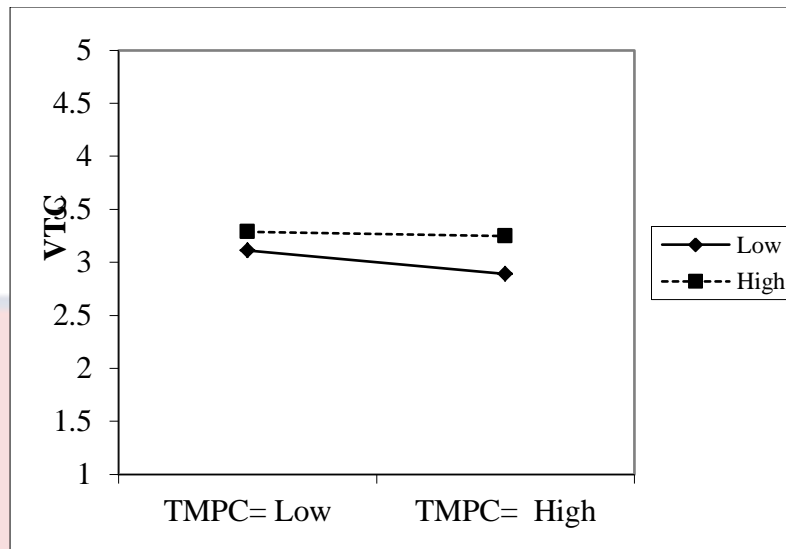


Figure 4: Simple slope for religiosity moderating in thematic media reportage of political corruption and voluntary tax compliance relationship

Source: Field Survey (2022)

Again, the statistics per Table 25 showed that religiosity has a positive and significant effect on the TMADC and VTC relationship ( $\beta = 0.084$ ,  $p$ -value  $< 0.05$ ). This suggests that the formulated null hypothesis that there is no significant moderating role of taxpayers' religiosity on the effect of thematic media reportage of administrative corruption on voluntary tax compliance behaviour in Ghana is rejected. Rejecting the null hypothesis means that religiosity is a significant moderating term which influences the direction and magnitude of the effect of thematic media reportage of administrative corruption perception on voluntary tax compliance. The simple slope analysis of Figure 6 demonstrates the behaviour of the moderating term. It can be observed that a high level of religiosity could totally shrink off the negative consequence of TMADC on VTC and makes the interacting plot steeper.

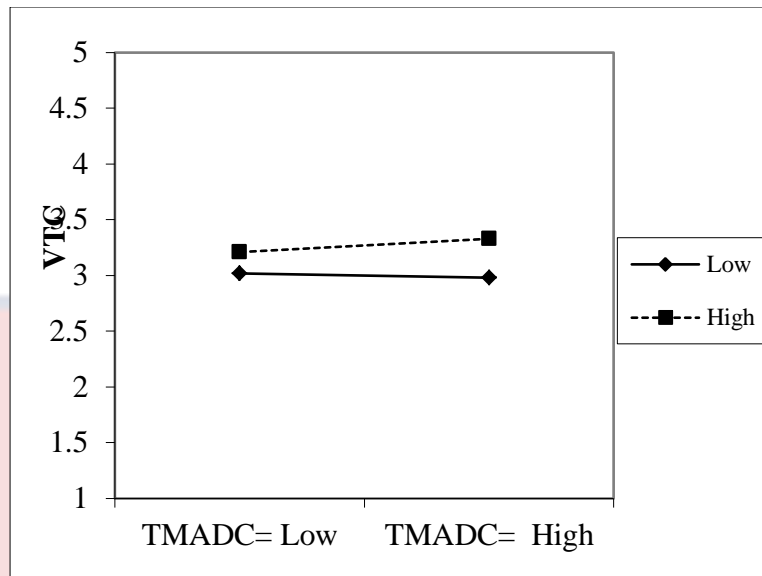


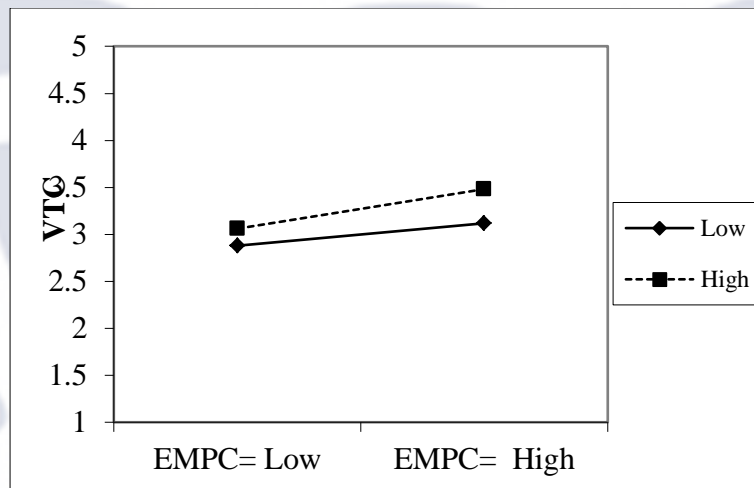
Figure 5: Simple slope for religiosity moderating in thematic media reportage of administrative corruption and voluntary tax compliance relationship

Source: Field Survey (2022)

The overall implication is that taxpayers with high corruption perceptions (political and administrative) would still honour their tax obligations voluntarily if they are highly religious.

In the VTC model depicted in Table 25, the path coefficient for EMPC is 0.12 and EMADC is 0.21. These path coefficients are positive and significant at 1% as evident in the p-values of 0.006 and 0.000 respectively. The path coefficients are similar to the direction of the coefficients from the direct model estimated under the second objective of the study. This implies that episodic media reportage of political corruption and administrative corruption retained the nature of influence when the religiosity was introduced. Religiosity also shows a significant positive path coefficient. The path coefficient for episodic media reportage of political corruption moderated by religiosity ( $EMPC^R$ ) is positive and significant. Specifically, the path coefficient of  $EMPC^R$  is 0.09 and the p-value is 0.023. The study, therefore,

rejects the hypothesis that: there is no significant moderating role of taxpayers' religiosity on the effect of episodic media reportage of political corruption on voluntary tax compliance behaviour in Ghana. The implication is that religiosity could determine the direction and extent of the effect of episodic media reportage of political corruption on voluntary tax compliance. Thus, highly religious taxpayers would still honour their tax obligations voluntarily even under unfavourable episodic media reportage of political corruption. These findings are supported by the moderating term plot depicted in Figure 7. A high level of taxpayers' religiosity enhances the positive effect of EMPC on VTC making the plot steeper.

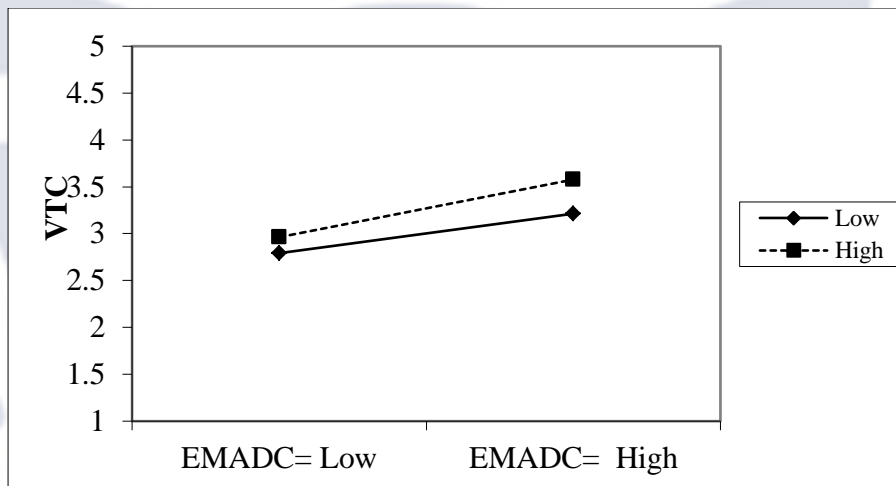


*Figure 6:* Simple slope for religiosity moderating in episodic media reportage of political corruption and voluntary tax compliance relationship

Source: Field Survey (2022)

The path coefficient of episodic media reportage of administrative corruption moderated by religiosity as captured in Table 25 is also significant and positive. The path coefficient is 0.017 and the p-value of 0.012. The coefficient is therefore significant at 5%. The study rejects the null hypothesis that: There is no significant moderating role of taxpayers' religiosity on the

effect of episodic media reportage of administrative corruption perception on voluntary tax compliance behaviour in Ghana. This implies that the nature and extent of influence of episodic media reportage of administrative corruption on voluntary tax compliance are dependent on the level of their religiosity. It is therefore concluded that high-level episodic media reportage of corruption could significantly improve voluntary tax compliance behaviour of religious taxpayers in Ghana and vice-versa. The moderating analysis and implication of EMADC<sup>R</sup> are affirmed by the nature of the interacting term graph presented in Figure 8. It can be seen from Figure 8 that religiosity's moderating role pushes upward the direction of the slope (i.e. steeper



*Figure 7: Simple slope for religiosity moderation in episodic media reportage of administrative corruption and voluntary tax compliance relationship*

Source: Field Survey (2022)

The overall implication is that highly religious taxpayers would still honour their tax obligation irrespective of the extent and level of media reportage of corruption (thematic and episodic). Specifically, religiosity plays a critical role in influencing the nature and direction of thematic and episodic media reportage of both political and administrative corruption on voluntary tax compliance.

Table 25 further presents the results of the second model (enforced tax compliance model). The path coefficient for thematic media reportage of political corruption moderated by religiosity (TMPC<sup>R</sup>) is insignificant. The study, therefore, fails to reject the null hypothesis that: Taxpayers' religiosity does not significantly moderate the relationship between thematic media reportage of political corruption and enforced tax compliance. Again, religiosity as a moderator between the TMADC and voluntary tax compliance is insignificant. The study, therefore, fails to reject the null hypotheses that taxpayers' religiosity has no significant moderating role in the effects of thematic media reportage of administrative corruption perception and political corruption perception on enforced tax compliance in Ghana.

The results in Table 25 further show that the relationship between EMPC and ETC moderated by religiosity is insignificant. The study, therefore, fails to reject the null hypothesis that taxpayers' religiosity has no significant moderating role in the relationship between episodic media reportage of political corruption and enforced tax compliance behaviour in Ghana. Additionally, the relationship between EMADC and ETC moderated by religiosity is insignificant. Therefore the study could not gather enough evidence to reject the null hypothesis that taxpayers' religiosity has no significant moderating role in the relationship between episodic media reportage of administrative corruption and enforced tax compliance behaviour in Ghana.

The findings indicate that thematic media reportage of political corruption and administrative corruption moderated by religiosity has a significant positive effect on the level of voluntary tax compliance. Similarly,

both episodic media reportage of political corruption and episodic media reportage of administrative corruption moderated by religiosity exhibited a positive significant effect on voluntary tax compliance.

The findings meet the study's expectations. The dynamics of the moderating terms in the voluntary tax compliance model are consistent with the study's expectations. The three main religions in Ghana preach that their gods demand honesty and require that members leave vengeance on the gods. Positive tax compliance behaviour amidst high media reportage of corruption (thematic and episodic) may be viewed as a sense of religious commitment and duty. Therefore, the study expected that highly religious taxpayers would still be committed to honouring their tax obligations voluntarily even when they have a high perception of corruption (political and administrative) through media reportage. This expectation is affirmed by the findings from the voluntary tax compliance model.

Empirically, the significant interacting role of religiosity found in this study supports the findings of Muslichah (2015). Muslichah (2015) considered taxpayers' religiosity not only as a direct precursor to tax compliance but also as play moderating role. Again, the findings seem to corroborate with some related prior studies in the literature (Carsamer & Abbam, 2020; Hwang & Nagac, 2021; Nichoson, 2019). One fundamental implication of the significant moderating role of religiosity in improving tax compliance under high media reportage of political and administrative corruption (thematic and episodic) is that taxpayers' religiosity is an inhibitor to tax non-compliance. Thus, taxpayers' religious commitment or adherence is a deterrent to non-compliance behaviour.

The findings extend the self-regulatory focus theory and theory of planned behaviour. An extended argument advanced from both self-regulatory focus theory and theory of planned behaviour in this study is the fact that taxpayers' religious orientation may be viewed as a locus of control which could amplify or restrain intention in response to triggers of individual attitudes and forces of the environment such as media reportage of corruption (Wu & Roberts, 2013; Wright & Quick, 2011). The significant positive moderating role of religiosity found in this study affirms this extended view that religiosity restrains non-compliance. This may be attributed to the fact that religion advocates morality and non-responding to evil with evil. Thus, even at the height of media reportage of corruption, taxpayers' religiosity could restrain the natural negative expected response to still ensure positive tax compliance.

The findings further extend the theoretical implication of social exchange theory (SET). Following the traditional assumptions of SET, knowledge of a breach of the social contract through media reportage of corruption would lead to a readjustment of the social contract from the citizens (taxpayers) (Gobena, & Van Dijke, 2016; Gangl, Hofmann & Kirchler, 2015; Jimenez & Iyer, 2016). Thus, traditionally, SET suggests automatic response and consequence of a breach of the social contract. It thus ignores the fact that a party's responses or reactions to breaches are influenced by other factors including their personal attributes. The findings from this study have demonstrated that taxpayers' religiosity is one of these personal attributes which could restrain a party's reaction to breach by other contracting parties.

These findings and conclusion present foundational evidence to extrapolate the role of religiosity as an inhibitor in developing high tax



compliance culture. The findings imply that even if corruption is reported as a systemic social problem (thematic) or an individual or isolated problem (episodic), policymakers and tax administrators are still likely to achieve tax compliance if policy intervention integrates the role of religion. Taxpayers' religiosity restrains taxpayers' expected natural response to negative stimuli including acting on perceived corruption arising from thematic and episodic media reportage of corruption.

The findings also support the theory of planned behaviour. Another possible reason for the significant positive interacting role of religiosity is that religious identity emphasises or highlights intimidation of embarrassment as a fundamental sanction, and therefore discourages illegal behaviour such as non-tax compliance or tax cheating (Benk, Budak, Yüzba & Mohdali, 2016; Benk, Yüzbas & McGee, 2017; Torgler & Murphy, 2004). Religious commitment could either restrict or enhance the response to external stimuli such as media reportage of corruption. Thus, even the widespread corruption perception through media reportage may not undermine tax compliance of highly religious taxpayers. Religious leaders are therefore critical stakeholders in developing and implementing tax compliance policy.

In the enforced tax compliance model, the analyses reveal that all the relationships (i.e. thematic media reportage of political corruption (TMPC), thematic media of administrative corruption (TMADC), episodic media reportage of political corruption (EMPC) and episodic media of administrative corruption (EMADC) moderated by religiosity) are insignificant except thematic media reportage of administrative corruption (TMADC). The findings partly meet the study's expectations.

### **Corruption perception and tax compliance: moderating role of media reportage of corruption (*CP-TC Model<sup>MRC</sup>*)**

This section presents the fifth and final objective of the study. This final objective seeks to analyse the moderating effect of media reportage on the relationship between corruption perception and tax compliance behaviour in Ghana. The formulation of this objective is grounded in both empirical and theoretical literature.

Under this investigation, corruption is operationalised as political corruption (PC) and administrative corruption (ADC) while tax compliance is conceptualised as voluntary tax compliance (VTC) and enforced tax compliance (ETC). Again, media reportage of corruption has been measured as thematic media reportage of political corruption (TMPC), thematic media reportage of administrative corruption (TMADC), episodic media reportage of political corruption (EMPC) and episodic media reportage of administrative corruption (EMADC).

This objective is assessed in two phases. The first phase focuses on voluntary tax compliance while the second phase also estimates the enforced tax compliance model. Each model is specified using two broad exogenous variables (thematic media reportage and episodic media reportage) and vectors of controls. The observed variables for voluntary tax compliance (VTC) are VTC1, VTC2, VTC3, VTC4 and VTC5 while enforced tax compliance (ETC) are ETC1, ETC2, ETC3, and ETC4. Similarly, thematic media reportage of political corruption (TMPC) is also loaded with three observed variables denoted as TMPC1, TMPC2, and TMPC3 while thematic media reportage of administrative corruption (TMADC) is also measured by five observed

variables represented by TMADC1, TMADC2, TMADC3, TMADC4 and TMADC5.

Episodic media reportage of political corruption (EMPC) is also loaded with four observed variables denoted as EMPC1, EMPC2, EMPC3 and EMPC4, while episodic media reportage of administrative corruption (EMADC) is also measured by four observed variables represented by EMADC1, EMADC2, EMADC3, and TMADC4. The control variables are loaded on their respective observed variables. Certainty is loaded on five observed variables (CERT1 to CERT5), convenience is loaded on four observed variables (CON1 to CON4) and equity is also loaded on four observed variables (EQU1 to EQU4). These proxies are integrated into the structural specifications for the model of media reportage of corruption and tax compliance relationship moderated media reportage of corruption (MRC-TC Model<sup>MRC</sup>). The analysis follows two frameworks: Measurement model assessment and structural model assessment.

#### ***Measurement model assessment of CP-TC Model<sup>MRC</sup>***

The measurement model primarily seeks to evaluate the extent to which the model specified in the study is supported by the underlying data of the study (Kang & Ahn, 2021). This makes the assessment of the measurement model important in SEM. There are two main metrics for appraising the measurement model in SEM: the Partial Least Square (PLS) or Covariance Based (CB) SEM type. PLS-based measurement benchmark is employed in this study and assessments are performed on indicators such as indicator reliability, internal consistency, convergent validity and discriminant validity. As such, corruption perception and tax compliance model moderated by media

reportage of corruption (CP-TC Model<sup>MRC</sup>) are evaluated using the aforementioned criteria.

*Indicator reliability, internal consistency and convergent of CP-TC Model<sup>MRC</sup>*

In the process of assessing the measurement model, the indicator reliability criterion is considered the first step since it measures the extent to which the latent variable explains the difference in each of the correlated indicators. The indicator reliability (IR) is therefore a depiction of the commonality of the indicator and the construct. The mathematical estimation of IR is based on the loading score, also known as the square of the loading. Generally, IR above 50% is acceptable; however, studies in social science may even accept IR scores of less than 50% (Hair et al., 2020; Hulland, 1999). Table 27 reports on the outcome of the evaluation of the indicator reliability.

The internal consistency criterion weighs the scale's ability of the observed variables to produce identical outcomes in repeated trials (Hair et al., 2020). The Cronbach alpha and the composite reliability test ( $\rho_c$ ), are simultaneously employed and tested in this study. The acceptable score is for both the Cronbach alpha and the composite reliability test ( $\rho_c$ ) to attain a minimum of 0.70 marks. The third test under the measurement model is convergent validity. Convergent validity evaluates how the construct or latent variable converges to explain the variance of the observed variables. The study uses the conventional average variance extracted (AVE) to measure the convergent validity. The AVE is the commonality of the latent variable or construct. The acceptable score for AVE is 0.50 (Hair et al., 2020).

**Table 27: Indicator reliability, internal consistency and convergent validity of CP-TC Model<sup>MRC</sup>**

| Indicators | Loading | IR    | AVE   | CA    | rho_c |
|------------|---------|-------|-------|-------|-------|
| ADC        |         |       | 0.795 | 0.936 | 0.951 |
| ADC1       | 0.895   | 0.801 |       |       |       |
| ADC2       | 0.916   | 0.839 |       |       |       |
| ADC3       | 0.924   | 0.854 |       |       |       |
| ADC4       | 0.867   | 0.752 |       |       |       |
| ADC5       | 0.854   | 0.729 |       |       |       |
| CERT       |         |       | 0.635 | 0.866 | 0.897 |
| CERT1      | 0.819   | 0.671 |       |       |       |
| CERT2      | 0.844   | 0.712 |       |       |       |
| CERT3      | 0.792   | 0.627 |       |       |       |
| CERT4      | 0.795   | 0.632 |       |       |       |
| CERT5      | 0.728   | 0.530 |       |       |       |
| CON        |         |       | 0.656 | 0.826 | 0.884 |
| CON1       | 0.796   | 0.634 |       |       |       |
| CON2       | 0.799   | 0.638 |       |       |       |
| CON3       | 0.824   | 0.679 |       |       |       |
| CON4       | 0.820   | 0.672 |       |       |       |
| EMADC      |         |       | 0.678 | 0.841 | 0.894 |
| EMADC1     | 0.833   | 0.694 |       |       |       |
| EMADC2     | 0.811   | 0.658 |       |       |       |
| EMADC3     | 0.828   | 0.686 |       |       |       |
| EMADC4     | 0.820   | 0.672 |       |       |       |
| EMPC       |         |       | 0.775 | 0.903 | 0.932 |
| EMPC1      | 0.882   | 0.778 |       |       |       |
| EMPC2      | 0.904   | 0.817 |       |       |       |
| EMPC3      | 0.887   | 0.787 |       |       |       |
| EMPC4      | 0.847   | 0.717 |       |       |       |
| EQU        |         |       | 0.657 | 0.826 | 0.884 |
| EQU1       | 0.848   | 0.719 |       |       |       |
| EQU2       | 0.823   | 0.677 |       |       |       |
| EQU3       | 0.799   | 0.638 |       |       |       |
| EQU4       | 0.770   | 0.593 |       |       |       |
| ETC        |         |       | 0.751 | 0.889 | 0.923 |
| ETC1       | 0.864   | 0.746 |       |       |       |
| ETC2       | 0.897   | 0.805 |       |       |       |
| ETC3       | 0.842   | 0.709 |       |       |       |
| ETC4       | 0.861   | 0.741 |       |       |       |
| PC         |         |       | 0.819 | 0.945 | 0.958 |
| PC1        | 0.876   | 0.767 |       |       |       |
| PC2        | 0.908   | 0.824 |       |       |       |

|        |       |       |       |       |       |
|--------|-------|-------|-------|-------|-------|
| PC3    | 0.931 | 0.867 |       |       |       |
| PC4    | 0.931 | 0.867 |       |       |       |
| PC5    | 0.877 | 0.769 |       |       |       |
| TMADC  |       |       | 0.722 | 0.868 | 0.911 |
| TMADC1 | 0.890 | 0.792 |       |       |       |
| TMADC2 | 0.924 | 0.854 |       |       |       |
| TMADC3 | 0.848 | 0.719 |       |       |       |
| TMADC4 | 0.722 | 0.521 |       |       |       |
| TMPC   |       |       | 0.756 | 0.838 | 0.903 |
| TMPC1  | 0.862 | 0.743 |       |       |       |
| TMPC2  | 0.844 | 0.712 |       |       |       |
| TMPC3  | 0.901 | 0.812 |       |       |       |
| VTC    |       |       | 0.771 | 0.926 | 0.944 |
| VTC1   | 0.880 | 0.774 |       |       |       |
| VTC2   | 0.875 | 0.766 |       |       |       |
| VTC3   | 0.895 | 0.801 |       |       |       |
| VTC4   | 0.852 | 0.726 |       |       |       |
| VTC5   | 0.888 | 0.789 |       |       |       |

Source: Field Survey (2022)

Results of the indicator reliability from Table 27 showed that none of the observed variables produced a loading score equal or less than 0.708. Thus showing a relatively high IR score. Specifically, the range of the IR as captured in Table 40 is  $0.521 \leq IR \leq 0.867$ . The results show that all the latent variables have strong internal consistency as evident in the high-reliability scores. All the constructs have met the reliability threshold scores greater than 0.7 for both the cronbach alpha and the composite reliability test ( $\rho_c$ ). Evidently, it can be observed in Table 27 that all the latent variables have strong validity scores. The range of the AVE is  $0.635 \leq AVE \leq 0.819$ .

#### ***Discriminant validity of CP-TC Model<sup>MRC</sup>***

Finally, discriminant validity is the last measurement assessment criterion to be performed. Discriminant validity evaluates how unique a construct is, from other constructs or latent variables in model specification. This study follows the recommended Heterotrait–Monotrait ratio (HTMT) of

correlations (Henseler et al., 2015) and cross-loading to assess the discriminant validity. The threshold for HTMT is  $<0.90$ . Thus, the farther away the score is from 1 the better the uniqueness. Similar implications apply to the cross-loading. There is a higher degree of uniqueness where a variable loads higher on its own latent variable than other variables in a model. The results of cross-loading are reported in the Appendix whereas those of HTMT is reported in Table 28.

**Table 28: HTMT (CP-TC Model<sup>MRC</sup>)**

|       | ADC   | CERT  | CON   | EMADC | EMPC  | EQU   | ETC   | PC    | TMADC | TMPC  |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| ADC   |       |       |       |       |       |       |       |       |       |       |
| CERT  | 0.184 |       |       |       |       |       |       |       |       |       |
| CON   | 0.277 | 0.160 |       |       |       |       |       |       |       |       |
| EMADC | 0.144 | 0.321 | 0.313 |       |       |       |       |       |       |       |
| EMPC  | 0.131 | 0.309 | 0.286 | 0.550 |       |       |       |       |       |       |
| EQU   | 0.059 | 0.262 | 0.151 | 0.432 | 0.482 |       |       |       |       |       |
| ETC   | 0.172 | 0.356 | 0.195 | 0.707 | 0.532 | 0.340 |       |       |       |       |
| PC    | 0.601 | 0.118 | 0.176 | 0.127 | 0.114 | 0.071 | 0.055 |       |       |       |
| TMADC | 0.496 | 0.056 | 0.229 | 0.098 | 0.156 | 0.088 | 0.064 | 0.823 |       |       |
| TMPC  | 0.084 | 0.417 | 0.352 | 0.439 | 0.627 | 0.439 | 0.475 | 0.155 | 0.112 |       |
| VTC   | 0.069 | 0.263 | 0.303 | 0.506 | 0.481 | 0.366 | 0.387 | 0.197 | 0.230 | 0.469 |

Source: Field Survey (2022)

Table 28 presents the statistics of the scores from HTMT. All the statistics are within the acceptable threshold. The range of the HTMT is:  $0.056 \leq \text{HTMT} \leq 0.823$ . This suggests that all the indicators and the constructs attained discriminant validity.

*Structural model assessment of corruption perception and tax compliance moderated by media reportage (CP-TC Model<sup>MRC</sup>)*

The study then proceeds to examine the soundness of the structural specifications since the data meet all the measurement assessment criteria.

One basic reason for evaluating a structural models is to ensure that the estimates are not spurious. As noted earlier, the study follows PLS-SEM throughout the estimation process including criteria for structural model assessment. The diagnostic tests for the structural model include collinearity, significance and relevance of the structural model, explanatory power, predictive power and F-square.

*Significance and relevance, VIF,  $f^2$  and  $R^2$  of the MRC-TC Model<sup>M</sup>*

The collinearity criterion is fundamental for structural fitness. The assumption is that a good structural model should not exhibit multicollinearity problems. This is relevant in SEM-PLS since its path coefficients are based on ordinary least squares (OLS) which may generate spurious coefficients under multi-collinearity situations (Sarstedt & Mooi, 2019). The study, therefore, evaluates the collinearity situation to determine the fitness of the model specifications to avoid spurious regression and biased estimates. Collinearity is assessed in this study using the Variance inflation factor (VIF). The conclusive criterion is that a VIF score greater than 5 is a symptom of a serious multi-collinearity problem. The study again proceeds to conduct the second diagnostic test having found no serious collinearity problems. The second structural model diagnostic is the test of the significance and relevance of the model. The significance is built on the standard errors of bootstrapping. The estimates become significant when the p-value is less than 5% and 1%



within the confidence interval of 95% and 99% respectively. The 5% and 1% are indications of moderate significance and strong significance respectively. When the coefficients lie between -1 and +1, they are said to be relevant. When the score is closer to -1, it indicates a strong negative relationship and closer to 1 shows a strong positive relationship. The study proceeds to evaluate the explanatory power of the model. The explanatory power measures the variance in the endogenous variable attributable to the predictors. It is assessed using the coefficient of determination ( $R^2$ ). The  $R^2$  generally falls between 0 and 1. There is no universal threshold for  $R^2$ , even though some researchers have suggested that the closer the value to 1, the better (Hair et al., 2011). It has however been acknowledged that  $R^2$  of about 10% is acceptable (Hair et al., 2020) especially when the other pre and post-diagnostics tests are in support of the specifications. The effect size analysis is also relevant in a moderating term(s) model. In an moderating model, it is used to determine the unique contribution of the moderating term to the R-square. The traditional approach for determining the effect size is the F-square. It has been suggested that F-square is realistic and appropriate when it is greater than zero (0) (Aguinis et al., 2005; Kenny, 2018). These results are captured in Table 29. The path coefficient diagram is however presented in appendix C.

**Table 29: Significance and relevance, VIF and  $f^2$  of the MRC-TC Model<sup>M</sup>**

| Path        | Beta      | Std. dev. | T stats | P values | $f^2$ | VIF   |
|-------------|-----------|-----------|---------|----------|-------|-------|
| ADC -> ETC  | 0.155***  | 0.036     | 4.249   | 0.000    | 0.030 | 1.624 |
| ADC -> VTC  | -0.110*** | 0.042     | 2.598   | 0.009    | 0.008 | 1.571 |
| CERT -> ETC | 0.075**   | 0.035     | 2.109   | 0.035    | 0.001 | 0.001 |
| CERT -> VTC | 0.079**   | 0.038     | 2.093   | 0.036    | 0.011 | 1.294 |
| CON -> ETC  | -0.058    | 0.031     | 1.869   | 0.062    | 0.004 | 1.247 |
| CON -> VTC  | 0.084**   | 0.033     | 2.522   | 0.012    | 0.001 | 0.001 |

|                             |                      |                           |       |       |       |       |
|-----------------------------|----------------------|---------------------------|-------|-------|-------|-------|
| EMADC -> ETC                | 0.488***             | 0.050                     | 9.815 | 0.000 | 0.306 | 1.517 |
| EMADC -> VTC                | 0.259***             | 0.038                     | 6.754 | 0.000 | 0.074 | 1.517 |
| EMPC -> ETC                 | 0.160***             | 0.042                     | 3.834 | 0.000 | 0.028 | 1.814 |
| EMPC -> VTC                 | 0.139***             | 0.043                     | 3.213 | 0.001 | 0.017 | 1.817 |
| EQU -> ETC                  | -0.015               | 0.045                     | 0.346 | 0.729 | 0.001 | 1.311 |
| EQU -> VTC                  | 0.079**              | 0.038                     | 2.065 | 0.039 | 0.007 | 1.312 |
| PC -> ETC                   | 0.133**              | 0.066                     | 2.027 | 0.043 | 0.006 | 4.334 |
| PC -> VTC                   | -0.157**             | 0.067                     | 2.335 | 0.020 | 0.005 | 4.234 |
| TMADC -> ETC                | 0.052                | 0.076                     | 0.688 | 0.491 | 0.001 | 4.705 |
| TMADC -> VTC                | 0.049                | 0.085                     | 0.576 | 0.565 | 0.001 | 4.619 |
| TMPC -> ETC                 | 0.142***             | 0.047                     | 3.021 | 0.003 | 0.031 | 1.589 |
| TMPC -> VTC                 | -0.130***            | 0.050                     | 2.615 | 0.009 | 0.019 | 1.641 |
| PC <sup>EMPC</sup> -> ETC   | -0.023               | 0.029                     | 0.791 | 0.429 | 0.001 | 1.476 |
| PC <sup>EMPC</sup> -> VTC   | 0.102***             | 0.035                     | 2.931 | 0.003 | 0.015 | 1.462 |
| PC <sup>TMPC</sup> -> ETC   | 0.078***             | 0.029                     | 2.674 | 0.008 | 0.009 | 1.591 |
| PC <sup>TMPC</sup> -> VTC   | -0.085               | 0.045                     | 1.882 | 0.060 | 0.001 | 1.591 |
| ADC <sup>TMADC</sup> -> ETC | 0.057                | 0.037                     | 1.545 | 0.122 | 0.003 | 2.147 |
| ADC <sup>TMADC</sup> -> VTC | 0.131**              | 0.052                     | 2.539 | 0.011 | 0.015 | 2.145 |
| ADC <sup>EMADC</sup> -> ETC | 0.098**              | 0.040                     | 2.429 | 0.015 | 0.019 | 1.150 |
| ADC <sup>EMADC</sup> -> VTC | 0.054                | 0.031                     | 1.770 | 0.077 | 0.004 | 1.152 |
|                             | <b>R<sup>2</sup></b> | <b>Adj. R<sup>2</sup></b> |       |       |       |       |
| ETC                         | 0.474                | 0.464                     |       |       |       |       |
| VTC                         | 0.364                | 0.353                     |       |       |       |       |

Note: Adj., Std dev., T stats,  $f^2$  and VIF denote adjusted, standard deviation, T statistics, effect size and Variance Inflation Factor. \*\* and \*\*\* denote significance of 5% and 1% respectively.

Source: Field Survey (2022)

From the results as contained in Table 29, it can be noticed that all the VIF values are not more than the threshold of 5. Therefore, a conclusion can be drawn that there are no serious collinearity challenges. The range of the VIF is  $0.001 \leq VIF \leq 4.705$ . Again, all the predictors including the control variables are significant, other than CON -> ETC, EQU -> ETC, TMADC -> ETC, TMADC -> VTC, PC<sup>EMPC</sup> -> ETC, PC<sup>EMPC</sup> -> VTC, ADC<sup>TMADC</sup> -> ETC

and  $ADC^{TMADC} \rightarrow VTC$ . The magnitude of the path coefficients fall within the threshold of -1 to +1. The range of path coefficients (PathC) of all predictors exhibits relevance:  $-0.16 \leq PathC \leq 0.49$ . The results further show that both VTC and ETC models have satisfactory adjusted  $R^2$  values of 0.447 and 0.381 respectively. The results show that each of the predictors and moderating terms has a unique contribution to the R-square as each of them has F-square greater than zero (0).

#### *Predictive power of CP-TC Model<sup>M</sup>*

The fourth structural evaluation criterion assesses the predictive power of the model. The study follows the Q-square to determine the model's predictive power. According to the norm, when the Q-square is not equal to or not less than zero, then the model is said to have significant predictive power.

The results of this analysis have been reported in Table 30.

**Table 30: Predictive Power (CP-TC Model<sup>MRC</sup>)**

| Indicators | Q <sup>2</sup> predict |
|------------|------------------------|
| ETC1       | 0.330                  |
| ETC2       | 0.353                  |
| ETC3       | 0.320                  |
| ETC4       | 0.333                  |
| VTC1       | 0.240                  |
| VTC2       | 0.260                  |
| VTC3       | 0.304                  |
| VTC4       | 0.230                  |
| VTC5       | 0.228                  |

Source: Field Survey (2022)

From Table 30, each of the indicators of the endogenous variable has  $Q^2$  greater than 0 suggesting that the model has significant predictive power.

#### **Interpretation and discussion of the results from CP-TC Model<sup>MRC</sup>**

Having determined that both measurement and structural models meet the threshold criteria, the study proceeds to present the results for the

hypotheses formulated under this objective. These hypotheses are estimated through two models: the voluntary tax compliance model (VTC) and the enforced tax compliance model (ETC). The results of the structural model are presented in two streams: path analysis and causality framework.

Table 29 captures the path coefficients of the VTC model and the ETC model. The independent variables are the political corruption (PC) and the administrative corruption (ADC) while the moderators are thematic media reportage of political corruption (TMPC), thematic media reportage of administrative corruption (TMADC), episodic media reportage of political corruption (EMPC), episodic media reportage of administrative corruption (EMADC) as well as the underlying vector of controls. The interacting terms for the analyses are political corruption moderated by thematic media reportage of political corruption ( $PC^{TMPC}$ ), thematic media reportage of administrative corruption ( $ADC^{TMADC}$ ), episodic media reportage of political corruption ( $PC^{EMPC}$ ) and episodic media reportage of administrative corruption ( $ADC^{EMADC}$ ).

From Table 29, the voluntary tax compliance model indicated that political corruption (PC), administrative corruption (ADC), thematic media reportage of political corruption (TMPC), thematic media reportage of administrative corruption (TMADC), episodic media reportage of political corruption (EMPC), episodic media reportage of administrative corruption (EMADC) retained their original directional relationships with voluntary tax compliance except for thematic media reportage of administrative corruption (TMADC). However, the magnitude of the coefficients was relatively dissimilar to the direct analyses conducted under objectives one and two.

In terms of the moderating terms: administrative corruption moderated by thematic media reportage of administrative corruption ( $ADC^{TMADC}$ ) exhibited a significant positive effect on voluntary tax compliance ( $\beta = 0.127$ ,  $p\text{-value} < 0.05$ ). The null hypothesis of this moderator on the relationship between TMADC and VTC is rejected. This result suggests that all other things being equal, an increase in the moderator (TMADC) can totally shrink the negative consequence of administrative corruption on voluntary tax compliance. Thus, the moderator can improve voluntary tax compliance amidst administrative corruption perception. This is supported by the nature of the interacting graph presented in Figure 9.

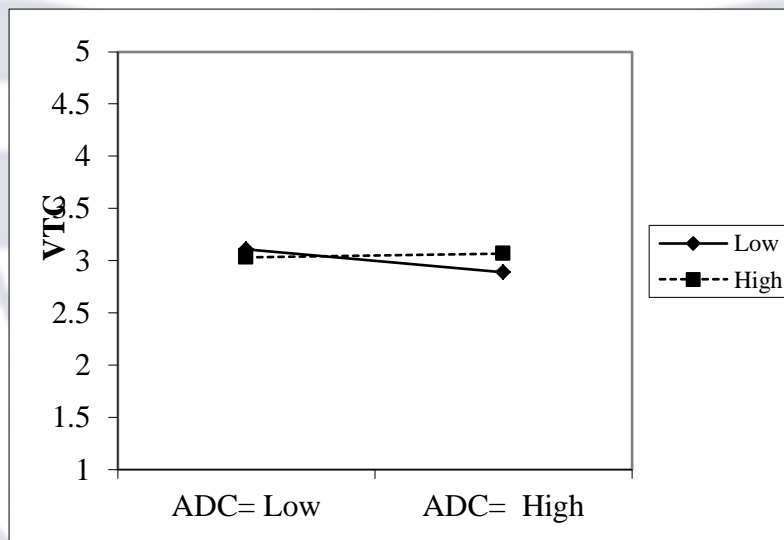


Figure 8: Simple slope for thematic media reportage of administrative corruption moderating administrative corruption and voluntary tax compliance relationship

Source: Field Survey (2022)

Also, political corruption moderated by episodic media reportage of political corruption ( $PC^{EMPC}$ ) showed positive significant effect ( $\beta = 0.100$ ,  $p\text{-value} < 0.05$ ) on voluntary tax compliance. This leads to the rejection of the null hypothesis. Meaning, episodic media reportage of political corruption could shrink off about 10% of the negative consequence of political corruption

on voluntary tax compliance. This reflects the simple slope of the moderating term as shown in Figure 10.

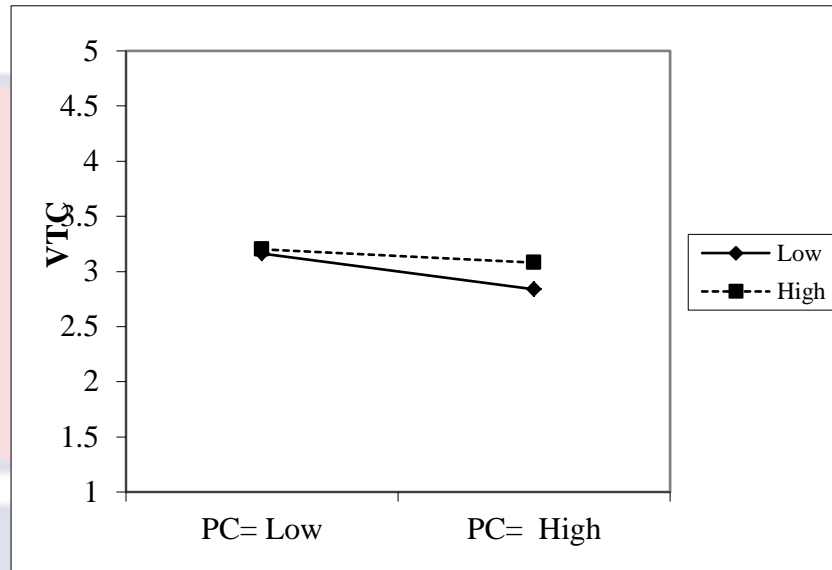


Figure 9: Simple slope for episodic media reportage of political corruption moderating political corruption and voluntary tax compliance relationship

Source: Field Survey (2022)

On the other hand, political corruption moderated by thematic media reportage of political corruption ( $PC^{TMPC}$ ) exhibited an insignificant effect ( $\beta = 0.085$ ,  $p\text{-value} > 0.05$ ) on voluntary tax compliance. This implies that the null hypothesis is not rejected. It is further observed that administrative corruption moderated by episodic media reportage of administrative corruption ( $ADC^{EMADC}$ ) also exhibited an insignificant effect on voluntary tax compliance. Hence, the null hypothesis that there is no moderating effect of EMADC on the relationship between ADC and VTC is not rejected.

In the enforced tax compliance model, it can be observed Table 29 that political corruption moderated by thematic media reportage of political corruption ( $PC^{TMPC}$ ) exhibited a significant positive influence ( $\beta = 0.079$ ,  $p\text{-value} < 0.05$ ) on enforced tax compliance. This leads to the rejection of the null

hypothesis. Thus, holding other factors constant, an increase in the standard deviation of thematic media reportage of political corruption (TMPC) could amplify the positive effect on enforced tax compliance by 0.079 and vice-versa. These results are supported by the upward trajectory of the moderating term graph presented in Figure 11.

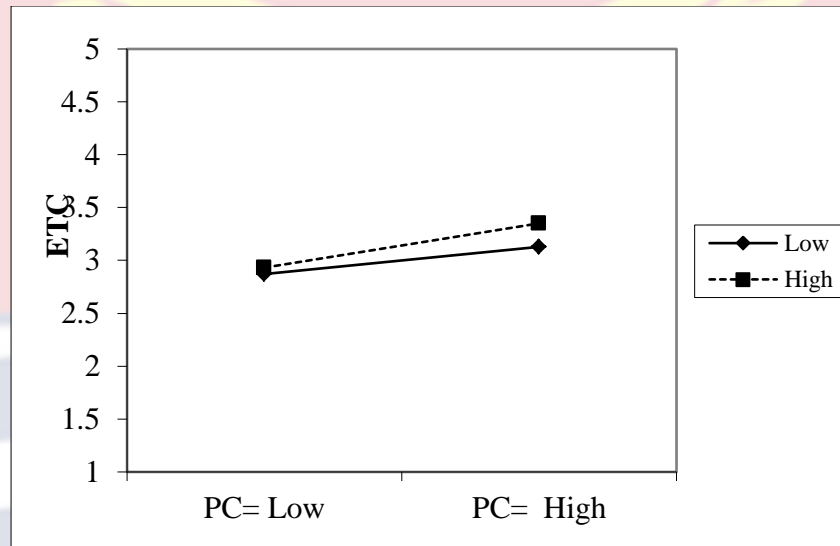


Figure 10: Simple slope for thematic media reportage of political corruption moderating political corruption and enforced tax compliance relationship

Source: Field Survey (2022)

It is further observed that administrative corruption moderated by episodic media reportage of administrative corruption ( $ADC^{EMADC}$ ) also exhibited significant positive effect ( $(\beta = 0.100, p\text{-value} < 0.05)$ ) on enforced tax compliance. This implies that episodic media reportage of administrative corruption could improve the positive effect of administrative corruption on enforced tax compliance. These results also reflect the slope graph of the moderating shown in Figure 12.

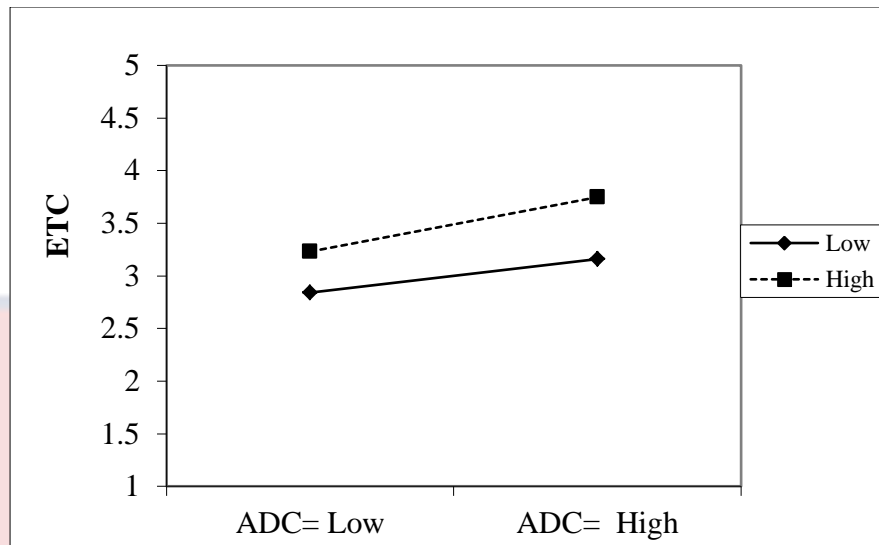


Figure 11: Simple slope for episodic media reportage of administrative corruption moderating administrative corruption and enforced tax compliance relationship

Source: Field Survey (2022)

Contrarily, administrative corruption moderated by thematic media reportage of administrative corruption ( $ADC^{TMADC}$ ) exhibited an insignificant effect on enforced tax compliance. The study, therefore, failed to reject the null hypothesis. Thus, TMPC does not significantly moderate the relationship between enforced tax compliance and administrative corruption perception. Moreover, it can also be seen from Table 29 that political corruption moderated by episodic media reportage of political corruption ( $PC^{EMPC}$ ) showed an insignificant effect on voluntary tax compliance. This means that episodic media reportage of political corruption does not play a significant moderating role in the political corruption-enforced tax compliance relationship.

These findings show that thematic media reportage of administrative corruption moderates the relationship between administrative corruption perception and voluntary tax compliance positively. Similarly, the presence of



episodic media reportage of political corruption amplifies the relationship between political corruption perception and voluntary tax compliance. The findings partly disagree with the study's expectations. The study expected media reportage of corruption to aggravate taxpayers' corruption perception and negatively affect their tax compliance behaviour.

The findings partly disaffirm some evidence in existing studies about the connection between corruption and media reportage of corruption even though there is virtually no direct investigation of the moderating role of media reportage of corruption. Studies on corruption have shown that media reportage on corruption can amplify the devastating effect of corruption (Čábelková & Hanousek, 2004; Jahnke, 2015) contrary to the positive moderating effect of thematic media reportage of administrative corruption and episodic media reportage of political corruption found in this study.

The findings however suggest that taxpayers are more sensitive to political corruption than administrative corruption when the media frame is episodic. On the other hand, taxpayers are more susceptible to administrative corruption than political corruption when the media frame follows thematic reportage in altering their voluntary tax compliance. This evidence is not only unique and novel but also brings a new dimension to social exchange theory (SET). The findings of the moderating role of thematic media reportage of administrative corruption on the corruption-voluntary tax compliance dynamics seem to question the assumption of a strict mechanism of breach-reaction exchanges. Taxpayers seem to evaluate the nature of the breach to determine their reaction.

The findings suggest that taxpayers expect more accountability and concrete action in dealing with the canker of corruption from the political class. Any of such actions highlighted by the media would repose confidence in the taxpayer, and thereby enhance their voluntary tax compliance behaviour. Furthermore, taxpayers' voluntary compliance behaviour is enhanced when the media thematically highlights administrative corruption. Taxpayers are likely to consider such reportage as a fertile ground to be seen as voluntarily compliant taxpayers in the books of tax officials.

Further implication of the findings is that treating corruption as a single, generic construct rather than a multidimensional construct may be erroneous in tax policy and could obscure the true response from taxpayers. The findings have demonstrated that taxpayers' responses to mistrust and breaches such as misappropriation and corruption by political actors and administrative officials could differ. Corruption involving political actors is more likely to elicit a strong and fierce response from the taxpayers than misappropriation and breach from administrative officials in respect of voluntary tax compliance.

Moreover, the positive moderating roles of episodic political corruption and thematic media reportage of administrative corruption are surprising when situated in the context of existing literature (Chen, Power & Stomberg, 2015; Kasper et al., 2014; Miloš et al., 2020). However, this unique contribution suggests that amid high corruption perception (political or administrative), part of episodic and thematic framing may serve as important

mechanisms to water down the negative perceptions and elicit positive tax compliance voluntarily.

The findings further extend the assumptions of social exchange theory (SET) and self-regulatory focus theory by emphasising the role of situational cues and locus of control in prevention-promotion focus dynamics and breach-reaction nexus. The positive moderating effect of media framing unpleasant news such as episodic media framing of political corruption and thematic media reportage of administrative corruption could either inhibit the devastating effect of the reaction to the news. This extrapolation is enforced by the moderating effects of episodic and thematic media reportage respectively on political and administrative corruption perceptions of voluntary tax compliance behaviour.

In the enforced tax compliance model, the study found that media reportage of corruption (thematic and episodic) could positively moderate the relationship between corruption perception and enforced tax compliance other than thematic media reportage of administrative corruption and episodic media reportage of political corruption. The evidence of a positive moderating effect of thematic media reportage of political corruption on political corruption and enforced tax compliance affirms the apriori.

Although there is no direct empirical evidence to situate these findings, the general conclusion in the existing literature does not support the positive moderating effect of thematic media reportage of political corruption, thematic media reportage of political corruption and episodic media reportage of administrative corruption on corruption and enforced tax compliance

relationship (Chen, Power and Stomberg, 2015; Kasper et al. 2014; Miloš et al, 2020). The general assertion is that media reportage of corruption could undermine tax compliance through high corruption perception. This suggests that at best media reportage of corruption is expected to play a negative moderating role in the corruption-enforced tax compliance nexus.

Nevertheless, the positive moderating role of media reportage of corruption on the corruption-enforced tax compliance relationship supports the extended argument drawn from social exchange theory (SET). Although the traditional assumption of SET suggests a negative reaction of taxpayers to perceive corruption (i.e. breach-reaction assumption), the findings in this study have demonstrated that due to power imbalances, the government can force or coerce taxpayers to still honour their tax obligation through the evocation of sanctions, the threat of sanctions and other punitive measures.

It is also important to acknowledge that the potency of coercion is dependent on the nature of media framing and corruption. As observed in this study when the episodic media reportage of political corruption moderates with political corruption, it may render the extended assumption of power imbalances impotent to whip taxpayers into positive compliance amid perceived political corruption. However, the moderating effect of episodic media reportage of political corruption is observed to be insignificant. The role of the moderating effect of media reportage on corruption perception and enforced tax compliance nexus seem to agree with the framing effect theory. The Framing Effect Theory (FET) suggests that how news is presented to the

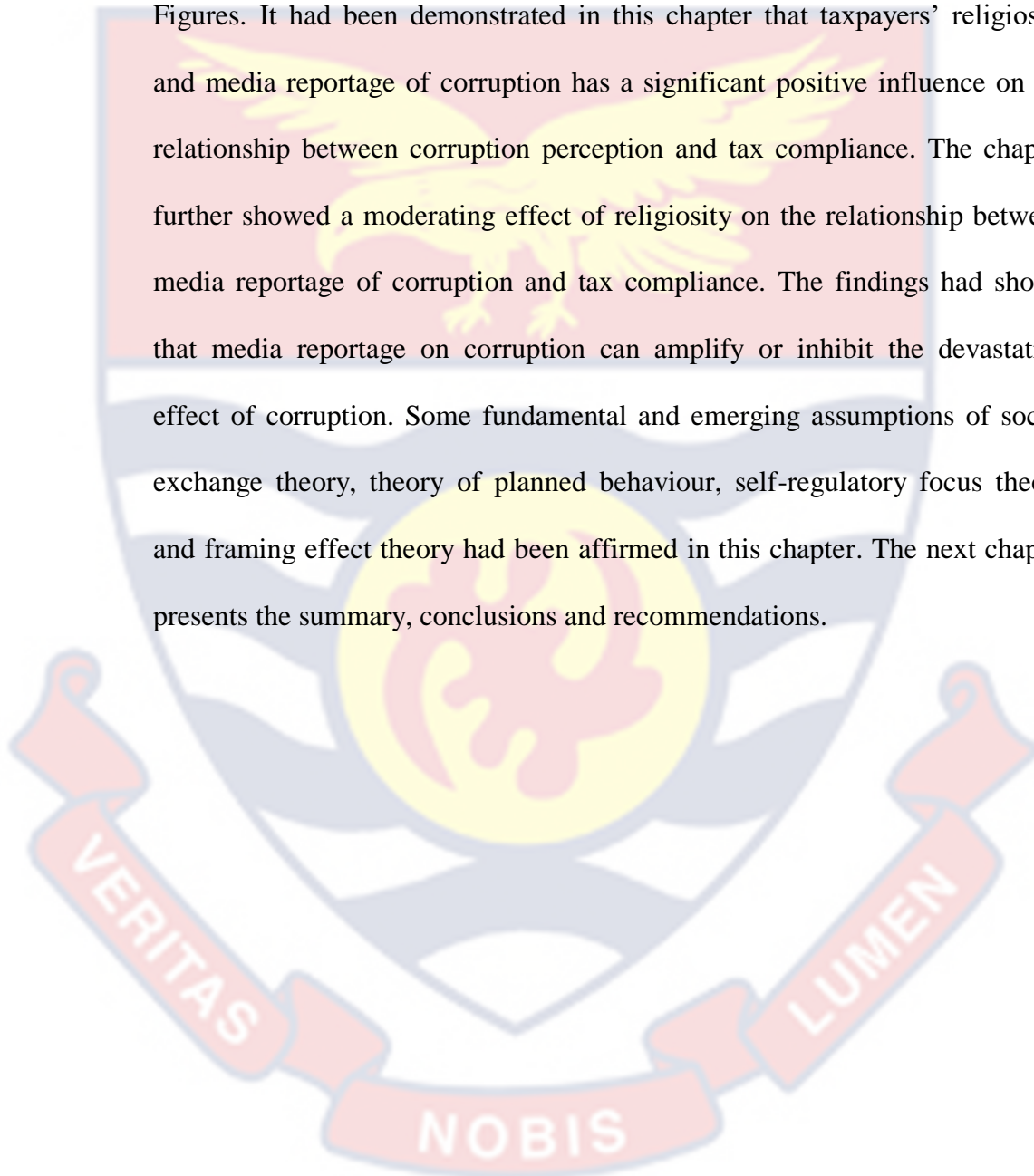
audience (called the frame) influences the choices people make about how to process that information (Tewksbury & Scheufele, 2009).

The findings imply that tax payers adapt their attitude in tandem with the news framing on corruption (thematic and episodic frame), an argument which is fundamental to FET (Entman, 2010; Waterton & Watson, 2013). Thus, this study has extended the implication of the framing effect theory to tax compliance dynamics. Another implication of the evidence found in this study is that when the media portrays corruption as a chronic societal problem (thematic media reportage of administrative corruption) and emphasises the aberrant and corrupt activities of the administrative class (administrative corruption), tax policy intervention through sanctions, the threat of sanctions and coercions may not significantly affect tax payers' compliance behaviour positively.

The findings in this study (enforced tax compliance model) coupled with the evidence in the voluntary tax compliance present novel evidence suggesting that the nature and direction of the interacting effect of media reportage of corruption on tax compliance may be dependent on both the media framing (thematic or episodic media reportage of corruption), nature of corruption perception (political or administrative) and type of tax compliance in focus (voluntary or enforced tax compliance). These findings provide evidence of the complexity of the dynamics of corruption, media reportage of corruption and tax compliance.

### Chapter Summary

The chapter presented and discussed the moderating models in this study. These models were discussed within the structures of the third, fourth and fifth objectives of the study. The results were presented in Tables and Figures. It had been demonstrated in this chapter that taxpayers' religiosity and media reportage of corruption has a significant positive influence on the relationship between corruption perception and tax compliance. The chapter further showed a moderating effect of religiosity on the relationship between media reportage of corruption and tax compliance. The findings had shown that media reportage on corruption can amplify or inhibit the devastating effect of corruption. Some fundamental and emerging assumptions of social exchange theory, theory of planned behaviour, self-regulatory focus theory and framing effect theory had been affirmed in this chapter. The next chapter presents the summary, conclusions and recommendations.



## CHAPTER SIX

### SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

#### **Introduction**

This is the sixth and final chapter of the thesis. The thesis focuses on the interconnectedness of corruption perception, media reportage of corruption, religiosity and tax compliance among self-employed in Ghana. The chapter is structured to reflect the summary of the thesis, key findings emanating from the study, conclusions and recommendations emanating from the major findings and conclusions drawn in this study. The major contribution to knowledge is also presented in this chapter including suggestions for future study. The summary consists of the overview of the study including the motivation of the study, analytical framework and the key findings from the research objectives. The conclusion section presents the specific conclusions drawn from the major findings emanated from the study. Following the key findings and conclusions, relevant recommendations and suggestions are presented. The chapter would also discuss specific limitations and suggestions for future studies.

#### **Summary of the Study**

This study investigated the empirical dynamics of the corruption, corruption reportage, religiosity and tax compliance in Ghana. The study used the self-employed as the unit of analysis. The study was conceived on the ground that despite the important role of tax in the development of countries, the mobilisation of tax revenue continues to be a daunting challenge to most

countries, especially sub-Saharan African economies. These challenges are reflected in the annual contribution of tax revenue to the Gross Domestic Product (GDP).

This thesis was structured through five specific objectives. The first objective was to examine the relationship between corruption perception and tax compliance behaviour in Ghana. The second objective of the study sought to assess the relationship between media reportage and tax compliance behaviour in Ghana. Objective three focused on investigating the moderating role of taxpayers' religiosity in the relationship between corruption perception and tax compliance behaviour in Ghana. The fourth objective also sought to determine the moderating role of taxpayers' religiosity in the relationship between media reportage and tax compliance behaviour in Ghana. Finally, the fifth objective considered the analysis of the moderating effect of media reportage on the relationship between corruption perception and tax compliance behaviour in Ghana.

Quantitative analytical techniques and survey design were adopted for this study. The research thinking and philosophy followed in this study is post-positivism. The study population was self-employed in Ghana. Primary data were collected and used for the study. The data were collected within three months and commencing in June, 2022 and ending in August, 2022. A multi-stage sampling technique with proportionate allocation was employed to select a sample size of 887. Out of the 887 questionnaires administered, 755 were received and coded. The study employed partial least square structural equation modelling (PLS-SEM) to conduct the investigations. PLS-SEM was used to code and analyse all the data. The data were subjected to pre and post-



diagnostic analyses such as frequencies and descriptive statistics, measurement models evaluation, structural models assessment and multiple regression. The Likert scale was used to measure relevant observed variables. The observed variables were as mapped to corresponding latent variables. The research hypotheses that guided the study included;

1.  $H_{1a0}$ : Taxpayers' perception of political corruption has no significant effect on voluntary tax compliance in Ghana

$H_{1b0}$ : Taxpayers' perception of administrative corruption does not have a significant effect on voluntary tax compliance in Ghana

$H_{1c0}$ : There is no significant effect of Tax payers' perception of political corruption on enforced tax compliance in Ghana

$H_{1d0}$ : Taxpayers' perception of administrative corruption has no significant effect on enforced tax compliance in Ghana

2.  $H_{2a0}$ : Thematic media reportage of political corruption has no significant influence on voluntary tax compliance in Ghana

$H_{2b0}$ : Thematic media reportage of administrative corruption has no significant influence on voluntary tax compliance in Ghana

$H_{2c0}$ : Episodic media reportage of political corruption does not have a significant influence on voluntary tax compliance behaviour in Ghana

$H_{2d0}$ : Episodic media reportage of administrative corruption does not have a significant influence on voluntary tax compliance behaviour in Ghana

$H_{2e0}$ : There is no significant influence of thematic media reportage of political corruption on enforced tax compliance behaviour in Ghana

$H_{2f0}$ : There is no significant influence of thematic media reportage of administrative corruption on enforced tax compliance behaviour in Ghana

H<sub>2g0</sub>: Episodic media reportage of political corruption has no significant influence on enforced tax compliance behaviour in Ghana

H<sub>2h0</sub>: Episodic media reportage of administrative corruption has no significant influence on enforced tax compliance behaviour in Ghana

3. H<sub>3a0</sub>: Taxpayers' religiosity has no significant moderating role in the relationship between political corruption perception and voluntary tax compliance behaviour in Ghana

H<sub>3b0</sub>: Taxpayers' religiosity has no significant moderating role in the relationship between administrative corruption perception and voluntary tax compliance in Ghana

H<sub>3c0</sub>: There is no significant moderating effect of taxpayers' religiosity on the relationship between political corruption perception and enforced tax compliance behaviour in Ghana

H<sub>3d0</sub>: There is no significant moderating effect of taxpayers' religiosity on the relationship between administrative corruption perception and enforced tax compliance behaviour in Ghana

4. H<sub>4a0</sub>: There is no significant moderating role of taxpayers' religiosity on the effect of thematic media reportage of political corruption on voluntary tax compliance behaviour in Ghana

H<sub>4b0</sub>: There is a significant moderating role of taxpayers' religiosity on the effect of thematic media reportage of administrative corruption on voluntary tax compliance behaviour in Ghana

H<sub>4c0</sub>: There is no significant moderating role of taxpayers' religiosity on the effect of episodic media reportage of political corruption on voluntary tax compliance behaviour in Ghana

H<sub>4d0</sub>: There is no significant moderating role of taxpayers' religiosity on the effect of episodic media reportage of administrative corruption on voluntary tax compliance behaviour in Ghana

H<sub>4e0</sub>: Taxpayers' religiosity has no significant moderating role on the relationship between thematic media reportage of political corruption and enforced tax compliance behaviour in Ghana

H<sub>4f0</sub>: Taxpayers' religiosity has no significant moderating role in the relationship between thematic media reportage of administrative corruption and enforced tax compliance behaviour in Ghana

H<sub>4g0</sub>: Taxpayers' religiosity has no significant moderating role in the relationship between episodic media reportage of political corruption and enforced tax compliance behaviour in Ghana

H<sub>4h0</sub>: Taxpayers' religiosity has no significant moderating role in the relationship between episodic media reportage of administrative corruption and enforced tax compliance behaviour in Ghana

5. H<sub>5a0</sub>: There is no significant moderating effect of thematic media reportage of political corruption in the relationship between political corruption perception and voluntary tax compliance behaviour in Ghana

H<sub>5b0</sub>: Thematic media reportage of administrative corruption has no significant moderating role in the relationship between administrative corruption perception and voluntary tax compliance behaviour in Ghana

H<sub>5c0</sub>: Episodic media reportage of political corruption does not have a significant moderating role in the relationship between political corruption perception and voluntary tax compliance behaviour in Ghana

H<sub>5d0</sub>: Episodic media reportage of administrative corruption does not have a significant moderating role in the relationship between administrative corruption perception and voluntary tax compliance behaviour in Ghana

H<sub>5e0</sub>: There is no significant moderating effect of thematic media reportage of political corruption in the relationship between administrative corruption perception and enforced tax compliance behaviour in Ghana

H<sub>5f0</sub>: There is no significant moderating effect of thematic media reportage of administrative corruption in the relationship between administrative corruption perception and enforced tax compliance behaviour in Ghana

H<sub>5g0</sub>: Episodic media reportage of political corruption has no significant moderating effect on political corruption and enforced tax compliance behaviour in Ghana

H<sub>5h0</sub>: Episodic media reportage of administrative corruption has no significant moderating effect on administrative corruption perception and enforced tax compliance behaviour in Ghana

### **Summary of Key Findings**

The key findings from the study were as follows:

- The results show that political corruption has a significant negative effect on the level of voluntary tax compliance. It is further observed from VTC model that political corruption (PC) and administrative corruption (ADC) had negative path coefficients. In respect of the ETC model, it is revealed that PC and ADC have a significant positive effect on enforced tax compliance.
- The voluntary tax compliance model (VTC) showed that the path coefficients of thematic media reportage of political corruption (TMPC)

and thematic media reportage of administrative corruption (TMADC) were negative and significant. The VTC further revealed path coefficients positive and significant path coefficients for episodic media reportage of political corruption (EMPC) and episodic media reportage of administrative corruption (EMADC). In respect of the ETC model, the study found positive and significant path coefficients for EMPC and EMADC. Also, TMADC and TMPC had a significant and positive effect on ETC.

- It was found from the third research hypothesis that religiosity moderated the following relationships; VTC and political corruption, and VTC and administrative corruption. Furthermore, from the ETC model, it was found that political corruption and administrative corruption moderated by religiosity exhibited an insignificant negative effect on enforced tax compliance.
- The fourth objective also revealed that the moderator (religiosity) showed a significant positive path coefficient on voluntary tax compliance. The two thematic media reportage variables (thematic media reportage of political corruption and administrative corruption) moderated by religiosity (TMPC<sup>R</sup> and TMPC<sup>R</sup>) exhibited positive and significant path coefficients. Additionally, the path coefficients for episodic media reportage of political corruption moderated by religiosity (EMPC<sup>R</sup>) were found to be positive and significant. Also, the path coefficient of episodic media reportage of administrative corruption moderated by religiosity was also found to be significant and positive. Conversely, religiosity does not

moderate the relationship between media reportage of corruption (TMPC, TMADC, EMPC and EMADC) and ETC.

- The study found from the fifth objective of the study that the moderators (TMADC, TMPC, EMADC and EMPC) showed significant path coefficients on voluntary tax compliance and enforced tax compliance. Particularly, administrative corruption moderated by thematic media reportage of administrative corruption ( $ADC^{TMADC}$ ) exhibited a significant positive effect on voluntary tax compliance. Consistent with the moderator (EMPC), political corruption moderated by episodic media reportage of political corruption ( $PC^{EMPC}$ ) showed a positive significant effect on voluntary tax compliance. Also, in terms of the enforced tax compliance model, political corruption moderated by thematic media reportage of political corruption ( $PC^{TMPC}$ ) exhibited a significant negative effect on enforced tax compliance. Furthermore, administrative corruption moderated by episodic media reportage of administrative corruption ( $ADC^{EMADC}$ ) also exhibited a significant positive effect on enforced tax compliance.

### Conclusions

The study follows the key findings from the study to draw conclusions from each of the objectives. The conclusions are therefore presented according to the specific objectives of this study.

- The findings show from the first research objective that political corruption and administrative corruption have a negative effect on voluntary tax compliance but a positive effect on enforced tax compliance. It is therefore concluded that the effect of corruption on tax compliance

can be positive or negative depending on the type of tax compliance of interest (i.e. either to achieve voluntary tax compliance or enforced tax compliance). The evidence in this study shows that corruption whether political or administrative could erode voluntary tax compliance. However, when enforcement is heightened, positive tax compliance can still be achieved. The evidence from this study shows that the corruption-tax compliance nexus is a complex relationship with the magnitude and direction potentially defined by the operationalisation of the constructs and the actors within the relationship. The current understanding from the findings in this study further provides that corruption and tax compliance have multi-dimensions and each dimension is likely to elicit different responses and exhibit the different outcome

- Regarding the second objective, the focus was to assess the relationship between media reportage and tax compliance behaviour in Ghana. The evidence implies that thematic media reportage of political and administrative corruption has a significant negative effect on voluntary tax compliance but a positive on enforced tax compliance. Conversely, episodic media reportage of political corruption and episodic media reportage of administrative corruption were found to have a positive effect on voluntary tax compliance and enforced tax compliance respectively. The findings in this objective present novel evidence suggesting that the nature and direction of the effect of media reportage of corruption on tax compliance may be dependent on media framing either thematic or episodic media reportage of corruption. It is further concluded that when government and the media landscape continue to project corruption as an

individualised problem (episodic) rather than a societal systemic problem (thematic) and respond appropriately in dealing with the perpetrators, taxpayers would still react positively despite the apparent breach. Thus, post-breach interventions are as potent as the prevention of breaches in the social exchanges as found in this study. Another conclusion is that recipients of media reports (thematic and episodic frames) adapt their attitude in tandem with the news framing. Thus, choices that people make in connection to tax payment or compliance are indeed linked to the nature of the media report.

- The study also draws conclusions from the findings of the third objective which sought to examine the moderating role of taxpayers' religiosity in the relationship between corruption perception and tax compliance behaviour in Ghana. It is concluded that taxpayers with high corruption perceptions (political and administrative) could still honour their tax obligations voluntarily if they are highly religious. Further conclusion is that highly religious taxpayers do not require coercion before honouring their tax obligations. The evidence in this study implies that moderating religiosity in the relationship between corruption perception and tax compliance is only significant for voluntary tax compliance though it exhibited inhibition in both compliance constituents. The differences in the nature and direction of the moderating effect of religiosity on voluntary and enforced tax compliance present new insight into the role of religiosity in the corruption-tax compliance nexus. The conclusion is that the moderating role of religiosity is dependent on the operationalisation of tax compliance. Thus, drawing conclusions on the role of religiosity on



omnibus tax compliance without segregating the tax compliance constituents may be misleading and the implications doubtful.

- It can be concluded on the findings of the fourth objective that thematic media reportage of political corruption and administrative corruption moderated by religiosity has a significant positive effect on the level of voluntary tax compliance. Similarly, both episodic media reportage of political corruption and episodic media reportage of administrative corruption moderated by religiosity exhibited a positive significant effect on voluntary tax compliance. Further conclusion is that taxpayers who are highly religious would still be committed to honouring their tax obligations voluntarily even when they have a high perception of corruption (political and administrative) through media reportage. Another conclusion is that even if corruption is reported as a systemic social problem (thematic) or an individual or isolated problem (episodic), policymakers and tax administrators are still likely to achieve tax compliance if policy intervention integrates the role of religions. In the enforced tax compliance model, the analyses reveal that all the relationships i.e. thematic media reportage of political corruption (TMPC) and episodic media reportage of corruption (EMPC and EMADC) moderated by religiosity are insignificant except thematic media reportage of administrative corruption (TMADC). The conclusion about the differences in the moderating role of taxpayers' religiosity in voluntary and enforced tax compliance supports the argument that tax compliance should be viewed as a multidimensional construct (voluntary and enforced) rather than a single construct as each dimension may require different policy

framework and administration and may elicit different tax payers' response.

- The conclusion drawn from the fifth objective of the study is that other than political corruption moderated by thematic media reportage of political corruption and administrative corruption moderated by episodic media reportage of administrative corruption, corruption moderated by media reportage of corruption exhibit positive consequence on voluntary tax compliance. Further conclusion drawn from the enforced tax compliance dynamics is that corruption constituents moderated by media reportage could enhance enforced tax compliance except political corruption moderated by thematic media reportage of administrative corruption and administrative corruption moderated by episodic media reportage of political corruption. Another conclusion is that when media reportage of corruption personalises corruption and provide isolated incidence could breed confidence in the fight against corruption and minimise its widespread. It is also concluded that the interacting role of media reportage of corruption on the relationship between corruption perception and tax compliance is dependent on the media framing (thematic and episodic) and the type of tax compliance constituents (voluntary and enforced tax compliance).

### **Implications and Contributions to Knowledge**

The findings from the study have theoretical implications. The study has contributed to social exchange theory (SET). The strong negative relationship between corruption perception (political and administrative) and voluntary tax compliance extends the implications of SET to corruption-tax

compliance dynamics. SET suggests taxpayers may feel betrayed when their tax revenues are misapplied through corrupt activities and they may respond to such mistrust by altering their voluntary tax compliance. Thus, the evidence of the negative corruption-voluntary tax compliance nexus found in this study affirms the proposition of social exchange theory. Thus, corruption could be considered as a potential breach of the social contract and consequently influences taxpayers' compliance behaviour.

The study further demonstrated that, unlike the voluntary tax compliance response, corruption perception (political and administrative) exhibited a positive effect on enforced tax compliance. Although in practice these findings are not expected as corruption is generally viewed as a negative antecedent of tax compliance, the evidence in this study has confirmed the contrary. However, this should not be misconstrued that high corruption perception is a positive driver of tax compliance. The results may reflect the government interventions in the face of high corruption perception to drive tax compliance.

The implication for the varying consequence of corruption voluntary and enforced tax compliance is that although taxpayers' response to perceived corruption may result in high voluntary non-compliance, this unfavourable response from taxpayers as a result of perceived corruption may be met with counter-reaction from the government through the evocation of threats and sanctions to compel the citizens to reluctantly comply. This implies that theoretically, enforced compliance may still be positive in the midst of perceived corruption but similar conclusions and inferences cannot be drawn for voluntary tax compliance. Thus, it is useful for both policy and theory to

estimate the corruption-tax compliance nexus by operationalising both corruption and tax compliance at different levels of occurrence.

The findings in this study present novel evidence suggesting that the nature and direction of the effect of media reportage of corruption on tax compliance may be dependent on media framing either thematic or episodic media reportage of corruption. These unique contributions extend the social exchange theory (SET). One foundational criticism of the traditional assumptions of SET is that despite the wide support for the framework of social exchange, the specific transmission mechanisms to explain the social exchanges are currently not clear and its operations are ridden with theoretical ambiguities, structural challenges and methodological problems.

This is partly due to the narrow approach adopted, which usually concentrates on strict contribution-inducement and breach-reaction exchanges often measured through strictly defined correlations. The evidence found in this study suggests that social contract is not altered strictly by contribution-inducement and breach-reaction exchanges but also by the situational cues of such breaches and contributions. It is evident that when government and the media landscape continue to project corruption as an individualised problem (episodic) rather than a societal systemic problem (thematic) and respond appropriately in dealing with the perpetrators, taxpayers would still react positively despite the apparent breach. Thus, post-breach interventions are as potent as the prevention of breaches in the social exchanges as found in this study.

The findings further contribute to self-regulatory focus theory (SRFT). The positive interacting effect of religiosity on corruption and voluntary tax compliance and the negative effect on enforced tax compliance implies that religiosity serves as a locus of control that influences a situational cue consistent with SRFT to restrain the negative effect of corruption perception on tax compliance. The evidence, therefore, suggests that taxpayers' religious orientation serves as a locus of control that may define the extent of the reaction to external unfavourable forces such as corruption. The findings imply that religiosity enhances tax compliance behaviour and inhibits tax non-compliance.

One fundamental policy and practical implication of the findings is that tax policy to draw out voluntary tax compliance should integrate micro-level data from taxpayers including their corruption perception dynamics. Further implication of the findings is that segregating tax compliance into its dimensions (voluntary and enforced tax compliance) and modelling them separately would contribute to sound policy formulation. The evidence from this study further shows that the corruption-tax compliance nexus is a complex relationship with the magnitude and direction potentially defined by the operationalisation of the constructs and the actors within the relationship. The current understanding from the findings in this study further provides that corruption and tax compliance have multi-dimensions and each dimension is likely to elicit different responses and exhibit different outcomes.

The findings in this study present foundational evidence to extrapolate the role of religiosity as augmenting factor in developing high tax compliance culture. The findings imply that even if corruption is reported as a systemic

social problem (thematic) or an individual or isolated problem (episodic), policymakers and tax administrators are still likely to achieve tax compliance if policy intervention integrates the role of religion. Taxpayers' religiosity restrains taxpayers' expected natural response to negative stimuli including acting on perceived corruption arising from thematic and episodic media reportage of corruption.

Although religiosity exhibited a significant positive interacting role in the media reportage-voluntary tax compliance relationship, it has an insignificant interacting effect on the media reportage-enforced tax compliance nexus. The implication is that highly religious taxpayers do not require coercion to honour tax obligations. Thus, the 'One Size Fit for All' tax policy and administration may not yield the expected results as differences in taxpayers' orientation and attributes could define policy response.

Further implication of the differences in the interacting role of taxpayers' religiosity in voluntary and enforced tax compliance is that the evidence supports the argument that tax compliance should be viewed as a multidimensional construct (voluntary and enforced) rather than a single construct as each dimension may require different policy framework and administration and may elicit different tax payers' response. Thus, the significant and insignificant interacting role of religiosity on voluntary and enforced tax compliance respectively presents new evidence that the operationalisation of tax compliance and its constituents may be considered important determinants in tax investigations and policy.

Tax policy has largely followed enforced compliance. This is possibly because it remains unclear drivers of voluntary compliance within the tax administration framework. Findings from this study provide evidence on drivers of voluntary tax compliance to resonate the analytical attention as the findings in this study have precisely demonstrated how corruption perceptions by taxpayers, media reportage and religiosity are systematically connected to voluntary tax compliance behaviour. The findings from this investigation could provide the basis to incorporate voluntary tax compliance in tax policy. The findings from this study also provide evidence about integrating media reporting structure in a tax compliance policy. This study has demonstrated that integrating news framing: thematic and episodic in the empirical analysis, could provide a clear understanding of the media's role in tax administration and serve as a basis for incorporating the news-specific framing in tax policy to elicit compliance.

### **Recommendations**

This study sought to contribute to the literature on the antecedents of tax compliance dynamics by investigating the interconnectedness of corruption perception, media reportage of corruption, religiosity and tax compliance. Having presented the key findings and the relevant conclusions, it is appropriate to present recommendations to address the challenges identified. The study put forth recommendations as follows:

### **Political class**

It was evident from the investigation that political corruption perception undermines voluntary tax compliance behaviour. It is therefore

recommended that government should develop and actively implement an anti-corruption framework that would guide the political class and their appointees. The Office of Special Prosecutor should be well-resourced to investigate alleged corruption and corruption-related occurrences by the political class. It is further recommended that the media should be given unfiltered access to cover and report on ongoing investigations of alleged corruption and corruption-related offences. This invariably shapes the media reportage in favour of episodic framing which has been found in this study to have a significant positive influence on voluntary tax compliance even in the face of perceived corruption (including political corruption).

The study revealed that amidst corruption and reportage of corruption, enforced tax compliance was largely positive even though there was isolated evidence of resistance. It is therefore suggested that tax enforcement policy should still be implemented and even strengthened to counter possible resistance from taxpayers. Evidence from the investigation indicates the critical role of media in enhancing tax compliance behaviour. The evidence became conclusive when the media framing focuses on episodic reportage. It is therefore recommended that government work closely with the media in selling tax policy to the public and soliciting for their compliance to cushion tax revenue. This may be encouraged through institutionalising awards and recognitions to media houses and media personalities who champion reportage of tax policies, tax offenders and sanctions meted out to such offenders.

Since the ability to hide wealth may motivate corruption which has been found to undermine tax compliance behaviour in this study, the government should strengthen the asset declaration regime to expose illicit



wealth accumulated through corrupt activities. Government should make public assets declared by political office holders and their appointees at the time of appointment. Further asset declaration should be filed and revealed to the public at least once in every three years, at the time of exit and five years after leaving office. Office holders should be held accountable to explain all questionable assets and where culpable assets are confiscated and persons tried. The media should be empowered to follow, cover and publicise cases of alleged corruption from the asset declaration process.

Another recommendation is that in the tax policy formulation process, the religious bodies and leaders should be considered as primary stakeholders in the consultative process. This would make it easy for these religious groups to sell the policy to their members to enhance compliance. This recommendation is critical as the findings revealed that highly religious taxpayers would still honour their tax obligations voluntarily in the midst of perceived corruption. Additionally, since religiosity is a very important positive driver of voluntary tax compliance as evident in this study, developing highly religious culture should not be left only to the religious groups and their leaders but also as a duty of the state. It is therefore recommended that in all aspects of the educational system, religion should be incorporated and strengthened to develop highly religious students who will eventually support government tax policy as a religious duty.

#### **Administrative class**

Since it was evident that administrative corruption perception inhibits voluntary tax compliance, it is recommended that the Ghana Revenue Authority (GRA), the administrator of tax policies and laws should develop

and implement an anti-corruption framework that would guide the behaviour of tax administrators. The study demonstrated that amidst high corruption perception, when the media reportage of corruption personalises the menace through episodic framing, taxpayers are likely to respond positively to voluntary tax compliance. It is therefore suggested that tax administrators who are found to have engaged in corrupt activities should be named and shamed in the media to demonstrate to taxpayers the government's commitment to exposing and punishing perpetrators of corruption.

Moreover, as part of the GRA recruitment process, it is recommended that background checks should be conducted to ensure that prospective workers have not been indicted of corruption and corruption-related offences to curtail administrative corruption. Furthermore, ethical clearance and anti-corruption reviews should be conducted regularly and documented as part of promotion criteria in the Authority.

The findings suggest that corruption in any form (including administrative corruption) breeds mistrust, inhibits voluntary tax compliance and causes taxpayers to even resist enforced tax compliance. Thus, corruption threatens the entire tax compliance administration. It is therefore suggested that asset declaration practice should be extended to tax administrators (i.e. workers of GRA). This should be done at the point of entry (employment) and reviewed at least once every five years, at the time of retirement and five years in post-retirement. Staff should be made to explain all questionable assets and where culpable assets are confiscated and persons tried. The media should be empowered to follow, cover and publicise cases of alleged corruption from the asset declaration process.

It is further recommended that GRA should partner with the media in the fight against corruption in the tax administration and harness tax compliance. This is relevant because the evidence in this empirical investigation revealed that media framing (thematic and episodic) has a significant effect on both tax compliance parameters (voluntary tax compliance and enforced tax compliance). Therefore, partnering with the media could help shape media reportage of corruption to elicit voluntary tax compliance behaviour. It was found through the empirical investigation that religiosity has both direct and indirect significant positive effects on voluntary tax compliance even in the midst of high political and administrative corruption. It is therefore suggested that GRA should partner and hold regular stakeholders consultation with religious groups and leaders to realign the administrative practices with religious rites. This could reaffirm and arouse the tenets that tax compliance is both religious duty and a duty to the state.

#### **Self-employed taxpayers**

The study's outcome revealed the relevance of religiosity in enhancing voluntary tax compliance. It is therefore recommended that the self-employed should be committed to their respective religious associations in order to ride on the religious "notoriety" of Ghanaians to improve tax compliance. Also, the self-employed are encouraged to keenly follow media discussions on corruption and corruption-related issues to be exposed to interventions taken by the government in fighting against corruption. This is relevant in enhancing the confidence of the self-employed based on actions taken by the government in responding to corrupt practices toward improving voluntary compliance.

### Suggestions for Further Research

The present study has suggestions for future studies. This study focused on the taxpayers as the unit of analysis. Future studies could extend the literature by conducting similar studies from the perspective of tax administrators. Tax administrators' corruption perception could influence their approach to tax collection which may draw out a counter-reaction from taxpayers and compliance behaviour. Therefore, to comprehensively understand the corruption-tax compliance dynamics, tax administrators' perspective is also critical.

It is also necessary to extend the investigation to other dimensions of media framing. This study specifically focuses on only thematic and episodic framing and the consequence on tax compliance. Future studies should also explore how other media framing dimensions such as negative and positive framing could affect tax compliance behaviour. This would provide further evidence about the diversity of media framing and the consequences in an effort to deepen tax compliance antecedents. The evidence from such studies could be mapped with the present study to shape tax policy and administration.

Besides media framing, media reportage could also follow agenda-setting and priming dimensions which could have different implications on tax compliance tendencies. It is therefore recommended that future studies should investigate how agenda setting or priming of corruption could influence tax compliance. Findings from such extension could provide comprehensive evidence about the critical role of media in improving tax compliance. Even though this study found evidence of an interacting role of media reportage in

the corruption perception-tax compliance nexus, it is also possible that corruption perception could mediate the relationship between media reportage of corruption and tax compliance. Future studies could also explore this relationship.

This study revealed a significant positive role of religiosity in shaping voluntary tax compliance amidst corruption perception. It is therefore important to conduct further studies to better unearth and understand the antecedents for developing a highly religious economy that embraces tax compliance as a religious duty. Also, it was evident from this study confirms the multidimensionality of tax compliance and therefore, the nature of the consequence of antecedents (corruption perception, media reportage of corruption and religiosity) is dependent on the constituent or dimension of compliance. It is therefore recommended that future studies on tax compliance should clearly draw this distinction and measure each construct separately rather than as a single construct. Following this approach would provide evidence reference for specific tax policies of interest: voluntary tax compliance and enforced tax compliance policies.

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## APPENDICES

## APPENDIX A

**QUESTIONNAIRE ON THE INTERCONNECTEDNESS OF  
CORRUPTION PERCEPTION, MEDIA REPORTAGE OF  
CORRUPTION, RELIGIOSITY AND TAX COMPLIANCE IN GHANA**

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Dear Sir/Madam,

The questionnaire seeks to gather data from you about corruption, corruption reportage, religiosity and tax compliance in Ghana. The data collected would be used solely for academic purposes and therefore confidentiality requirements are duly upheld. Total anonymity and confidentiality of the various responses given are assured. Participants are advised not to write their names on the questionnaire and refrain from personal disclosures. To the best of your knowledge and ability, please provide your candid responses to the questions in this questionnaire as they relate to you.

Thank you.

**SECTION A: TAX PAYERS PROFILE**

**Please indicate your response by ticking (✓) in the applicable box for each question.**

1. Sex :

Male       Female

2. Marital Status:

Single       Married       Divorced       Cohabitation

Widowed

3. Level of Education:

No Formal Education       Up to Secondary level

Diploma and Above

4. Working Experience in Years

Less than 5 years  6-10 year  11-20 years  more than 20 years

5. Age

Less than 30 years  31-40 years  41-50 years  Above 50 years

**SECTION B: TAX COMPLIANCE**

Below are a set of statements which may or may not describe how you make your tax decisions. Please read each statement carefully and indicate the extent to which you agree or disagree with the statement. *Please indicate your level of agreement to the following statements, where: 5= Strongly Agreement (SA), 4= Agreement (A), 3=Indifferent (ID), 2=Disagreement (D) and 1=Strongly Disagreement (SD)*

| STATEMENT  |   | 5 | 4 | 3 | 2 | 1 |
|--|---|---|---|---|---|---|
| <b>Voluntary Tax Compliance</b>                              |   |   |   |   |   |   |
| When I pay my taxes as required by the regulations, I do so: |   |   |   |   |   |   |
| 6.   | because I pay my taxes voluntarily.                     |   |   |   |   |   |
| 7.   | because to me it's obvious that this is what you do.    |   |   |   |   |   |
| 8.   | even if tax audits did not exist.                       |   |   |   |   |   |
| 9.   | to support the state and other citizens.                |   |   |   |   |   |
| 10.  | because I like to contribute to everyone's good.        |   |   |   |   |   |
| <b>Enforced Tax Compliance</b>                               |   |   |   |   |   |   |
| When I pay my taxes as required by the regulations, I do so: |   |   |   |   |   |   |
| 11.  | because I feel forced to pay my taxes.                  |   |   |   |   |   |
| 12.  | although I would really prefer not to pay any taxes     |   |   |   |   |   |
| 13.  | because I know that I will be audited                   |   |   |   |   |   |
| 14.  | because the punishments for tax evasion are very severe |   |   |   |   |   |

**SECTION C: PERCEIVED CORRUPTION**

This section seeks to establish your personal assessment of corruption in Ghana. Please indicate your level of agreement to the following statements by choosing the appropriate number, where: 5= Strongly Agreement (SA), 4= Agreement (A), 3=Indifferent (ID), 2=Disagreement (D) and 1=Strongly Disagreement (SD)

| STATEMENT                        |   | 5 | 4 | 3 | 2 | 1 |
|----------------------------------|---|---|---|---|---|---|
| <b>Political Corruption</b>      |   |   |   |   |   |   |
| 15.                              | Corruption is widespread in the public service among politicians.                             |   |   |   |   |   |
| 16.                              | I am concerned about corruption at the upper echelons of government.                          |   |   |   |   |   |
| 17.                              | Corruption among top government officials and politicians is increasing                       |   |   |   |   |   |
| 18.                              | High-Level public officials embezzle funds Mobilized from taxes.                              |   |   |   |   |   |
| 19.                              | High level officials take bribes to circumvent tax payment of entities/individuals            |   |   |   |   |   |
| <b>Administrative Corruption</b> |   |   |   |   |   |   |
| 20.                              | Tax officers ask for bribes to speed up administrative procedures                             |   |   |   |   |   |
| 21.                              | Tax collection agents demand/accept payments or gifts to falsify/reduce tax burden/tax charge |   |   |   |   |   |
| 22.                              | Corruption is common among tax administrations personnel                                      |   |   |   |   |   |
| 23.                              | Tax agents/collectors use tax revenues for private purposes                                   |   |   |   |   |   |
| 24.                              | Tax administration officers collude with tax payers to circumvent tax payment                 |   |   |   |   |   |

**SECTION D: MEDIA REPORTAGE OF CORRUPTION**

This section solicits your opinion on media reportage of corruption in Ghana. Please read each statement carefully and indicate the extent to which you agree or disagree with the statement. *Kindly indicate your level of agreement to the following statements by choosing the appropriate number, where: 5= Strongly Agreement (SA), 4= Agreement (A), 3=Indifferent (ID), 2=Disagreement (D) and 1=Strongly Disagreement (SD)*

| STATEMENT  |   | 5 | 4 | 3 | 2 | 1 |
|--|---|---|---|---|---|---|
| <b>Thematic Media Reportage of Political Corruption</b>  |   |   |   |   |   |   |
| General political corruption discussions that I follow on the mass media (e.g. Radio, T.V, Newspapers, social Media) portray that:   |   |   |   |   |   |   |
| 25.  | Over the past years, the level of political corruption in this country has increased                            |   |   |   |   |   |
| 26.  | Government (both past and present) have not put up much efforts at curbing political corruption                 |   |   |   |   |   |
| 27.  | Establishment of the Special prosecutor's office has not contributed much in reducing political corruption      |   |   |   |   |   |
| <b>Thematic Media Reportage of Administrative Corruption</b>   |   |   |   |   |   |   |
| General administrative corruption discussions that I follow on mass media (e.g. Radio, T.V, Newspapers, social Media) indicate that:   |   |   |   |   |   |   |
| 28.  | Over the past years, the level of administrative corruption has increased                                       |   |   |   |   |   |
| 29.  | Public institutions have not put up much efforts at curbing administrative corruption                           |   |   |   |   |   |
| 30.  | Establishment of the Special prosecutor's office has not contributed much in reducing administrative corruption |   |   |   |   |   |
| 31.  | Administrative officers including tax officials often misappropriate tax payer monies                           |   |   |   |   |   |
| <b>Episodic Media Reportage of Political Corruption</b>  |   |   |   |   |   |   |
| When the mass media reports (e.g. Radio, T.V, Newspapers, social Media) on specific corruptions or isolated cases of revenue misappropriation by political actors, I begin to: |   |   |   |   |   |   |
| 32.  | Believe that corrupt political officials have weak moral standards  |   |   |   |   |   |
| 33.  | Feel that corrupt politicians are just greedy   |   |   |   |   |   |
| 34.  | Feel that actors of political corruptions are   |   |   |   |   |   |

|  |   |  |  |  |  |  |
|--|---|--|--|--|--|--|
|  | not sanctioned enough   |  |  |  |  |  |
| 35.  | Feel that these corrupt politicians are often not prosecuted by their government                      |  |  |  |  |  |
| <b>Episodic Media Reportage of Administrative Corruption</b>   |   |  |  |  |  |  |
| When the mass media (e.g. Radio, T.V, Newspapers, social Media) reports on specific tax corruptions or isolated cases of revenue misappropriation and tax favours by tax administrators, I begin to: |   |  |  |  |  |  |
| 36.  | Believe that corrupt administrative officials have weak moral standards                               |  |  |  |  |  |
| 37.  | Feel that corrupt public administrative officers are just greedy                                      |  |  |  |  |  |
| 38.  | Feel that administrative sanctions for corrupt public administrative officers are not punitive enough |  |  |  |  |  |
| 39.  | Feel that these corrupt public administrative officers are often not prosecuted                       |  |  |  |  |  |

### SECTION E: TAX PAYERS' RELIGIOSITY

This section solicits assessment of your religiosity. *Please indicate your level of agreement to the following statements by choosing the appropriate number, where: 5= Strong Agreement (SA), 4= Agreement (A), 3=Indifferent (ID), 2=Disagreement (D) and 1=Strong Disagreement (SD)*

| STATEMENT |  | 5 | 4 | 3 | 2 | 1 |
|-----------|--|---|---|---|---|---|
| 40.       | I was brought up religiously at home.                            |   |   |   |   |   |
| 41.       | I am religious person  |   |   |   |   |   |
| 42.       | There are clear religious guidelines about what is good and evil |   |   |   |   |   |
| 43.       | Lying cannot be justified  |   |   |   |   |   |
| 44.       | Stealing cannot be justified                                     |   |   |   |   |   |

### SECTION F: CANONS OF TAXATION

This section seeks to establish your assessment of the canons of taxation as apply to your tax obligations and tax administration in Ghana. *Please indicate your level of agreement of the following statements by choosing the appropriate number, where: 1= Strongly Agreement (SA), 2= Agreement (A), 3=Indifferent (ID), 4=Disagreement (D) and 5=Strongly Disagreement (SD)*

| STATEMENT          |   | 1 | 2 | 3 | 4 | 5 |
|--------------------|---|---|---|---|---|---|
| <b>CERTAINTY</b>   |   |   |   |   |   |   |
| 45.                | I am certain about the amount of tax I have to pay                                |   |   |   |   |   |
| 46.                | My estimate of tax liabilities often matches those estimated by tax officials     |   |   |   |   |   |
| 47.                | I am certain about how to pay my tax liabilities                                  |   |   |   |   |   |
| 48.                | I am certain the form or manner of tax payment accepted by the GRA                |   |   |   |   |   |
| <b>CONVENIENCE</b> |   |   |   |   |   |   |
| 49.                | The process of paying tax liability is friendly and convenient                    |   |   |   |   |   |
| 50.                | The process of assessing my tax liability is friendly and convenient              |   |   |   |   |   |
| 51.                | I can conveniently make inquiries about my tax obligations from tax officials     |   |   |   |   |   |
| 52.                | I think tax payment processes is painless and trouble-free as far as practicable. |   |   |   |   |   |
| 53.                | I consider the timing of tax payment convenient                                   |   |   |   |   |   |
| <b>EQUITY</b>      |   |   |   |   |   |   |
| 54.                | My tax liabilities are proportional to the income I earn                          |   |   |   |   |   |
| 55.                | I am not overburdened by my tax liabilities                                       |   |   |   |   |   |
| 56.                | I have the ability to pay my tax liabilities                                      |   |   |   |   |   |
| 57.                | I think GRA imposes tax in accordance with the principle of ability to pay        |   |   |   |   |   |

*Thank you very much for taking time to provide such vital information to aid this study.*

## APPENDIX B

Table 31: Cross Loadings (CP-TC Model)

| Variables | ADC    | CERT   | CON    | EQU    | ETC    | PC     | VTC    |
|-----------|--------|--------|--------|--------|--------|--------|--------|
| ADC1      | 0.896  | 0.160  | 0.25   | 0.043  | 0.149  | -0.521 | 0.09   |
| ADC2      | 0.916  | 0.097  | 0.189  | 0.033  | 0.175  | -0.492 | 0.033  |
| ADC3      | 0.924  | 0.163  | 0.249  | 0.058  | 0.146  | -0.509 | 0.051  |
| ADC4      | 0.866  | 0.107  | 0.199  | -0.026 | 0.088  | -0.497 | 0.058  |
| ADC5      | 0.854  | 0.145  | 0.171  | 0.037  | 0.134  | -0.508 | 0.055  |
| CERT1     | 0.104  | 0.820  | 0.135  | 0.215  | 0.290  | -0.08  | 0.322  |
| CERT2     | 0.066  | 0.845  | 0.096  | 0.212  | 0.310  | -0.073 | 0.314  |
| CERT3     | 0.195  | 0.792  | 0.125  | 0.162  | 0.249  | -0.121 | 0.107  |
| CERT4     | 0.157  | 0.795  | 0.120  | 0.120  | 0.194  | -0.081 | 0.098  |
| CERT5     | 0.148  | 0.728  | 0.080  | 0.172  | 0.227  | -0.072 | 0.109  |
| CON1      | 0.216  | 0.157  | 0.796  | 0.111  | 0.127  | -0.104 | 0.201  |
| CON2      | 0.260  | 0.046  | 0.799  | 0.086  | 0.062  | -0.19  | 0.219  |
| CON3      | 0.172  | 0.123  | 0.824  | 0.122  | 0.163  | -0.135 | 0.232  |
| CON4      | 0.145  | 0.118  | 0.820  | 0.098  | 0.191  | -0.082 | 0.212  |
| EQU1      | 0.040  | 0.134  | 0.123  | 0.848  | 0.245  | -0.023 | 0.278  |
| EQU2      | 0.077  | 0.186  | 0.159  | 0.823  | 0.265  | -0.074 | 0.282  |
| EQU3      | -0.004 | 0.218  | 0.066  | 0.799  | 0.244  | -0.052 | 0.247  |
| EQU4      | -0.003 | 0.222  | 0.060  | 0.770  | 0.193  | -0.006 | 0.231  |
| ETC1      | 0.169  | 0.223  | 0.149  | 0.256  | 0.853  | -0.089 | 0.298  |
| ETC2      | 0.142  | 0.283  | 0.134  | 0.244  | 0.891  | -0.003 | 0.241  |
| ETC3      | 0.123  | 0.302  | 0.179  | 0.285  | 0.853  | -0.03  | 0.335  |
| ETC4      | 0.125  | 0.329  | 0.138  | 0.235  | 0.867  | 0.008  | 0.344  |
| PC1       | -0.508 | -0.133 | -0.115 | -0.017 | -0.031 | 0.876  | -0.146 |
| PC2       | -0.467 | -0.086 | -0.096 | -0.008 | 0.036  | 0.909  | -0.132 |
| PC3       | -0.534 | -0.103 | -0.144 | -0.061 | -0.043 | 0.931  | -0.199 |
| PC4       | -0.495 | -0.083 | -0.136 | -0.083 | -0.018 | 0.931  | -0.213 |
| PC5       | -0.555 | -0.069 | -0.195 | -0.030 | -0.066 | 0.877  | -0.152 |
| VTC1      | 0.033  | 0.190  | 0.229  | 0.308  | 0.279  | -0.157 | 0.882  |
| VTC2      | 0.035  | 0.262  | 0.238  | 0.263  | 0.383  | -0.136 | 0.873  |
| VTC3      | 0.066  | 0.253  | 0.273  | 0.275  | 0.328  | -0.225 | 0.896  |
| VTC4      | 0.079  | 0.258  | 0.222  | 0.287  | 0.283  | -0.149 | 0.852  |
| VTC5      | 0.070  | 0.246  | 0.205  | 0.280  | 0.275  | -0.171 | 0.887  |

Source: Field Survey (2022)



Table 32: Collinearity Assessment (CP-TC Model)

| Indicator | VIF Score |
|-----------|-----------|
| VTC1      | 3.097     |
| VTC2      | 2.922     |
| VTC3      | 3.371     |
| VTC4      | 3.009     |
| VTC5      | 3.597     |
| ETC1      | 2.978     |
| ETC2      | 3.472     |
| ETC3      | 2.210     |
| ETC4      | 2.428     |
| PC1       | 3.929     |
| PC2       | 4.964     |
| PC3       | 4.789     |
| PC4       | 4.952     |
| PC5       | 2.979     |
| ADC1      | 3.272     |
| ADC2      | 3.932     |
| ADC3      | 4.438     |
| ADC4      | 3.124     |
| ADC5      | 2.789     |
| CERT1     | 2.086     |
| CERT2     | 2.231     |
| CERT3     | 3.446     |
| CERT4     | 3.658     |
| CERT5     | 2.306     |
| CON1      | 1.734     |
| CON2      | 1.810     |
| CON3      | 1.726     |
| CON4      | 1.704     |
| EQU1      | 2.354     |
| EQU2      | 2.191     |
| EQU3      | 2.075     |
| EQU4      | 2.006     |

Source: Field Survey (2022)

Table 33: Cross Loadings (MRC-TC Model)

| Constructs | VTC    | ETC   | TMPC   | TMADC  | EMPC  | EMADC  | CERT   | CON    | EQU   |
|------------|--------|-------|--------|--------|-------|--------|--------|--------|-------|
| VTC1       | 0.879  | 0.276 | -0.327 | -0.177 | 0.346 | 0.388  | 0.19   | 0.229  | 0.308 |
| VTC2       | 0.875  | 0.381 | -0.349 | -0.141 | 0.411 | 0.422  | 0.262  | 0.238  | 0.263 |
| VTC3       | 0.894  | 0.327 | -0.412 | -0.233 | 0.424 | 0.389  | 0.253  | 0.272  | 0.275 |
| VTC4       | 0.853  | 0.282 | -0.386 | -0.155 | 0.377 | 0.372  | 0.258  | 0.222  | 0.287 |
| VTC5       | 0.888  | 0.275 | -0.343 | -0.199 | 0.388 | 0.389  | 0.246  | 0.205  | 0.280 |
| ETC1       | 0.299  | 0.863 | -0.394 | -0.081 | 0.431 | 0.515  | 0.223  | 0.149  | 0.256 |
| ETC2       | 0.241  | 0.897 | -0.345 | 0.042  | 0.418 | 0.534  | 0.283  | 0.134  | 0.244 |
| ETC3       | 0.335  | 0.843 | -0.362 | -0.023 | 0.381 | 0.532  | 0.302  | 0.179  | 0.285 |
| ETC4       | 0.344  | 0.862 | -0.322 | 0.024  | 0.435 | 0.538  | 0.329  | 0.138  | 0.235 |
| TMPC1      | 0.386  | 0.314 | 0.862  | -0.087 | 0.454 | 0.319  | 0.300  | 0.339  | 0.298 |
| TMPC2      | 0.312  | 0.363 | 0.844  | -0.067 | 0.502 | 0.291  | 0.398  | 0.138  | 0.300 |
| TMPC3      | 0.382  | 0.391 | 0.901  | -0.098 | 0.467 | 0.351  | 0.333  | 0.296  | 0.34  |
| TMADC1     | -0.179 | -0.02 | -0.114 | 0.89   | -0.07 | -0.05  | -0.056 | -0.183 | -0.04 |
| TMADC2     | -0.192 | 0.005 | -0.095 | 0.924  | -0.1  | -0.077 | -0.02  | -0.175 | -0.07 |
| TMADC3     | -0.175 | -0.04 | -0.057 | 0.848  | -0.08 | -0.105 | -0.044 | -0.213 | -0.05 |
| TMADC4     | -0.155 | 0.019 | -0.061 | 0.722  | -0.22 | -0.04  | -0.006 | -0.085 | -0.06 |
| EMPC1      | 0.342  | 0.392 | -0.472 | -0.088 | 0.882 | 0.438  | 0.276  | 0.201  | 0.364 |
| EMPC2      | 0.448  | 0.488 | -0.497 | -0.151 | 0.904 | 0.49   | 0.306  | 0.253  | 0.39  |
| EMPC3      | 0.382  | 0.399 | -0.468 | -0.091 | 0.887 | 0.38   | 0.252  | 0.229  | 0.395 |
| EMPC4      | 0.381  | 0.401 | -0.48  | -0.136 | 0.847 | 0.38   | 0.233  | 0.202  | 0.312 |
| EMADC1     | 0.349  | 0.507 | -0.332 | -0.056 | 0.389 | 0.833  | 0.227  | 0.247  | 0.252 |
| EMADC2     | 0.361  | 0.481 | -0.308 | -0.074 | 0.42  | 0.811  | 0.251  | 0.192  | 0.346 |
| EMADC3     | 0.446  | 0.466 | -0.302 | -0.01  | 0.41  | 0.828  | 0.253  | 0.243  | 0.284 |
| EMADC4     | 0.314  | 0.558 | -0.276 | -0.128 | 0.37  | 0.82   | 0.262  | 0.191  | 0.309 |
| CERT1      | 0.322  | 0.288 | 0.419  | -0.007 | 0.314 | 0.325  | 0.819  | 0.135  | 0.215 |
| CERT2      | 0.314  | 0.307 | 0.405  | -0.02  | 0.316 | 0.288  | 0.844  | 0.096  | 0.212 |
| CERT3      | 0.108  | 0.248 | 0.218  | -0.09  | 0.138 | 0.18   | 0.792  | 0.125  | 0.162 |
| CERT4      | 0.099  | 0.195 | 0.195  | -0.031 | 0.146 | 0.133  | 0.795  | 0.12   | 0.12  |
| CERT5      | 0.11   | 0.226 | -0.188 | -0.028 | 0.197 | 0.179  | 0.728  | 0.08   | 0.172 |
| CON1       | 0.201  | 0.126 | -0.21  | -0.13  | 0.168 | 0.213  | 0.157  | 0.796  | 0.111 |
| CON2       | 0.218  | 0.061 | -0.212 | -0.175 | 0.176 | 0.158  | 0.046  | 0.799  | 0.086 |
| CON3       | 0.232  | 0.161 | -0.225 | -0.169 | 0.201 | 0.231  | 0.123  | 0.824  | 0.122 |
| CON4       | 0.212  | 0.191 | -0.312 | -0.162 | 0.264 | 0.245  | 0.118  | 0.82   | 0.098 |
| EQU1       | 0.278  | 0.246 | -0.228 | -0.072 | 0.318 | 0.328  | 0.134  | 0.123  | 0.848 |
| EQU2       | 0.281  | 0.263 | -0.262 | -0.111 | 0.325 | 0.299  | 0.186  | 0.159  | 0.823 |
| EQU3       | 0.247  | 0.243 | -0.355 | -0.022 | 0.379 | 0.282  | 0.218  | 0.066  | 0.799 |
| EQU4       | 0.231  | 0.192 | -0.341 | 0.016  | 0.331 | 0.256  | 0.222  | 0.060  | 0.770 |

Source: Field Survey

Table 34: Collinearity Assessment (MRC-TC Model)

| Indicator | VIF Score |
|-----------|-----------|
| VTC1      | 3.097     |
| VTC2      | 2.922     |
| VTC3      | 3.371     |
| VTC4      | 3.009     |
| VTC5      | 3.597     |
| ETC1      | 2.978     |
| ETC2      | 3.472     |
| ETC3      | 2.210     |
| ETC4      | 2.428     |
| TMPC1     | 1.962     |
| TMPC2     | 1.829     |
| TMPC3     | 2.262     |
| TMADC1    | 3.103     |
| TMADC2    | 3.735     |
| TMADC3    | 2.229     |
| TMADC4    | 1.495     |
| EMPC1     | 2.973     |
| EMPC2     | 3.115     |
| EMPC3     | 2.820     |
| EMPC4     | 2.288     |
| EMADC1    | 2.002     |
| EMADC2    | 1.853     |
| EMADC3    | 1.913     |
| EMADC4    | 1.831     |
| CERT1     | 2.086     |
| CERT2     | 2.231     |
| CERT3     | 3.446     |
| CERT4     | 3.658     |
| CERT5     | 2.306     |
| CON1      | 1.734     |
| CON2      | 1.810     |
| CON3      | 1.726     |
| CON4      | 1.704     |
| EQU1      | 2.354     |
| EQU2      | 2.191     |
| EQU3      | 2.075     |
| EQU4      | 2.006     |

Source: Field Survey

Table 35: Cross Loadings (CP-TC Model<sup>R</sup>)

| Construct | ADC    | CERT   | CON    | EQU    | ETC    | PC     | REL    | VTC    |
|-----------|--------|--------|--------|--------|--------|--------|--------|--------|
| ADC1      | 0.896  | 0.16   | 0.25   | 0.043  | 0.148  | -0.521 | 0.377  | 0.09   |
| ADC2      | 0.916  | 0.097  | 0.189  | 0.033  | 0.175  | -0.492 | 0.304  | 0.032  |
| ADC3      | 0.924  | 0.163  | 0.249  | 0.058  | 0.146  | -0.509 | 0.36   | 0.051  |
| ADC4      | 0.866  | 0.107  | 0.199  | -0.026 | 0.088  | -0.497 | 0.332  | 0.056  |
| ADC5      | 0.854  | 0.145  | 0.171  | 0.037  | 0.134  | -0.508 | 0.304  | 0.056  |
| CERT1     | 0.104  | 0.82   | 0.135  | 0.215  | 0.291  | -0.08  | 0.227  | 0.322  |
| CERT2     | 0.066  | 0.845  | 0.096  | 0.212  | 0.311  | -0.073 | 0.191  | 0.313  |
| CERT3     | 0.195  | 0.792  | 0.125  | 0.162  | 0.249  | -0.121 | 0.112  | 0.107  |
| CERT4     | 0.157  | 0.795  | 0.12   | 0.12   | 0.194  | -0.081 | 0.088  | 0.097  |
| CERT5     | 0.148  | 0.727  | 0.08   | 0.172  | 0.227  | -0.072 | 0.096  | 0.108  |
| CON1      | 0.216  | 0.157  | 0.796  | 0.111  | 0.127  | -0.104 | 0.266  | 0.201  |
| CON2      | 0.26   | 0.046  | 0.799  | 0.086  | 0.062  | -0.19  | 0.293  | 0.218  |
| CON3      | 0.172  | 0.123  | 0.824  | 0.122  | 0.163  | -0.135 | 0.316  | 0.233  |
| CON4      | 0.145  | 0.118  | 0.82   | 0.098  | 0.191  | -0.082 | 0.313  | 0.213  |
| EQU1      | 0.04   | 0.134  | 0.123  | 0.848  | 0.245  | -0.023 | 0.173  | 0.279  |
| EQU2      | 0.077  | 0.186  | 0.159  | 0.823  | 0.265  | -0.074 | 0.273  | 0.283  |
| EQU3      | -0.004 | 0.218  | 0.066  | 0.799  | 0.244  | -0.052 | 0.157  | 0.247  |
| EQU4      | -0.003 | 0.222  | 0.06   | 0.77   | 0.193  | -0.006 | 0.147  | 0.232  |
| ETC1      | 0.169  | 0.223  | 0.149  | 0.256  | 0.852  | -0.089 | 0.17   | 0.297  |
| ETC2      | 0.142  | 0.283  | 0.134  | 0.244  | 0.89   | -0.003 | 0.143  | 0.24   |
| ETC3      | 0.123  | 0.302  | 0.179  | 0.285  | 0.854  | -0.03  | 0.192  | 0.336  |
| ETC4      | 0.125  | 0.329  | 0.138  | 0.235  | 0.868  | 0.008  | 0.191  | 0.344  |
| PC1       | -0.508 | -0.133 | -0.115 | -0.017 | -0.031 | 0.876  | -0.221 | -0.145 |
| PC2       | -0.467 | -0.086 | -0.096 | -0.008 | 0.036  | 0.908  | -0.189 | -0.131 |
| PC3       | -0.534 | -0.103 | -0.144 | -0.061 | -0.043 | 0.931  | -0.303 | -0.199 |
| PC4       | -0.495 | -0.083 | -0.136 | -0.083 | -0.018 | 0.931  | -0.245 | -0.212 |
| PC5       | -0.555 | -0.069 | -0.195 | -0.03  | -0.066 | 0.877  | -0.32  | -0.151 |
| REL1      | 0.315  | 0.172  | 0.322  | 0.25   | 0.198  | -0.23  | 0.863  | 0.373  |
| REL2      | 0.289  | 0.155  | 0.326  | 0.219  | 0.156  | -0.182 | 0.812  | 0.397  |
| REL3      | 0.227  | 0.186  | 0.359  | 0.231  | 0.169  | -0.259 | 0.82   | 0.446  |
| REL4      | 0.374  | 0.18   | 0.274  | 0.141  | 0.18   | -0.261 | 0.862  | 0.375  |
| REL5      | 0.394  | 0.14   | 0.266  | 0.147  | 0.149  | -0.28  | 0.868  | 0.392  |
| VTC1      | 0.033  | 0.19   | 0.229  | 0.308  | 0.28   | -0.157 | 0.44   | 0.885  |
| VTC2      | 0.035  | 0.262  | 0.238  | 0.263  | 0.383  | -0.136 | 0.393  | 0.873  |
| VTC3      | 0.066  | 0.253  | 0.273  | 0.275  | 0.328  | -0.225 | 0.43   | 0.894  |
| VTC4      | 0.079  | 0.258  | 0.222  | 0.287  | 0.283  | -0.149 | 0.439  | 0.854  |
| VTC5      | 0.07   | 0.247  | 0.205  | 0.28   | 0.275  | -0.171 | 0.359  | 0.884  |

Source: Field Survey (2020)

Table 36: Collinearity Assessment (CP-TC Model<sup>R</sup>)

| Indicator | VIF Score |
|-----------|-----------|
| VTC1      | 3.097     |
| VTC2      | 2.922     |
| VTC3      | 3.371     |
| VTC4      | 3.009     |
| VTC5      | 3.597     |
| ETC1      | 2.978     |
| ETC2      | 3.472     |
| ETC3      | 2.210     |
| ETC4      | 2.428     |
| PC1       | 3.929     |
| PC2       | 4.964     |
| PC3       | 4.789     |
| PC4       | 4.952     |
| PC5       | 2.979     |
| ADC1      | 3.272     |
| ADC2      | 3.932     |
| ADC3      | 4.438     |
| ADC4      | 3.124     |
| ADC5      | 2.789     |
| REL1      | 2.613     |
| REL2      | 2.076     |
| REL3      | 1.973     |
| REL4      | 3.402     |
| REL5      | 3.398     |
| CERT1     | 2.086     |
| CERT2     | 2.231     |
| CERT3     | 3.446     |
| CERT4     | 3.658     |
| CERT5     | 2.306     |
| CON1      | 1.734     |
| CON2      | 1.810     |
| CON3      | 1.726     |
| CON4      | 1.704     |
| EQU1      | 2.354     |
| EQU2      | 2.191     |
| EQU3      | 2.075     |
| EQU4      | 2.006     |

Source: Field Survey (2022)

Table 37: Cross Loadings (MRC-TC Model<sup>R</sup>)

| Constructs | CERT   | CON    | EMADC  | EMPC   | EQU    | ETC    | REL    | TMADC  | TMPC   | VTC    |
|------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| CERT1      | 0.820  | 0.136  | 0.325  | 0.314  | 0.215  | 0.288  | 0.227  | -0.007 | -0.419 | 0.322  |
| CERT2      | 0.844  | 0.096  | 0.288  | 0.316  | 0.212  | 0.307  | 0.191  | -0.020 | -0.405 | 0.314  |
| CERT3      | 0.792  | 0.125  | 0.180  | 0.138  | 0.162  | 0.248  | 0.112  | -0.090 | -0.218 | 0.108  |
| CERT4      | 0.795  | 0.120  | 0.133  | 0.146  | 0.120  | 0.195  | 0.088  | -0.031 | -0.195 | 0.098  |
| CERT5      | 0.728  | 0.080  | 0.179  | 0.197  | 0.172  | 0.225  | 0.096  | -0.028 | -0.188 | 0.109  |
| CON1       | 0.157  | 0.796  | 0.213  | 0.168  | 0.111  | 0.126  | 0.266  | -0.130 | -0.210 | 0.201  |
| CON2       | 0.046  | 0.799  | 0.158  | 0.176  | 0.086  | 0.061  | 0.293  | -0.175 | -0.212 | 0.218  |
| CON3       | 0.123  | 0.824  | 0.231  | 0.201  | 0.122  | 0.161  | 0.316  | -0.169 | -0.225 | 0.232  |
| CON4       | 0.118  | 0.821  | 0.245  | 0.264  | 0.098  | 0.191  | 0.313  | -0.162 | -0.312 | 0.212  |
| EMADC1     | 0.227  | 0.247  | 0.833  | 0.389  | 0.252  | 0.507  | 0.252  | -0.056 | 0.332  | 0.349  |
| EMADC2     | 0.251  | 0.192  | 0.811  | 0.420  | 0.346  | 0.481  | 0.218  | -0.074 | 0.308  | 0.361  |
| EMADC3     | 0.253  | 0.243  | 0.828  | 0.410  | 0.284  | 0.466  | 0.302  | -0.010 | 0.302  | 0.446  |
| EMADC4     | 0.262  | 0.191  | 0.820  | 0.370  | 0.309  | 0.558  | 0.308  | -0.128 | 0.276  | 0.314  |
| EMPC1      | 0.276  | 0.201  | 0.438  | 0.882  | 0.364  | 0.392  | 0.230  | -0.087 | 0.472  | 0.341  |
| EMPC2      | 0.307  | 0.253  | 0.490  | 0.904  | 0.390  | 0.488  | 0.336  | -0.151 | 0.497  | 0.447  |
| EMPC3      | 0.252  | 0.229  | 0.380  | 0.887  | 0.395  | 0.399  | 0.279  | -0.091 | 0.468  | 0.382  |
| EMPC4      | 0.233  | 0.202  | 0.380  | 0.847  | 0.312  | 0.401  | 0.234  | -0.136 | 0.480  | 0.380  |
| EQU1       | 0.134  | 0.122  | 0.328  | 0.318  | 0.848  | 0.246  | 0.173  | -0.072 | -0.228 | 0.279  |
| EQU2       | 0.186  | 0.159  | 0.299  | 0.325  | 0.823  | 0.263  | 0.273  | -0.111 | -0.262 | 0.282  |
| EQU3       | 0.218  | 0.066  | 0.282  | 0.379  | 0.799  | 0.243  | 0.157  | -0.022 | -0.355 | 0.247  |
| EQU4       | 0.222  | 0.060  | 0.256  | 0.331  | 0.770  | 0.192  | 0.147  | 0.016  | -0.341 | 0.232  |
| ETC1       | 0.223  | 0.149  | 0.515  | 0.431  | 0.256  | 0.864  | 0.170  | -0.081 | 0.394  | 0.298  |
| ETC2       | 0.283  | 0.134  | 0.534  | 0.418  | 0.244  | 0.897  | 0.143  | 0.042  | 0.345  | 0.241  |
| ETC3       | 0.302  | 0.179  | 0.532  | 0.381  | 0.285  | 0.842  | 0.192  | -0.023 | 0.362  | 0.335  |
| ETC4       | 0.329  | 0.138  | 0.538  | 0.435  | 0.235  | 0.861  | 0.191  | 0.024  | 0.322  | 0.344  |
| REL1       | 0.172  | 0.322  | 0.299  | 0.301  | 0.250  | 0.196  | 0.863  | -0.245 | 0.282  | 0.372  |
| REL2       | 0.155  | 0.326  | 0.262  | 0.237  | 0.219  | 0.154  | 0.812  | -0.203 | 0.274  | 0.397  |
| REL3       | 0.186  | 0.359  | 0.320  | 0.294  | 0.231  | 0.167  | 0.820  | -0.280 | 0.332  | 0.445  |
| REL4       | 0.180  | 0.274  | 0.251  | 0.239  | 0.141  | 0.180  | 0.862  | -0.242 | 0.235  | 0.373  |
| REL5       | 0.140  | 0.266  | 0.252  | 0.234  | 0.147  | 0.151  | 0.868  | -0.272 | 0.284  | 0.391  |
| TMADC1     | -0.056 | -0.183 | -0.050 | -0.074 | -0.035 | -0.021 | -0.304 | 0.890  | -0.114 | -0.179 |
| TMADC2     | -0.020 | -0.175 | -0.077 | -0.104 | -0.071 | 0.005  | -0.231 | 0.924  | -0.095 | -0.192 |
| TMADC3     | -0.044 | -0.213 | -0.105 | -0.079 | -0.047 | -0.035 | -0.312 | 0.848  | -0.057 | -0.175 |
| TMADC4     | -0.006 | -0.085 | -0.040 | -0.217 | -0.063 | 0.019  | -0.146 | 0.721  | -0.061 | -0.154 |
| TMPC1      | 0.300  | 0.339  | 0.319  | 0.454  | 0.298  | 0.314  | 0.336  | -0.087 | 0.862  | 0.386  |
| TMPC2      | 0.398  | 0.138  | 0.291  | 0.502  | 0.300  | 0.363  | 0.250  | -0.067 | 0.844  | 0.312  |
| TMPC3      | 0.333  | 0.296  | 0.351  | 0.467  | 0.340  | 0.391  | 0.286  | -0.098 | 0.901  | 0.381  |
| VTC1       | 0.190  | 0.229  | 0.388  | 0.346  | 0.308  | 0.276  | 0.440  | -0.177 | 0.327  | 0.881  |
| VTC2       | 0.262  | 0.238  | 0.422  | 0.411  | 0.263  | 0.381  | 0.393  | -0.141 | 0.349  | 0.874  |
| VTC3       | 0.253  | 0.272  | 0.389  | 0.424  | 0.275  | 0.327  | 0.430  | -0.233 | 0.412  | 0.893  |
| VTC4       | 0.258  | 0.222  | 0.372  | 0.377  | 0.287  | 0.282  | 0.440  | -0.155 | 0.386  | 0.855  |
| VTC5       | 0.246  | 0.205  | 0.389  | 0.388  | 0.280  | 0.274  | 0.359  | -0.199 | 0.343  | 0.887  |

Source: Field Survey (2022)

Table 38: Collinearity Assessment (MRC-TC Model<sup>R</sup>)

| Indicator | VIF Score |
|-----------|-----------|
| VTC1      | 3.097     |
| VTC2      | 2.922     |
| VTC3      | 3.371     |
| VTC4      | 3.009     |
| VTC5      | 3.597     |
| ETC1      | 2.978     |
| ETC2      | 3.472     |
| ETC3      | 2.210     |
| ETC4      | 2.428     |
| TMPC1     | 1.962     |
| TMPC2     | 1.829     |
| TMPC3     | 2.262     |
| TMADC1    | 3.103     |
| TMADC2    | 3.735     |
| TMADC3    | 2.229     |
| TMADC4    | 1.495     |
| EMPC1     | 2.973     |
| EMPC2     | 3.115     |
| EMPC3     | 2.820     |
| EMPC4     | 2.288     |
| EMADC1    | 2.002     |
| EMADC2    | 1.853     |
| EMADC3    | 1.913     |
| EMADC4    | 1.831     |
| REL1      | 2.613     |
| REL2      | 2.076     |
| REL3      | 1.973     |
| REL4      | 3.402     |
| REL5      | 3.398     |
| CERT1     | 2.086     |
| CERT2     | 2.231     |
| CERT3     | 3.446     |
| CERT4     | 3.658     |
| CERT5     | 2.306     |
| CON1      | 1.734     |
| CON2      | 1.810     |
| CON3      | 1.726     |
| CON4      | 1.704     |
| EQU1      | 2.354     |
| EQU2      | 2.191     |
| EQU3      | 2.075     |
| EQU4      | 2.006     |

Source: Field Survey (2022)

Table 39: Cross Loadings (CP-TC Model<sup>M</sup>)

|        | ADC    | CERT   | CON    | EMADC  | EMPC   | EQU    | ETC    | PC     | TMADC  | TMPC   | VTC    |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| ADC1   | 0.895  | 0.160  | 0.250  | 0.128  | 0.086  | 0.043  | 0.149  | -0.521 | -0.408 | 0.083  | 0.090  |
| ADC2   | 0.916  | 0.097  | 0.189  | 0.092  | 0.075  | 0.033  | 0.177  | -0.492 | -0.395 | 0.054  | 0.033  |
| ADC3   | 0.924  | 0.163  | 0.249  | 0.139  | 0.109  | 0.058  | 0.146  | -0.509 | -0.392 | 0.070  | 0.051  |
| ADC4   | 0.867  | 0.108  | 0.199  | 0.101  | 0.092  | -0.026 | 0.091  | -0.497 | -0.410 | 0.055  | 0.058  |
| ADC5   | 0.854  | 0.145  | 0.171  | 0.112  | 0.139  | 0.037  | 0.135  | -0.508 | -0.398 | 0.067  | 0.055  |
| CERT1  | 0.104  | 0.819  | 0.135  | 0.325  | 0.314  | 0.215  | 0.288  | -0.080 | -0.007 | 0.419  | 0.322  |
| CERT2  | 0.065  | 0.844  | 0.096  | 0.288  | 0.316  | 0.212  | 0.307  | -0.073 | -0.020 | 0.405  | 0.314  |
| CERT3  | 0.195  | 0.792  | 0.125  | 0.180  | 0.138  | 0.162  | 0.248  | -0.121 | -0.090 | 0.218  | 0.108  |
| CERT4  | 0.157  | 0.795  | 0.120  | 0.133  | 0.146  | 0.120  | 0.195  | -0.081 | -0.031 | 0.195  | 0.099  |
| CERT5  | 0.148  | 0.728  | 0.080  | 0.179  | 0.197  | 0.172  | 0.225  | -0.072 | -0.028 | 0.188  | 0.110  |
| CON1   | 0.216  | 0.157  | 0.796  | 0.213  | 0.168  | 0.111  | 0.126  | -0.104 | -0.130 | 0.210  | 0.201  |
| CON2   | 0.260  | 0.046  | 0.799  | 0.158  | 0.176  | 0.086  | 0.061  | -0.190 | -0.175 | 0.212  | 0.218  |
| CON3   | 0.172  | 0.123  | 0.824  | 0.231  | 0.201  | 0.122  | 0.161  | -0.135 | -0.169 | 0.225  | 0.232  |
| CON4   | 0.145  | 0.118  | 0.820  | 0.245  | 0.264  | 0.098  | 0.191  | -0.082 | -0.162 | 0.312  | 0.212  |
| EMADC1 | 0.096  | 0.227  | 0.247  | 0.833  | 0.389  | 0.252  | 0.507  | -0.067 | -0.056 | 0.332  | 0.349  |
| EMADC2 | 0.087  | 0.251  | 0.192  | 0.811  | 0.420  | 0.346  | 0.481  | -0.090 | -0.074 | 0.308  | 0.361  |
| EMADC3 | 0.081  | 0.253  | 0.243  | 0.828  | 0.410  | 0.284  | 0.466  | -0.067 | -0.010 | 0.302  | 0.445  |
| EMADC4 | 0.158  | 0.262  | 0.191  | 0.820  | 0.370  | 0.309  | 0.558  | -0.151 | -0.128 | 0.276  | 0.314  |
| EMPC1  | -0.010 | 0.276  | 0.201  | 0.438  | 0.882  | 0.364  | 0.392  | -0.030 | -0.088 | 0.472  | 0.342  |
| EMPC2  | 0.151  | 0.307  | 0.253  | 0.490  | 0.904  | 0.390  | 0.488  | -0.126 | -0.151 | 0.497  | 0.448  |
| EMPC3  | 0.139  | 0.252  | 0.229  | 0.380  | 0.887  | 0.395  | 0.399  | -0.096 | -0.091 | 0.468  | 0.382  |
| EMPC4  | 0.095  | 0.233  | 0.202  | 0.380  | 0.847  | 0.312  | 0.401  | -0.131 | -0.136 | 0.480  | 0.381  |
| EQU1   | 0.040  | 0.134  | 0.123  | 0.328  | 0.318  | 0.848  | 0.246  | -0.023 | -0.072 | 0.228  | 0.278  |
| EQU2   | 0.077  | 0.186  | 0.159  | 0.299  | 0.325  | 0.823  | 0.263  | -0.074 | -0.111 | 0.262  | 0.281  |
| EQU3   | -0.004 | 0.218  | 0.066  | 0.282  | 0.379  | 0.799  | 0.243  | -0.052 | -0.022 | 0.355  | 0.246  |
| EQU4   | -0.003 | 0.222  | 0.060  | 0.256  | 0.331  | 0.770  | 0.192  | -0.006 | 0.016  | 0.341  | 0.231  |
| ETC1   | 0.169  | 0.223  | 0.149  | 0.515  | 0.431  | 0.256  | 0.864  | -0.089 | -0.081 | 0.394  | 0.299  |
| ETC2   | 0.142  | 0.283  | 0.134  | 0.534  | 0.418  | 0.244  | 0.897  | -0.003 | 0.042  | 0.345  | 0.241  |
| ETC3   | 0.123  | 0.302  | 0.179  | 0.532  | 0.381  | 0.285  | 0.842  | -0.030 | -0.023 | 0.362  | 0.336  |
| ETC4   | 0.125  | 0.329  | 0.138  | 0.538  | 0.435  | 0.235  | 0.861  | 0.008  | 0.024  | 0.322  | 0.344  |
| PC1    | -0.508 | -0.133 | -0.115 | -0.114 | -0.069 | -0.017 | -0.032 | 0.876  | 0.636  | -0.137 | -0.146 |
| PC2    | -0.467 | -0.086 | -0.096 | -0.071 | -0.039 | -0.008 | 0.035  | 0.908  | 0.712  | -0.133 | -0.131 |
| PC3    | -0.534 | -0.103 | -0.144 | -0.088 | -0.105 | -0.061 | -0.045 | 0.931  | 0.830  | -0.139 | -0.199 |
| PC4    | -0.495 | -0.083 | -0.136 | -0.115 | -0.154 | -0.083 | -0.020 | 0.931  | 0.849  | -0.130 | -0.213 |
| PC5    | -0.555 | -0.069 | -0.195 | -0.124 | -0.103 | -0.030 | -0.067 | 0.877  | 0.788  | -0.087 | -0.152 |
| TMADC1 | -0.421 | -0.056 | -0.183 | -0.050 | -0.074 | -0.035 | -0.021 | 0.803  | 0.890  | -0.114 | -0.179 |
| TMADC2 | -0.354 | -0.020 | -0.175 | -0.077 | -0.104 | -0.071 | 0.005  | 0.789  | 0.924  | -0.095 | -0.192 |
| TMADC3 | -0.475 | -0.044 | -0.213 | -0.105 | -0.079 | -0.047 | -0.035 | 0.796  | 0.848  | -0.057 | -0.175 |
| TMADC4 | -0.259 | -0.006 | -0.085 | -0.040 | -0.217 | -0.063 | 0.019  | 0.485  | 0.722  | -0.061 | -0.155 |
| TMPC1  | 0.095  | 0.300  | 0.339  | 0.319  | 0.454  | 0.298  | 0.314  | -0.100 | -0.087 | 0.862  | 0.386  |
| TMPC2  | 0.052  | 0.398  | 0.138  | 0.291  | 0.502  | 0.300  | 0.364  | -0.120 | -0.067 | 0.844  | 0.312  |



|       |       |       |       |       |       |       |       |        |        |       |       |
|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|-------|-------|
| TMPC3 | 0.048 | 0.333 | 0.296 | 0.351 | 0.467 | 0.340 | 0.391 | -0.139 | -0.098 | 0.901 | 0.382 |
| VTC1  | 0.032 | 0.190 | 0.229 | 0.388 | 0.346 | 0.308 | 0.276 | -0.157 | -0.177 | 0.327 | 0.880 |
| VTC2  | 0.035 | 0.262 | 0.238 | 0.422 | 0.411 | 0.263 | 0.380 | -0.136 | -0.141 | 0.349 | 0.875 |
| VTC3  | 0.066 | 0.253 | 0.272 | 0.388 | 0.424 | 0.275 | 0.327 | -0.225 | -0.233 | 0.412 | 0.895 |
| VTC4  | 0.078 | 0.258 | 0.222 | 0.372 | 0.377 | 0.287 | 0.282 | -0.149 | -0.155 | 0.386 | 0.852 |
| VTC5  | 0.070 | 0.246 | 0.205 | 0.389 | 0.388 | 0.280 | 0.275 | -0.171 | -0.199 | 0.343 | 0.888 |

Source: Field Survey (2022)



Table 40: Collinearity Assessment (CP-TC Model<sup>M</sup>)

| Indicator | VIF Score |
|-----------|-----------|
| ADC1      | 3.272     |
| ADC2      | 3.932     |
| ADC3      | 4.438     |
| ADC4      | 3.124     |
| ADC5      | 2.789     |
| CERT1     | 2.086     |
| CERT2     | 2.231     |
| CERT3     | 3.446     |
| CERT4     | 3.658     |
| CERT5     | 2.306     |
| CON1      | 1.734     |
| CON2      | 1.81      |
| CON3      | 1.726     |
| CON4      | 1.704     |
| EMADC1    | 2.002     |
| EMADC2    | 1.853     |
| EMADC3    | 1.913     |
| EMADC4    | 1.831     |
| EMPC1     | 2.973     |
| EMPC2     | 3.115     |
| EMPC3     | 2.82      |
| EMPC4     | 2.288     |
| EQU1      | 2.354     |
| EQU2      | 2.191     |
| EQU3      | 2.075     |
| EQU4      | 2.006     |
| ETC1      | 2.978     |
| ETC2      | 3.472     |
| ETC3      | 2.21      |
| ETC4      | 2.428     |
| PC1       | 3.929     |
| PC2       | 4.964     |
| PC3       | 4.789     |
| PC4       | 4.952     |
| PC5       | 2.979     |
| TMADC1    | 3.103     |
| TMADC2    | 3.735     |
| TMADC3    | 2.229     |
| TMADC4    | 1.495     |
| TMPC1     | 1.962     |
| TMPC2     | 1.829     |

|       |       |
|-------|-------|
| TMPC3 | 2.262 |
| VTC1  | 3.097 |
| VTC2  | 2.922 |
| VTC3  | 3.371 |
| VTC4  | 3.009 |
| VTC5  | 3.597 |

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Source: Field Survey (2022)



APPENDIX C

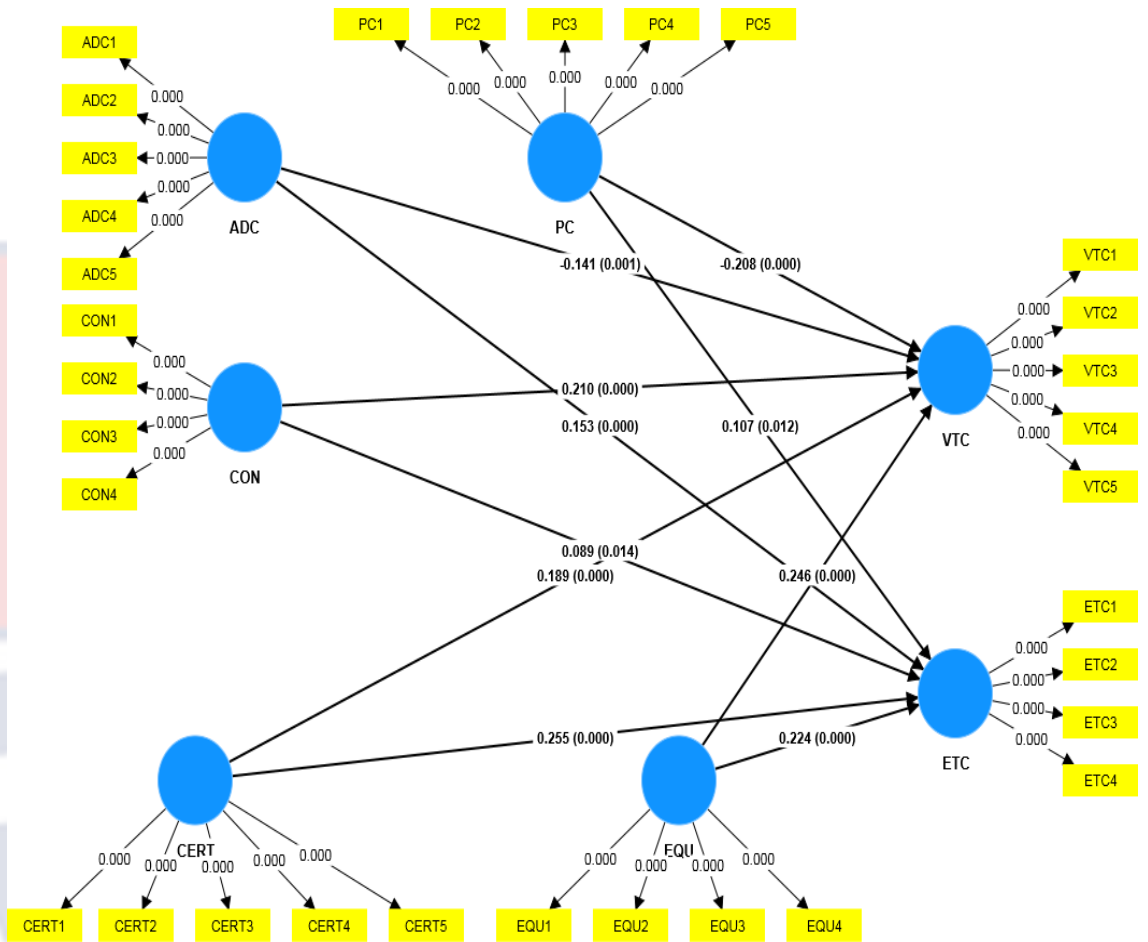


Figure 12: Path diagram (PC-TC Model)

Source: Field Survey (2022)



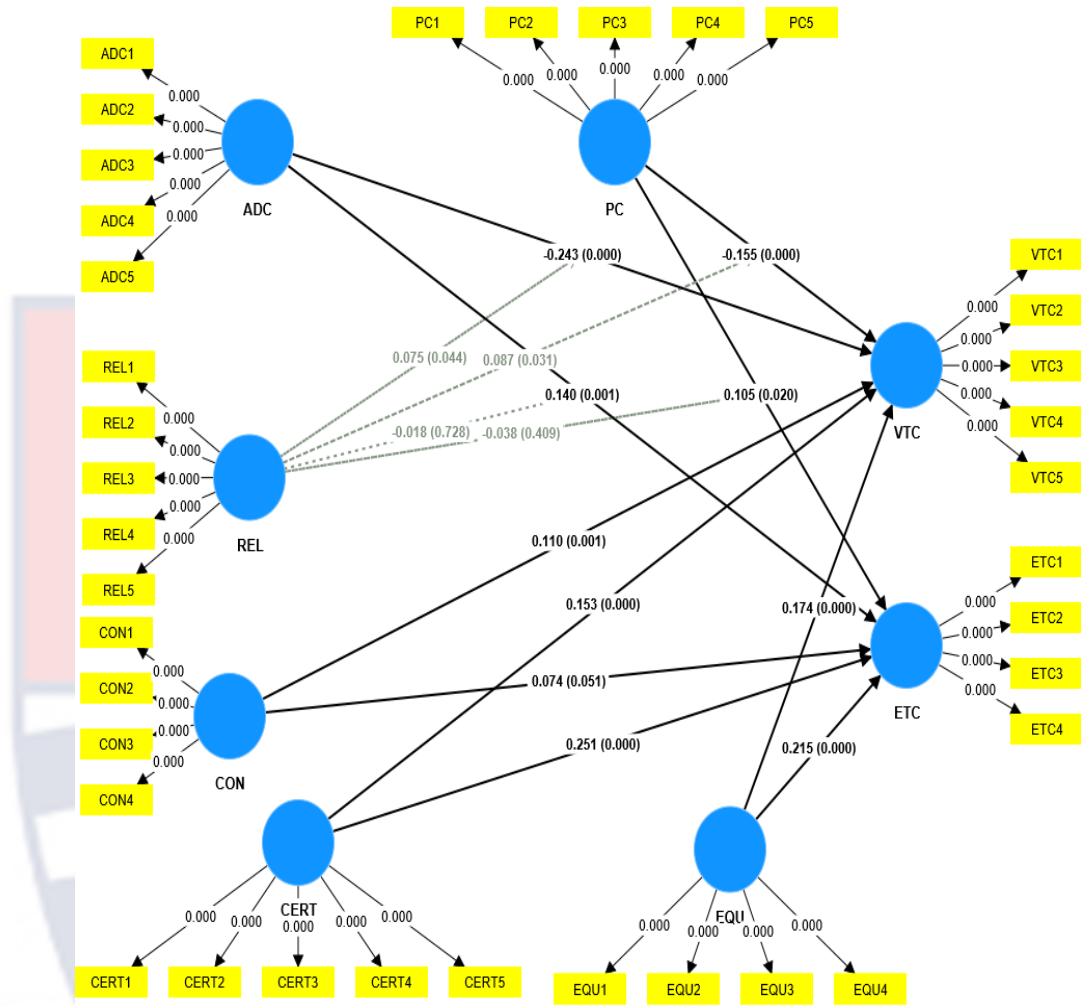


Figure 14: Path diagram (PC-TC Model<sup>R</sup>)

Source: Field Survey (2022)







