



Taxpayer behavioural factors influencing entrenched tax gaps

Submitted in fulfillment of the requirements of the degree
of

Master of Accounting: Taxation

In the Faculty of
Accounting and
Informatics

at the Durban University of Technology

Divakaran Reddy

July 2021

Supervisor: Prof. O. Olugbara

Co-Supervisor: Dr. A. Moodley

DECLARATION

I, Divakaran Reddy declare that the content within this dissertation is my work. All sources that I have used or quoted have been acknowledged in the text by the means of completed references. This study has not been previously submitted in any form to the Durban University of Technology or any other institution for assessment or any other purpose.

Divakaran Reddy

Date: 20 October 2021

Signed

APPROVED FOR FINAL SUBMISSION

Professor O Olugbara

Date: 24 October 2021

Dr A Moodley

Date: 20 October 2021

DEDICATION

My wife Samantha, and daughter Darshmika, for their encouragement and sacrifices
in seeing me through the process.

My late parents Dr. Frank Selvanathan Reddy, and Mrs. Sundrodayam Reddy have
made me the person I am.

Bailey, Bella, and Skye, my furry children, who provided unconditional love and
comfort throughout this process

The source of creation, inspiration, and all that will be, for without his divine
inspiration and solace, this work would not exist

ACKNOWLEDGEMENTS

Prof Olu, who's invaluable guidance and encouragement, has seen me through
some of the most difficult times in this process.

Dr. Asogan Moodley, words cannot express my thanks to you for the countless hours
spent in review and conference calls.

Dr. Lulu Jali, for her kind supportive hand, in this process

Dr. Rubeena Partab, for her positivity and friendship over the last few years in my
research journey

Mr. Kreesan Moodley for the countless calls where we supported each other through
the process

My friends, Rajen, Rio, Pragasen, and Darren, for your support

All the family members who have been a constant source of support

TABLE OF CONTENTS

DECLARATION.....	ii
DEDICATION	iii
ACKNOWLEDGEMENTS	iii
TABLE OF CONTENTS	iv
LIST OF TABLES	x
LIST OF FIGURES.....	x
LIST OF ABBREVIATIONS AND ACRONYMS.....	xii
LIST OF DEFINITIONS	xiii
ABSTRACT	1
CHAPTER 1: INTRODUCTION.....	2
1.1 Introduction.....	2
1.2 Background	5
1.3 Problem Statement.....	7
1.4 Study Purpose and Research Questions.....	9
1.5 Methodology Overview	10
1.6 Study Limitations	11
1.7 Study Contributions	12
1.8 Dissertation Structure	13
CHAPTER 2: LITERATURE REVIEW.....	15
2.1 Introduction.....	15
2.2 Historical background to taxation	16
2.3 Taxation in the modern era.....	18

2.4	Tax systems	19
2.4.2	Direct and Indirect Taxation.....	23
2.4.3	Progressive, regressive, and proportional taxes.....	23
2.5	Global taxation philosophies.....	25
2.6	Taxpayer response to taxation	26
2.6.1	Tax Compliance	27
2.6.2	Tax avoidance	27
2.6.3	Tax evasion	29
2.7	Components of the tax gap	30
2.8	Factors determining taxpayer compliance	33
2.8.1	Taxpayer morale	33
2.8.2	Knowledge of tax laws and prescripts	35
2.8.3	Tax policy	37
2.8.4	Tax administration	38
2.9	Summary of literature	39
2.10	Conclusion.....	39
CHAPTER 3: THEORIES UNDERPINNING TAXPAYER COMPLIANCE.....		41
3.1	Introduction.....	41
3.2	Taxation theories.....	42
3.2.1	The ability-to-pay theory	42
3.2.2	Equal sacrifice theory	43
3.2.3	Proportional sacrifice theory	44
3.3	Theories supporting tax policy	44
3.3.1	Exchange relationship theory	45
3.3.2	Benefit Theory	45
3.4	Taxpayer compliance behavioral theories	46

3.5	Utility theory.....	48
3.6	Frame Dependence theory.....	48
3.7	Social Interactions theory	49
3.8	Theory of planned behaviour.....	51
3.9	Theory of knowledge development.....	53
3.10	Summary.....	53
3.11	Conclusion.....	54
CHAPTER 4: RESEARCH METHODOLOGY		55
4.1	Introduction.....	55
4.2	Theory of knowledge development.....	55
4.3	Research paradigm	57
4.3.1	Positivism and post-positivism.....	58
4.3.2	Interpretivism	60
4.3.3	Advocacy paradigm	60
4.3.4	Pragmatism	61
4.3.5	Rationale for positivist approach	61
4.4	Research Methods	61
4.4.1	Quantitative approach	62
4.4.1.1	Descriptive research.....	63
4.4.1.2	Experimental research	64
4.4.1.3	Causal comparative research.....	65
4.4.2	Qualitative approach.....	65
4.4.3	Mixed-Methods approach	66
4.5	Research design	67
4.5.1	Research approach	67
4.5.2	Research population.....	68

4.5.3	Studies selected	70
4.5.4	Data analysis and coding	72
4.5.5	Data presentation	73
4.5.6	Data storage and management	73
4.5.7	Data reliability and validity	73
4.6	Research ethics.....	74
4.7	Conclusion.....	74
CHAPTER 5: DATA ANALYSIS AND FINDINGS.....		76
5.1	Introduction.....	76
5.2	Meta-analysis	76
5.2.1	Random-effects meta-analysis	76
5.2.2	Subgroup meta-analysis.....	79
5.2.3	Publication bias and small study effect assessment.....	80
5.3	Factors influencing taxpayer compliance.....	82
5.3.1	Coding of data for systematic analysis	82
5.3.2	Systematic analysis of results of data.....	83
5.3.3	Tax administration	87
5.3.3.1	Constraints	88
5.3.3.2	Societal influences	92
5.3.3.3	Behavioural influences	96
5.3.4	Behaviour	97
5.3.5	Institutional Governance.....	102
5.3.5.1	Behavioural intent.....	102
5.3.5.2	Societal Influence on public accountability in institutional governance.....	104
5.3.6	Business characteristics	106
5.3.7	Compliance costs	109

5.3.8	Tax policy	110
5.3.9	Fiscal Administration	113
5.3.10	Economy	115
5.3.11	Tax morale	117
5.4	Summary	118
5.5	Study Findings.....	120
5.5.1	Quality of the tax administration system.....	122
5.5.2	Taxpayer response to tax laws and prescripts	123
5.5.3	Taxpayers trust in the government.....	124
5.5.4	Tax policy	124
5.6	Conclusion.....	125
CHAPTER 6: RECOMMENDATIONS		126
6.1	Introduction.....	126
6.2	Chapter Summaries.....	126
6.3	Alignment of study with the purpose.....	127
6.4	Contributions of the study.....	129
6.5	Limitations of the study.....	129
6.6	Recommendations	130
6.6.1	Improving the quality of tax administration systems	131
6.6.2	Improve public morale	135
6.6.3	Increase public trust in government.....	136
6.6.4	Tax policy reforms	138
6.7	Areas for further research.....	139
6.8	Conclusion.....	139
REFERENCES.....		140
Annexures		181

Annexure A – Studies selected	181
Annexure B – Theoretical Models identified in selected studies.....	185
Annexure D – Coded data.....	194
Annexure E – Individual factors – Subgroup- Dimension	214
Annexure F – Categories of factors.....	219

LIST OF TABLES

Table 4.1 Eligibility criteria	71
Table 4.2 Categories of data	72
Table 4.3 Items from PRISMA	74
Table 5.1 Subgroup analysis	79
Table 5.2 Subgroup and individual tax compliance factors according to TPB	84
Table 5.3 Individual votes according to the nine subgroup factors	85
Table 5.4 Factors influencing tax compliance	122
Table 5.5 Factors entrenching tax gaps	125

LIST OF FIGURES

Figure 2.1 Fiscal psychology model	27
Figure 3.1 Theories of taxation	40
Figure 3.2 Evolution of taxpayer compliance theory	47
Figure 3.3 The slippery slope framework	50
Figure 3.4 Theory of planned behaviour	52
Figure 4.1 The objective researcher	60
Figure 4.2 Studies selected	70
Figure 5.1 Forest Plot	79
Figure 5.2 Funnel Plot	82
Figure 5.3 Positive, negative, and non-effect of individual tax administration factors in the CO dimension of TPB	89
Figure 5.4 Positive and non-effect individual tax administration factors in SI	94
Figure 5.5 Positive tax administration factor in BI dimension	98
Figure 5.6 Positive and negative factors influencing taxpayer behaviour in BI	100
Figure 5.7 Negative factors influencing IG factors in BI dimension of TPB	105

Figure 5.8 Negative factor influencing IG, in SI dimension of TPB	107
Figure 5.9 Negative; positive and non-influence factors relating to business characteristics in BI	109
Figure 5.10 – Negative and positive votes influencing compliance cost in CO	112
Figure 5.11 – Negative and positive votes influencing tax policy in CO	113
Figure 5.12 – Negative factors influencing fiscal administration in CO	117
Figure 5.13 – Negative economic factor in SI	119

LIST OF ABBREVIATIONS AND ACRONYMS

The following list provides the abbreviations and acronyms used in this study:

BI	Behaviourial Intent
CI	Confidence Interval
CIT	Corporate Income Tax
CO	Constraints
ECA	Eastern European and Central Asian countries
G20	G20 Group of Countries
GDP	Gross Domestic Product
GST	General Sales Tax
IRS	Internal Revenue Office (revenue authority of the USA)
MA	Meta-analysis
MTC	Model Tax Convention
OECD	Organisation for Economic and Cooperative Development
PAYE	Pay As You Earn (withholding tax on income payments to employees)
PIT	Personal Income Tax
PRISMA	Preferred Reporting Items for Systematic reviews and meta-analyses
SAS	Self-Assessment Service
SARS	South African Revenue Service
SI	Societal Influence
TPB	Theory of Planned Behaviour
USA	United States of America
UK	United Kingdom
VAT	Value Added Tax

LIST OF DEFINITIONS

Enforced Compliance	Taxpayers comply with tax obligations only after their non-compliance has been detected and enforced by tax authorities – Kirchler, Hoezel and Wahl 2008: 212
Non-formal, underground economy or shadow economy	The Non-formal, underground economy or shadow economy, refers to all economic activity, that is conducted and is undetectable by the government; tax authorities, or other official regulators, to avoid governmental laws and regulations (Medina and Schneider 2018: 2)
Tax amnesties	Tax amnesties refer to the concessions made by the tax authorities to non-compliant taxpayers in respect of fines or penalties imposed for non-compliance with tax laws and obligations (Luitel and Sobel 2007:20)
Tax avoidance	Tax avoidance is a legal means of reducing an individual's or organisation's tax liability and is an unintended consequence of a tax system (Khlif and Achek 2015: 488)
Tax evasion	Tax evasion refers to any attempt by a taxpayer to evade or not pay taxes legally due (US 2009: 2)
Tax gap	The tax gap is explained as the difference between the taxpayers' legal tax obligations and the amount of taxes collected by the tax authorities (Alm and Soled 2017: 521; Dare, Du Plessis, and Jansen 2019: 2)
Taxpayer	A taxpayer is a person, who has registered with a tax authority as a taxpayer. A person could be a natural or a juristic person for taxation. Stiglingh, Koekemoer, van Schalkwyk, Wilcocks <i>et al</i> , 2021: 1164)
Tax morale	Tax morale is an individual's intrinsic motivation to pay taxes (Alm and Torgler 2004: 2)
Taxpayer compliance	Tax compliance is the choice taxpayers make to comply with their taxation obligations - (own explanation)

ABSTRACT

Tax compliance is the willingness of taxpayers to obey tax rules of a nation, whilst tax noncompliance is the unwilling behaviour of citizens to act under tax regulations. Taxpayer compliance enables the government to collect tax revenues, which is one of the most important sources of government income. Altering the non-compliant behaviour of citizens is an important barometer for increasing tax revenues that contribute to the socio-economic development of a nation. Numerous quondam studies have been conducted strikingly in the past few decades on taxpayer compliance. However, there is a dearth of sufficient research currently on tax noncompliance behaviour. Moreover, the phenomenon of tax noncompliance has limited exploration from the vantage point of meta-analysis of primary research studies conducted, focussing on interrogating, and systematically categorising their results. Resultantly, the purpose of this study was to examine the previously related primary studies to determine those factors that have been judged to have influenced the tax compliance behaviour of citizens. This study has adopted the quantitative research approach and followed the preferred reporting items for systematic review (PRISMA) method and meta-analysis to provide an accurate estimate of the relationship that exists in a population of relevant tax noncompliance behavioural studies. The population comprised of 45 international studies conducted between the period 2015 to 2020 is selected for analysis. The study results indicate that the quality of tax administration systems and public trust in institutional governance are factors that have influenced taxpayer compliance positively. Poor government accountability mechanisms entrenched tax gaps, and developing public trust in government institutions were found to be universal to promote voluntary taxpayer compliance. This study has contributed significantly to the open discussion on tax compliance among researchers, governments, and businesses.

CHAPTER 1: INTRODUCTION

1.1 Introduction

In general, government taxes represent the single most important source of revenue that contributes towards the socio-economic development of a nation (Dare, Du Plessis, and Jansen 2019: 1). Government revenues are utilized to provide goods and services called public goods that normal participants in an economy would not be able to provide because of the limited probability of profit-making (Biernat-Jarka 2016: 41; Forstater 2005: 58; Seo 2016: 395-397). Consequently, governments require resources, including funding that are obtained from, *inter alia*, the levying of government taxes, to provide such public goods (Atria, Durán and Ramírez 2021: 1; Dwyer 2014: 666-667; Seo 2016: 395-397).

Haning, Hasniati, and Tahili (2019: 96) suggested that the main source of funding for infrastructural development in mature and emerging markets is obtained from taxes levied by governments on the public. Taxes are collected from the public, either directly or indirectly. Direct taxes are levied on a taxpayer's taxable income, in various forms, including but not limited to personal income taxes and company income taxes. Indirect taxes are generally levied, in various forms, on the taxpayer as he consumes goods and services and include, amongst other forms of indirect taxes, value added taxes and general sales taxes (Khwaja and Iyer 2014: 4). In addition to providing public goods, these tax revenues are utilized by the government to shape the country's progressive economic development trajectory by, *inter alia*, investing in infrastructure, social development programmes, and creating employment. These progressive economic development policies thus significantly contribute to enhancing the lives of the people (Wanjuu and Le Roux 2017: 1).

Progressive economic development policies which translate into investments in infrastructure and other returns-yielding capital assets also impact investor perceptions of a country, thereby providing additional avenues for foreign direct investment and capital inflows into a country (Wanjuu and Le Roux 2017: 1). Foreign

direct investment and capital inflows also contribute to countries' economic development. Economic development, in turn, has the potential to generate increased tax revenues. Hence, tax revenue represents an important system for countries' inclusive and sustainable socio-economic growth (Dare, Du Plessis, and Jansen 2019: 1).

However, the public demands accountability from the government on the utilization of taxes and other government revenue collected (Sobhkhiz, et al 2019: 38). Accountability is demanded on whether government revenue has been applied as intended, in the pursuit of national priorities and the provision of public goods, under the mandate given to the government by the public. Generally, the extent to which national priorities are achieved and public goods (including basic services) are provided, serves as an accountability mechanism against which the performance of the government of the day is measured and evaluated (Malik 2020: 3).

Moreover, the demands for public goods by society are increasing whilst the means available to satisfy these demands are limited (Murphy 2019: 3-6). It is therefore important, within the context of socio-economic development, that all taxpayers or deemed taxpayers comply with tax prescripts and pay their taxes when due. The value of tax obligations to the state is normally calculated with a person's earnings or revenue generated (Oddou 2020:1705), thus locating government taxation within the ability to pay theory (Kendrick 1939: 92). The ability-to-pay-theory is discussed further in Chapter Three.

Whilst the payment of taxes is legally compulsory, in terms of South African tax laws, the country has introduced a system of voluntary compliance that allows taxpayers to take personal responsibility for the payment of their tax obligations (South Africa 1962: 135-139). The voluntary compliance system was introduced in 1914, on formation of the Union of South Africa (Steyn 2012:54). Prior to the introduction of the voluntary compliance system, in South Africa, taxes were collected from indirect sources such as trade duties and other forms of indirect taxes (Steyn 2012:54). The voluntary

compliance approach is bolstered by the compulsory requirement for employers to deduct employees' tax, a category of direct taxes, from earnings due to the taxpayer (South Africa 1962: 39). Voluntary tax compliance may well be located within the framework of behavioural theory which is further discussed in Chapter Three.

Ensuring such voluntary compliance has been an administrative challenge in South Africa as well as in other countries that adopted voluntary compliance, resulting in tax non-compliance being broadly acknowledged as a global phenomenon (Horodnic 2018: 868; Newman and Nokhu 2018: 1; Raczkowski 2015: 59). Therefore, altering non-compliant taxpayer behaviour is considered a priority by governments globally, to increase their country's tax revenues (Haning, Hasniati, and Tahili 2019: 96). The perceived taxpayer non-compliance prompted several studies, internationally, into taxpayers' compliance with tax prescripts and tax obligations, with a focus on the resulting non-compliance gap (Horodnic 2018: 868)

In South Africa, the non-compliance gap has, however, only been researched from a Value-Added Tax (VAT) perspective. Limited research currently exists on the non-compliance gap from a direct tax perspective (Dare, du Plessis, and Jansen, 2019: 1). The tax gap for direct taxes has, however, been extensively researched globally through different theoretical and methodological lenses (Abdixhiku, Krasniqi, Pugh and Hasni 2017: 354; Adreoni, Erard and Feinstein 1998: 818; Alm and Torgler 2012: 1). These different lenses are discussed further in Chapter 2. The phenomenon of non-compliant taxpayer behavior, however, has been poorly researched from a meta-analysis perspective, particularly focusing on the analysis of primary research studies, with the intent to analyse and categorise the results of these primary research studies conducted. Resultantly, the purpose of this study is to analyze and categorise the factors that influence taxpayer compliance with tax laws and obligations identified in primary studies conducted (taxpayer compliance). The current study also seeks to identify and understand variant taxpayer compliance and the drivers of such variant compliance behavior. A quantitative research approach was adopted to achieve the purpose of this study by conducting a meta-analysis of primary studies, and the results analysed.

1.2 Background

Despite the introduction of tax reforms, such as the taxation of capital gains on the sale or disposal of assets and the introduction of taxes on the transfer of wealth, by governments globally and especially in emerging market economies, tax revenues remain insufficient to satisfy the demands of society (Murphy 2019: 3-6). The Organisation for Economic Co-operation and Development countries and the Group of 20 (G20) countries both highlight that the collection of taxes in all countries, but with greater emphasis on emerging market economies, is necessary to address national priorities and to meet socio-economic demands, all of which require the availability of, and access to, public goods (Marandu, Mbekomize and Ifezue 2015: 207).

In South Africa, for example, National Treasury's budget review (South Africa 2019: 35) projected that the shortfall in tax revenue is expected to grow from R27.4 billion during the 2018/2019 financial year to more than R42.8 billion for the 2019/2020 financial year, a decrease of 56% in tax collections in one year, because of the weaker economic growth and weaknesses in tax administration. Tax collection weaknesses have been highlighted by Dare, Du Plessis, and Jansen (2019: 7) who concluded that in South Africa, although tax compliance for salaried individuals is high because of the obligation on employers to deduct employees' tax, further measures are required to improve compliance by individuals and other forms of business participating in the non-formal and underground economy, who do not disclose all taxable income. In addition, Dare, Du Plessis, and Jansen (2019: 7) suggested that non – salaried income, which is reported through third parties, is prone to be ignored by taxpayers when determining their tax obligations. Dare, Du Plessis, and Jansen (2019:7) further stated that even though tax compliance for salaried individuals in South Africa is high, it is still 3.3% lower than mature market economies such as the United Kingdom (UK) and Sweden.

Taxpayer non-compliance, consequently, can be considered as one of the significant contributors to the shortfalls experienced in government tax revenue collections (Durán-Cabré, Moré, Mas-Montserrat, and Salvadori 2019: 220; Murphy 2019: 5). The factors affecting taxpayer compliance have been researched extensively globally to

understand and address such taxpayer non-compliance. Despite these studies conducted, taxpayer non-compliance remains a problem that many governments face around the world (Horodnic 2018: 869; Newman and Nokhu 2018: 1; Raczkowski 2015: 59). According to Alm and Soled (2017: 521), several studies conducted found that taxpayer non-compliance included, *inter alia*, tax evasion. These studies assumed that tax evasion and other forms of taxpayer non-compliance may be resolved by tax authorities implementing robust enforcement strategies (Alm and Soled, 2017: 521). However, these studies did not accord sufficient attention to identifying and analysing the reasons for taxpayer non-compliance and the factors that influence such non-compliance. In addition, the studies did not address the challenges experienced by tax authorities in addressing such taxpayer non-compliance (Alm and Soled 2017: 521).

Recent international developments such as the COVID-19 pandemic have influenced taxpayer behaviour, exerting enormous strain on the South African economy and the resultant impact on taxpayer earnings. The impact of the COVID-19 pandemic on taxpayer earnings resulted in a drop in tax revenue collections, with a concomitant decline in the country's socio-economic development programmes (Mckibbin and Fernando 2020:49). Consequently, a study that explores the factors that influence taxpayer compliance, specific compliance to tax prescripts and tax obligations, becomes important in light of declining tax revenues. This study seeks to explore the factors that influence taxpayer compliance within a framework that understands and analyses the reasons for taxpayers' non-compliance with tax prescripts and obligations.

1.3 Problem Statement

Throughout history, the collection of taxes has been a preoccupation of most societies because of the need to provide public goods and the related burden that the levying of taxes places on the public (Batrancea, *et al*, 2019: 3). The revenue generated from taxes levied has traditionally been the main source of government revenue for the provision of public goods to society (Moon, Røttingen, and Frenk 2017:196)

However, tax revenues are declining. In South Africa, the tax buoyancy rate decreased from 1.4% to 1.2% between 2014 to 2018, signifying lower taxpayer tax compliances levels (South Africa 2019:3). Globally, it was estimated that in 2015, tax revenues lost through tax evasion alone, exceeded US\$3.1 trillion, which accounted for 5.1% of the world's GDP. Tax revenues declined despite governments' interventions and efforts to collect taxes due (Marandu, Mbekomize, and Ifezue 2015: 207). Declining tax revenues, resulting from, *inter alia*, tax evasion, has had a severe negative impact on emerging market economies considering that tax revenues represent their single major source of government revenue (Marandu, Mbekomize, and Ifezue 2015: 207). The severity of tax evasive behaviour was brought into a distinct focus by the study conducted by Marandu, Mbekomize, and Ifezue, (2015: 207) who estimated that over 97% of health care budgets in African and South American countries were lost through tax evasion (Marandu, Mbekomize, and Ifezue 2015: 207). Consequently, it becomes important for governments worldwide to identify, analyse and understand the reasons for the entrenchment of tax gaps relating to taxpayer non compliance.

An analytical evaluation of the critical factors driving taxpayer compliance will be of immense assistance to decision-makers pursuing tax reformation and the realignment of taxation systems with prevailing environmental conditions. The need for reformation and realignment was especially prevalent in 2020 when considering the global impact of new factors such as the COVID-19 pandemic on people's lives and livelihood. The pandemic impacted socio-economic factors such as reduced earnings, working remotely without supervision, new living arrangements, new formats of business engagements, changed social environments, and a shrinking global

economy (Jacobs 2013: 1; McKibbin and Fernando 2020: 3). The world was forced to rapidly adjust to the changing circumstances because of these new challenges, and to face the onslaught brought about by the accelerated socio-economic changes discussed above, as the world's tax regimes attempted to adapt and realign to these changes (McKibbin and Fernando 2020: 1). It is submitted, therefore, that because of the need to address the challenges brought about by new socio-economic conditions, analysing, and understanding taxpayer compliance becomes prominent in the collection of government revenues.

In summary, the phenomenon that arises from the limited literature review undertaken is that, despite the tax collection and compliance interventions implemented by the government in South Africa and by governments worldwide, tax revenues collected are not a true representation of worldwide wealth generation due to tax evasive behaviour. The limited literature review of global taxpayer compliance studies undertaken, indicate that multiple research approaches were followed in conducting these studies. Consequently, these studies achieved varied results with regard to behavioural and socio-demographic factors that influence taxpayer behaviour that therefore entrenches the tax gaps. Tax compliance studies were identified that indicated that the poor quality of tax administration systems entrench tax gaps whereas other studies revealed that poor tax policy design also contributes to such entrenchment. Numerous global studies have explored and analysed taxpayer behaviour. However, a single, current interrogative analysis identifying and understanding factors affecting taxpayer compliance and the sources of the variations in tax studies emanating from these primary studies, is lacking and represents an important gap in the existing literature. This study seeks to address this important gap.

1.4 Study Purpose and Research Questions

Although substantial research into taxpayer compliance has been conducted, the results of these empirical studies indicate that factors impacting taxpayer compliance varies across socio-demographic categories and tend to be inconsistent (Hofmann, Voracek, Bock and Kirchler 2017: 63; Le, Tuyet, Hanh and Do 2020: 210; Musimenta, Naigaga, Bananuka and Najjuma 2019: 15). Alm and Soled (2017: 564) also indicated that there are factors impacting taxpayer compliance that remain unknown. Additionally, Khelif and Achek (2015: 95) indicated that many studies into taxpayer compliance are exploratory, where each study examines new factors without taking into account previously reported empirical findings. This has resulted in the existence of disjointed information because factors found in the previous empirical studies could interact with the new factors introduced in the exploratory studies and produce different results. Hofmann *et al*, (2017: 63) acknowledged that the complexities of socio-demographic interactions are broad and unknown, and their interactions are largely unknown. This supports the notion that it is essential to integrate socio-demographic research with other research on tax compliance to develop a clearer understanding of the integration of these socio-demographic factors and their influence on taxpayer compliance.

The purpose of this study was to integrate the results of previous studies conducted on taxpayer compliance using the meta-analysis (MA) method to examine, understand and analyse all potential factors impacting taxpayer compliance. This study addresses the following important research questions to achieve its purpose:

- I. What are the main factors emerging from primary studies, that influence taxpayer compliance?
- II. What are the sources of variations, if any, among studies on the main/significant factors influencing taxpayer compliance?
- III. What is the extent to which emerging factors contribute to the tax gap?

1.5 Methodology Overview

The purpose of this study is to identify and analyse the factors that contribute to taxpayer compliance which contributes to the resultant tax gap. In doing so, a MA was undertaken of primary research studies conducted both locally and globally. This study adopts a quantitative approach to the research, which is located within a positivist paradigm. The MA allows for the adoption and utilization of statistical analytical tools that enabled identifying taxpayer compliance factors and for conducting critical analyses of these factors. The critical analyses enabled the identification of reasons driving taxpayer compliance which provided the foundation for the development of the recommendations of this study.

Primary studies analysed in this study are characterized by their diversity of measurement and analytical approaches (see Annexure D), therefore, for this study, a simple form of MA called vote counting was utilized as one of the data analysis techniques (Hedges and Olkin 1980: 359-369). According to Zou and Stan (1998: 336), the vote-counting approach summarizes, for each independent factor, the number of studies that report a positive effect, a negative effect, or a non-significant effect on tax compliance. The majority of positive results suggest a high probability of a positive true effect of a factor on taxpayer compliance. Hence, the vote-counting technique offers a simple but effective technique that presents analyses on the results of each factor analyzed (Zou and Stan 1998:33). Further analytical techniques such as the identification and interrogation of factors emerging from the data were also adopted.

The data population comprises the collection of known and available empirical studies addressing fundamentally the same research question of taxpayer compliance. The PRISMA model was used to identify the studies included in this review based on certain selection criteria (see chapter 4). Initial literature searches for journal articles relating to tax non-compliance factors were conducted using the following database search engines: Web of Science, SCOPUS, and PROQUEST. Studies that were published between 2020 and 2015 were identified and subjected to further eligibility criteria. The studies included in this review were identified through a systematic selection process. Only papers that met the following criteria were thereafter selected

for evaluation: (1) papers examining the determinants of tax compliance or factors of compliance as the dependent variable and (2) papers that are empirically based on data from taxpayers (individuals or organizations) as its subjects. A schedule of primary studies identified for this study is attached as Annexure A. No sample was chosen as the interrogative analysis was conducted on the total population of primary research studies identified by applying the eligibility criteria (see Annexure A).

1.6 Study Limitations

This study was conducted by identifying and analysing primary research undertaken into taxpayer compliance with tax laws and obligations. Consequently, only identified, available studies were considered. Therefore, the results of this study are influenced by these identified, available primary studies. It is conceded that other primary studies may have been undertaken which, when factored into this study, may produce different results.

A further limitation of this study is the adoption of a MA theoretical lens. It is acknowledged that other research, adopting other theoretical lenses, such as the managerial lens, may produce different results.

A third limitation is that the quantitative approach to research has been followed in conducting this study. Other studies, following other approaches such as the qualitative and mixed methods approaches, may produce different results to this study.

The underlying behavioural assumption made in this study presents a further limitation. An assumption is made that taxpayers will not voluntarily and willingly comply with tax prescripts and obligations. The adoption of different behavioural assumptions may produce results different from this study. In addition to the limited assumption, only one behavioural factor was analysed, namely taxpayer compliance with tax laws and obligations. It is acknowledged that expanding the scope of behavioural factors such as considering and interrogating the influence of, *inter alia*, religious beliefs, traditions, and cultural considerations, on taxpayer behaviour may lead to different results.

Finally, the findings, conclusions, and recommendations in this study emanate from secondary research. It is submitted that a primary study may yield results different from those of this study.

1.7 Study Contributions

As discussed in section 1.2 above, several primary research studies have been conducted into taxpayer compliance. Attempts by researchers to provide a comprehensive summary of tax compliance factors are limited. Marandu, Mbekomize, and Ifezue (2015: 207-218) provided a modern MA approach to synthesizing tax compliance studies. The study conducted by Marandu, Mbekomize, and Ifezue (2015: 207-218) however, was limited to four critical areas. Their analysis (1) focused on theory development for taxpayer compliance studies; (2) omitted the rationale behind the compliance factors identified; (3) was performed on a limited sample size of 18 studies; and (4) was performed on studies published between 1985 and 2012. The tax environment has evolved since 2012, due to, *inter alia*, changes in government priorities and technology, and therefore the results of Marandu, Mbekomize, and Ifezue (2015) study may not be representative of the current tax environment.

In addition, no evidence exists that a single, comprehensive analysis of these primary studies has been conducted since the Marandu, Mbekomize, and Ifezue (2015) study. The non-existence of a single comprehensive analysis of the primary research studies that provide validated information on the factors that affect taxpayer compliance, and the entrenchment of the tax gap represents a deficiency in the existing literature. This study is therefore intended to address the deficiency and contribute to the existing literature by presenting a comprehensive analytical comparison of the results of several primary studies already conducted in the area under review.

The results of this study seek to assist policy makers in making strategic decisions that attempt to address deviant taxpayer compliance, as it explores taxpayer compliance from a multiple dimension perspective. The results of this study can therefore be used to assist policymakers in addressing possible taxpayer non-compliance with the consequent impact of reversing such non-compliance and bringing about increased tax revenues.

1.8 Dissertation Structure

This research study is presented in six chapters which incorporate the different stages of the study. The six chapters are as follows:

Chapter 1: Introduction

Chapter one introduces the research problem and contextualises taxpayer compliance. It focuses specifically on taxpayer compliance with tax prescripts and obligations, its background, and its challenges in mature and emerging economies. The purpose and research questions investigated in this study are articulated. The research methodology was introduced with a brief discussion on the research approach and methods adopted for the study. This chapter also briefly described the research limitations and the possible contributions that the research brings to existing knowledge.

Chapter 2: Literature review

The second chapter provides a comprehensive review of the existing literature on taxpayer compliance. The literature reviewed includes research reports, journal articles, and other documents. Compliance and/or non-compliance with taxation prescripts are measured against relevant legal prescripts and frameworks relating to the identified phenomena of declining tax revenues and taxpayer compliance. The chapter concludes with a summary of the significant findings made and identifies potential gaps in the literature.

Chapter 3: Theoretical framework

Taxpayer compliance is located within several theoretical assumptions and bases. The theories underpinning this study, including the Behavioural and Affordability theories, are discussed in detail in Chapter three.

Chapter 4: Research Methodology

Chapter four explores the research approach, design, and methods employed for the study. The data collection and analytical techniques are also discussed. The chapter includes a discussion on data coding, data validity, and data management. The research population and studies selected are described and the chapter concludes with a discussion on the research ethics followed in conducting this study.

Chapter 5: Data analysis and interpretation

Chapter five describes the MA of data collected and provides a discussion of the systematic data analyses conducted thereafter. The results of both the MA and systematic analyses conducted are presented using various quantitative presentation methods, including tables, pies charts, and bar graphs, supported by narrative descriptions.

Chapter 6: Recommendations and conclusion

Chapter six describes the recommendations emerging from this study. The alignment of the study with the purpose and research questions is also described. This chapter discusses the contribution of this study while acknowledging its intrinsic limitations of and suggests possible areas for further research.

CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

This chapter presents a review of existing and available international studies conducted on the factors influencing taxpayer compliance. The literature review explores the history, background, and evolution of taxation. The distinction between the different approaches to taxation, the various types of taxes, and the significant philosophies enabling the levying of taxes are explored and analysed. Significant global trends in taxation systems implemented by various countries are also analysed to contextualize their relevance to this study.

Tax evasion and tax avoidance are analysed, with the former being identified as the primary focus area for this study. The tax gap arising from non-compliant taxpayer behaviour (tax evasion) is appraised to confirm its applicability as a global phenomenon facing governments in both mature and emerging economies. The primary factors influencing taxpayer compliance in high-income countries and in emerging economies are analysed, noting that taxpayer compliance influences the entrenchment of the tax gap. An analysis is also conducted of the significant narratives relating to factors influencing taxpayer compliance and significant factors are highlighted.

Although taxpayer compliance has been researched extensively internationally, tax authorities and scholars continue to experience difficulty in understanding and comprehending the phenomenon, as the nature of tax compliance is multifaceted, and constantly evolving in response to dynamic, global socio-economic trends (Abdixhiku Abdixhiku *et al*, 2017: 354; Adreoni, Erard and Feinstein 1998: 818-819; Alm and Torgler 2012: 1). Moreover, the factors comprising taxpayer compliance are vast and diverse, and lack homogeneity (Marandu, Mbekomize, and Ifezue 2015: 215). This study, therefore, seeks to provide a homogenous, single analysis of the results of existing primary studies on taxpayer compliance that influences the tax gap.

2.2 Historical background to taxation

Public taxation evolved from its relatively primitive origins as a tribute system in ancient empires to the complex diverse systems of the modern world (Samson 2002: 21-22). Taxable income refers to the taxpayer's earnings that are subjected to taxation less those expenses recognised by the tax authorities as tax-deductible expenses (South Africa 1962: 41). Ancient theocratic empires such as the Egyptian, Mesopotamian, Chinese, and Inca, believed that paying tribute to their emperors, kings or leaders were religious contributions, as these leaders were considered to have had a divine right to rule and obtain their income from those over whom they ruled (Samson 2002: 22). The Holy Bible referred to this system as 'tithing', which embodied a basic system of religious contribution and taxing (Samson 2002: 21-22). Archaeologists have identified records of taxation on Egyptian clay tablets dating as far back as 3200 BC, during the reign of an Egyptian king, King Scorpion (Samson 2002: 22), thereby confirming the existence of taxation regimes during these ancient times.

Rulers during these ancient times considered their subjects as their property because rulers owned the factors of production which included the land and implements those subjects needed to make their living. Taxation contributions, therefore, took the form of either a portion of the goods produced by subjects being paid over to the rulers, or the subjects rendering services to the empire for civic and other projects (Samson 2002: 23). As thinking, conceptualisation, and ideas about taxes evolved, these emerging ideas were adopted by other empires, regions, and cultures (Samson 2002: 22). In China, for example, taxes were levied by the Chinese emperors from as early as 2100BC. Local magistrates were appointed by the imperial court to collect taxes from subjects based on pre-set revenue collection quotas (Blankson 2007: 5). Government administrators in Greece, during 2100BC, also collected taxes from their citizens on the sale of goods (Blankson 2007: 10). The Manu Smriti and Arthasatra in India were literary works dating to the pre 300BC era, that offered advice on the matter of taxation by sages to kings (Blankson 2007: 11-12). These literary works included specific information on the way taxes should be collected and the percentages of profits that artisans were required to contribute to the state (Blankson 2007: 1 -12).

The seminal work by French physiocrat Adam Smith "*An inquiry into the Nature and Causes of the Wealth of Nations*" (Wealth of Nations) (Smith 1776) is generally

considered by economists as the catalyst for modern taxation. Smith (1776) argued that the best form of modern taxation would find its support in the medieval era, where taxation should be a fee derived entirely from surpluses and not a fee imposed as a burden on production (Dwyer 2014: 1). These principles of taxation were upheld in his first maxim that citizens should contribute to the government in proportion to their ability to pay (Smith 1776: 1581).

Government taxation can therefore be defined as the compulsory contribution by a country's citizens/taxpayers for the provision of public goods and for the implementation of the government's socio-economic development responsibilities (Aamir, Qayyum, Nasir, Hussain 2011: 173; Jalan and Vaidyanathan 2017: 87-88). Non-payment of taxes is an offense that is punishable by law in all countries (Aamir *et al*, 2011:173; Jalan and Vaidyanathan 2017: 87-88).

Despite the rationale for taxation as a system to generate the resources required for the provision of public goods and to promote socio-economic development, its methods of enforcement and collection were not always in the best interests of society (Forstater 2005: 58). Forstater (2005: 58) argued that taxation was used as a political tool to entrench the policies of colonialism on the African continent during the 19th century. Colonialists enriched themselves and disempowered the inhabitants by imposing high taxes on income earned, leading to poverty and hardship being experienced by such inhabitants. From a historical perspective, the world consequently engaged in robust discussions around the impact of such taxation practices, *inter alia*, the rising inequality, and the financial erosion of the middle class (Dwyer 2014: 666). Despite these tax practices and the resultant robust engagements at international forums, taxation has continued to remain an important source of government revenue, contributing to socio-economic development policies, and will in all probability continue to remain so in the future (Dwyer 2014: 666).

2.3 Taxation in the modern era

The emergence of the industrial revolution during the 17th century in Europe witnessed an increase in the private ownership of the means of production, contributing to the accelerated emergence of the middle class of people in society (Dwyer 2014: 664). Essentially the middle class was an economic grouping of people that emerged within the gap created between aristocrats and their subjects (Dwyer 2014: 664). The industrial revolution, therefore, contributed to a decline in revenue for the aristocracy as their traditional sources of income from the letting of land to subjects and rental income from the other resources such as farming equipment and implements owned by the aristocracy declined (Dwyer 2014: 664). The increasing financial needs of the aristocracy ultimately led to their downfall and prompted the move by society to central political authorities - governments which, *inter alia*, allowed for the collection of taxes in a more inclusive and coordinated manner (Paris 2003: 155-157). The emergence of governments in society necessitated the emergence of the modern tax system to enable governments to generate revenue to execute their responsibilities (Dwyer 2014: 664; Paris 2003: 155-157). Taxes in the 21st century evolved from these early systems to the current systems where tax contributions represent a mandatory monetary contribution that governments seek to impose on taxpayers, following the non-exchange transaction policy (Jalan and Vaidyanathan 2017: 87). How taxes were collected has also evolved (Blankson 2007: 87). Whilst in ancient empires subjects physically delivered their contributions to their rulers, modern tax collection is largely driven by technology that has enabled the instantaneous processing of transactions (Arendse, Stark and Renaud 2015:2).

2.4 Tax systems

The introduction of the modern principles of taxation necessitated the design and implementation of appropriate tax systems to ensure the effective administration of the tax process. The essential components of the tax process, the basis of establishing taxable income, direct and indirect approaches to taxation, and the philosophies relating to levying taxes are discussed below.

2.4.1 Basis of establishing a taxpayer's taxable income

The generally accepted approach to assessing the tax obligations of taxpayers and the concomitant payment process adopted by tax authorities, globally, involves the taxpayer complying with a series of steps and processes to submit a tax return (Blaufus, Hechtner and Jarzembki 2019: 926-928). A tax return is an official document that is prescribed by a tax authority and is used by a taxpayer to declare his/her taxable income for the period under review. Submitting tax returns include at least four broad stages. The first stage involves the registration of the taxpayer with the relevant tax authority. Secondly, the tax return must be completed and submitted to the tax authority. Thirdly, there is an assessment conducted of the tax return by the tax authorities who thereafter allow taxpayers to raise objections or concerns related to the taxation assessment. Fourthly, the settlement phase allows taxpayers to either pay taxes due or receive a refund of any taxes paid more than the taxpayer's legal obligations (Blaufus, Hechtner, and Jarzembki 2019: 926).

A taxpayer is required to declare all income earned during the tax assessment period in the tax returns submitted to the tax authorities (Stiglingh, Koekemoer, Van Schalkwyk, Wilcocks 2021: 32). Income may be earned either in the country of residence, from a global source, or both local and global sources. The recognition of taxable income by a country's tax authorities is generally dependent on the source of the taxpayer's earnings. Different countries follow different approaches to identify the source of a taxpayer's income (Soyode and Oyedokun 2019: 18). The currently existing approaches to identifying the source of taxpayer's income include, (i) citizen-

based approach, (ii) residence-based approach, (iii) territory-based approach, and (iv) zero-based approach (Soyode and Oyedokun 2019: 18).

(i) Citizenship-based approach

The citizenship-based approach allows the government of a country to impose taxes on all its recognised citizens (Christians 2016: 203). The tax authorities in the country in which the taxpayer is a citizen calculates his/her tax liability on the global income earned (Christians 2016: 203). The taxpayer is obliged to pay such taxes to the government of his/her country of citizenship (Christians 2016: 203). However, this system has limited appeal, firstly, because it is difficult for the respective government to control the tax affairs of a citizen, for example, people may gain citizenship but reside in other countries permanently under the control of a foreign sovereign entity. Secondly, such an arrangement complicates the tax affairs of the individual as the taxpayer would have to pay taxes in more than one country on the same income (Christians 2016: 203). Additionally, tax authorities in citizen countries may have to override their claims to taxes where the taxpayer is resident in another country, primarily because of a lack of cooperation between the two countries. Thirdly, specific sovereign laws and policies may prohibit the disclosure of the taxpayer's affairs by other countries to citizen countries. Most countries enter into double tax agreements that represent an agreement on the treatment of earnings between two countries to address these challenges (Christians 2016: 203). Double tax agreements are entered into to prevent a taxpayer's income from being taxed more than once (Christians 2016: 203). Considering its limited appeal, the only countries known to currently follow the citizen-based approach to taxation are Eritrea in Africa and the US (Christians 2016: 202).

(ii) Residence-based approach

The principle of the residence-based approach to taxation is that the taxpayer pays tax only on taxable income earned in the country in which the taxpayer resides (Soyode and Oyedokun 2019: 18). Residence-based taxation is popular and more prevalent than any other tax system globally. Countries such as Japan, Mexico,

Canada, the UK, Australia, New Zealand, Germany, most European Union countries, Nigeria, and South Africa, have adopted the residence-based approach to taxation (Soyode and Oyedokun 2019: 19).

There are two fundamental reasons for the general acceptance of the residence-based approach to taxation. Firstly, it presents a more definitive and less complex approach to identifying the source of a taxpayer's revenue (Soyode and Oyedokun 2019: 19). Secondly, in determining residency, many countries follow a simple time-based, physical presence test (Soyode and Oyedokun 2019: 19). In South Africa, the physical presence test is adopted to determine residency. The taxpayer has considered a South African resident should the taxpayer reside in South Africa continuously for more than 91 days per year, during the year of assessment and each of the five years preceding the year of assessment. Additionally, the taxpayer must also have spent more than 915 days, in total, in South Africa, during the said five-year period (Arendse, Stark and Renaud 2015: 16). Persons meeting the physical presence test become tax-resident in South Africa from the first day of the relevant year of tax assessment and remain so for as long as they meet the physical presence test (Arendse, Stark and Renaud 2015: 16; Soyode and Oyedokun 2019: 19). Such taxpayers cease being a resident under this arrangement only if they have remained physically outside of South Africa for a continuous period of at least 330 full days (Arendse, Stark and Renaud 2015: 16).

Income earned outside of the country of residence is included in the taxpayer's taxable income to determine tax liability, should the taxpayer be deemed to be a tax-resident (Arendse, Stark and Renaud 2015: 16). Most countries have recognised that the residence-based approach may result in a taxpayer being taxed more than once on the same income. Countries, therefore, have entered into double-taxation agreements to prevent income from being taxed in both the country of residence and in the country in which the income was earned. These double taxation agreements form part of the Organisation for Economic Co-operation and Development's Model Tax Convention (MTC) that seeks to prevent double taxation on income earned by taxpayers (Arendse, Stark and Renaud 2015: 16). Whilst the MTC treaties are not binding on any state, more than 80 countries have chosen to ratify and comply with the MTC (Ndonga 2019: 1).

(III) Territory-based approach

Territory-based tax systems recognise residents within a specified territory of the country to levy taxes (Soyode and Oyedokun 2019: 19). Only taxable income earned within the specified territory of the country is subject to taxation (Tanzi 1996: 5). The advantage of this taxation system is that conflicting claims to taxable revenue earned globally are avoided, making the territorial approach to taxation being regarded as an international investor-friendly taxation approach (Soyode and Oyedokun 2019: 19). Countries such as Singapore, Hong Kong, and Malaysia, the Philippines, Paraguay, Nicaragua, and Panama follow the territory-based approach to taxation (Soyode and Oyedokun 2019: 19).

(iv) Zero-based approach

The zero-based approach to taxation allows tax authorities to not levy taxes on income earned in that country (Soyode and Oyedokun 2019: 19). This approach to taxation is appealing to investors who consider countries that follow the zero-based approach as tax havens. The rationale behind the zero-based approach is to encourage individuals and enterprises from other countries to invest their global income in these countries. The benefit derived by the country adopting the zero-based approach is obtained from, *inter alia*, the fees earned on investments from the capital inflows into the country and the related socio-economic development (Tanzi 1996: 9). Countries that adopt a zero-based approach to taxation are generally able to fund the expenditure incurred on public goods and services from sources other than taxation, for instance, from revenue earned from the country's natural resources such as crude oil (Morrison 2005: 3-5). Countries that have adopted the zero-based approach include the United Arab Emirates, the Caribbean islands such as the Bahamas and the Cayman Islands, as well as other smaller countries such as Brunei and Monaco (Soyode and Oyedokun 2019: 19).

2.4.2 Direct and Indirect Taxation

Taxes may be levied on taxpayers either directly or indirectly and are commonly referred to as “direct taxes” and “indirect taxes” (Aamir *et al*, 2011: 173). Direct taxes refer to those taxes paid directly by the taxpayer to tax authorities and may be collected by third parties from payments due to the taxpayer (Aamir *et al*, 2011: 173). Direct taxes include, *inter alia*, personal income tax on business activities, employee’s tax, and tax on company profits and generally requires taxpayers to be registered as such with the tax authorities (Stiglingh *et al*, 2021: 14).

Indirect taxes refer to those taxes payable by the taxpayer indirectly through the purchase and consumption of goods and/or services (Aamir *et al*, 2011: 173; Hakim 2020: 151). These taxes are collected by the revenue authorities usually from a third party, for example, a retailer collects and remits to the revenue authority an environmental levy that is paid by the customer on the purchase of a tire. Indirect taxes include, *inter alia*, general sales tax (GST), value-added tax (VAT), fuel levies, and customs and excise taxes (Hakim 2020: 151).

D’Ascenzo (2015:4-5) argued that direct taxes such as company taxes have declined globally and that there has been increasing reliance on indirect taxes such as consumption taxes to supplement governmental tax revenues. The move towards consumption taxes was born out of necessity, as it presents a final pool, or catch-all, in terms of a collection strategy to ensure that all consumers contribute to the country’s tax revenues in proportion to their consumption (D’Ascenzo 2015: 4-5)

2.4.3 Progressive, regressive, and proportional taxes

Soyode and Oyedokun (2019:18-22) and Aamir *et al* (2011:173) argue that most countries levy taxes following three basic philosophies, namely, (i) progressive, (ii) regressive, and (iii) proportional rates of taxation. These three basic philosophies are discussed below.

(i) Progressive Taxation

In the progressive taxation approach, high-income taxpayers attract a higher rate of taxation in comparison with lower-income taxpayers (Bankman and Griffith 1987: 1906). The percentage of tax payable increases progressively under the increase in taxable income (Oddou 2020: 1707). Consequently, taxpayers with higher taxable incomes contribute more taxes on a progressively increasing basis (Bankman and Griffith 1987: 1906)

(ii) Regressive taxation

A regressive approach to taxation does not consider whether or not an individual is registered as a taxpayer but applies a uniform tax to all individuals on purchases or consumption (Bankman and Griffith 1987: 1908). This approach to taxation is regarded as being regressive as low-income earners will expend a bigger portion of their income on consumption and therefore pay a larger percentage in taxes, in comparison to higher-income earners whose expenditure on consumption is lower in proportion to their earnings (Bankman and Griffith 1987: 1908). Examples of a regressive tax are indirect taxes such as VAT and fuel levies (Hakim 2020: 150).

(iii) Proportional taxation

The proportional approach to taxation requires the percentage of taxes paid to taxable income remaining constant regardless of the level of taxable income. An example is a corporate tax, as most corporations are taxed at a constant tax rate (Bankman and Griffith 1987: 1908). In South Africa for example, a standard rate of 28% on taxable income currently applies to all corporate taxpayers (Stiglingh *et al*, 2021: 858). The proportional taxation approach means that high-income individuals will pay a greater amount of tax than low-income individuals, although the ratio of tax to income for everyone remains constant (Bankman and Griffith 1987:1908).

In summary, tax systems approach the taxation of individuals directly, indirectly or by employing a combination of direct and indirect taxation. The direct taxation approach usually requires individuals to register as taxpayers and declare taxable income by submitting a tax return to calculate tax liability. The calculation of tax liability requires, *inter alia*, determining the source of a taxpayer's taxable income and levying a

percentage (tax rate) on the final calculated taxable income. Various countries employ different approaches to determine the source of taxable income. The residence-based approach to determining source has emerged, internationally, as the dominant approach. Taxes are either levied progressively, proportionately or regressively. The progressive philosophy attempts to tax wealthier taxpayers at a rate of taxation that is higher than the lower to middle-income earners, whereas the proportionate approach taxes all individuals at a standard rate, regardless of the level of earnings. The indirect approach to taxation does not require an individual to register as a taxpayer, as this approach to taxation is based on the individual's consumption of goods and services and is regarded as a regressive approach. Indirect taxation places a higher tax burden on lower-income earners because lower-income earners spend a greater proportion of their income on the purchase of consumer goods and services. The global tax philosophies are discussed in Section 2.5 below.

2.5 Global taxation philosophies

Taxation philosophies are driven by a country's political and socio-economic development agendas (Khwaja and Iyer 2014: 4). A study by Khwaja and Iyer (2014: 4) which explored the tax philosophies of 61 states, identified three broad categories of political, socio-economic systems that influence taxation: (1) centrally planned economies, (2) transition economies, and (3) free-market systems.

In centrally planned, socialist economies such as in certain Eastern European and Central Asian (ECA) countries, tax revenues were previously obtained primarily from direct sources such as enterprise profits, turnover, and employee taxes from enterprises. Tax authorities experienced difficulties in collecting personal income taxes (PIT) from business owners in these economies, as the tax administration systems were weak and under-developed (Khwaja and Iyer 2014: 2). Moreover, PIT in these economies was considered as being relatively insignificant with the country's total tax revenues (Khwaja and Iyer 2014: 4).

As these countries transitioned from socialist to free-market economies (transition economies), greater reliance was placed on direct taxes such as PIT, corporate income tax (CIT), payroll taxes, and employee taxes. These countries also transitioned

to adopting a system of indirect taxation including VAT, excise, and customs tariffs to increase government tax revenues (Khwaja and Iyer 2014: 4).

Free market economies generally recognise and have adopted a system of both direct and indirect taxation (Khwaja and Iyer 2014: 12). Free market economies are well established and include countries such as the United Kingdom, Italy, the United States of America, and SA (Jourmard 2001: 106). In SA, both direct and indirect taxes have been well entrenched with the South African taxpayer being responsible for direct taxes such as PIT and CIT, as well as indirect taxes such as fuel levies and VAT (South Africa 2019: 38).

In summary, consistency exists in the tax philosophies, approaches, and methods adopted by the various countries. CIT and turnover taxes emerge as the most prominent types of taxes adopted by most countries. This discussion thus establishes a level of comparability between the different countries selected for this study which provides an enabling environment for conducting a meaningful analysis of factors that influence taxpayer compliance and the resultant influence on entrenching the tax gap.

2.6 Taxpayer response to taxation

Compliance with taxation obligations is characterized by different taxpayer responses. Taxpayers may choose to either (1) comply with the tax laws and prescripts (tax compliance); (2) legally avoid their tax obligations by taking advantage of tax laws and prescripts (avoidance), or (3) not comply with tax laws and prescripts (tax evasion). Tax evasion is the result of the difference between tax revenue legally due to the government by the taxpayer and the actual taxes collected. The difference between taxes due and collected is called the tax gap. The three taxpayer responses and the tax gap are analysed further below.

2.6.1 Tax Compliance

Tax compliance, the choice taxpayers make to comply with their taxation obligations, is a challenge experienced by all economies and is as old as the tradition of levying taxes themselves (Andreoni, Erard and Feinstein 1998: 818; Horodnic 2018: 86; Torgler 2002: 657). Allingham and Sandmo (1972: 324) conducted a study on the willingness of taxpayers to meet their taxation obligations. The study adopted a behavioural approach to explain taxpayer compliance. Allingham and Sandmo (1972: 324) found that taxpayers' decisions to declare their true earnings were influenced by the probability of tax authorities imposing penalties and sanctions for failure to report actual earnings. Thus, regular audits and investigations conducted by the tax authorities resulted in a higher proportion of taxpayers declaring actual income (Allingham and Sandmo 1972: 324). Allingham and Sandmo (1972: 324) found that the opposite was also applicable, in that in instances where the taxpayer believed that a low likelihood of being investigated existed, then s/he would choose to not declare the full income, resulting in a lower tax burden to the taxpayer.

2.6.2 Tax avoidance

Tax avoidance is a legal means of reducing an individual's or organisation's tax liability and is an unintended consequence of a tax system (Khlif and Achek 2015: 488). According to Khlif and Achek (2015: 488) tax avoidance refers to taxpayers' exploiting tax laws to gain some economic benefit that is contrary to the purpose, intent, and spirit of tax legislation. Thus, companies and individuals employ various practices intended to push the boundaries of tax laws to legally exploit the tax system to reduce their tax liabilities (Khlif and Achek 2015: 488). An example of such a strategy is a company or individual shifting profits and revenues to low-tax countries (tax havens). Shifting profits and revenues to low-tax countries benefit the taxpayers as it reduces their overall tax liability by minimising taxes paid in their primary country where business is conducted (Adegbite and Bojuwon 2019: 40). Although such as strategy is not illegal, it erodes the tax base of non-tax-haven countries by shifting the tax burden from high-income earners to middle- and low-income earners since high-

income earners would have shifted their revenue and profits off-shore (Jalan and Vaidyanathan 2017: 88). Tax avoidance results in reduced tax revenue collections which have a follow-through impact on government spending, socio-economic development, and achieving national priorities (Sikka and Willmott 2013: 416).

Tax planning is another strategy employed by businesses to practice tax avoidance (Sikka and Willmott 2013: 420). Management of most business entities view their tax obligations as business costs and therefore explore all available opportunities to reduce the tax burden (Richardson, Taylor and Wright 2014: 363). Managers, therefore, do not consider tax avoidance as a negative factor that results in reduced tax revenue, limited socio-economic growth and development, and the non-achievement of national priorities (Richardson, Taylor, and Wright 2014: 363).

Governments are consequently forced to seek other sources of revenue and increase the taxes collectible from other taxation streams such as indirect consumption taxes to address the shortfalls created by tax avoidance (Sikka and Willmott 2013: 416). Tax avoidance counteracts the advantages of progressive taxation in that moving revenue and profits to low-tax countries results in smaller remaining taxable income being declared in the primary country, thus resulting in the application of a lower progressive tax rate (Jalan and Vaidyanathan 2017: 88). Therefore, it becomes necessary for governments to limit such opportunities for tax avoidance practices (Jalan and Vaidyanathan 2017: 101).

In summary, although tax avoidance is not illegal and cannot be considered as noncompliant behaviour, it is considered tax malfeasance, as it is a social wrong that has the potential to inhibit the socio-economic development of countries (Jalan and Vaidyanathan 2017: 88; Richardson, Taylor, and Wright 2014: 377; Rosli, Ling and Embi, 2018: 157).

2.6.3 Tax evasion

Tax evasion refers to any attempt by a taxpayer to evade or not pay taxes legally due (US 2009: 2). Tax evasion is considered non-compliant, illegal behaviour contrary to the country's tax laws (US 2009:2). Alm and Soled (2017: 521) and Savitri (2015: 164) described tax evasion as a classic issue of taxpayer disobedience whilst Abdixhiku *et al*, (2017: 354) viewed tax evasion as a global disease that slows down economic growth by weakening government's investment on public goods and infrastructure.

Martin, Mehrotra, and Prasad (2009: 3) provided a sociological perspective to the concept of taxation, exploring the underlying reality of non-compliant taxpayer behaviour. Martin, Mehrotra, and Prasad (2009: 3) described taxation as an obligation by a subject to make a contribution in the form of money or goods to the state but without receiving any value in exchange for such contributions. The International Federation of Accountants (2018a) considered such payments as non-exchange transactions because the taxpayer does not directly receive equal value for these tax payments (Kicová 2018: 59). The non-exchange nature of taxation has historically been recognized as the underlying reason for tax evasion, as taxpayers do not directly experience the benefits of paying taxes (Curi 2019: 60). Dwyer (2014: 665) argued, however, that such non-exchange taxations represent the price paid by taxpayers for establishing and maintaining a civilised society. Thus, the value received by taxpayers is experienced in the government's capacity to effectively manage the resources collected through taxes and to account for how these resources are utilised (Abelin 2012: 14; Curi 2019: 61).

One of the consequences of tax evasion is that people stop trading in the formal economies and resort to trading in the informal, underground, or shadow economy (Abdixhiku *et al*, 2017: 366; Raczkowski 2015: 60). The move to the shadow economy is driven by taxpayers' perceptions that their tax contributions are not commensurate with the value of benefits and services provided by the government (Abdixhiku *et al*, 2017: 366; Raczkowski 2015: 60). The impact of the shadow economy on a country's socio-economic development was explored in a study of 158 countries conducted by Medina and Schneider (2018: 40). Medina and Schneider (2018: 40) stated that

quantifying the shadow economy is difficult because the people who participate in the shadow economy implement means and measures to remain undetected from the authorities. However, Medina and Schneider (2018: 2) estimated that, during ten years from 1995 to 2015, the average size of a country's shadow economy equated to approximately 31.9% of the country's Gross Domestic Product (GDP). Countries such as Zimbabwe and Bolivia have recorded the largest estimated shadow economies, approximating 60.6% and 62.3% of their GDPs respectively (Medina and Schneider 2018: 2).

2.7 Components of the tax gap

The tax gap is explained as the difference between the taxpayers' legal tax obligations and the amount of taxes collected by the tax authorities (Alm and Soled 2017: 521; Dare, Du Plessis, and Jansen 2019: 2). Raczkowski (2015: 59) however, offered an alternative explanation that the tax gap represents the extent of evasion by taxpayers that reduces the tax base and decreases the country's tax revenue. It is submitted that Raczkowski's (2015: 59) explanation of the tax gap is reinforced by that offered by Alm and Soled (2017: 521) and Dare, Du Plessis, and Jansen (2019: 2).

The tax gap comprises various components; however, divergent views exist in academic and other persuasive literature regarding these components (Raczkowski 2015: 60). Raczkowski (2020: 60) argued that the primary components of the tax gap are tax evasion and tax avoidance, whereas Alm and Soled (2017: 525) and Duran-Cabre, More, Mas-Montserrat, and Salvadori (2019: 208) argued that the tax gap should include only tax evasion and exclude tax avoidance. The postulations of Alm and Soled (2017: 525) and Duran-Cabre *et al*, (2019: 208) are consistent with the pronouncements of the US Internal Revenue Service (IRS) that the tax gap represents a legal tax liability incurred by the taxpayers. The pronouncement by the US IRS thus includes tax evasion as a contributor to the tax gap and ignores tax avoidance.

Alm and Soled (2017: 525) went further to state that the tax gap is made up of the following three components: (i) under-reporting gap – legitimate tax liabilities that are

not included and therefore not reported in the tax returns by taxpayers; (ii) non-filing gap – taxpayers failing to complete and submit their tax returns; and (iii) under-payment gap - taxes reported correctly but not timeously paid. Alm and Soled, (2017: 527) stated that the US IRS estimated that during two years from 2008 to 2010, the overall underreporting tax gap amounted to \$387 Billion. European Union Countries estimated that the highest tax gap values for 2014 were recorded by Italy, Germany, and France, ranging from \$186.5 Billion to \$295.9 Billion, with these variations representing percentages of GDP ranging from 9.9% to 21% (Raczkowski 2020: 66). Phua (2015: 80) stated that the tax gap estimates of mature economies are comparatively lower than that of emerging economies and indicated that Bangladesh, South Africa, and Thailand reported the average tax gaps in 2000 to be approximately 36%, 23%, and 53% of GDP respectively. Pakistan revealed a tax gap of just under 70% in 2007/2008. Alm and Soled (2017: 526) and Raczkowski, (2020: 61) emphasised that tax evasion is a significant component of and contributes between 80%-90% to the total tax gap. Countries have therefore implemented measures intended to reduce the tax gap. These measures focus primarily on three broad areas (Phua 2015: 103) viz.:

(i) Correcting information deficiency by sharing information between multiple unrelated parties, thus promoting greater information transparency. Correcting information deficiency minimises the risk of unreported income.

(ii) Cooperation between the tax authorities of the various countries to control and monitor the movement of capital flows and finances thereby limiting the opportunities for tax evasion. Monitoring and controlling capital flows and movements also contribute to a reduced international tax gap.

(iii) Implementation and effective use of penalties to counteract non-compliant taxpayer behavior. Penalties increase the costs of non-compliance thereby making tax evasion less attractive to taxpayers. However, Phua (2015: 103) argued that despite these global initiatives, tax evasion persists, especially in emerging economies.

In summary, the above discussion confirms that noncompliance with tax prescripts is a significant global phenomenon that affects the tax revenues and socio-economic development of all countries and contributes to the entrenchment of the tax gap

(SimónAl-Maghrebi, Riayati and Palil 2016: 92). Tax authorities, globally, have implemented measures in attempts to counteract such tax evasive behaviour.

2.8 Factors determining taxpayer compliance

Taxpayer compliance is determined by associations among different socio-demographic factors such as taxpayer morale, knowledge of tax laws and prescripts, the design of tax policy, and how taxes are administered (Batrancea *et al* 2019: 16; Hofmann, Voracek, Bock and Kirchler 2017: 65; Umar, Derashid, Ibrahim, and Bidin 2019: 346). Socio-demographic factors include taxpayer age grouping, income level, education level, gender, employment status, tax rate, ethnicity, religious belief, rule of law, and government effectiveness (Batrancea *et al*, 2019:1-16; Hofmann, Voracek, Bock and Kirchler 2017: 65; Umar *et al*, 2019: 340-346).

2.8.1 Taxpayer morale

The Merriam-Webster dictionary (Merriam-Webster 2021) defined morale as a mental or emotional condition such as enthusiasm, confidence, or loyalty of an individual or group to a task at hand. Extending this notion of morale to the discipline of taxation, Alm and Torgler (2004: 2) described tax morale as an individual's intrinsic motivation to pay taxes. Torgler and Schneider (2009:6) concurred that tax morale arises from a moral obligation by a taxpayer to contribute to society by complying with tax obligations.

A taxpayer's tax morale could be either positive or negative and is an essential component of tax compliance (Luttmer and Singhal 2014: 3). Positive tax morale results in a high rate of tax compliance (Torgler and Schneider 2009: 6) as acknowledged by the OECD (Luttmer and Singhal 2014: 4). Horodnic, (2018: 869), on the other hand, argued that a high level of tax morality does not automatically result in high tax compliance, but that tax morale has a significant role in influencing taxpayer compliance decisions. Tax morale also has a strong effect on other forms of taxpayer non-compliance. As an example, Horodonic, (2018: 870) stated that relatively low levels of tax morale are aligned with relatively higher levels of tax evasion resulting in lower levels of tax compliance. Lower levels of tax morale also result in an increasing shadow economy (Horodonic, 2018: 870). Luttmer and Singhal (2014: 4) asserted that as a result, tax administrators emphasise improving tax morale to increase voluntary

taxpayer compliance. According to Luttmer and Singhal (2014:7), the following factors influences tax morale:

i) Intrinsic motivation relates to feelings of pride associated with honest fulfillment of civic duties and altruism towards others. Intrinsic motivation is associated with high tax morale (Luttmer and Singhal 2014:8).

ii) Reciprocity relates to taxpayers considering tax payments as a reciprocal exchange for public goods provided by the government. Efficient, effective provision of public goods results in high tax morale and higher levels of taxpayer compliance (Luttmer and Singhal 2014:10).

iii) Legitimacy, where taxpayers place greater trust in democratically elected government thereby legitimising their authority to impose and collect taxes. Legitimacy enhances taxpayers' perceptions of the fairness of taxes levied and the related satisfaction with public goods, leading to a positive impact on tax morale (Alm and Torgler 2004: 4; Farrar, Massey, Osecki and Thorne 2020: 487; Fuentes-Contreras, Mungaray-Lgarda and Ramirez-Uquidy 2020: 2; Luttmer and Singhal 2014: 10; Robbins and Kiser 2018: 253; Torgler and Scheider 2009: 12).

iv) Community behaviour relates to tax morale that is also impacted by taxpayer's perceptions of peer behaviour and social influences, and the desire to conform to general social norms (Alm and Torgler 2004: 7; Luttmer and Singhal 2014: 12). Social norms are present in every social setting and influence both individual and group social behavior. Jimenez and Iyer (2016: 17) identified the following social norms that influence taxpayer morale: (a) personal, (b) descriptive, (c) injunctive, and (d) subjective norms:

a) Personal norms refer to an individual's personal beliefs regarding morally correct behaviour and the self-imposed obligation a person feels to act under a moral code (Jimenez and Iyer 2016: 18; Kamrowski, Tobin, Sutton and Hamann 2014: 2). These norms include an individual's beliefs that are influenced by his/ her cultural background (Luttmer and Singhal 2014: 14).

b) Descriptive norms are peer perceptions of an individuals' actual behaviour (Jimenez and Iyer 2016: 18; Ravis and Sheeran 2003: 219).

c) Injunctive norms refer to acceptable or unacceptable social behaviour (Jimenez and Iyer 2016: 18; Ravis and Sheeran 2003: 219). A study conducted by Alm and Torgler (2004: 7) provided an example of this norm in religiosity. The study found that frequently attending religious congregations influences taxpayer behaviour positively thereby resulting in higher levels of tax compliance.

d) Subjective norms are often referred to as peer pressure or the behaviour approved by the taxpayer's close associates (Jimenez and Iyer 2016: 18). Taxpayers are influenced by such peer pressure and act following peer behaviour (Jimenez and Iyer 2016:18).

2.8.2 Knowledge of tax laws and prescripts

According to Saad (2014: 1069), taxpayers are generally required to voluntarily complete and submit their tax returns, periodically, under countries' self-assessment systems (SAS). Saad (2014: 1069) and Zandi, Aslam, and Elwahj (2016: 192) indicated, however, that taxpayer non-compliance remains an unresolved phenomenon and is attributable to the high levels of tax knowledge required to discharge the SAS responsibilities. Eriksen and Fallan (1996: 388) regarded knowledge as a significant factor in taxpayer compliance in that it determines the way people comprehend taxation, which in turn influences their attitudes toward tax compliance. Saad (2014: 1070) suggested that tax knowledge is the most influential taxpayer compliance factor in a SAS. Yee, Moorthy, and Soon (2017: 416) argued that taxpayers who were not aware of or knowledgeable about tax regulations experienced difficulties in complying with tax obligations and perceived tax evasion as acceptable consequent to low tax knowledge levels.

Remali *et al*, (2018: 15) conducted a study on the tax knowledge of owners of small to medium-sized enterprises and confirmed that possessing tax knowledge would potentially reduce aspects of non-compliance that arise from unintentional errors. Additionally, Eriksen and Fallan (1996: 388) observed a link between higher education levels and a positive attitude towards tax ethics. Inasius (2018: 373), in a study conducted, confirms the observation by Eriksen and Fallan, (1996: 388) that higher

education levels increase an individual's knowledge of taxation with a resultant positive influence on taxpayer compliance. Yee, Moorthy, and Soon (2017: 416) argued that higher levels of tax knowledge lead to higher ethical principles and impact positively on taxpayer compliance. The observations and arguments by Eriksen and Fallan, (1996); Inasius (2018), and Yucedogru and Hasseldine (2016) are graphically presented in Figure 2.1 below.

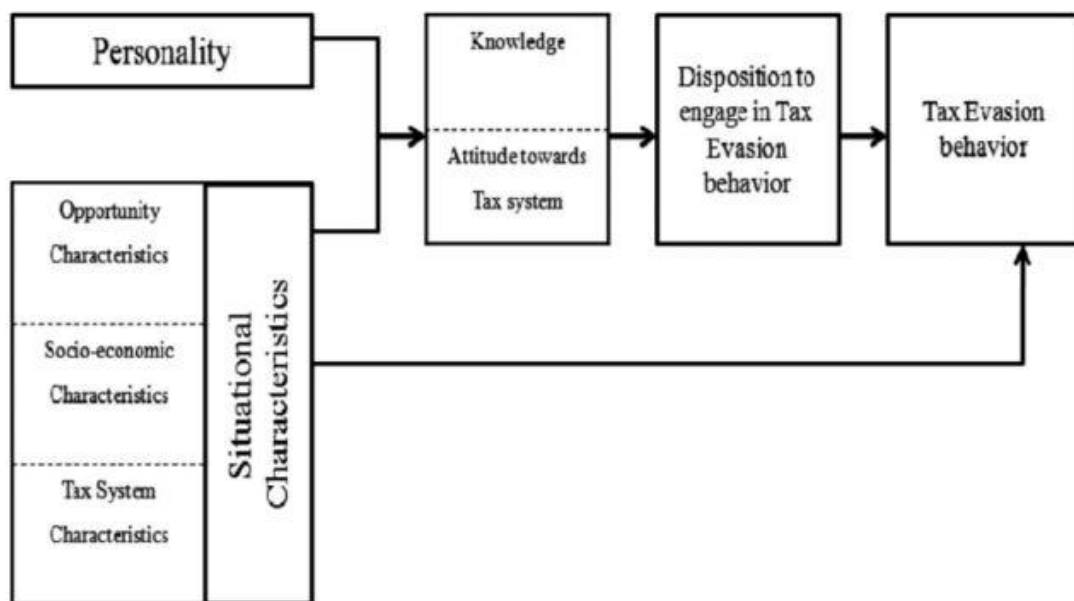


FIG. 2.1: Fiscal Psychology Model (Yee, Moorthy and Soon 2017:415) (adapted from Groenland and Veldhoven 1983)

FIG 2.1 illustrates the taxpayer's initiatives in trying to understand the tax system. The figure shows that taxpayer understanding of the taxation system improves tax knowledge and has a positive impact on taxpayer compliance.

2.8.3 Tax policy

Tax policy refers to the framework formalised by the government, under its constitution and prevailing laws, that enables levying and administering of taxes (Stiglingh *et al*, 2021: 1). Tax policy also seeks to place an affordable tax burden on taxpayers whilst seeking to minimise tax administration costs (Stiglingh *et al*, 2021: 1). Tax policy forms the basis for the development of a tax strategy that is fair and attractive to both taxpayers and investors (Stiglingh *et al* 2021: 1). A fair and attractive tax policy and strategy results in increased taxpayer compliance increases the collection of tax revenues and has a positive impact on the country's socio-economic development (OECD 2013: 2). Taxpayer perception regarding the fairness of tax policy is therefore an important determinant of taxpayer compliance (Bin-Nashwan *et al*, 2020: 182). Consequently, governments attempt to keep tax policy simple, thereby encouraging and motivating compliance by taxpayers (Hughes, Moizer, Doyle and Summers, 2016: 731). Farrar *et al*, (2020: 494) indicated that the fairness of a governments tax policy is achieved by the following means: (i) fair tax assessment policy; (ii) distributive justice, in the form of exchange equity, and (iii) a fair and acceptable tax burden on its citizens, discussed below.

(i) Fairness of the tax assessment process is assured by the tax authorities adopting procedures to ensure that all assessments are objective and that grievances are handled equitably. Fairness of the tax assessment processes contributes towards the development of positive attitudes and cooperative behaviours by the taxpayer towards the tax authority (Van Dijke, Gobena and Verboon 2019: 11; Farrar *et al*, 2020: 498).

(ii) Distributive justice associates taxpayer behaviour to taxpayer perceptions of how tax contributions will be utilized by the government. Hence, should taxpayers trust that government would administer their tax contributions for the greater good of society, a high tax rate would be acceptable to taxpayers Farrar *et al*, 2020: 498)

(iii) A fair and acceptable tax burden that ensures an even spread of the tax obligations results in a higher taxpayer compliance level. However, high tax burdens result in higher incidences of tax evasion (Bernasconi, Corazzini, and Seri 2014:104).

2.8.4 Tax administration

Tax administration refers to the way tax policy is implemented and managed by tax authorities (Stiglingh *et al* 2021: 1157). Tax administration also refers to the effectiveness and efficiency of economically collecting tax revenues (D'Ascenzo 2015: 1). Bird and Zolt (2004: 1685) argued that the primary function of a tax administration is to implement tax laws and ensure taxpayer compliance with tax obligations. Tax administration also sanctions offenders who do not comply with the tax laws and their tax obligations. Thus, the relationship between tax policy and tax administration is synergistic and complementary (D'Ascenzo 2015: 9). Haning, Hamzah, and Tahili (2020: 208-209) ascribed taxpayer perceptions of public trust - the trust that the public has in government to effectively manage the tax revenues collected - to an increase in taxpayer compliance. A poorly administered tax system attracts negative public perceptions towards the government's ability to manage tax revenues and has a consequent negative influence on taxpayer compliance (Kamasa, Adu and Oteng-Abayie 2020: 76). The argument that taxpayers equate poor administration with an inability of the government to manage tax revenues is supported by James and Alley (2002: 35) and Kamasa, Adu, and Oteng-Abayie (2020:75), who indicate that poor administration results in limited institutional capacity, inefficient tax systems, and ineffective tax management processes. Kamasa, Adu, and Oteng-Abayie (2020: 76-78) stated that poor tax administration results in higher compliance costs to the taxpayer. However, taxpayers are not willing to incur higher compliance costs with the resultant negative impact on taxpayer compliance.

2.9 Summary of literature

This chapter explored and analysed the existing literature on the philosophies, concepts, and factors that influence taxpayer compliance. The literature review explored the history and evolution of taxation and distinguished between the different types and categories of taxes. Thereafter, the discussion proceeded to establish that direct taxation within the context of taxpayer compliance was the cynosure of this study. The study distinguished tax evasion from tax avoidance and explained that both tax evasion and tax avoidance contributed to the tax gap. This study, however, focussed primarily on tax evasion. The literature study also found that tax evasion is a global phenomenon facing governments in both mature and emerging economies.

Significant global trends in taxation regimes were analysed to contextualize their applicability and relevance to this study, and it was established that worldwide, the revenue of most countries was dependant on direct tax collections. The influence of socio-demographic factors such as taxpayer morale, knowledge of tax laws and prescripts, the design of tax policy, and the way taxes are administered were presented, highlighting the significant factors that influence taxpayer compliance and the entrenchment of the tax gap. It was established that effective institutional governance relating to trust, fairness, and effectiveness was a precursor to taxpayer compliance and that the weakening thereof encouraged non-compliance. The chapter culminated with an analysis of the primary factors, such as trust and fairness that affect taxpayer compliance. Factors influencing taxpayer compliance will be analysed comprehensively in Chapter 5. The next chapter, Chapter 3, identifies and explores the theoretical frameworks underpinning this study.

2.10 Conclusion

Several factors influence taxpayer compliance with tax laws and obligations. The most important factors are (1) the taxpayer's expected utility of public goods provided by the state and (2) the existence of a civilised society. Literature has indicated, however, that not all observed taxpayer compliance can be explained by economic or tax

administration principles (Alm and Torgler 2004: 10). The socio-psychological aspects of decision-making and their impact on taxpayer compliance have gained significant attention and focus in academic literature. Socio-psychological studies cognize that an individual is an emotional being, and is subject to perceptions based on the environment, social exposure, and social standing. These perceptions are significant factors in compliance research. The key to understanding taxpayer compliance is located within behavioral research, which indicates that taxpayer compliance decisions are driven and aligned strongly with factors such as taxpayer morale, knowledge of tax laws and prescripts, the design of tax policy, and the quality of the tax administration system.

CHAPTER 3: THEORIES UNDERPINNING TAXPAYER COMPLIANCE

3.1 Introduction

Chapter two explored taxpayer compliance with tax laws and prescripts and analysed the factors affecting taxpayer compliance. The factors that led to taxpayer non-compliance were also identified and analysed. This chapter discusses the foundational theories of taxation followed by a discussion on the significant theories relating to tax policy design. The chapter concludes with a discussion on the significant theories related to tax compliance behaviour. The foundational theories of taxation - the theories of taxation and the theories of tax compliance behaviour - are introduced below followed by a detailed discussion of each theory.

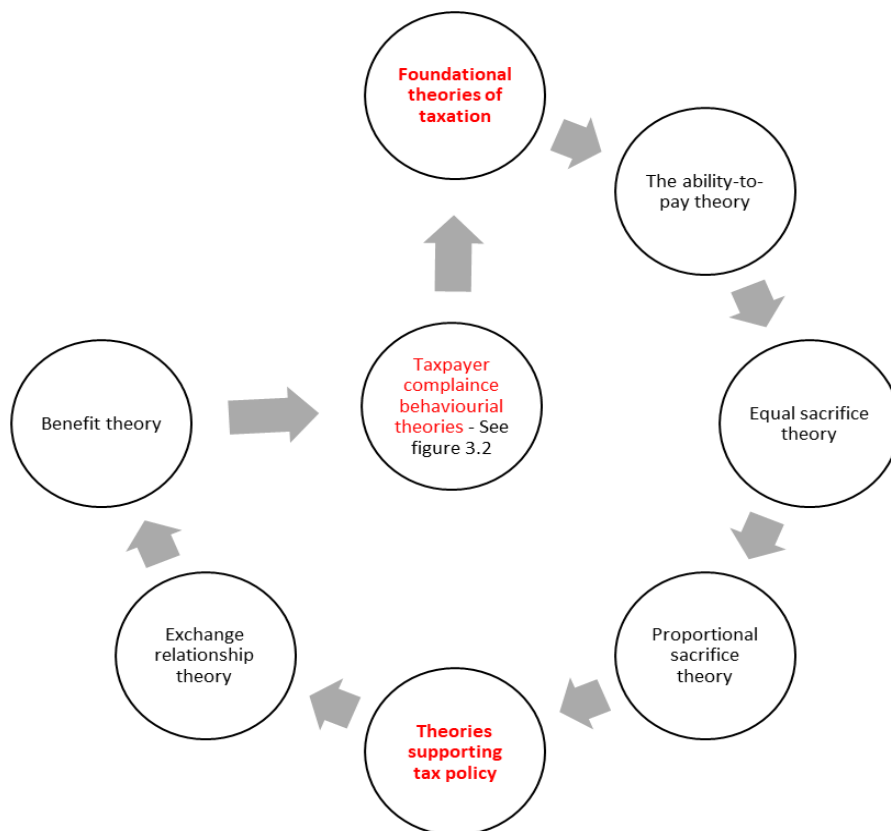


Figure 3.1 – Theories of Taxation (own compilation)

Figure 3.1 above presents the significant foundational theories supporting taxation and tax policy development, that emerge from existing literature. These theories are discussed below. The literature review conducted revealed that taxes are levied following taxpayer's level of taxable earnings, thus locating the phenomenon of taxation within "Ability-to Pay Theory" as espoused by Kendrick in his seminal work - "The Ability-to-Pay Theory of Taxation" (Kendrick 1939: 92-101). The "Ability-to-Pay Theory" led to the emergence of (1) equal sacrifice theory and (2) the proportional sacrifice theory which formed the basis for modern theories on the development of progressive, regressive, and proportional taxation systems (see Section 2.4.3) (Kendrick 1939: 92-101). The literature review conducted revealed that taxes are administered by governmental authorities under a national tax policy. Tax policy locates itself within two main theories, namely (1) the theory of exchange relationship and (2) the theory of benefit (Soyode and Oyedokun 2019:22). Taxpayer compliance to tax prescripts and tax obligations is also a social behavioural phenomenon located within the utility and behavioral theories (Alm 2019 353-388). Accordingly, all the theories are discussed under the following three categories relating to (1) taxation theories; (2) theories supporting tax policy, and (3) taxpayer compliance theories.

3.2 Taxation theories

Adam Smith, in seminal work on economics, *The Wealth of Nations* (Smith: 1776) explained the foundational principles of taxation. These foundational principles required that each citizen should be taxed in proportion to income earned, the amount of tax should be determinable with certainty, the methods of collecting taxes must be convenient to the taxpayer, and the tax burden should be as low as possible to balance the needs of the taxpayer and the economy (Soyode and Oyedokun 2019: 20). The theoretical bases within which the principles expounded by Smith (1776) include the ability-to-pay theory, equal sacrifice theory, and the proportional sacrifice theory.

3.2.1 The ability-to-pay theory

Adam Smith (1776: 1581) argued that all citizens should be taxed based on equality and that the sacrifice to all citizens should be in proportion to their respective incomes and their ability to pay taxes. Therefore, the ability-to-pay theory is founded on the principle of equity as suggested by Adam Smith (Smith 1776: 1581). Chauke, Sebola, and Mathebula (2017: 45) argued further that the ability-to-pay theory also enabled the formulation of the foundational principles of taxation. The ability to pay theory is generally accepted by scholars as to the dominant theory of taxation as it embraces the principle of equity in its application, thus justifying the adoption of progressive taxation (see Section 2.4.3) (Kendrick 1939: 92).

3.2.2 Equal sacrifice theory

Kendrick (1939: 92) linked the payment of taxes to an experience of sacrifice or the deprivation that a taxpayer experiences upon payment of taxes. Fagan (1938: 457) indicated that there are eight sacrifice theories that are likely to justify progressive or regressive taxation. The sacrifice that a taxpayer incurs is explored in these theories as either being the income sacrificed by paying taxes or the utility derived from the government in the form of public goods and services. The most significant of these eight sacrifice theories, relevant to this study, is the equal sacrifice theory (Kendrick 1939: 92). The equal sacrifice theory has been interpreted by researchers as either being a sacrifice of income by the taxpayer or the utility derived by the taxpayer from paying taxes. Fagan (1938: 458), for example, favored the utility approach and argued that a taxpayer should pay an amount of tax based on the taxpayer's utility of public goods in comparison with every other taxpayer, thereby providing an argument for the imposition of regressive taxation.

Fagan's interpretation, therefore, places a heavier burden on poorer taxpayers, as the level of taxes will increase on utility derived from consumption irrespective of the levels of taxable income earned. Kendrick (1939: 94) supported the view that sacrifice referred to income given up by the taxpayer to the tax authorities and argued that this

theory postulates that taxes should be levied in such a manner to ensure that the proportion of income sacrificed by all taxpayers is equal. Equal sacrifice according to Kendrick's (1939: 94) interpretation, therefore, emphasizes a sacrifice of income implying that wealthier taxpayers should be subjected to higher taxation than the poorer taxpayers. Young's study (1990: 253-265), indicated that the equal sacrifice principle was predominant before 1986. However, since 1986, taxation reforms in countries such as the US and the UK have reduced the number of distinct tax brackets, with large taxable income ranges in each bracket. The smaller number of taxable income brackets resulted in an average tax rate that did not support the equal sacrifice model well, as the resulting tax burden was not distributed proportionately among the wealthier taxpayers and the lower-income earners. Young (1990: 265) stated, however, that legislators adopted multiple taxation principles, including the "equal sacrifice" principle, in considering the most appropriate taxation system for the country.

3.2.3 Proportional sacrifice theory

Fagan (1938:458) located the utility of income with the proportional sacrifice theory and stated that each taxpayer should surrender the same proportion or percentage of a taxpayer's income which is sacrificed as taxation. This implies that the proportional loss of utility from income to taxation is the same for all taxpayers, e.g. at a constant rate of 25% of income (Chauke *et al*, 2017: 407). This system of taxation however is inequitable as it taxes high-income groups and low-income groups at the same rate. Consequently, lower-income group taxpayers experience a higher marginal utility sacrifice. As an example, where income is taxed at a fixed 25%, taxpayer A earning R20 000 will sacrifice an amount of R5000 to taxation, whereas taxpayer B who earns R10000, will sacrifice R2500. The resultant disposable income of taxpayer A is much higher than taxpayer B, resulting in taxpayer B experiencing a high marginal utility sacrifice than taxpayer A.

3.3 Theories supporting tax policy

Countries formulate and implement policies for imposing, collecting, and administering taxes (Soyode and Oyedokun 2019: 11). The main theories supporting taxation policies are the theory of exchange relationship and the benefit theory (Soyode and Oyedokun 2019: 22). These theories enable the development of tax policy following the principle of equity. The principle of equity recognizes that there is no direct benefit to the taxpayer in exchange for the taxes paid thus recognizing taxation as complying with the principles of non-exchange transactions (Jalan and Vaidyanathan 2017: 87).

3.3.1 Exchange relationship theory

The exchange relationship theory emerged from the cannons of equity, which allows taxpayers to understand and evaluate their interaction with the effects of social exchange relationships (Soyode and Oyedokun 2019: 22). Soyode and Oyedokun (2019:22) stated that a taxpayer forgoes income in exchange for public goods and services and other possible non-monetary reasons, such as patriotism. Soyode and Oyedokun (2019: 22) argued that this social exchange should be equitable to both the taxpayer and to government. Inequality in the social exchange, both perceived or actual, creates tension in a taxpayer (Soyode and Oyedokun 2019: 22). The magnitude of the tension experienced by the taxpayer is thus proportionate to the perceived inequality and therefore influences the extent to which taxpayers comply with their tax obligations (Cosier and Dalton 1983: 311 -312; Soyode and Oyedokun 2019: 22)

3.3.2 Benefit Theory

The benefit theory postulates that taxation should be levied in proportion with taxpayers' benefit derived from the public goods and services provided. The benefit theory thus parallels the interpretation of Fagan (1938) regarding the equal sacrifice theory discussed in Section 3.1 above (Soyode and Oyedokun 2019: 23). Chauke, Sebola, and Mathebula (2017: 406) argued, however, that it is difficult to quantify or

calculate the benefit derived from the use of public goods and services, as it may not be possible to place a value, for instance, on utilising the benefit of a streetlight. Taxes collected are generally insufficient to cover the costs of these goods and services because of the ever-increasing demand for public goods, which necessitated the imposition of indirect taxes on consumption. However, differing views emerge in justifying the assumptions of the benefit theory. Soyode and Oyedokun (2019: 23) argued that such an approach to taxation has historically been contentious, as there are numerous reasons for its application is impractical. The primary reason was that the benefit theory disadvantages poor people the most, because of the greater extent to which they depend on public goods such as education and health services (Soyode and Oyedokun 2019: 23).

3.4 Taxpayer compliance behavioral theories

The various theoretical models and frameworks that were used in the primary studies chosen for this study are included in Annexure B. The theoretical foundations upon which the models and frameworks in these primary studies were designed to incorporate the theoretical assumptions that represent a range of existing socio-behavioural theories. Figure 3.2 below illustrates the evolution in researcher conceptualization on taxpayer compliance, grounded within economic theories, to predict taxpayer compliance, linked to behavioural science theories.

**Evolution of tax
compliance theory**

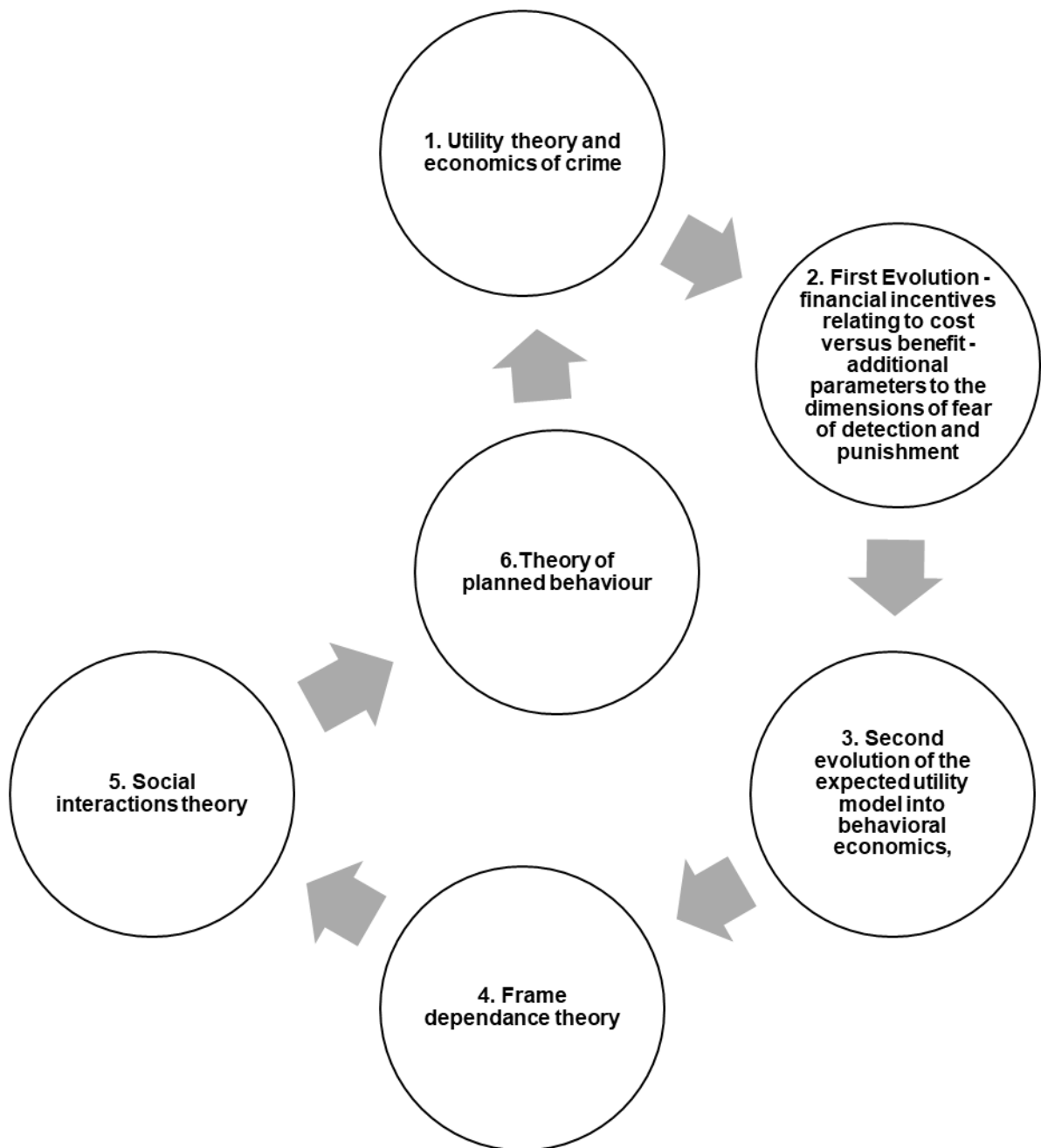


Figure 3.2 – Evolution of taxpayer compliance theory (own compilation)

Figure 3.2 above presents the significant theories emerging from existing literature that underpin taxpayer compliance studies. These theories include the utility theory, frame dependence theory, social interactions theories, and the theory of planned behaviour. Figure 3.2 also reflects the evolution of tax compliance theory from its early

location in utility theory to the currently existing behavioural theories. Figure 3.2 furthermore, highlights the complex nature and the progress of academic discourse around taxpayer compliance behaviour. Moreover, Fig 3.2 identifies the significant theories applied to contextualize the factor analysis in the primary data selected for this study and to provide a concise theory for exploring the overall results of this study. The theories relevant to this study are the Utility theory, Frame Dependence theory; Social Interactions theory, and the Theory of Planned Behavior which are discussed in detail below.

3.5 Utility theory

According to Fishburn (1968: 335) utility theory is concerned with people's choices or their preferences. Utility theory thus explains taxpayers' behaviour with the available utility choices (Fishburn 1968: 336). Prescriptive utility theory assumes that a taxpayer will follow common sense or a logical guideline in identifying utility preferences (Fishburn 1968: 338). Fishburn (1938: 335) argued that an individual's approach to utility-theory ideas could be extended to a social group, such as specific categories of consumers to obtain macro-economic taxpayer behavioural information. Such information may be used by tax authorities in formulating tax policy. Utility preferences represent probability distributions around a set of consequences and are sometimes referred to as the Von Neumann-Morgenstern utilities which are used to form the basis of tax compliance behavioral studies (Fishburn 1968: 356). Although the Von Neumann Morgenstern framework represented the guiding principle for taxpayer behavioural studies for many decades, Allingham and Sandmo, (1972: 326) acknowledged that the framework was simplistic and did not explain the impact of non-monetary factors, such as perceptions, on taxpayer compliance.

3.6 Frame Dependence theory

Frame Dependence theory assumes that individual behaviour emanates from an evaluation of choices based on the individual's predispositions and intellectual capabilities (Alm 2019: 358). According to Alm (2019: 358), individuals tend to

evaluate compliance decisions on the costs of compliance versus the associated benefits. Alm (2019: 358) indicated that individuals weigh and measure compliance options with the personal value that may be derived from the option. The actual amount associated with the act of complying is therefore compared to a reference amount based on their interpreted value of the amount rather than the actual amount itself. Therefore, should the costs outweigh the benefits of compliance, according to their frame of reference, taxpayers may choose not to comply with their tax obligations. According to Alm (2019: 358), in addition to the value function shaping taxpayer compliance behaviour, other normative aspects of behaviour, such as fairness of the tax system, empathy displayed by the tax administration towards taxpayers, and taxpayer patriotism also influence taxpayer compliance choices.

3.7 Social Interactions theory

Alm (2019: 358) described the theory of social interaction as an influencer of an individual's behavior. The description by Alm (2019: 358) has been supported in many empirical studies (Ariyanto, Andayani and Putri 2020: 249; Jimenez and Iyer 2016: 18). Social interactions theory describes the influence that a taxpayer's circle of interaction has on the taxpayer's compliance. In effect, social interactions theory assumes that an individual will generally follow the behavior of the social interaction group (Ariyanto, Andayani and Putri 2020: 249; Jimenez and Iyer 2016: 18). The social interactions theory gave rise to the slippery slope framework on taxpayer compliance which has recently gained prominence because it focuses on the taxpayer experience of the prevailing tax climate (Alm 2019: 361). A synergistic climate promotes voluntary compliance as opposed to an antagonistic approach of enforced compliance that encourages taxpayer non-compliance (Kirchler, Hoebel, and Wahl 2008: 213). The slippery slope framework, Figure 3.2 below, differentiates between voluntary and enforced taxpayer compliance (Kirchler, Hoebel, and Wahl 2008: 213).

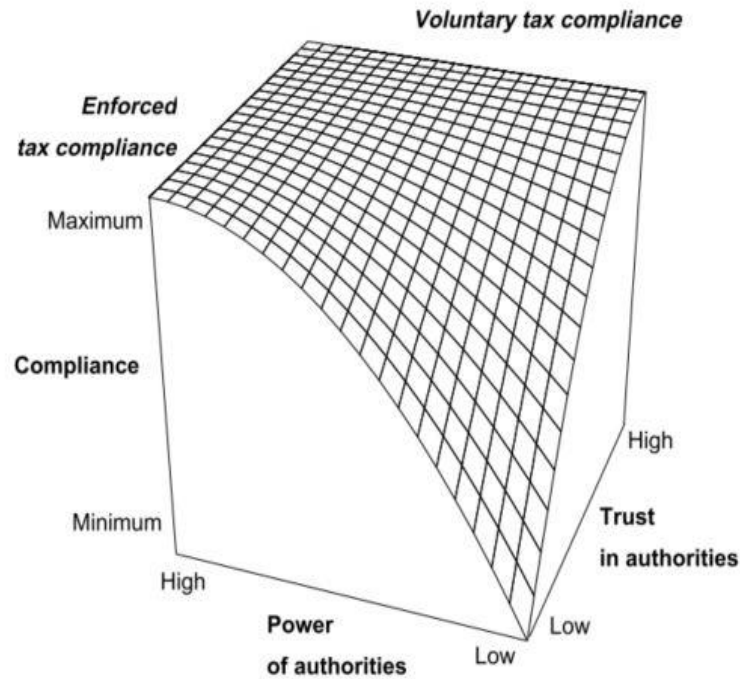


Figure 3.3: The “slippery slope” framework – (Source Kirchler, Hoezel and Wahl 2008: 212)

Figure 3.3 illustrates the distinction and convergence areas of enforced versus voluntary tax compliance which is dependent on the power of the authorities and the trust perception of taxpayers in tax authorities (Kirchler, Hoezel and Wahl 2008: 212). The convergence area between enforced and voluntary tax compliance, the area that influences the taxpayer’s compliance decision, forms a slippery slope. The figure depicts the taxpayer sitting on a slippery slope, vacillating between voluntary and enforced compliance. The taxpayer’s compliance choice is influenced by the power of the tax authorities and associated taxpayer trust. Tax authorities’ power is a function of their abilities to detect tax evasion and impose the relevant penalties and sanctions on delinquent taxpayers (Kirchler, Hoezel and Wahl 2008: 212). Trust relates to taxpayers’ experiences regarding interactions with the tax authorities – whether s/he is treated by the tax authority as a trusted individual who is seeking to voluntarily comply with his tax obligations or as an individual who is not trusted and seeking opportunities to evade his/her tax obligations (Kirchler, Hoezel and Wahl 2008: 212). Taxpayers tend to trust tax authorities who place trust in the taxpayers and treat the taxpayer in a respectful and supportive manner (Kirchler, Hoezel, and Wahl 2008: 212).

3.8 Theory of planned behaviour

Taing and Chang (2021:63) explained the theory of planned behaviour (TPB) as an evolution of the earlier theory of reasoned action. According to the theory of reasoned Action, people are more likely to adopt a specific behaviour if they believe that the behaviour will have a positive outcome (attitude), and if they believe that their peers would also want them to adopt that specific behaviour (subjective norm) (Marandu, Mbekomize, and Ifezue 2015: 213). To improve the predictive nature of people's behaviour, Ajzen (1985) postulated that perceived behavioural control, which is the impact of social and personal factors on a person's behaviour, should be considered to improve the predictive outcome of such behaviour (Marandu, Mbekomize, and Ifezue: 213; Ravis and Sheeran 2003: 218). Thus, Ajzen (2011: 1115) argued that a taxpayer's attitudes towards compliance, the influence of subjective norms on his compliance behaviour and taxpayers' perceptions of perceived behavioural control regarding non-volition factors (impact of social and personal factors beyond the taxpayers' control) contributed, collectively, towards the taxpayers' tax compliance behaviour. Thus, attitude, subjective norms, and perceived behavioural control are respectively influenced by the taxpayer's behavioural, normative and controls beliefs (Ajzen 2011: 1115). The relationship between behavioural, normative, and control beliefs and their impact on attitude, subjective norms, and perceived behavioural control are illustrated graphically in figure 3.4 below:

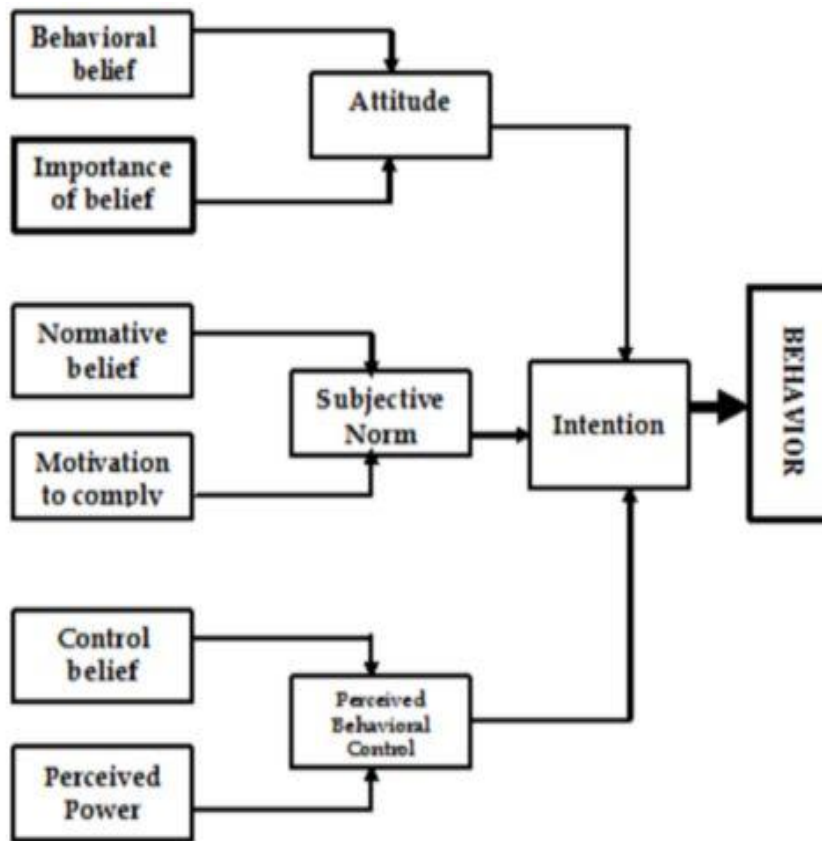


Figure 3.4: Theory of planned behaviour – Source: Marandu, Mbekomize, and Ifezue (2015:213)

Attitude, in Figure 3.4 relates to a taxpayer's intrinsic motivation whether or not to comply with tax obligations. The taxpayer's attitude is influenced by tax morale (see Section 2.8.1) (Taing and Chang 2021: 63). Subjective norms relate to the social pressure exerted on individuals to conform to a particular behavior. Within the context of taxation behaviour, subjective norms refer to the level of fairness in the tax system and the level of trust that the taxpayer has in the government (see Section 2.8.3) (Taing and Chang 2021: 64). Perceived behavioural control relates to the influence of time, money, information, and taxpayer ability on behaviour (Taing and Chang 2021: 64). The power of the tax authority, tax complexity, tax information, and tax awareness are some of the major constraints to controlling taxpayer behavior by the tax authorities (see Section 2.8.4) (Taing and Chang 2021: 64-65).

3.9 Theory of knowledge development

The theory of knowledge development explains how knowledge is created from the research process. Knowledge is created through the adoption of the three generally accepted reasoning methods being inductive reasoning, deductive reasoning, and abductive reasoning (Meadows, Langley, and Emery 2014: 90; Neuman 2007: 69-70;). The theory of knowledge development and the inductive, deductive, and abductive approaches to reasoning are discussed further in Section 4.2.

3.10 Summary

This chapter analysed the relevant and significant theories underpinning this study and explored the foundational theories of taxation, the theories supporting tax policy, and those theories exploring taxpayer compliance. The exploration of foundational theories found that taxation was located within the ability-to-pay theory and formed the basis of modern taxation theory. The exchange relationship theories and the benefit theories indicate that tax policy should be founded on principles designed to promote fairness of, and trust in, taxation policies and the tax system. The evolution in tax compliance theory suggested that there is no single theory that incorporates all the determinants of tax complaint behaviour and stated that each of the theories presented (utility theory, frame dependence theory, and social interactions theory) should be treated as complementary theories, as they jointly contribute towards understanding taxpayer compliance behaviour. Additionally, although each theory appears to be different, they meld together and use many of the common explanatory determinants as predictors of taxpayer behaviour. The chapter concludes with analysing TPB, identified as being the most comprehensive and appropriate theory for studying taxpayer compliance. TBP comprehensively integrates elements from the utility, frame dependence, and social interactions theories to introduce new ideas relating to taxpayer behaviour control and taxpayer intent towards compliance with taxation obligations.

3.11 Conclusion

Studies (Hamid 2014: 53; Saad 2010: 32; Smart 2012: 80; Taing and Chang, 2021: 63) have suggested that the TPB is an appropriate theory to explore taxpayer behaviour. Taing and Chang (2021: 63) cited studies such as those by Bobek, Hatfield, and Wentzel (2007), and Ramayah, Yusoff, Jamaludin, and Ibrahim (2009) which found that the components of TPB (attitude, subjective norms, and perceived behaviour control) have a positive effect on the taxpayer compliance. Smart (2012: 80) argued that the TPB may be used by researchers and tax authorities to predict and consider taxpayer's behaviour in the development of taxation policies.

CHAPTER 4: RESEARCH METHODOLOGY

4.1 Introduction

The preceding chapters introduced the rationale for the study, presented a review of significant tax compliance literature, and explored the theoretical underpinnings of the study. This chapter describes the research philosophy, approach, methods, and procedures adopted for this study. The rationale for following a quantitative meta-analytical research approach in conducting this study is discussed. The chapter thereafter explores the study's research design, including the research methods followed. The chapter then proceeds to discuss the research approach, population, sampling methods, data analysis, data coding, data presentation, and data management. Data reliability and validity are also explored and described. Finally, the ethical considerations relating to this study are discussed.

4.2 Theory of knowledge development

Research refers to the methodical process followed by a researcher that results in the creation of knowledge (Walliman 2017: 7). Walliman (2017: 7) stated that “research” is the general term that applies to an exercise that seeks to systematically acquire more knowledge in areas unknown to the researcher and focuses on advancing the frontiers of knowledge. Disciplined, scholarly research requires the researcher to approach the study with “absolute honesty, patience, stamina, and precision” (Rajasekar, Philominathan, and Chinnathambi 2013: 24). Babbie and Mouton (2006: 75) suggested that valid, acceptable research requires the adoption and application of unbiased, objective research procedures. Knowledge is created through the adoption of the three generally accepted reasoning processes being inductive reasoning, deductive reasoning, and abductive reasoning (Meadows, Langley, and Emery 2014: 90; Neuman 2007: 69-70).

Inductive reasoning enables people to learn from their surroundings, their experiences, and their observations on life and reality. People establish rules or beliefs on life phenomena from these learnings (Walliman 2018: 18). Neuman (2007: 70) considered that an inductive approach to disciplined reasoning is formulated from tangible empirical evidence collected and analysed. The research conducted thus results in the identification and analysis of abstract concepts and theoretical relationships regarding studied phenomena. Inductive reasoning is therefore concerned with developing new theories and answering phenomenological questions from tangible empirical evidence gathered and analysed (Neuman 2007: 70). Inductive reasoning is most often used in qualitative research studies (Aliyu, Singhry, Adamu, and AbuBakar 2015: 10).

Deductive reasoning, on the other hand, was considered by Neuman (2007: 69) as an approach to theory development and/or theory confirmation that began with abstract concepts and theoretical relationships, supported by tangible empirical evidence to answer life questions. Aliyu *et al*, (2015: 9) stated that deductive reasoning approaches are more concerned with examining and analysing empirical data to support or to disprove formulated hypotheses and theories. Deductive reasoning thus forms the basis for quantitative research studies (Aliyu, *et al* 2015: 10).

However, Aristotle, a Greek philosopher who is generally considered as the first philosopher of science, argued that both inductive and deductive reasoning were required collaboratively, to test hypotheses and to develop valid theories (Harriman 2010: 235-236). Aristotle held that induction was necessary for the formulation of theories and that this was logically followed by deduction which was required to further test and refine the theory (Harriman 2010: 235-236). Aristotle argued that both the inductive and deductive methods were complementary and therefore necessary for valid, trustworthy research studies (Harriman 2010: 235-236). A hybrid of both inductive and deductive methods has been termed abductive reasoning (Harriman 2010: 235-236).

Taxpayer Compliance, located within social interaction behaviour, involves the construction of explanations through a process of reasoning that is appropriate to understand events in real-world situations where it is unlikely that all information

relating to the event will be available for only inductive or deductive analysis but rather supports following a combination of the two reasoning processes (Meadows, Langley and Emery 2014: 90). Meadows, Langley, and Emery (2014: 90) regarded this process of construction of explanations as abductive inference or abductive reasoning, as was previously argued by Aristotle. Meadows, Langley, and Emery (2014: 91) further stated that the abductive approach to knowledge creation uses rules and structures to introduce plausible assumptions as new observations are revealed. Abductive reasoning attempts to make sense of surprising and ambiguous phenomena that are perplexing in nature (Żelechowska, Żyluk and Urbański 2020: 1).

4.3 Research paradigm

Ontology remains the core driver of all research studies and seeks to philosophically answer the fundamental questions on the nature of reality or existence (Neuman 2007: 94). Ontology describes the underlying rationale for distinguishing whether objects are tangible or intangible; real and ideal; or dependent or independent. Ontology also explores associations, relationships, dependencies, and predications of objects (Aliyu *et al*, 2015: 15). Exploring an ontological question on what constitutes the nature of reality or existence requires an epistemological approach to the study (Creswell 2009: 6). Epistemology is derived from the word “episteme”, which is the Greek word for the noun “knowledge”. Models that enable such knowledge creation are called paradigms (Aliyu *et al* 2015: 2; Krauss 2005: 758-759). A paradigm represents a basic belief system (Aliyu *et al*, 2015: 2; Grant and Giddings 2002: 12), or the set of principles that guide the research study (Creswell 2009: 6).

Four main paradigms that embody ontological research emerge from scholarly literature (Creswell 2009: 6; Grant and Giddings 2002: 5). These four main paradigms are (1) positivism and post-positivism, (2) interpretivism, (3) advocacy/participatory, and (4) constructivism which incorporates pragmatism (Creswell 2009: 6; Grant and Giddings 2002: 5). These research paradigms are discussed below followed by the rationale for adopting the positivist paradigm for this study.

4.3.1 Positivism and post-positivism

Positivism recognises that the researcher and the phenomenon under investigation are independent of each other (Aliyu *et al*, 2014: 82). The positivist paradigm is therefore based on an ontological doctrine that assumes that the nature of reality is independent of the observer (Aliyu *et al*, 2015: 11; Rahi 2017: 2).

From a behavioural perspective, positivism views social sciences as an organised method for predicting general patterns of human behaviour (Antwi and Hamza 2015: 219). Researchers who adopt this paradigm apply quantitative methods to explore knowledge and examine and analyse the interactions between variables that shape events (Antwi and Hamza 2015: 219). Figure 4.1. below illustrates the separation between the independent observer and the nameless/ faceless subject or the environment subjected to the researcher's study.

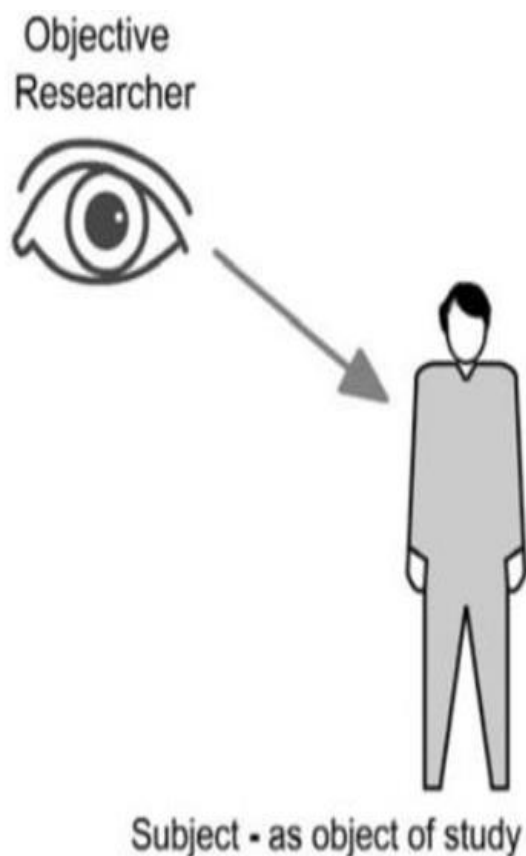


Figure 4.1: The objective researcher – (Source: Grant and Giddings 2002: 15)

Figure 4.1 displays the “observational eye” as the researcher who studies the subjects in a research environment. A separation exists between the researcher and the research subject, emphasising the independent nature of the research environment from the researcher.

Clark (1998: 1245) argued, however, that the sensory and cognitive limitations of the researcher to fully comprehend all of reality must shape and influence the research process. Clark (1998: 1245) stated that the researcher interprets reality from experience and cultural norms and that these interpretations result in cognitive biases which influence the way the researcher comprehends reality. Additionally, researchers are limited by the body’s sensory abilities to observe and comprehend reality, and these limitations persist, regardless of the use or non-use of research instruments (Clark 1998: 1245). Clark (1998: 1245), further argued that post-positivism emerged in response to the interpretive element of the researcher in research involving human inquiry. Post-positivism refers to the philosophy emerging after positivism and differs subtly from positivism in that post-positivism recognises that there are no absolute claims to knowledge when studying human behaviour (Creswell 2009: 7-8). Creswell (2009: 7-8) argued that the key assumptions of a post-positivism paradigm are: (1) knowledge is conjectural, that is the absolute truth cannot be established, thus evidence established in the research is fallible; (2) research is a process of making and refining claims; (3) research seeks to develop relevant true statements, and finally (4) objectivity is a key requirement for valid research. Therefore, researchers must examine methods and conclusions to limit, or even possibly eliminate, data and researcher bias (Creswell 2009: 7-8).

Clark (1998: 1245) noted that the post-positivist paradigm is regarded as a philosophy that forms the basis for contemporary empirical research activities. It is submitted, however, that although the post-positivist paradigm has grown in prominence, the key distinction between positivism and post-positivism relates to the ability of the researcher to influence the research process. This factor was a key determinant in selecting the most appropriate paradigm for this research study.

4.3.2 Interpretivism

The interpretive research paradigm explores knowledge by understanding the circumstances within which a phenomenon exists (Rahi 2017: 1). Interpretivism argues that true knowledge comes from an in-depth understanding of the subject and/or the subject matter, and results in the formulation of meanings that are subjective (Rahi 2017: 1; Antwi and Hamza 2015: 219). Researchers interact with the research environment, recognising that the perceptions of every research subject with the phenomenon being studied are important. Ontologically, therefore, researchers view the world as complex and dynamic (Aliyu *et al* 2015: 4; Antwi and Hamza 2015: 5). Interpretivism considers that the ontological question is best interpreted by people in their interactions with each other and within broader social systems (Aliyu *et al*, 2015: 3). The interpretive paradigm is thus rooted in existentialist philosophy and provides a contrasting argument to positivism. Rather than the search for truth, it seeks to understand what it means to be human and understand the meanings attached to peoples' experiences (Grant and Giddings 2002: 16). Researchers employ the interpretive paradigm in conducting studies following the qualitative research approach (Ochieng 2009: 13).

4.3.3 Advocacy paradigm

Advocacy as a research paradigm arose during the 1980s from the findings of researchers that the structured assumptions of positivism did not address the issues of social justice for marginalised individuals and groups (Creswell 2009: 10). Proponents of the advocacy paradigm argued that knowledge may also be acquired through inquiry into politics, political agendas, and social issues, in addition to other methods such as experimentation (Creswell 2009: 10; Rahi 2017: 1). The advocacy paradigm enables the researcher to focus attention on the viewpoints of marginalised people and groups and attempts to illuminate the oppressive effects of various social injustices in anticipation of raising awareness for purposes of collective action against such social injustices (Grant and Giddings 2002: 19). Such awareness may well result in the implementation of agendas that address issues of marginalisation and social injustice (Rahi 2017: 1).

4.3.4 Pragmatism

Pragmatism as a research paradigm focuses on the meanings of an action or event in a social situation (Denzin, 2012: 81). Pragmatic knowledge claims arise from analysing the consequences of actions taken by participants in social situations (Creswell 2009: 13). The pragmatist paradigm also (1) recognises that there is no affiliation to any one system of philosophy; (2) favours the mixed-methods research approach, although researchers are free to use any recognised research procedures that meet the purposes of the research study; and (3) recognises that truth is relative to the meaning of an event and considers the most appropriate action or response to a phenomenon at the time of conducting the study (Creswell 2009: 14; Rahi 2017: 1).

4.3.5 Rationale for positivist approach

This study undertakes a MA review of primary studies already conducted into taxpayer compliance behaviour. The nature of this study, therefore, requires analysing data already collected. The researcher, consequently, will not interact with subjects in a research environment and will, as a result, be independent. Additionally, the researcher cannot influence the results of primary studies already conducted. Consequently, the positivist research paradigm is most suited to this study.

4.4 Research Methods

Research is a term used to describe any kind of investigation that uncovers meanings and insights of identified phenomena through a disciplined process of collecting, interpreting, and analysing data (Mack, Woodsong, MacQueen, Guest, *et al*, 2005: 11; Walliman 2011: 16). Researchers may collect, interpret and analyse either primary or secondary data (Walliman 2011: 69). This categorisation of data is dependent on the proximity of the data to its original form (Walliman 2011: 70). Primary data refers to data collected from, *inter alia*, (1) measurements such as temperature readings; (2) results of experiments; (3) observation; (4) narrative data such as data obtained from interviews and focus group discussions; and (5) experiential data - data obtained from

experiences of doing things (Walliman, 2011: 70). In quantitative studies, primary data are collected by, *inter alia*, data collection instruments such as survey questionnaires. The data collected are carefully analysed using various statistical analysis methods and tools (Williams 2007: 67). In secondary studies, data that has essentially already been collected and processed during primary studies conducted are utilised for further analysis and interpretation (Walliman 2011: 69).

The results of the research conducted are intended to create new knowledge or to add to existing knowledge. Consequently, all research undertaken must follow a disciplined, methodical, organised structure (Mack *et al*, 2005: 11; Walliman 2011: 16). Such a methodical, organised structure is referred to as the research design. Research design incorporates the research paradigm and approach, research methods, data collection methods, data analytical techniques, data management, and research ethics (Walliman, 2011: 9-13). The three academically recognised approaches to conducting research are the quantitative, qualitative, and mixed methods approach (Mack *et al*, 2005: 11; Walliman 2011: 16). A discussion on the three research approaches with argumentation for the adoption of the quantitative approach follows. The discussion thereafter focuses on the other elements of this study's research design.

4.4.1 Quantitative approach

Quantitative research which emerged around 1250 A.D., was traditionally considered the preferred method to create new knowledge (Williams 2007: 66). Creswell (2009: 21) explained that quantitative research adopts techniques such as experiments and surveys to explore and analyse research phenomena. Data is collected using predetermined instruments such as questionnaires or structured interviews that yield statistical information on the phenomenon being studied (Creswell 2009: 21).

Quantitative research generally locates itself within the broad umbrella of the positivist paradigm due to the independence of the researcher from the research environment (Clark 1998: 1247; Creswell 2009: 15). The quantitative approach enables the adoption of research techniques that enable the researcher to (1) identify the cause

and effect of variables; (2) develop hypotheses and questions for use in measurement and observation; and (3) test theories related to the phenomenon under study (Creswell 2009: 21; Rahi 2017: 2). Quantitative research assumes that cognition and behaviour are largely predictable and can be easily explained to ensure extrapolative value in terms of predictions and generalisations, thus enhancing the transferability of research results (Antwi and Hamza 2015: 221).

Rajasekar, Philominathan, and Chinnathambi (2013: 9) explained that a quantitative study exhibits the following characteristics: (1) it investigates questions relating to what, where, and when of decision making; (2) it is numerical, non-descriptive, and applies statistics or mathematical values when analysing data; (3) the results are generally presented in tables and graphs; and (5) research results are conclusive. The three main classifications of quantitative research, arising from these characteristics are descriptive, experimental, and casual comparative (Ochieng 2009: 13; Walliman 2011: 10; Williams 2007: 66) and are discussed below:

4.4.1.1 Descriptive research

Awang (2012: 33) viewed descriptive research as being appropriate for studies where the objectives include the correlation of independent variables with the phenomenon under study. In descriptive research, the researcher attempts to make sense of the results by looking for answers relating to “how”, “who”, “what”, “when”, and “where” types of questions concerning the behaviour of the identified variables. Awang (2012: 33) argued that although the researcher has a general understanding of the research phenomenon, s/he may need conclusive evidence to explain the nature of things, and therefore formulates her/his research from previous knowledge and conceptualisations regarding the nature of the research phenomenon (Awang 2012: 33).

4.4.1.2 Experimental research

Experimental research investigates cause and effect relationships between one or more variables (Walliman 2011: 11). Experimental research requires the formulation of hypotheses, the identification of variables to be tested, and the formulation of relevant control/ measurement procedures to be implemented. The experiment is intended to either confirm or reject the hypothesis (Walliman 2011: 11). Experimental research allows for the observation and analysis of the effects of changes applied to one or more variables. The analyses enable the researcher to draw inferences and conclusions of such changes on the relationships between two or more variables (Dawson 1997: 2; Walliman 2011: 11). Experimental research also employs the use of control groups to determine whether or not changes to the independent variable in the experimental group are the result of intended experimentation procedures. The variable that is changed is referred to as the independent variable and the variable that is being observed for the effects of the change is referred to as the dependant variable. Experimental research does not allow unintended changes to the independent variable to influence the results of the experiment (Dawson 1997: 5).

Experimental research also includes research designs such as pre-experimental, quasi-experimental, and true-experimental designs. Pre-experimental and quasi-experimental research designs are not considered to be true experimental designs, but are, however, considered to be non-experimental designs (Walliman 2011: 11). The main feature that distinguishes non-experimental designs from true experiments is that non-experimental designs do not require the use of control groups. True experimental designs, in addition to control groups, also require a systemic approach to data collection and the use of mathematical models when analysing results (Walliman 2011: 11). True experimental designs produce high validity outcomes and results (Walliman 2011: 11).

4.4.1.3 Causal comparative research

Causal comparative research explores interactions/correlations between independent variables and their influence on dependent variables in a factorial design (Walliman 2011: 10; Williams 2007: 66). In causal-comparative research, the factorial design explores two or more independent variables and attempts to identify whether the correlations between the variables are non-existent, positive, or negative (Walliman 2011: 10; Williams 2007: 66). The purpose and research questions of this study require the synthesis of data arising from related primary studies. These primary studies include data collected, *inter alia*, using research instruments or through experimentation. Additionally, in this type of study, the researcher does not influence the research data as data is collected from the results of existing primary studies. The quantitative approach to research is, therefore, suitable for this study as the study conducts a meta-analysis followed by a systematic analysis of the results of existing primary studies.

In summary, a quantitative approach to research is preferred in studies that follow a positivist or post-positivist paradigm and adopt experimentation as a data gathering and analysis technique. Quantitative research approaches acknowledge the separation of the researcher and the research environment and therefore do not allow the researcher to influence research subjects or the research environment.

4.4.2 Qualitative approach

The qualitative approach to research requires the systematic collection, organisation, analysis, and interpretation of narrative data (Bricki and Green 2007: 2; Creswell 2009: 21). Antwi and Hamza (2015: 220) indicated that qualitative research is concerned with understanding the meaning of people's experiences or their feelings towards an experience. Qualitative research also frequently results in generating new hypotheses and theories concerning an identified phenomenon (Antwi and Hamza 2015: 220). Malterud (2001: 483) described qualitative research as formulating knowledge claims based on constructivist perspectives. Constructivism enables the creation of multiple

social and historical meanings from individual experiences to develop a theory or pattern. Constructivism may also result in advocacy/participatory perspectives that focus on political, issue-oriented, collaborative, or change-oriented research situations (Creswell 2009: 21).

Qualitative research uses techniques that collect narrative data. These techniques include, *inter alia*, interviews, focus groups, participant observation, and document analysis. Qualitative data is generally analysed using descriptive techniques such as thematic analysis (Antwi and Hamza 2015: 222). Qualitative data cannot be presented in tables and graphs as it is exploratory and investigates the “why” and “how” questions of decision making (Rajasekar, Philominathan, and Chinnathambi 2013: 9).

Although quantitative and qualitative research methods both investigate and explore the different claims to knowledge and adopt different data collection and presentation methods, both approaches address specific types of research questions. Mack (2005: 2), suggested that these two research methods differ primarily in their objectives, the types of research questions they pose with the study, the types of data collection instruments employed, and the type of data generated.

4.4.3 Mixed-Methods approach

During the 1950s, researchers found that adopting only a quantitative or qualitative approach to research when attempting to explain phenomena may not provide the rich, comprehensive data necessary for the study (Creswell 2009: 17). The necessity of exploring phenomena, using both statistical methods and thematic analysis, prompted researchers to mix quantitative and qualitative research approaches and methods resulting in data gathering methods such as interviews and focus group discussions being combined with the traditional survey in the same research study (Creswell 2009: 17). The mixed-methods study, therefore, enables the researcher to adopt both qualitative and quantitative research methods and techniques in the same study (Leech and Onwuegbuzie 2009: 267).

While the quantitative research method provides an objective measure of reality, the qualitative method allows the researcher to explore and better understand the

complexity of a phenomenon (Venkatesh, Brown, and Sullivan 2016: 448). Creswell (2009: 21) argued that the mixed-methods approach allows for knowledge claims to be founded on pragmatic grounds as it employs strategies to collect both numeric as well as textual data about a research problem to better understand the complexity of the phenomenon. Combining both methods does not result in any one approach superseding the other, rather it synergises both approaches by drawing on relative strengths and by mitigating each approach's weaknesses (Venkatesh, Brown and Sullivan 2016: 437; Williams 2007: 68). Although proponents of the mixed-methods approach have suggested areas in which the approach is potentially superior to a single approach design, there has been debate as to whether or not it is appropriate to combine the two approaches in studies that are often based on radically different paradigmatic assumptions (Venkatesh, Brown and Sullivan 2013: 22). Nevertheless, mixed methods have gained in popularity as a research approach and have been termed the third methodological movement, with quantitative and qualitative methods representing the first and second movements respectively (Venkatesh, Brown and Sullivan 2016: 436).

4.5 Research design

The preceding paragraphs introduced the four main research paradigms and described the three approaches to research. The research design of this study is discussed below followed by a discussion on the population of primary studies, the research studies selected for analyses, data analysis, data coding, data presentation, and data management.

4.5.1 Research approach

This study adopts a quantitative meta-analytical approach (see Section 4.5.1.4). Meta-analysis is an instrument that has been employed in many tax studies such as those conducted by Marandu, Mbekomize, and Ifezue (2015), and Sutrisno and Dularif (2020). They argued that MA is a powerful statistical technique used to summarise the

results of multiple studies. MA is thus a relevant technique for summarising the factors included in primary tax compliance studies. However, a lack of consistency exists amongst the conclusions drawn from the results of primary tax compliance studies conducted (see Section 2.1). Marandu, Mbekomize, and Ifezue (2015) and Rosenthal and DiMatteo (2002: 61) argued that MA is a suitable approach to address these inconsistencies as the statistical methods employed in MA allows combining the numerical results from multiple studies into a single analysis that enable the emergence of consistent conclusions on taxpayer compliance.

Additionally, according to Rosenthal and DiMatteo (2002: 61), MA also does not rely on the results of a single study to draw inferences and conclusions but requires a thorough search, review, and analysis of data to answer specific research questions, thereby improving the validity of the conclusions reached. In pursuance thereof, this study employed the random-effects model, publication bias, and regression analysis to analyse the results of the existing primary studies on taxpayer compliance.

4.5.2 Research population

The PRISMA model was used to identify the data population and the primary studies selected for research. PRISMA focussed on the way transparent and complete MA and reporting of systematic reviews can be achieved (Liberati, Altman, Tetzlaff, Mulrow, *et al* 2009: 66). PRISMA is a methodological approach that includes a checklist of 27 items grouped into the following 7 categories: (1) title of the study; (2) abstract; (3) introduction; (4) methods; (5) results; (6) discussion and (7) funding (Liberati *et al* 2009: 67). The 27 items that comprise the PRISMA model are included in Annexure C. Annexure C also highlights the specific PRISMA items that were adopted for this study.

The population of primary studies applicable to this study was identified by performing a systematic database search on three specific journal databases and selected those primary studies that met the following eligibility criteria: (1) all research papers that examined the determinants of tax compliance or factors of taxpayer compliance; and (2) papers that were based on data from taxpayers (individuals or organizations) as

its subjects. Database search engines were used to identify taxpayer compliance articles in the following journal databases: (1) Web of Science; (2) SCOPUS and (3) PROQUEST. These databases allowed for searching broadly across contrasting resources and used the citation connections fundamental to index and navigate relevant research results from these databases.

Taxation is an evolving concept with new approaches to, and methods of, taxation being considered continuously. Consequently, a five-year period provided data on the latest taxation systems and methods in use and provided current, relevant data on taxpayer behaviour. The search was therefore limited to studies that were released between 2020 and 2015, being the latest available data at the time of conducting this study. In total, the searches identified 1222 eligible research papers from the three databases. The searches were conducted during November/ December 2020.

4.5.3 Studies selected

The initial search of the three journal databases resulted in the identification of 1222 studies relating to taxpayer compliance. Figure 4.2 describes the PRISMA approach for the identification of research papers for further analysis in this study.

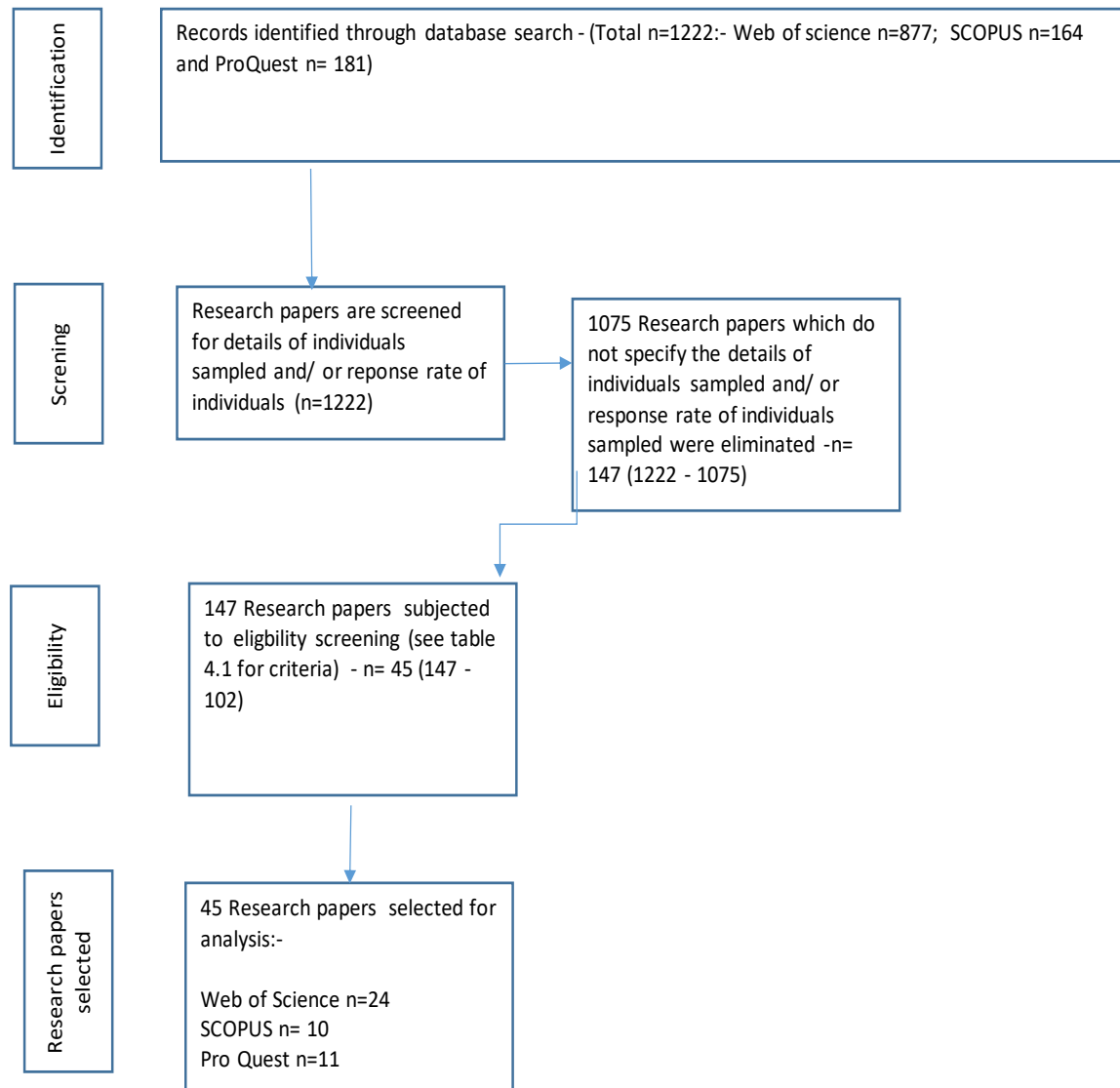


Figure 4.2: Studies selected (adapted from Olugbara, Letseka; Ogunsakin and Olugbara 2021:7)

Each of the 1222 eligible research papers, were reviewed and subjected to further eligibility consideration. The 1222 research papers were reviewed to identify details of the number of individuals who were sampled in the primary studies and details on the response rate of sampled individuals. These details were used to facilitate the MA of the data which are presented in Chapter 5. The adoption of the eligibility criteria resulted in the identification of 147 research papers (Annexure A). The 147 research papers identified during the second round of eligibility determination were subjected to a third and final round of eligibility determination to ascertain whether each of the papers contained the 12 elements of data in table 4.1 below.

Table 4.1: Eligibility criteria: round 3 (final round)

Element Number	Eligibility criteria, applied to select primary studies
1	author/s of the primary study
2	theoretical approach adopted in the study
3	the year that study was published
4	the statistical method adopted in the primary study
5	the sample size of taxpayers selected
6	country where the study was conducted
7	the sample size of taxpayers selected/ population size
8	independent variable
9	underlying determinant of the tax system affecting independent variable
10	positive association with tax compliance
11	negative association with tax compliance
12	No association with tax compliance

The third round of eligibility determination resulted in excluding 102 papers from further consideration.

The resulting 45 eligible primary studies (Annexure A) were included for the MA and systematic analysis processes of this study.

4.5.4 Data analysis and coding

The purpose of this study necessitated identifying and analysing factors entrenching tax gaps. To facilitate this study's purpose and research questions, analyses were conducted in two phases. Firstly, the PRISMA model adopted required the summarisation of the data collected from the 45 primary studies into a logical format that would facilitate the analysis of the factors that contributed to taxpayer compliance that influenced the entrenching of the tax gap. The analytical approach followed included (i) the basis for identifying individual factors in each study that influenced taxpayer behaviour, either positively; negatively or had no impact, and (ii) the overall subgroup of factors that influenced the taxpayer compliance identified in (i). Thirteen categories of data from each of the 45 primary studies were identified using the above criteria. The data were summarised in Microsoft EXCEL (see Annexure E). The data categories arising from the analysis conducted are summarised in table 4.2 below.

Table 4.2: Categories of data

Category Number	Details required	Explanation
1	author	Author/s of the primary study
2	theory of model	theoretical approach adopted in the study
3	year of publication	the year that study was published
4	statistical method	the statistical method adopted in the primary study
5	sample size	the sample size of taxpayers selected
6	country	country where the study was conducted
7	response rate	sample size of taxpayers responded/ population size
8	factor	independent variable
9	subgroup	determinant in tax system affecting independent variable
10	theoretical category associated with factor	TPB category with which factors were associated
11	positive association with tax compliance	Association with tax compliance that factor has on taxpayer behaviour
12	negative association with tax compliance	Association with tax compliance that factor has on taxpayer behaviour

13	No association with tax compliance	Association with tax compliance that factor has on taxpayer behaviour
----	------------------------------------	---

4.5.5 Data presentation

Data and the results of analyses conducted are presented, using graphs and tables, supported by descriptive narratives. The results of the data analysis conducted are presented in Chapter 5. The results of the MA conducted are presented, followed by the random-effects model, subgroup, and meta-regression analyses. The results from the systematic analysis are thereafter presented, also in Chapter 5.

4.5.6 Data storage and management

The data collected is stored electronically in a Google cloud service owned by the researcher. Access to the Google cloud is password protected and the password is known only to the researcher. The data is stored according to university rules and regulations for a minimum period of five years. After the lapse of five years, a process will be followed to obtain the necessary permissions for the data to be deleted. All data used in this study is, however, available in the public domain, and is easily retrievable should the need arise.

4.5.7 Data reliability and validity

According to Patrick (2013: 73), data reliability in MA is achieved when similar results are obtained where the same body of literature is analysed by different researchers, following a similar research process. The reliability of the data was assessed by performing statistical correlation methods, such as random-effects meta-analysis and publication bias (See section 5.2.1 and section 5.2.3).

Validity relates to whether or not the data collected correctly reflects the phenomenon that is being explored (Walliman 2011: 104), and was achieved by adhering to the PRISMA model of selecting relevant primary studies. McInnes, Moher, Thombs,

Mcgrath, *et al*, (2018: 388) argued that PRISMA ensures that data is defined, collected, analysed, and coded in a logical and planned manner, thus ensuring data relevance and validity. Table 4.3 below provides a list of the specific PRISMA criteria that were adopted to ensure data reliability and validity.

Table 4.3 – Items from PRISMA used to ensure reliability and validity of data

PRISMA-Item No.	Description from PRISMA	Application of PRISMA requirement
5	protocol and registration	a research protocol as described in Sections 4.5.2 and 4.5.3. Any data not meeting the established criteria were omitted.
7	information sources	database and dates of coverage were established as per Sections 4.5.2 and 4.5.3 above
8	search	a search strategy was applied (see Section 4.5.2)
9	study selection	process for screening studies was established (see Sections 4.5.2 and 4.5.3)
10	data collection process	data collection strategy was established (see Sections 4.5.2 and 4.5.3)
11	data item	data analysis and coding was done (see Section 4.5.4)

4.6 Research ethics

This research study was approved, and ethical clearance was obtained from the Durban University of Technology (DUT). All data for the study was extracted from journal articles on existing primary research studies and therefore already exists in the public domain. Full recognition is accorded to all sources of literature and data following the DUT referencing policy. The study honestly and truthfully presents the findings, conclusions, and recommendations of the researcher.

4.7 Conclusion

This chapter discussed the Theory of Knowledge Development and justified adopting the abductive approach to knowledge development. It was argued that the positivist paradigm and the quantitative research approach were appropriate to this study. The chapter also explained that MA was employed to analyse research data.

Validity was ensured by identifying 1222 primary studies and employing and re-employing eligibility criteria to arrive at the final 45 studies included in this study. The transferability of the results of this study is enhanced through the application of the PRISMA methodology. The chapter concluded with a discussion on the research ethics adopted for this study. Chapter 5 that follows, presents the results of the data analysis conducted and the conclusions emanating from the data analyses.

In conclusion, a quantitative research approach was adopted for this study. The adoption of PRISMA ensured that the research population and eligibility of studies were conducted in a logical, planned manner to ensure the validity and reliability of the data collected. Validity was ensured by identifying 1222 primary studies and employing and re-employing eligibility criteria to arrive at the final 45 studies included in this study. Data were analysed and coded in a manner that enabled identification of the factors influencing taxpayer compliance from the 45 primary studies included in this study.

CHAPTER 5: DATA ANALYSIS AND FINDINGS

5.1 Introduction

In the preceding chapters the study was introduced and the rationale for the research was presented. This was followed by a review of the existing literature which also explored the theoretical underpinnings of the study. Thereafter the research philosophy, approach, methods, and procedures adopted were elucidated. This chapter describes the data analysed, its results and conclusions. The results of the random-effects MA are discussed, followed by a discussion of the results of the subgroup MA. Thereafter, publication bias and regression analysis are discussed. A discussion follows on the systematic review of the factors influencing tax compliance that emerged from the MA conducted and the conclusions of the study. The chapter concludes with a summary of the significant findings in this chapter.

5.2 Meta-analysis

Section 4.6.4 discussed the approach to the coding of the data used for the study. Descriptive summary statistics were calculated to determine the total number of participants in the population of primary studies analysed. A detailed list of the studies can be found in Annexure D. The descriptive summary statistics found that a total number of 3584 persons participated in the 45 primary studies included in this study. The summated data analysis of the 45 studies resulted in the identification of nine subgroups of factors that influence taxpayer compliance (see Table 5.1).

5.2.1 Random-effects meta-analysis

Random-effects MA was carried out using the 45 primary studies selected and response rate (effect size, standard error of effect size) to estimate the factors influencing tax compliance. Between-study variability was high ($\tau^2=0.04$; heterogeneity $I^2 = 99.3\%$ with heterogeneity chi-square = 6670.90, a degree of freedom = 44 and P

= <.001). These findings generally imply that the proportion of total variance among pooled studies can be attributed to the heterogeneity of true effect sizes. A random-effects model assumes a different underlying effect size for each included study (Ioannidis 2008:951). Effect size, standard error, confidence interval and weight of effect size were calculated for each study. The standard error of effect size reflects the amount of statistical information available in a study. The amount that each study has contributed is indicated by the percentage weight. A forest plot is a traditional device used to visualize how the estimate of effect size of each study is distributed around zero or pooled effect estimate. The effect size estimate of each study is represented in the forest plot as a square box. The area of each box represents the weight of each study contributing to the pooled estimate while the center of the diamond equals the pooled effect estimate. The ends of the diamond indicate the limits of 95% confidence interval (CI). The global estimate is the diamond whose width is the associated 95% CI. Figure 5.1 presents the forest plot derived from the MA. The overall random pooled estimate was obtained as 35% (95% CI 30%-41%). Studies weighted approximately equally with weights on individual studies ranging from 0.08% to 0.90 %.

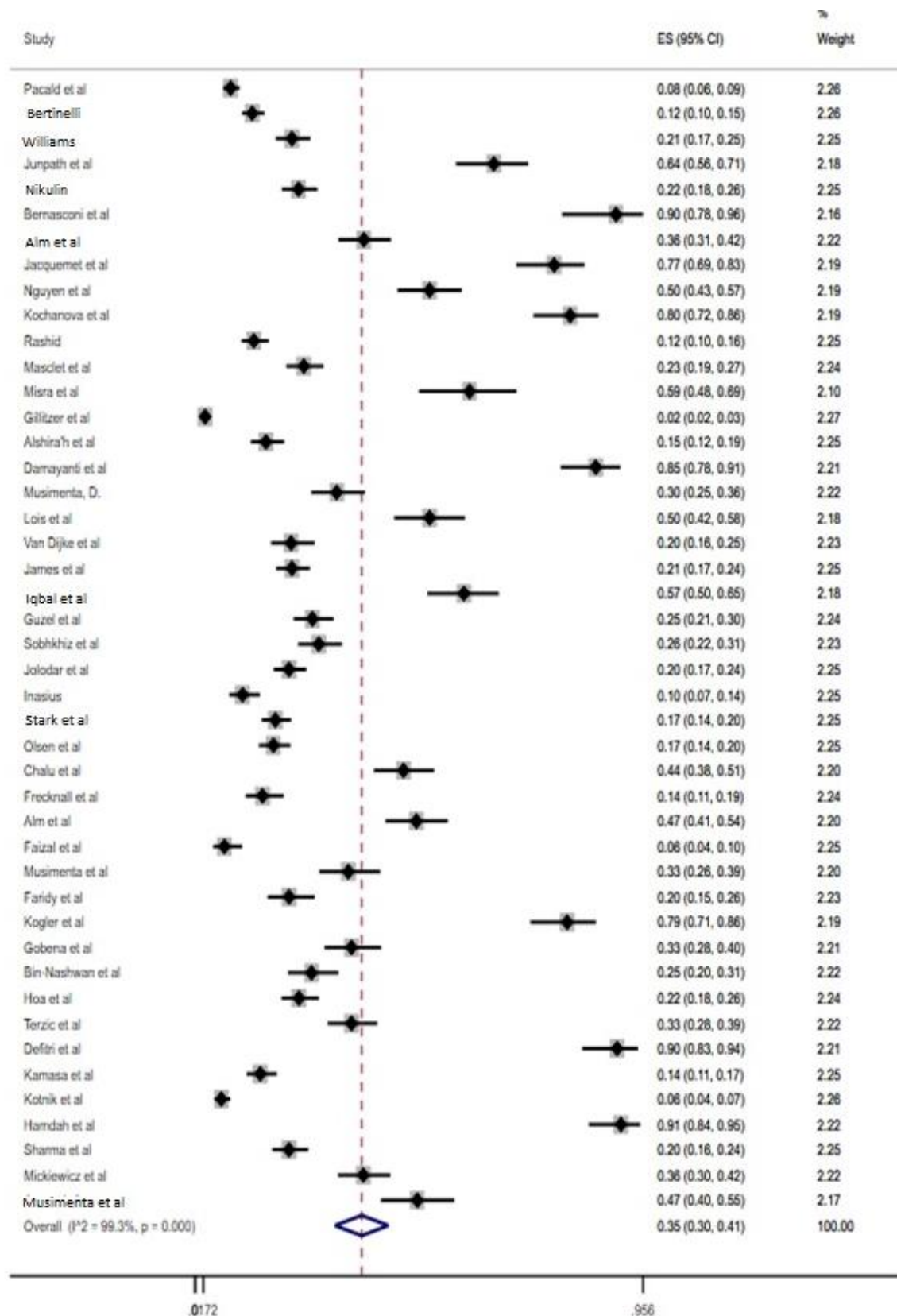


Figure 5.1: Forest plot on tax compliance estimates

5.2.2 Subgroup meta-analysis

Subgroup analysis is the splitting of participant data into subgroups to establish comparisons between sub-data (Lin and Chu 2018: 792). The interpretation of subgroup MA can lead to informative insights into the proper implication of sub-data, within a subgroup, that would not be obtained from the non-subgroup analysis. Subgroup analysis was done for selected categories (see Table 5.1 below). Accordingly, the result of subgroup analysis by tax administration indicated large variability in studies reporting factors of tax compliance (the Higgins I^2 statistic = 99.55% with Heterogeneity chi-square = 4030.73, a degree of freedom = 18 and $P = <.001$) and the lowest by tax policy (the Higgins I^2 statistic = 96.85% with Heterogeneity chi-square = 158.56, a degree of freedom = 5 and $P = <.001$). The overall statistics are presented in Table 5.1.

Table 5.1. Subgroup analysis for comparison of tax compliance category

Category	No of studies	$I^2\%$	Q	Heterogeneity test	
				Df	p-value
Tax administration	19	99.55	4030.73	18	<0.001
Behaviour	8	99.17	843.37	7	<0.001
Institutional governance	6	97.86	233.8	5	<0.001
Tax policy	6	96.85	158.56	5	<0.001
Compliance costs	2	-	-	1	-
Tax morale	1	-	-	0	-
Business characteristics	1	-	-	0	-
Fiscal administration	1	-	-	0	-
Economy	1	-	-	0	-
Overall	45	99.31	6670.90	44	<0.001

Table 5.1 shows that of the nine subgroup factors that influence taxpayer compliance, 19 studies related to tax administration, 8 studies related to behavioural characteristics, 6 studies each related to institutional government and tax policy respectively, 2 studies related to compliance costs and 1 study each related to tax morale, business characteristics, fiscal administration, and the economy. Each of the nine subgroups is discussed in detail under “systematic analysis” below (see Section 5.3).

5.2.3 Publication bias and small study effect assessment

In MA, the studies selected to be included are vital to the inferential conclusion. Publication bias could arise when only positive studies (that is, those that demonstrate statistical significance or if not statistically significant do not reflect qualitative interaction) of a study are published. Publication bias was used to assess the degree to which biasness influences the study outcome to determine the validity of core findings (Borenstein, Hedges, Higgins and Rothstein 2010: 107). The funnel plot is a standard visual method for identifying publication bias. It is a scatterplot of standard errors of log odd ratio against the study effects size (ES) computed by log odd ratio. The central idea is that studies should be symmetrically spread to the left and right of a vertical line marking the pooled ES if no relevant findings are missing.

The vertical and diagonal dashed lines represent pooled effect mean estimate and 95% CI respectively and each point in the plot represents a separate study. The vertical axis represents the standard error, the horizontal axis represents the logit transformed of estimates and asymmetric of the plot signifies the presence of publication bias (Van Aert, Whicherts and Van Assen 2019: 2). Figure 3 shows the funnel plot, which has revealed an asymmetrical distribution. Even though assessing publication bias may not be applicable in situations like this because Begg's and Egger's test become unsuitable due to an association between the effect size and its standard error, we assessed bias and small study effects by funnel plot observation and Begg's and Egger's test for small-study effects. The result of effect estimates against its standard error showed that there was a publication bias (Figure 5.2).

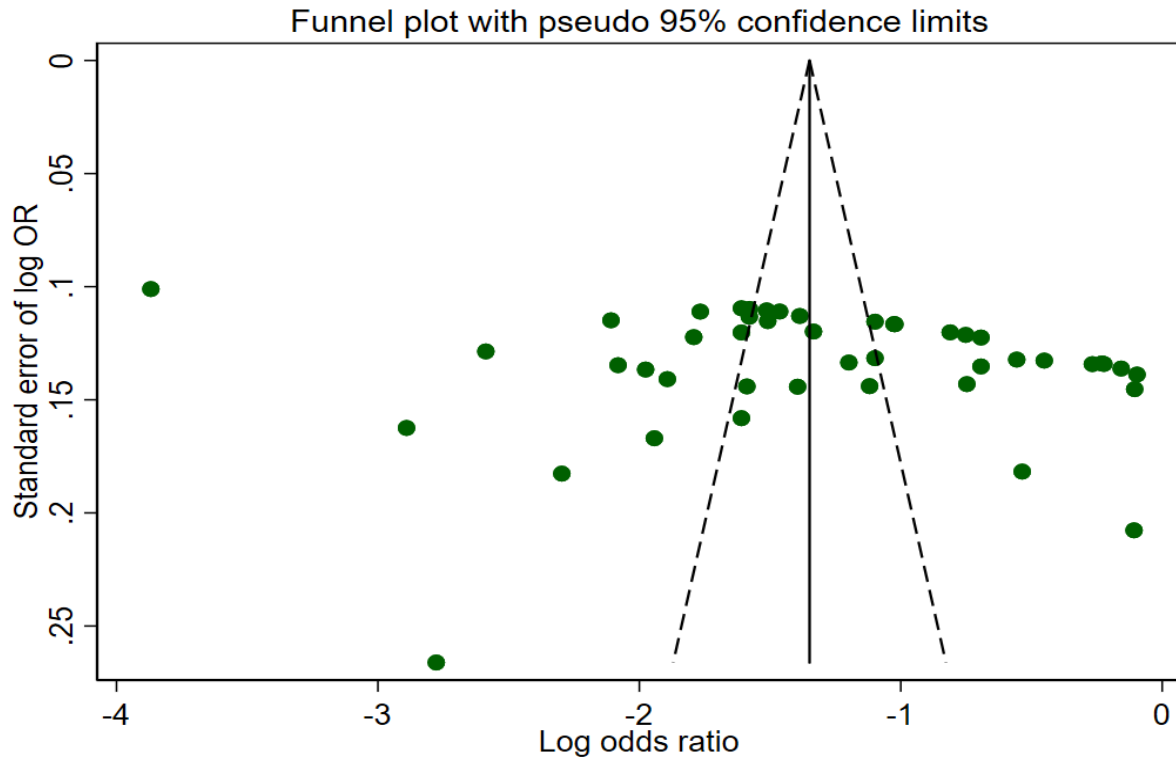


Figure 5.2: Funnel plot that assesses publication bias.

The primary study objective was to perform a MA of existing tax compliance factors to discover the main significant factors. Two research questions on the main weighty factors, sources of variations, and publication bias were expressed for this objective. Several research articles were examined, but 45 studies that met the inclusion criteria were eventually selected for the final statistical MA. The findings of the 45 included studies with precisely 3,584 persons participating showed tax administration as the main substantial factor influencing tax compliance. The random-effects model has discovered the presence of heterogeneity in the effects of the 45 included studies. The observation of heterogeneity in the effects of the studies included might contribute to varying features. Also, there were identifiable modifications in the statistical heterogeneity. The included studies' subgroup analysis found an effect size of 35% within the (95% CI 30%-41%) in the overall estimate.

5.3 Factors influencing taxpayer compliance

This study seeks to provide a comprehensive analysis of the factors influencing taxpayer compliance, noting that taxpayer compliance influences the entrenchment of the tax gap. The MA of results of the 45 primary studies, (See Section 5.2.2) required that the analysis also be conducted at a subgroup level. The results from the subgroup MA conducted identified nine subgroups of factors that influence taxpayer compliance (see Table 5.1). However, the MA does not identify the significant individual factors influencing taxpayer compliance, hence, a systematic review of the data became necessary to identify the individual factors influencing taxpayer compliance within the nine identified subcategories.

5.3.1 Coding of data for systematic analysis

The PRISMA protocol was followed to identify the factors influencing tax compliance. Section 4.6.4 explains the PRISMA methods followed in identifying each factor. The systematic review of data used in the 45 primary studies that were subject to analysis identified 94 individual factors influencing taxpayer compliance (Annexure E). The results show that 18 of the 45 primary studies identified more than one individual factor within a subgroup of factors thereby resulting in 94 individual factors. In addition, the results also indicated that one primary study may identify factors that belong to more than one subgroup.

The 94 individual factors were categorized according to the influence that each factor had on tax compliance – positive, negative, or no influence. A form of simple vote counting was followed to determine the relevant significance of factors on taxpayer compliance with one vote being allocated to each factor. The results of the vote count conducted (see table 5.2 below), found that 55; 32 and 7 votes respectively (a total of 94 votes) were allocated to a positive, negative or no influence on tax compliance. Annexure E also reflects how the 94 individual factors were allocated to a total of 46 categories of factors. The 46 categories of factors are reflected in Annexure F. The approach to coding the data into the 46 categories of data is discussed in section 4.6.4 and was implemented to draw inferences on the dominant factors. Conclusions as to

which factor was dominant within a subgroup were formulated from the number of individual factors/votes identified in the primary study allocated to the category of factor. Thus, the analysis regarding factors that influence taxpayer compliance in the sections that follow will therefore be based on the number of votes (individual factors) within a category of factors, at a subgroup level.

The results of the vote count, however, required theoretical conceptualisation of the individual factors to explain the reasons for taxpayers being influenced either (1) positively and complied with the tax prescripts; (2) negatively and evaded paying taxes; (3) having no effect on taxpayer compliance.

5.3.2 Systematic analysis of results of data

According to TPB, taxpayers' behaviour are influenced by their (i) attitude; (ii) subjective norms or (iii) perceived behaviour control, the three dimensions of TPB (Azjen 2011: 1115) – (see section 3.8). Consequently, each of the 94 individual factors was also allocated to the relevant TPB dimension by its associated subgroup.

For this study, the dimensions of TPB were renamed to correctly reflect each factors' alignment with its underlying behavioural characteristic. Thus, the dimension of "Attitude" was renamed "Taxpayer Behavioural Intent" (BI) reflecting taxpayers' intention towards compliance with tax laws and obligations. The taxpayer's intent towards tax compliance can further be described as the taxpayers' tax morale. Table 5.2 below, shows that five subgroups, from the nine subgroups of factors identified in Table 5.1, influences the TPB dimension of BI.

The TPB dimension of "Perceived Behavioural Control" was renamed "Constraints" (CO). Constraints refer to the influence exerted on the taxpayer over which s/he does not have any control. These constraints are related to the influence of time and the influence of financial constraints on taxpayer behaviour. Table 5.2 indicates that there are four subgroups of factors influencing taxpayer compliance that are related to CO.

The final dimension of TPB, “Subjective Norms”, was renamed “Societal Influence” (SI) to identify the social pressure exerted on taxpayers to conform to specific societal behaviours. These SIs’ reflect the influence of societal peer behaviour on the taxpayers’ perceptions of the fairness of the tax system and also their trust in the government. Table 5.2 indicates that there are three subcategories of factors influencing SI.

Table 5.2: - Subgroup and individual tax compliance factors according to TPB




Dimension	Subgroup	% of Votes	Number of individual factors/ votes	Positive	Negative	None
 CO	Tax Administration	26.60%	25	17	3	5
	Tax Policy	7.45%	7	3	4	
	Compliance costs	3.19%	3	1	2	
	Fiscal Administration	2.13%	2		2	
CO Total		39.36%	37	21	11	5
 SI	Tax Administration	24.47%	23	22		1
	Institutional governance	5.32%	5		5	
	Economy	2.13%	2		2	
SI Total		31.91%	30	22	7	1
 BI	Behaviour	12.77%	12	9	3	
	Business characteristics	7.45%	7	1	5	1
	Institutional governance	6.38%	6		6	
	Tax morale	1.06%	1	1		
	Tax Administration	1.06%	1	1		
BI Total		28.72%	27	12	14	1
Grand Total		100.00%	94	55	32	7

Table 5.2 above summarizes the results of the systematic analysis conducted and shows that, in total, 94 individual factors have been identified using the BI, CO, and SI approach to the theoretical conceptualization of the underlying rationale for the taxpayers’ compliance. Each factor represents one vote in the simple vote counting analysis conducted, thus suggesting a possible total of 94 votes.

The largest dimension, CO, identifies 39.36% votes or 37 individual factors that influence taxpayer compliance. The second-largest dimension of SI identifies 31.91% votes or 30 individual factors influencing the fairness and trust perceptions of the

taxpayer in the government. The smallest dimension, BI, identifies 28.72% votes or 27 individual factors relating to the influence of taxpayer morale on taxpayer compliance. However, it is noted that all three TPB dimensions have recorded influence by more than 25% of the individual factors, showing a significant influence on taxpayer compliance. The study, following the approach of Van Aert, Wicherts and Van Assen (2019: 4) and Lin and Chu (2018: 790), considered a 10% vote as being statistically significant because all primary studies identified through the PRISMA were included in this study. Following this approach, a vote count of between 7.5% to 10% is considered as being moderate influence with a vote count of less than 7.5% being considered as a low influence.

As discussed in Section 5.3.1, the MA is discussed at a subgroup level, whereas the systematic review is analyzed at an individual factor level. To ensure comparability between the MA and systematic review, the data in table 5.2 was re-arranged and presented in table 5.3 to reflect the individual factors/votes influencing taxpayer compliance at a subgroup level.

Table 5.3: - Individual votes according to the nine subgroup factors










Subgroup	Dimension	% of Votes	Number of individual factors/ votes	Positive	Negative	None
 Tax Administration	BI	1.06%	1	1		
	CO	26.60%	25	17	3	5
	SI	24.47%	23	22		1
Tax Administration Total		52.13%	49	40	3	6
 Behaviour	BI	12.77%	12	9	3	
Behaviour Total		12.77%	12	9	3	
 Institutional governance	BI	6.38%	6		6	
	SI	5.32%	5		5	
Institutional governance Total		11.70%	11		11	
 Business characteristics	BI	7.45%	7	1	5	1
Business characteristics Total		7.45%	7	1	5	1
 Tax Policy	CO	7.45%	7	3	4	
Tax Policy Total		7.45%	7	3	4	
 Compliance costs	CO	3.19%	3	1	2	
Compliance costs Total		3.19%	3	1	2	
 Economy	SI	2.13%	2		2	
Economy Total		2.13%	2		2	
 Fiscal Administration	CO	2.13%	2		2	
Fiscal Administration Total		2.13%	2		2	
 Tax morale	BI	1.06%	1	1		
Tax morale Total		1.06%	1	1		
Grand Total		100.00%	94	55	32	7

Table 5.3 shows the results of the systematic review at a subgroup level, as discussed in section 5.1 above. Table 5.3 indicates that for each subgroup, a behavioural dimension from TPB exerts an influence on an individual factor in the subgroup. Section 5.3.1 discussed the rationale of presentation, therefore in table 5.3, for all nine subgroups, there are 46 broad categories of factors, represented by 94 votes from the 45 primary studies. The dominant factor within each subgroup can therefore be identified from the percentage of individual factors/ votes in each subcategory. Additionally, the last three columns in table 5.3 reflect the type of influence, either positive, negative, or no influence that each factor has on taxpayer compliance behaviour.

Tax administration emerges as the dominant subgroup factor influencing taxpayer compliance, with 52.13% of all votes. Behaviour is the next largest factor with 12.77% of the votes followed by institutional governance gaining 11.70% of the votes. These subgroup factors thus exert a significant influence on taxpayer compliance. Business characteristics and tax policy obtained 7.45% each of the total votes indicating a moderate influence on taxpayer compliance and thus by extension, a moderate influence on the entrenched tax gaps.

The summarized results in table 5.3 are consistent with the results of the subgroup MA results in table 5.1 which indicated that the dominant subgroup factors are Tax administration (19 studies) and Behaviour (8 studies). However, there are differences between the results of the MA and the systematic review for non- dominant subgroup factors. The systematic review in table 5.3 ranks institutional governance higher than business characteristics and tax policy, whereas in Table 5.1, the MA ranks Institutional governance and tax policy equal at 6 studies each, whilst business characteristics are identified in only one study in the MA conducted. These differences arise due to coding of the individual factors and because of the systematic review being performed at an individual factor/ vote level. The differences, however, have a minimal influence on the dominant factors that emerge from both the MA and systematic review. Thus, the differences identified have minimal influence on taxpayer compliance and the entrenchment of the tax gap.

A discussion follows below on each of the subgroup factors and the related individual factors. The positive, negative or no influence vote that is allocated to a factor is discussed in terms of the finding in the primary study. The relevant primary study is included within brackets in the discussion that follows.

5.3.3 Tax administration

Section 2.8.4 indicated that tax administration refers to the way tax policy is implemented and managed by tax authorities (Stiglingh, *et al* 2021:1157). Table 5.3 indicates that taxpayer compliance is predominantly influenced by the constraints that the taxpayer experiences in the tax administration system (CO= 26.6% votes) and the effects of societal influence on the perceived fairness of the tax administration system (SI = 24.47% votes). The votes count in Table 5.3 shows that the dimension relating to taxpayer's behavioural intent had the smallest influence on the tax administration subgroup with a vote count of 1.06%, and therefore exerts a minimal influence on entrenching the tax gap. Each dimension within tax administration and the factors within each subgroup, that influence taxpayer behaviour is discussed below.

5.3.3.1 Constraints

Figure 5.3 below shows those factors, within the TPB dimension of CO, that have a positive, negative, and non-effect on tax administration. Factors that are identified in this subgroup arise due to the influence of constraints imposed on the taxpayer by the tax administration system.

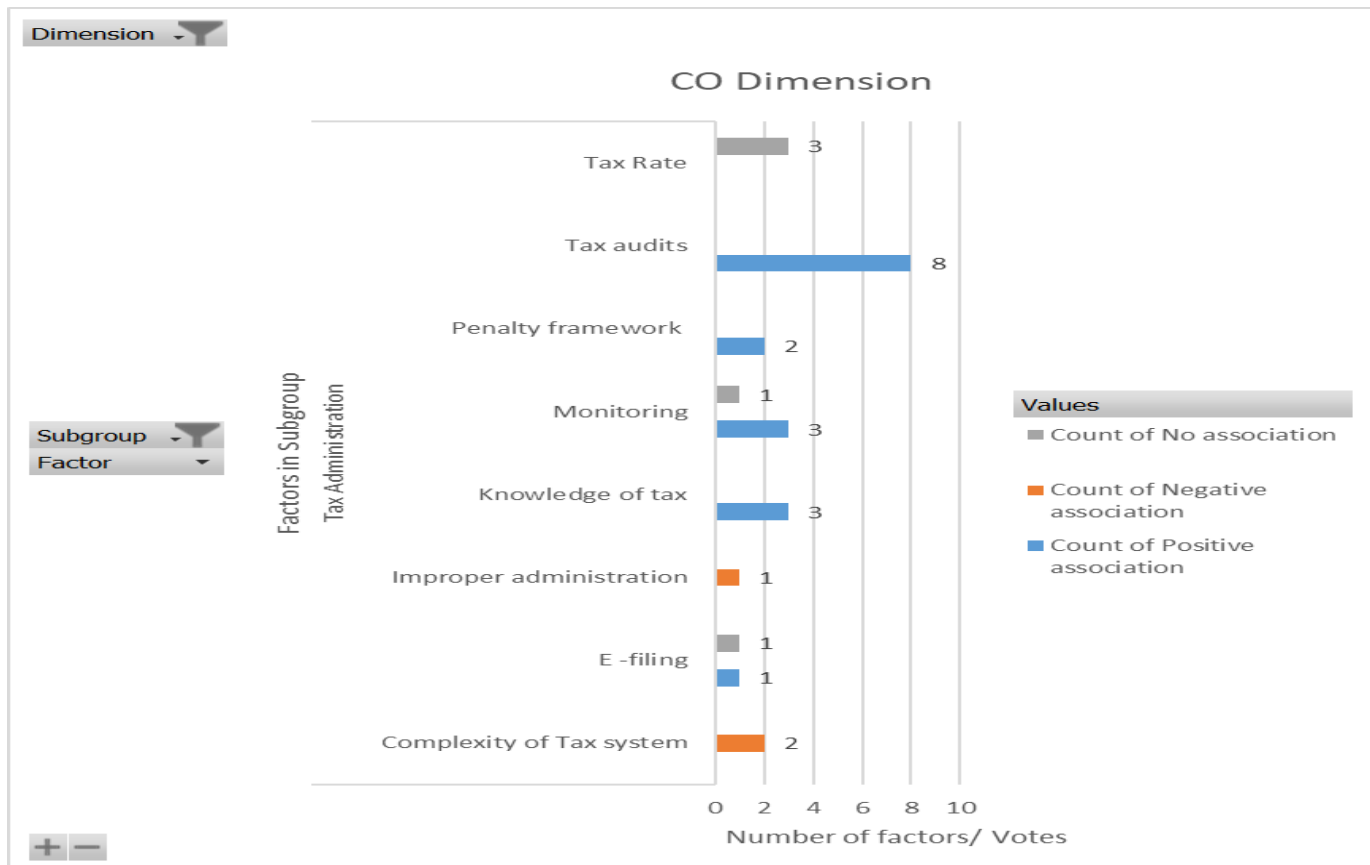


Figure 5.3 – Positive, negative, and non-effect of individual tax administration factors in the CO dimension of TPB

Figure 5.3 shows that seven categories of factors and 25 individual factors/votes influence taxpayer compliance within the TPB dimension of CO. Two factors influence tax compliance negatively, five factors influence tax compliance positively and three factors have no influence on taxpayer compliance. A negative influence indicates negative taxpayer compliance that contributes to the entrenchment of the tax gap. A positive influence indicates that taxpayers have a positive attitude towards tax compliance and thus influences a narrowing of the tax gap. Non-influence factors generally do not influence taxpayer compliance or the tax gap.

The five factors that were found to have had a positive influence on taxpayer behaviour include the administration of tax audits; penalty frameworks; taxpayer monitoring procedures; taxpayer knowledge of tax and e-Filing. Each of these factors is discussed below.

Administration of tax audits – Tax audits refer to tax enforcement methods where the tax authorities subject the tax affairs of a taxpayer to a detailed audit to confirm compliance with tax laws and prescripts (see Section 2.6.1). Allingham and Sandmo (1972: 324) confirm that tax audits influence taxpayer compliance. The vote counting exercise conducted found that the way the affairs of the taxpayers are audited positively influences taxpayer compliance. Eight votes identified three characteristics that influenced taxpayer compliance positively. Firstly, the probability of the taxpayer being audited, that is, where the taxpayer believed that there was a high probability of being audited, the taxpayer would comply with taxation obligations to avoid penalties or other sanctions being imposed (Nguyen, et al 2020: 65). Secondly, an increase in the frequency that an individual was subjected to an audit, that is the number of times that a taxpayer could be audited influenced the taxpayer because of the probability that tax audits were an ongoing enforcement process and not a once-off exercise. Thus, tax audits have a positive influence on taxpayer compliance and contribute to reducing the tax gap (Alm, Enami, and Mckee 2020: 147). Finally, the timing of feedback provided to the taxpayer after the conducting of a tax audit positively influenced taxpayer compliance. Delays in providing audit feedback resulted in greater compliance, as such delays created apprehension in that the taxpayer believed that his/her tax affairs are subject to a high degree of scrutiny and thus resulted in greater tax compliance (Kogler, Mittone and Kirchler 2016: 81). It can be concluded that within tax administration, the way tax audits are administered has a significant influence on tax administration - 32% or 8/25 votes, however, its overall influence on tax compliance is moderate with 8.5% or 8/94 votes.

Tax penalty frameworks refer to the enforcement methods implemented by the tax authorities to deter taxpayer non-compliance. Enforcement methods include specifying and applying the penalties and sanctions that are applicable for not complying with tax laws and obligations. The vote counting exercise resulted in three votes indicating that a tax penalty framework that prescribes the various penalties

imposed on taxpayers for non-compliance with taxation obligations positively influences taxpayer compliance. Taxpayers view penalties such as paying fines negatively and thus choose to comply with taxation obligations rather than incur such penalties (Hoa, Lien and Tuan 2019: 3; Terzic, Dzakula and Muminovic 2020: 33). Tax penalty frameworks have an overall low influence, on tax compliance, with 3.10% (3/94), and therefore could be regarded as being insignificant.

Taxpayer monitoring procedures are procedures such as tax inspections implemented by the tax authorities to monitor taxpayer compliance with taxation obligations, which results in positive taxpayer compliance. The vote counting exercise indicates that 3 of the 94 votes or 3.10% found that frequent, regular tax inspections created feelings of apprehension in the taxpayer. Feelings of apprehension motivated taxpayers to positively comply with taxation obligations (Gillitzer and Sinning 2020: 3). Tax monitoring procedures within tax administration has a low influence on tax compliance and is regarded as insignificant.

Knowledge of tax laws – refers to taxpayers possessing an understanding of tax laws and tax administrative processes, how to manage their tax affairs and the consequences of tax non-compliance (see. Section 2.8.2). Zandi, Aslam and Elwahj (2016: 192) argued that taxpayer non-compliance is attributable to low levels of taxpayer knowledge. Thus, knowledge of tax laws creates a positive taxpayer attitude towards compliance with tax laws and taxation obligations (Hoa, Lien and Tuan 2019: 7). Three of the 94 votes or 3.10% of votes indicate that taxpayer knowledge positively influences taxpayer compliance. Therefore, knowledge of tax laws has a low influence on tax compliance and is regarded as an insignificant factor.

e-Filing –e-Filing refers to the electronic online tax return filing system implemented by the tax authorities which taxpayers utilize to submit their tax returns (see Section 2.4.1). Taxpayers may be able to submit their tax returns either manually or electronically. The study found that e-Filing has an indirect positive impact on taxpayer compliance as it reduces the complexity and the costs of compliance associated with complying with tax laws (Kochanova, Hasnain and Larson 2020: 1). This finding is of

low significance as only one vote (1.06%) identified e-Filing as a factor that influences taxpayer compliance.

The two factors that negatively affect taxpayer compliance include the complexity of the tax administration system and improper tax administration practices. Each factor is discussed in greater detail below:

The complexity of the tax administration system – The simple vote-counting exercise resulted in two of the 94 votes (2.13%) relating to the subgroup category of tax administration, indicating that the complexity of the tax system adds to the taxpayer's feelings of ambivalence towards complying with tax laws and obligations. Complex tax systems raise negative emotions in taxpayers especially when the taxpayer finds the tax system to be complicated to understand. Consequently, complex tax systems hurt taxpayer compliance. The correlation between the complexity of the tax administration system and taxpayer compliance was emphasized by Musimenta (2020: 1) and Rashid (2020: 1). However, two votes suggest that this factor has a low influence on tax compliance and therefore does not significantly contribute to entrenching the tax gap.

Improper tax administration - tax administration systems that are wasteful, inefficient and do not address the needs of the taxpayer add to the feelings of distrust and detachment, contributing to tax evasive practices (Sharma and Singh 2018: 11). According to Kamasa, Adu and Oteng-Abayie (2020: 76) (see Section 2.8.4) poorly administered systems attract negative taxpayer perceptions of public trust in the government. One vote (1.06%) suggests that a poorly administered tax system arising from inefficient systems and poorly designed administrative procedures constrained the taxpayer from complying with his tax responsibilities (Rashid 2020: 14). It can therefore be concluded that improper tax administration has a low influence on taxpayer compliance and therefore a low influence on entrenching the tax gap

Three factors were found that did not affect taxpayer compliance. These three factors include tax rates, taxpayer monitoring procedures and e-Filing. Both taxpayer monitoring procedures and e-Filing were discussed, previously, as positive influences,

however, vote counting noted that these factors were also identified in other studies that produced results that were different from those mentioned above.

Tax rates - The vote counting exercise indicates that the tax rate or percentage at which a taxpayer's income was taxed did not significantly influence taxpayer compliance. Of the possible total of 94 votes, three votes (3.19%) regard the tax rate as a factor that influenced taxpayer compliance (Alshirah and Abdul-Jabbar 2020: 396). It can therefore be concluded that the rate at which taxpayers' incomes were taxed had a low influence on taxpayer compliance and by extension, a low influence on the tax gap.

Taxpayer monitoring procedures – The vote counting exercise found that one study (1.06%) suggested that there was no relation between monitoring and taxpayer compliance. However, as this was just one vote the conclusion may be made that the finding is insignificant (Masclet, Montmarquette and Viennot-Briot 2019: 22).

e-Filing – The vote counting exercise conducted indicated that one vote (1.06%) found that the availability of e-filing facilities had no impact on taxpayer compliance as taxpayers regarded e-Filing as an administrative tool that did not influence the taxpayers' overall attitude towards compliance with taxation obligations (Defitri and Fauziati 2018: 158). This finding could be regarded as being insignificant as it represents only one vote.

5.3.3.2 Societal influences

The tax administration subgroup within the SI dimension of TPB (see Figure 5.4) identified seven categories of factors and 23 individual factors/ votes, that influenced taxpayer compliance. Factors within this subgroup relate to the influence of peer behaviour on taxpayers' perceptions of trust and fairness in government. Taxpayers who perceive that the tax administration system is unfair tend to exhibit tax non-compliant behaviour.

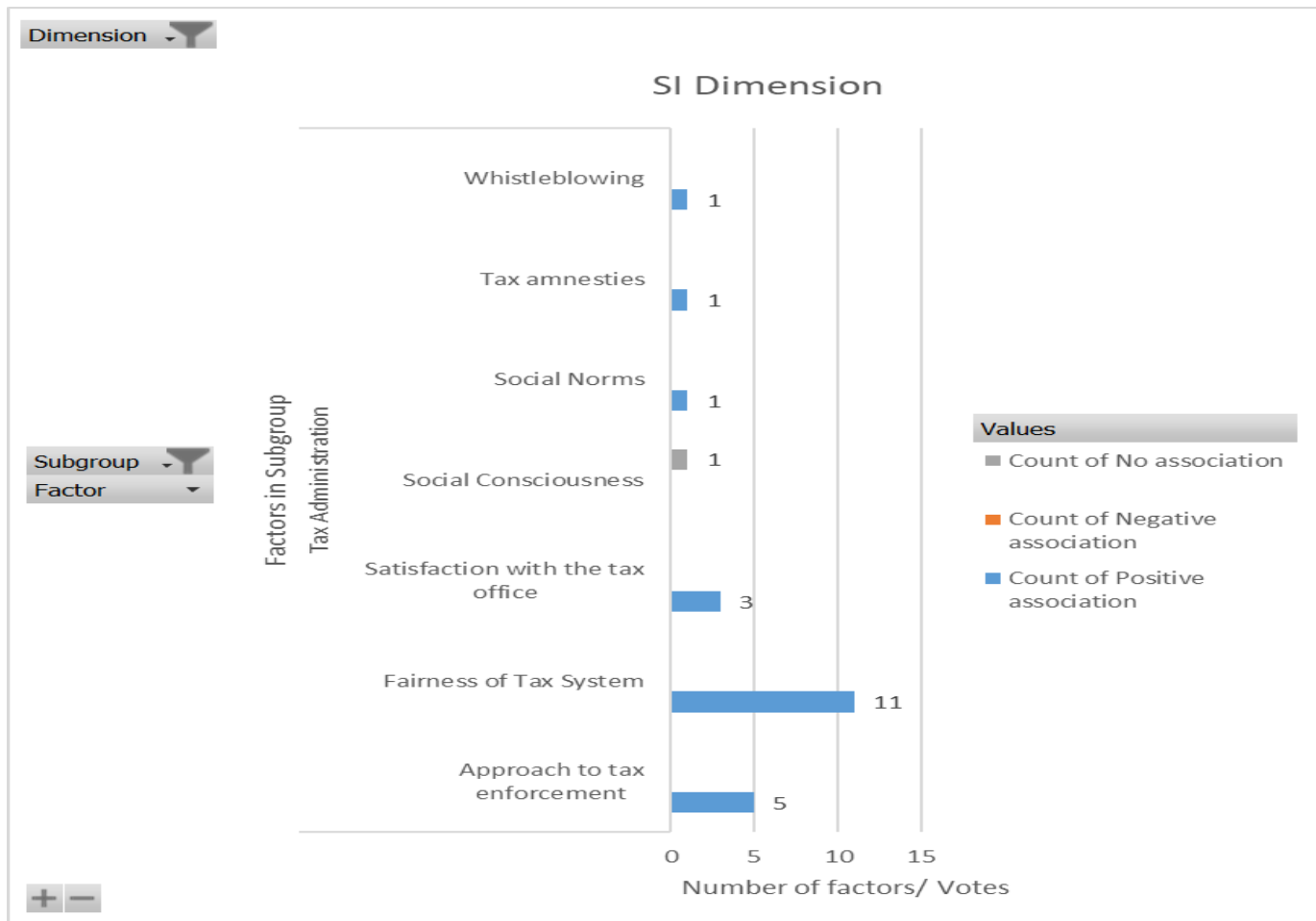


Figure 5.4 – Positive and non-effect individual tax administration factors in SI

Figure 5.4 shows that six SI factors influenced tax compliance positively whilst one factor exerted no influence on taxpayer compliance. The six factors that influenced taxpayer behaviour positively, includes the fairness of the tax system, approach to tax enforcement, social norms, whistleblowing, tax amnesties and satisfaction with the services rendered by the tax authorities. Social norms, whistleblowing and tax amnesties are discussed as tax enforcement strategies. These individual factors are discussed below:

Fairness of tax systems refer to the taxpayer's perception of the integrity and objectivity applied by tax authorities in administering tax policies (Guzel, Ozer and Ozcan 2019: 84). Farrar *et al*, (2020: 498) indicated that a fair tax system influences compliance positively (see Section 2.8.3). Three significant characteristics influence

the perception of taxpayers with administering tax policies. Taxpayers perceive that the tax administration system is fair where all taxpayers are treated equally in the application of tax rules, tax authorities implement measures and systems to resolve disputes raised by taxpayers, and the tax burden is distributed evenly and equitably amongst all taxpayers. The vote counting exercise indicates that the fairness of the tax systems is the most significant factor in the tax administration subgroup. The vote counting exercise conducted resulted in 11 of 94 (11.70%) votes to find that the fairness of tax systems positively influences taxpayer compliance. The fairness of the tax systems thus has a significant influence on taxpayer compliance and entrenching the tax gap (Damayanti, Nastiti and Supramono 2020: 10; Inasius 2019: 376; Van Dijke, Gobena and Verboon 2019: 1).

Approach to tax enforcement - The vote counting exercise indicates that tax authorities who followed a balanced approach to enforcement positively influenced taxpayers' perceptions of trust in tax authorities. A balanced enforcement approach required the tax system to not excessively regulate tax enforcement. The slippery slope framework indicates that taxpayers tend to trust tax authorities who favoured a less antagonistic approach to tax compliance (see Section 3.7). Consequently, taxpayers tended to trust tax authorities based on their interactions with tax authorities and viewed tax authorities who approached tax enforcement in a manner that places a high level of trust in the taxpayer to comply with tax obligations, positively. High trust by the tax authorities raises positive emotions in the taxpayer and reduces negative attitudes toward tax authorities. The reduced negative taxpayer attitude positively influences taxpayer compliance thus decreasing the tax gap (Olsen, Kasper, Enachescu, Benk *et al*, 2018: 43). This factor has a low influence on tax compliance with a 5.3% (5/94) vote count and could be regarded as a factor that does not significantly influence taxpayer compliance and the resulting tax gap.

Satisfaction with the services rendered by the tax authorities - Satisfaction with the tax authorities refers to the level of satisfaction experienced by taxpayers with the services rendered by the tax authorities. The vote counting exercise indicates that this factor has a low influence (three votes or 3.19%) on taxpayer compliance. The study also found that taxpayers' satisfaction with the services rendered by, and the efficiency of

operations of, the tax office positively influenced taxpayer compliance. A high satisfaction level with the tax office has a positive impact on taxpayers' perception of the efficiency of government, as taxpayers tend to place more trust in civil servants who are honest, well trained and competent. Taxpayers are therefore willing to comply with tax laws and their tax obligations as they believe that their tax contributions will be properly and competently administered (Lois *et al*, 2019: 277; Nikulin 2020: 111).

Tax enforcement strategies - The vote counting exercise found that three votes suggest a positive correlation between tax enforcement measures such as whistleblowing and tax amnesty programmes, and taxpayer compliance. Taxpayers responded positively to tax amnesty programs as it influenced their perceptions of fairness in the tax administration system and increased their trust perceptions in government. Taxpayers believed that tax authorities were acting in the best interest of society by not punishing taxpayers. Whistle-blowing programs had a positive impact on taxpayer compliance as taxpayers viewed whistleblowing as part of their civic duty to inform the authorities on the non-compliant tax activities of their peers (Alm, Bloomquist and Mckee 2017: 587; Masclet, Montmarquette and Viennot-Briot 2019: 22-25). The influence of the tax enforcement strategies with 3/94 votes, however, has a low influence on tax compliance and could be regarded as being insignificant in entrenching the tax gap.

Social consciousness - The vote counting exercise found that one factor, social consciousness, did not influence taxpayer compliance within the tax administration subgroup of the SI dimension of TPB. Social consciousness refers to society's perceptions of the way tax contributions are utilized by the government to finance foreign policy priorities. The vote counting exercise indicates that appeals to social consciousness regarding funding the greater well-being of society from tax contributions did not influence tax compliance as taxpayers appeared indifferent to issues affecting the broader society (Masclet, Montmarquette, and Viennot-Briot 2019: 22-25). It can be concluded that the influence of this factor is insignificant, with only one vote.

5.3.3.3 Behavioural influences

The tax administration subgroup within the BI dimension of TPB (see Figure 5.5) identified one individual factor/vote that influenced taxpayer compliance. Tax administration factors in this dimension arise because of the influences that the factor has on the taxpayer's perceptions of moralistic behaviour. Tax administration systems that encourage moralistic taxpayer behaviour influence taxpayers' intentions towards tax compliance positively.

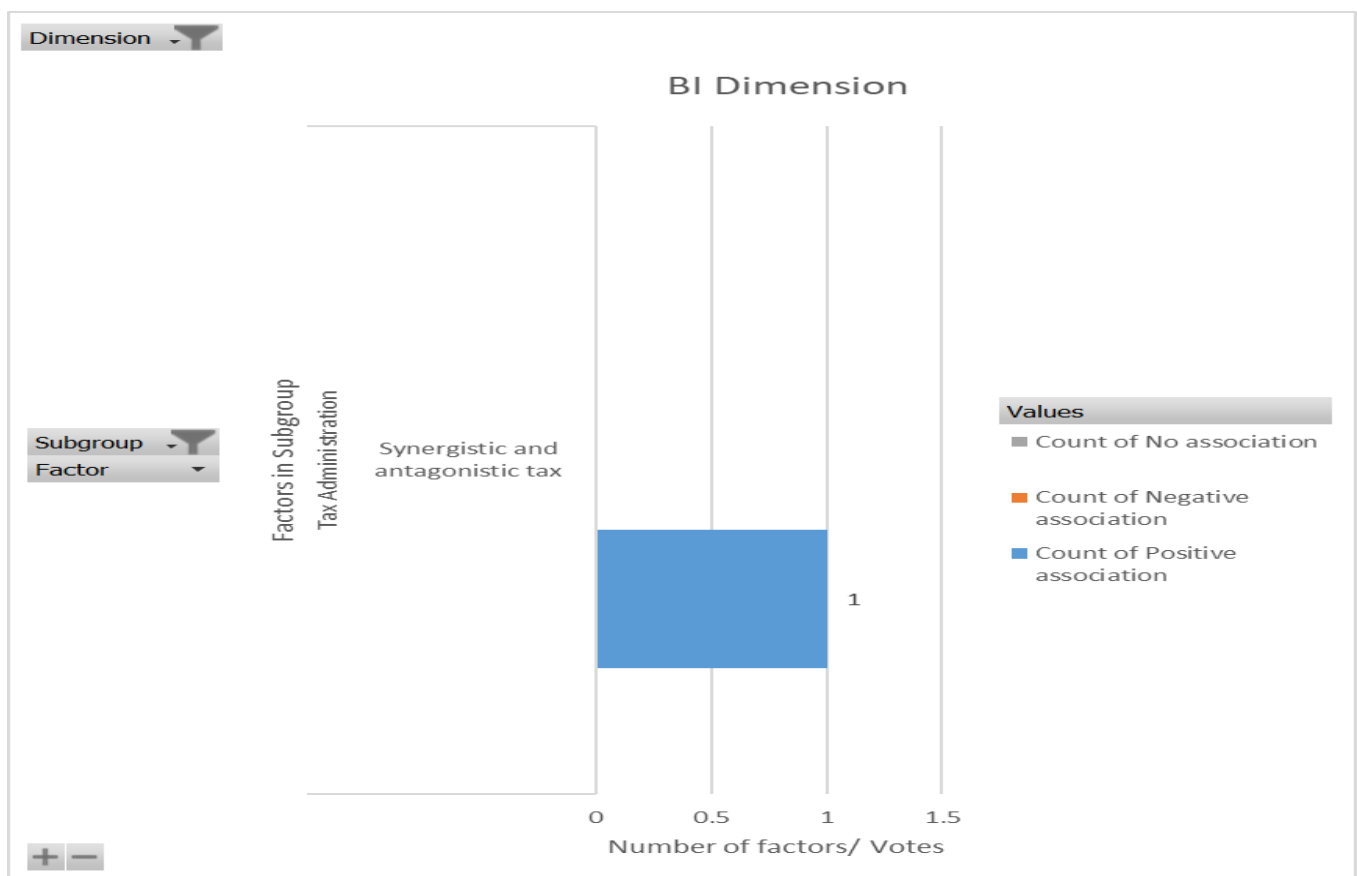


Figure 5.5 – Positive tax administration factor in BI dimension

Figure 5.5 indicates that tax authorities who foster a positive approach to tax administration inculcate positive taxpayer compliance. The vote counting exercise indicates that synergistic or antagonistic approaches to tax administration - the way taxpayers were treated by the tax authorities - had a positive influence on taxpayers' tax morale. The finding suggests that taxpayers who were treated with trust by tax authorities, rather than being treated antagonistically where tax authorities act as

police, created a positive synergy between the taxpayer and the tax authorities. Resultantly higher tax morale is created, resulting in a positive influence on taxpayer compliance which resulted in reducing the tax gap (Iqbal and Sholihin 2019:232). It can be concluded that the influence of this factor is insignificant, with only one vote.

The simple vote-counting exercise conducted found that tax administration was the most significant subgroup of factors that influences taxpayer behaviour with 52.13% or 49 of the 94 votes. The vote counting within this subgroup indicates that 42.55% (40/94) of the votes suggest that there is a significant positive correlation between tax administration and taxpayer compliance. The most significant factors in this subcategory, in order of dominance, are the fairness of the tax system; tax audits, the approach to tax enforcement; knowledge of tax laws and prescripts; monitoring and satisfaction with the tax authorities' office. It can therefore be concluded that the individual tax administration factors do contribute to the tax gap. Positive factors reduce the tax gap, whilst negative factors increase the tax gap. Tax authorities should take note of these factors to further entrench positive factors whilst implementing measures to reduce the negative and non-effect factors.

5.3.4 Behaviour

Behaviour is a subgroup factor that refers to the response of taxpayers to tax laws and prescripts. Taxpayers exhibit the following two tax compliance behaviours: (1) Compliance with the tax laws and prescripts (tax compliance); or (2) non-compliance with tax laws and prescripts (tax evasion) (see Section 2.6). Taxpayer behavioural tendencies are only influenced by the taxpayers BI towards tax compliance (see Section 5.3). Figure 5.6 below identifies 12 individual factors in the Behaviour subgroup factor of the BI dimension of TPB that influences taxpayers' compliance with tax prescripts and obligations either positively or negatively.

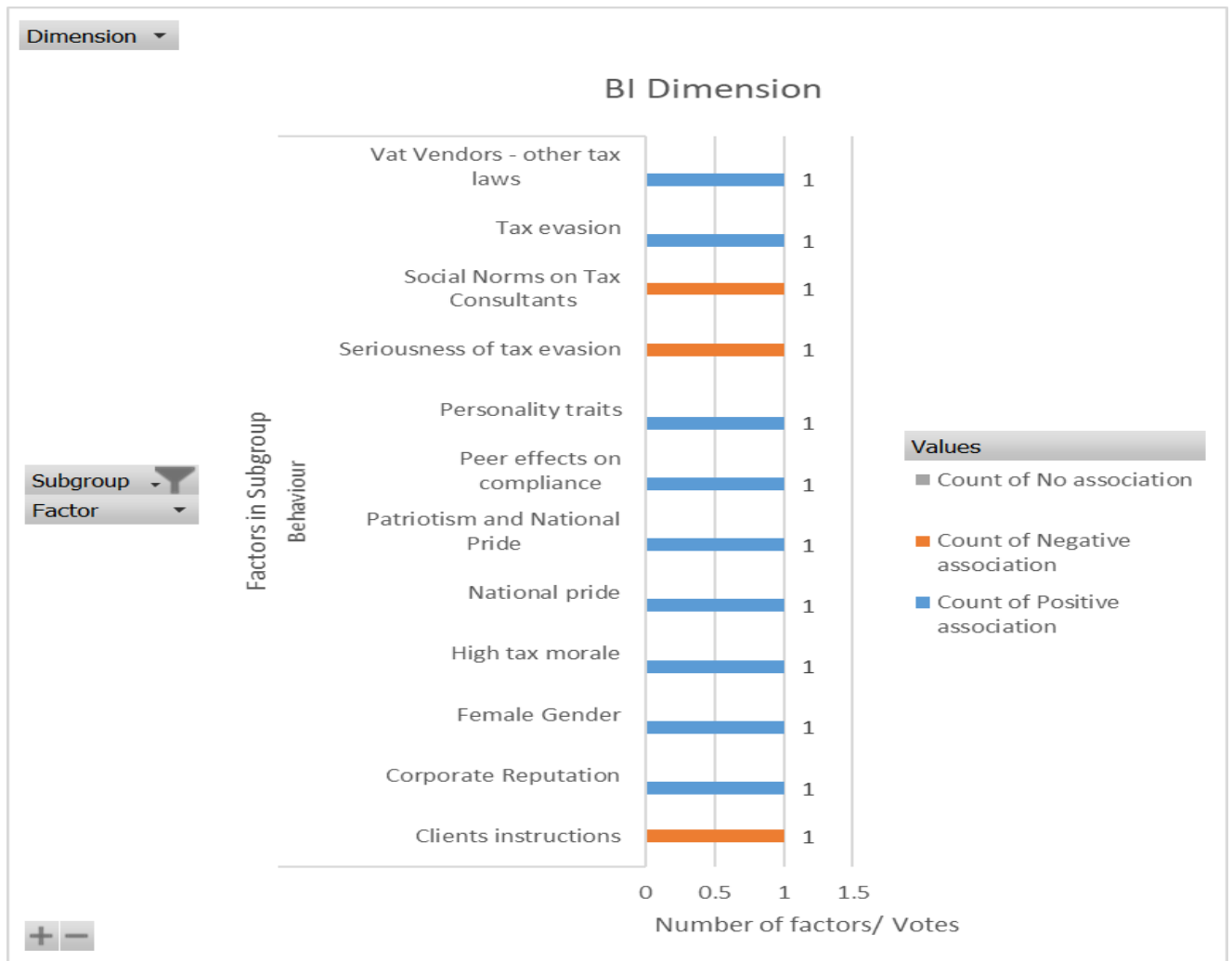


Figure 5.6 – Positive and negative factors influencing taxpayer behaviour in BI

Figure 5.6 shows that nine factors influence taxpayer compliance positively, and three individual factors that influence taxpayer compliance negatively. The vote counting indicates that each factor exerts a low influence on taxpayer compliance, with only a single vote per factor. It can therefore be concluded that there are no dominant factors within this subgroup that influences taxpayer compliance. Each factor, however, will be discussed in greater detail as this subgroup, represents 12.77% of all votes and therefore cumulatively provide useful insights into taxpayer compliance.

The nine individual factors that influence taxpayer compliance positively are: corporate reputation; gender; high tax morale; national pride; patriotism; peer influence; personality traits; taxpayer compliance with other tax laws; and taxpayer attitude towards tax evasion. These nine individual factors are discussed below.

Corporate reputation – The reputation of large companies was a factor that influenced taxpayer behaviour positively as large companies generally try to avoid any social stigma associated with reputational damage arising from trading and operating. The study found that those large companies have a reputational risk by not complying with tax prescripts and hence voluntarily comply with tax laws (Nguyen, *et al* 2020:67). However, the study found only one vote in favour of corporate reputation. It can therefore be concluded that corporate reputation has a low influence on taxpayer compliance and therefore a low influence on entrenching the tax gap.

Gender of taxpayers –The vote counting exercise conducted indicated that a single study found that gender was a factor that influenced taxpayer compliance. The primary study found that females tended to exhibit a greater moralistic stance regarding ethical behaviour, and consequently had a higher level of tax morale resulting in higher levels of tax compliance (Rashid 2020: 2). Gender, however, did not feature highly in the vote count, reflecting a single vote, hence it is unlikely that this factor influences taxpayer compliance significantly.

National pride and patriotism –National pride and patriotic behaviour refer to the levels of pride that taxpayers feel towards their country. The level of taxpayer's national pride influences taxpayer compliance. Two votes indicated that feelings of national pride and patriotism resulted in positive associations towards tax compliance. National pride influenced and reinforced the alliances of citizens and led to an attitude where citizens would want to be tax compliant to participate in the financing of public goods and services. Moreover, these citizens felt that the country was important to them, hence they should pay taxes when the need arose (Musimenta *et al*, 2019: 24). Patriotic taxpayers considered it their duty to pay taxes and believed that tax noncompliance activities were unpatriotic and not in the best interests of the country. Consequently, a patriotic attitude resulted in high taxpayer compliance and a reduced tax gap (Alshirah and Abdul- Jabbar 2020: 396). This factor has a low influence on tax compliance with only two votes.

Peer influence and high tax morale – Peer influence refers to the influence that other taxpayers within the taxpayer's social circles have on a taxpayer's attitude towards tax compliance. Two of the 94 votes suggest that high tax morale amongst the taxpayer's peers has a positive influence on taxpayer compliance, as taxpayers are more likely to be tax compliant when they believe that other taxpayers – their peers - within their social circle are also complying with their tax obligations (Alm, Bloomquist and McKee 2017: 589; Jolodar, Ahmadi and Imankhan 2019: 139). This factor could be regarded as insignificant with only two votes.

Personality traits of taxpayers – Personality traits refer specifically to a taxpayer's ethical foundations. One study found that the personality traits of a taxpayer positively influenced compliance with tax laws. Taxpayers who had strong ethical foundations relating to moral judgements, such as paying or not paying taxes, and taxpayers who displayed a strong propensity to feel guilt and shame when not complying with their tax obligations behaved positively and tended to exhibit greater compliance behaviour (Jacquement *et al*, 2019:1). The ethical foundations of taxpayers were identified in a single vote and could be regarded as being insignificant.

Compliance with other tax laws – Compliance requirements of other tax laws, such as a taxpayer complying with donation tax laws, influenced the tax morale of the taxpayer positively and resulted in increased compliance with all relevant tax laws. As an example, complying with VAT laws had a positive influence on compliance with PIT (Williams 2020: 43). This factor could be regarded as insignificant with only one vote.

Attitude towards tax evasion – Taxpayers could view tax evasion as acceptable behaviour (positive behavioural association) or as a behaviour that was unacceptable (negative behavioural association). One study had indicated that taxpayers who had a negative attitude towards tax evasion, that is, they had a positive attitude towards tax compliance, viewed tax evasion as not moralistic behaviour (Hamdah, Rahmadya and Nurlaela 2020: 300) This factor could be regarded as insignificant with only one vote, implying that it has a low influence on tax compliance.

The three individual factors that negatively affected taxpayer compliance in the subgroup factor of behaviour is the influence of client's instructions on tax consultants, the influence of social norms on tax consultants and taxpayer attitude towards tax evasion. The influence of client's instructions on tax consultants and the influence of social norms on tax consultants are discussed under the factor of behaviour of tax consultants.

The behaviour of tax consultants – Tax consultants are those persons who render tax compliance advisory services to clients. Clients instruct tax consultants to arrange tax matters such that the least amount of taxes become due to the tax authorities. These tax consultants are therefore subjected to the influences of the social norm expectation that a tax consultant must reduce the tax obligations for their clients. Resultantly, the client's instructions and tax consultant's social norms had a negative influence on taxpayer compliance (Misra, Sugiri, Suwardi and Nahartyo 2020: 135). The vote counting exercise found that two (2) of the 94 votes (2.13%) suggest that the client's instructions to tax consultants negatively influence the behaviour of tax consultants. The low percentage suggests that the compliance behaviour of tax consultants has a minimal influence on entrenching the tax gap.

The attitude of taxpayers towards tax evasion – The vote counting exercise found that 1 of the 94 votes suggested that taxpayers who viewed tax evasion as being a less serious crime when compared with other crimes such as buying stolen goods; accepting bribes; accepting benefits not due or avoiding paying the fare on public transport. The perception of being the lesser crime has had low tax morale as taxpayers viewed tax evasion as not being illegal (James, *et al* 2019: 563). The low vote of 1.06%, however, indicates an insignificant correlation between taxpayer attitude to tax evasion and taxpayer compliance, thus a minimal influence on the tax gap.

Although the vote count found no single factor that has had a significant influence on taxpayer behaviour, it was noted that there were 12 individual votes regarding taxpayer behaviour and that these votes only related to the BI dimension of TPB. The

cumulative influence of this subcategory factor on taxpayer compliance and the tax gap may therefore be significant.

5.3.5 Institutional Governance

Institutional governance (IG) refers to the way the various organs of the government manage the laws and the tax resources of a country (Horodnic 2018: 870). Table 5.3 indicates that IG is influenced by two dimensions of TP. These two dimensions are BI and SI and are discussed below.

5.3.5.1 Behavioural intent

The way governments manage the various organs of state influences the behavioural intent of the taxpayer towards tax compliance. Torgler and Schneider (2009: 6) indicate that taxpayers respond positively towards tax compliance when their intrinsic motivation towards tax compliance is high (See Section 2.8.1). Figure 5.7 indicates that five categories and six individual factors influence taxpayers' intrinsic motivation towards tax compliance.

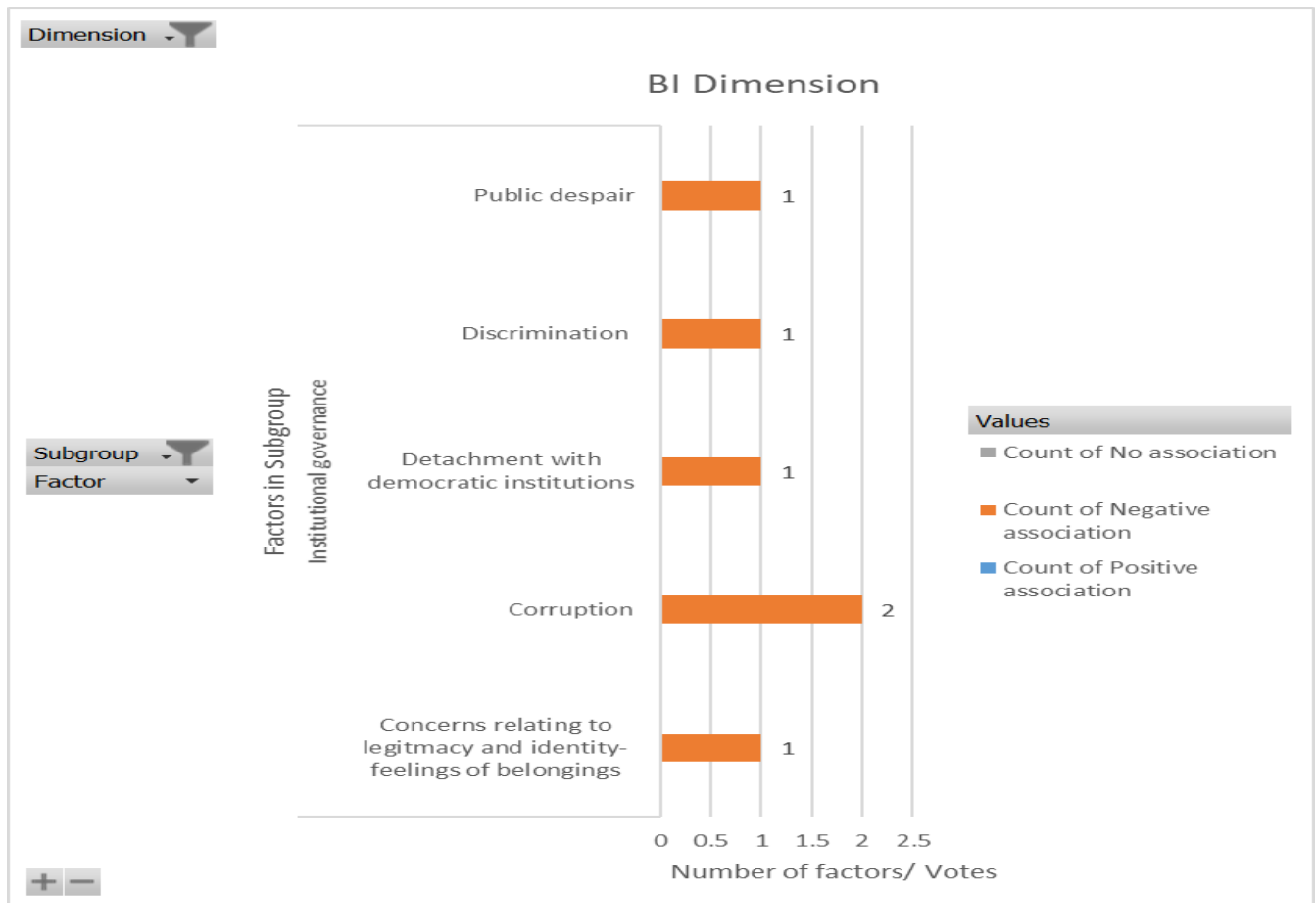


Figure 5.7 – Negative factors influencing IG factors in BI dimension of TPB

Figure 5.7 indicates the four factors of BI that relate to taxpayers' feelings regarding their sense of belonging in a country, feelings of discrimination, public despair and not being part of the country's democratic institutions (discussed collectively under taxpayer concerns). The final factor that influences taxpayer BI relates to the taxpayers' perceptions of governmental corruption.

Taxpayer concerns – Vote counting indicate that there are four fundamental concerns of the taxpayer that influences IG. These concerns relate firstly to the taxpayers' feeling of belonging in a country. Secondly, feelings of discrimination. Thirdly, the feelings experienced by the taxpayer associated with not being part of the countries democratic intuitions (detachment) and finally, feelings of discrimination experienced by the taxpayer. Collectively these concerns represent 4 of the 94 votes. Taxpayer

feelings relating to a sense of belonging or participation in the country, discrimination, detachment with the government and public despair influenced tax morale negatively. These feelings lead to a decline in the level of taxpayer satisfaction with the way the government manages tax revenues and contributed to an overall sense of despair as taxpayers believe that the government institutions are detached from their citizens (Sharma and Singh 2018: 5). Additionally, taxpayers' perceptions relating to discrimination entrench these feelings of detachment, as taxpayers do not feel that they belong in a country. These perceptions, therefore, result in negative feelings of trust towards the government thus prompting tax evasive behaviour. The consequence of such taxpayer concerns includes the exiting of taxpayers from the formal economy by seeking respite in the shadow economy. The consequence of such taxpayer behaviour includes the emergence of negative economic conditions such as high inflation and inadequate public services (Sharma and Singh 2018: 11). It is unlikely that this factor influences taxpayer compliance significantly as it represents only 4.2% of the votes and could be regarded as being of low significance.

Corruption – Corruption refers to taxpayer perceptions of whether the government is viewed as being an institution that is beset by corrupt practices. Vote counting (2/94 votes) indicated that corrupt activities by those individuals who are empowered with governance obligations, for example, government officials, bureaucrats and politicians have a negative influence on taxpayer compliance, as taxpayers develop negative trust emotions towards the government which results in low tax morale (Bertinelli, Bourgain and Leon 2020: 4). The influence of corruption has a low influence on taxpayer motivations and unlikely influences taxpayer compliance, individually.

5.3.5.2 Societal Influence on public accountability in institutional governance

Societal influence relates to the effects of peer influence relating to the fairness and trust perceptions of taxpayers towards the government. Figure 5.8 indicates that one category of factors and 5 individual factors related to government accountability influences taxpayer behaviour.

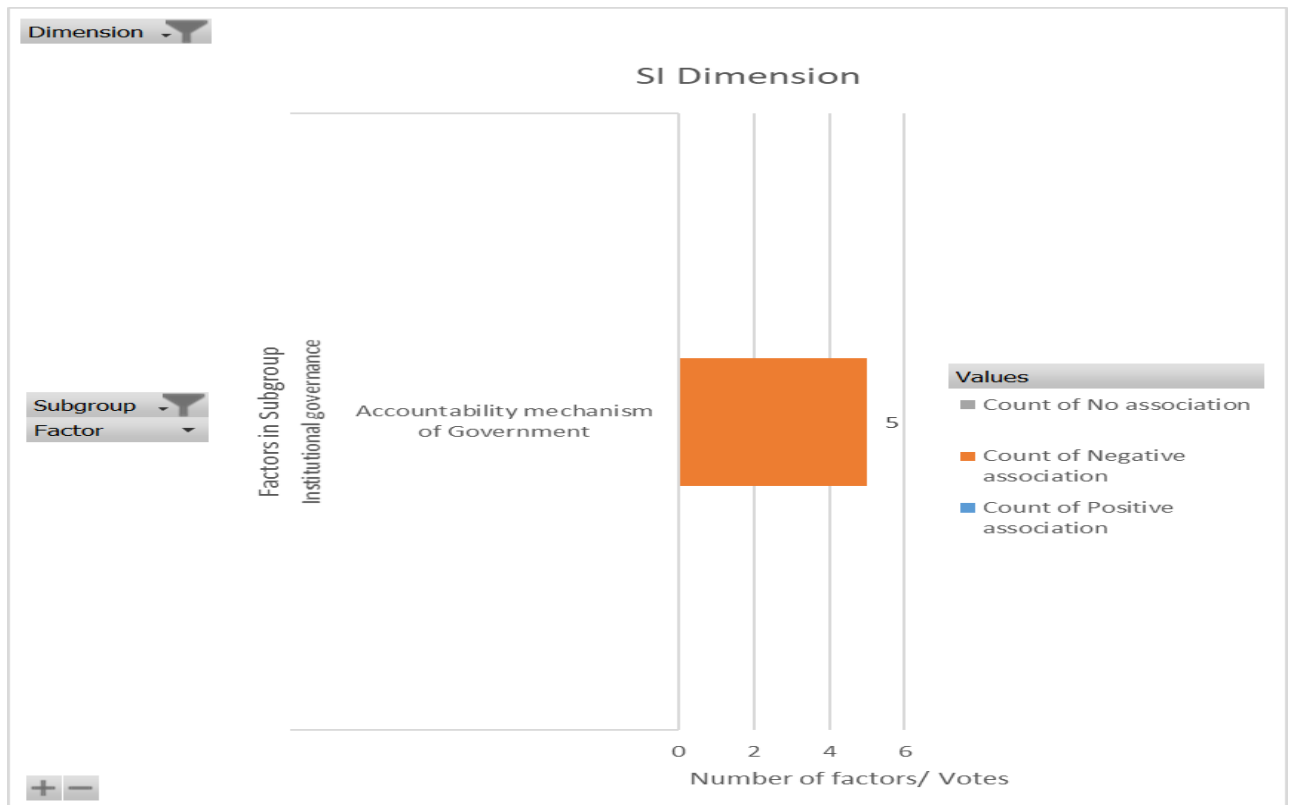


Figure 5.8 – Negative factor influencing IG, in SI dimension of TPB

Five votes indicate that poor accountability mechanisms of public institutions have a negative influence on taxpayer trust in government. Accountability mechanisms refer to government policies and other practices that are implemented by the government to account to the public on government operations and performance. Accountability mechanisms also confirm that systems are in place to sanction those officials who are not acting by their delegated authority or the requirements of the law (Sobhkhiz *et al*, 2020: 16). Abelin (2012: 14) and Curi (2019: 61) indicate that poor accountability by the government has a negative influence on taxpayer compliance as taxpayers perceive governments as being untrustworthy especially when there is a lack of political and social accountability (see Section 2.6.3). Taxpayers trust in government arise from their legitimate expectations of government transparency and accountability in government performance and also in addressing matters that are concerning to taxpayers such as corruption and rampant public spending (Guzel, Ozer and Ozcan 2019: 84; Inasius 2019: 375; and Sobhkhiz *et al*, 2020: 167).

The vote counting exercise conducted found that 11 of 94 (11.70%) votes suggested a significant negative correlation between Behaviour factors and taxpayer compliance. These results were influenced primarily by the BI (six votes) and SI (five votes) dimensions of TPB. Consequently, individual behavioural factors influence the morale of taxpayers negatively which has a corresponding negative influence on taxpayer compliance. Poor government accountability mechanisms influence public trust in government negatively which has a related influence on taxpayer compliance and the tax gap.

5.3.6 Business characteristics

The business characteristics subcategory of factors refers to those factors that relate to the ownership structure, size and the sector in which a business operates. These characteristics were found to influence the behavioural intent that businesses owners developed towards tax compliance. Figure 5.9 indicates that there are six categories of factors and seven individual factors related to the characteristics of a business that have either a positive, negative or no influence on the BI of a taxpayer.

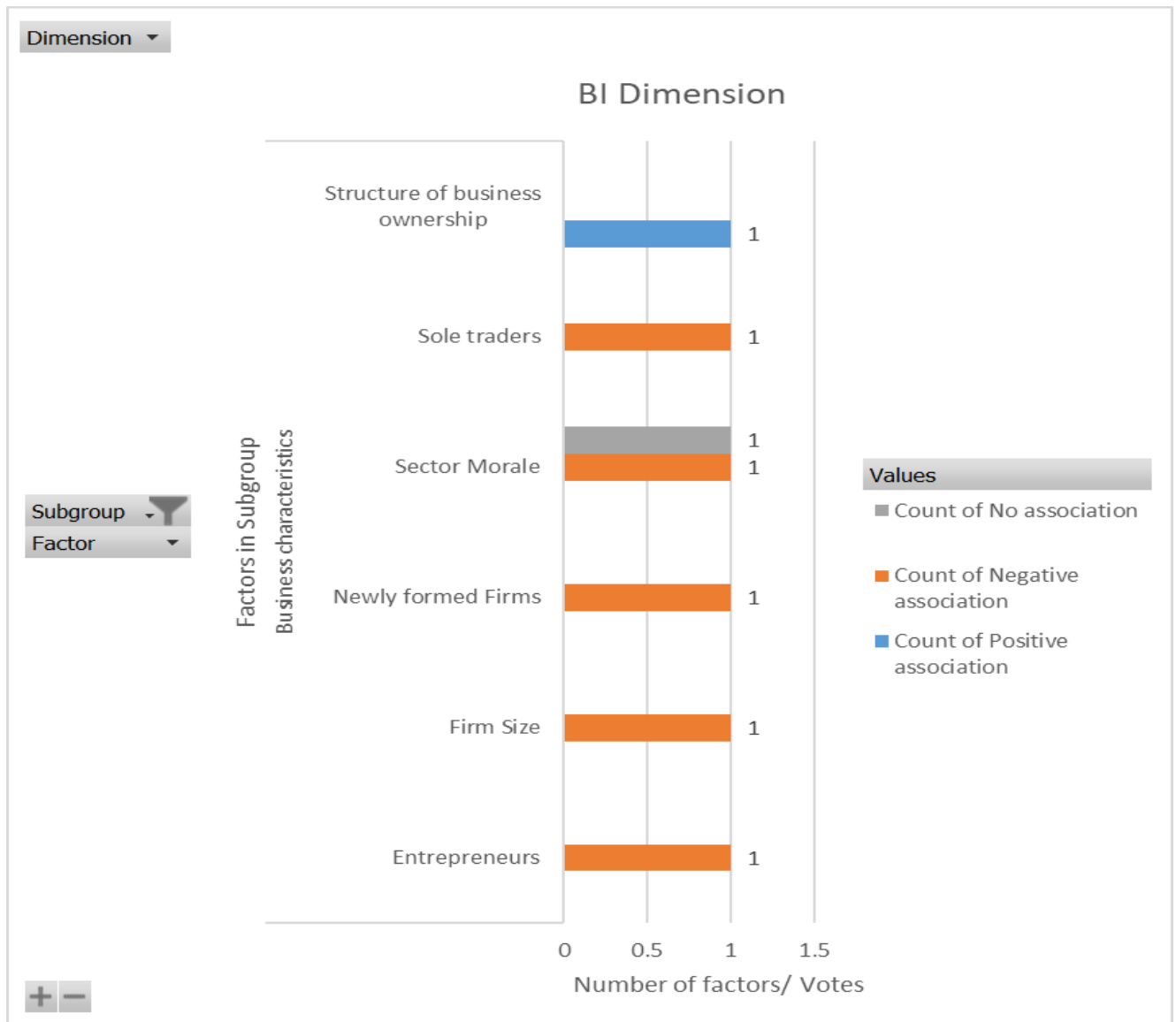


Figure 5.9 – Negative, positive and non-influence factors relating to business characteristics in BI

Figure 5.9 indicates that five individual factors exert a negative influence on taxpayer compliance, one factor has a positive influence, and one factor does not influence taxpayer compliance. The five factors that influenced taxpayer behavioural intent negatively are: entrepreneurs; sole traders; newly formed firms; firm size and sector morale.

Entrepreneurs, sole traders, newly formed firms, and firm size: The tax morale of entrepreneurial businesses that were newly formed, or operated as sole traders, were

identified as being low with a vote count of four out of 94 votes (4.26%). The study found that entrepreneurs who employed between one and nine employees had low tax morale, as they believed that there were limited economic initiatives implemented by the government to support small entrepreneurs, sole traders, and newly formed small businesses. Consequently, the low tax morale exhibited by these businesses negatively influenced taxpayer compliance (Nikulin 2020: 119; Williams 2020: 33). The influence of these factors is low, and it is unlikely that these factors contribute significantly to taxpayer noncompliance and to entrenching the tax gap.

Sector morale – Sector morale refers to the perceptions of tax morale of businesses in the various business sectors such as retail, financial and manufacturing. One vote indicated that business sectors that were reliant on government subsidies/ support, such as the manufacturing sector, tended to have low tax morale as these sectors believed that government did not support their sectors adequately (Williams 2020: 43). Sector morale has a low influence on taxpayer behavioural intent and is unlikely to influence tax compliance and the tax gap.

One vote indicated that factors relating to the ownership structure of a business influenced tax compliance. The ownership structure of a business had a positive influence on tax compliance.

Business ownership – Businesses that are run as corporate entities may be either publicly or privately owned. One study found that the ownership structure of the business was a factor that determined the behavioural intent of the taxpayer. Businesses that are government-owned public companies were influenced by the societal influence of public pressure relating to accountability and had a positive behavioral response to taxpayer compliance. The study, however, did not investigate the influence of the ownership structure of private companies (Nguyen *et al*, 2020: 65). This study found, however, that the structure of ownership has a low influence on taxpayer compliance. Finally, one study indicated that the business sectors in which a taxpayer operates have no impact on tax morale. This study indicated that there was no association between the intent of the taxpayer to either evade or comply with tax obligations and the business sector in which a taxpayer operates (Williams 2020: 43).

As this constitutes a single vote it can be concluded that this factor has a low influence on tax compliance and the tax gap.

5.3.7 Compliance costs

Tax compliances costs are the costs incurred by the taxpayer to comply with tax obligations to the state. According to Stark and Smulders (2019: 802), these costs include, *inter alia*, the costs incurred on consultants' services to assist with the completion of tax returns, the costs of tax accountants, and the costs incurred on other related experts (see Section 2.84). Figure 5.10 below indicates that three votes identified that compliance costs influenced taxpayer compliance.

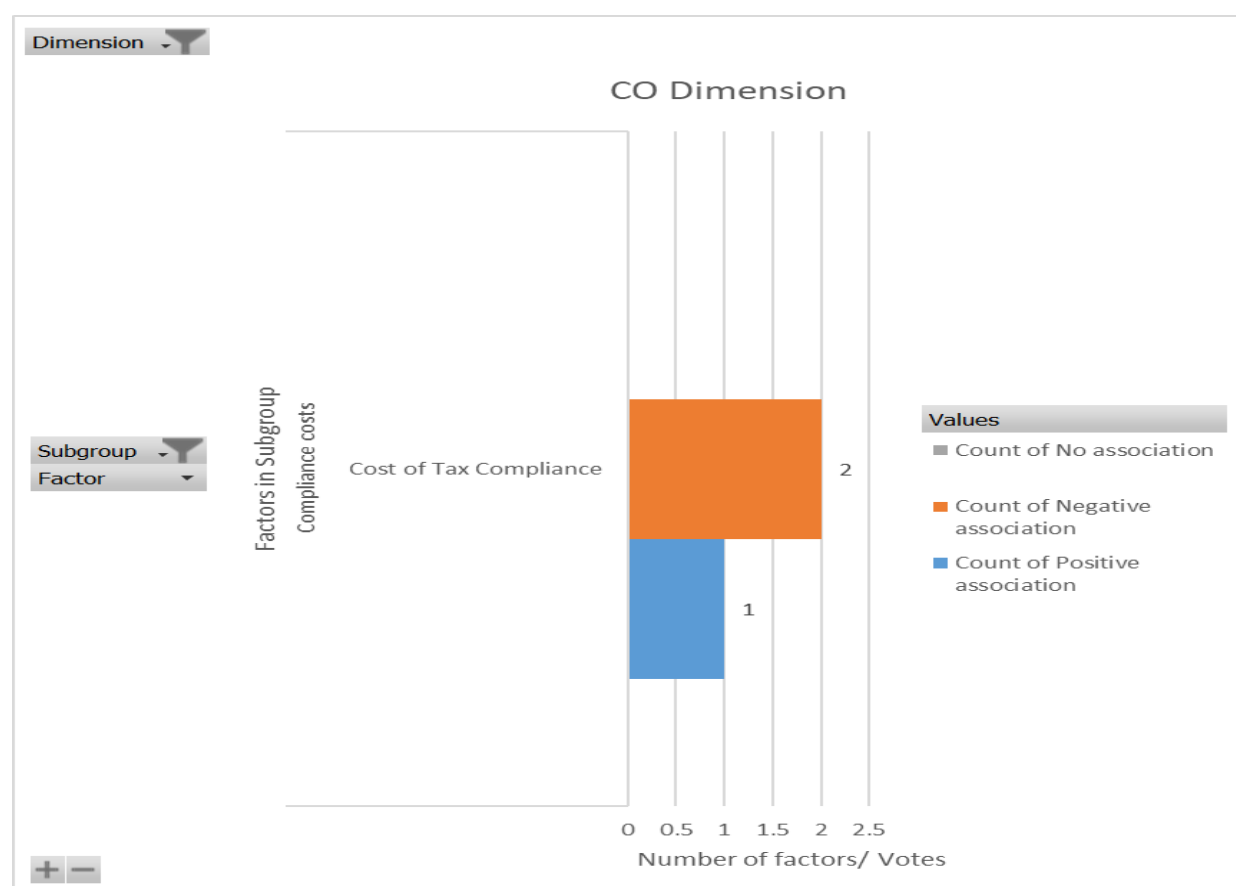


Figure 5.10 – Negative and positive votes influencing compliance cost in CO

The study found, as shown in Figure 5.10, that compliance costs negatively influence taxpayer compliance. Two of the total of 94 votes indicated that compliance costs exert a negative influence on taxpayer's compliance behaviour, and one vote indicated that

compliance costs have a positive influence on taxpayer compliance behaviour. The two votes that relate to the negative influence are discussed first.

The study found that compliance costs are a constraint that has a negative influence on taxpayer compliance behaviour, especially when the taxpayer incurs costs that are non-tax deductible. Such costs include the costs of legal experts incurred to defend a tax position. Taxpayers tend to inculcate negative emotions because of the additional cost burden incurred by the taxpayer resulting from obligations to comply with tax prescripts (Kotnik, Klun and Slabe-Erke 2020: 11). Compliance costs have a low influence on tax compliance and are unlikely to influence the tax gap.

However, one vote suggests that costs of compliance include hidden costs such as psychological costs and that these costs have a positive impact on tax compliance as people generally pay experts to deal with the stress of their compliance obligations (Faridy *et al*, 2016). These psychological influences on tax compliance appear negligible and can be regarded as having a low influence on taxpayer compliance.

5.3.8 Tax policy

Tax policy refers to the formalised framework that governments develop under the country's prevailing laws that enable the levying and administration of taxes (Stiglingh *et al*, 2021: 1). Figure 5.11 shows that there are five categories of factors and seven individual tax policy-related factors that influence taxpayer compliance. All of these factors are influenced by the CO dimension and imply therefore that these tax policy factors arise from constraints imposed on the taxpayer because of policy design.

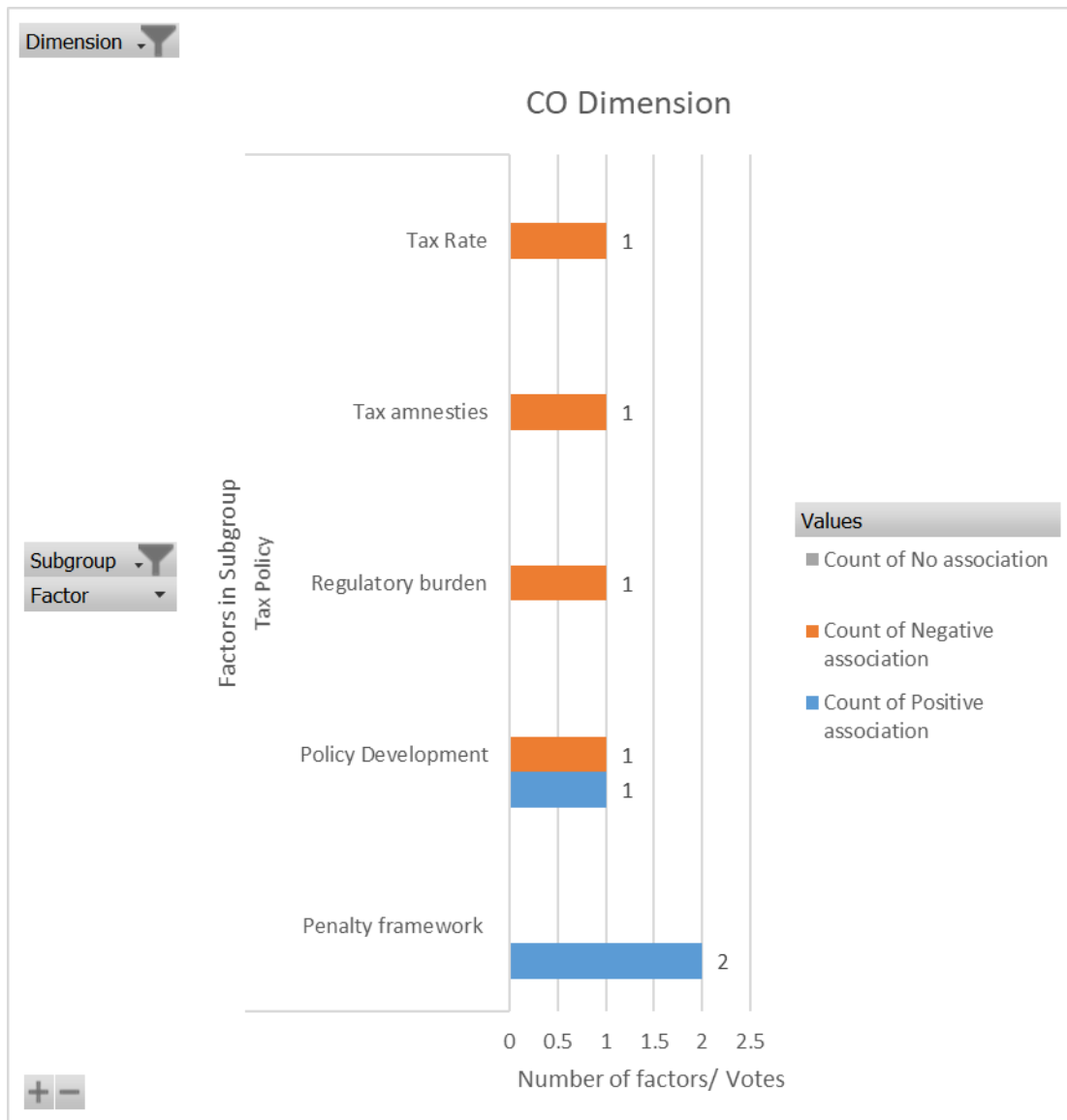


Figure 5.11 – Negative and positive votes influencing tax policy in CO

Figure 5.11 shows that two votes were identified that indicated that the constraints imposed by tax policy had a positive influence on taxpayer compliance. Four votes were identified that indicated that the constraints associated with taxpayers influenced taxpayer compliance behaviour negatively.

The two votes that indicated that tax policy had a positive influence on taxpayer compliance included the taxpayer's perception regarding policy development and the penalty frameworks implemented by the tax authorities. These factors are discussed below:

Policy development – Policy development refers to the overall design of tax policy. This factor indicates that one vote found a positive influence on tax compliance. Taxpayers perceived that a tax policy system that was well designed, easy-to-understand, and unambiguous had a positive influence on taxpayer compliance (Frecknall – Hughes *et al*, 2017: 741). The one vote, however, indicates that the influence of policy development has a low influence on taxpayer compliance.

Penalty frameworks - Tax penalty frameworks were discussed and defined under tax administration (see Section 5.3.1.1). From a policy point of view, one vote indicated that a penalty framework that prescribed sufficiently high penalty levels and includes criminal measures discourage non-compliance and increases taxpayer compliance (Terzic, Dzakula and Muminovic 2020: 33). The low vote count however indicates that penalty frameworks have a low influence on taxpayer compliance and on entrenching the tax gap.

Four votes identified that policy development, tax rate, tax amnesties, and high regulatory burden influence taxpayer behaviour negatively. These factors are discussed below:

Policy development - Tax policy that did not take into consideration taxpayers' expectations regarding their treatment by tax authorities influenced taxpayer behaviour negatively. Taxpayers have legitimate expectations regarding tax systems (see Section 2.8.1) and perceive that tax policy design should include legislation to preserve taxpayers' rights. Taxpayers expect to be treated with respect, and also expect that appropriate communication channels should exist to enable them to address policy issues (Sobhkhiz *et al*, 2020:182;). Taxpayer expectations regarding policy design to accommodate taxpayer expectations reflects only a single vote, indicating that this factor has a low influence on taxpayer compliance and the entrenchment of the tax gap.

Tax rate – Tax rates were discussed in section 5.3.1.1. The rate at which taxpayers have taxed influences taxpayer compliance negatively. One vote found that tax policy which was poorly designed resulting in high tax burdens on citizens influenced taxpayers' perceptions towards compliance negatively (Frecknall–Hughes *et al*, 2017:

741). The ability-to-pay theory, discussed in section 3.2.1, suggests that tax rates should distribute the tax burden equitably amongst taxpayers. The low incidence of this factor in primary studies indicates a low influence on taxpayer compliance.

Regulatory burden - The study found that a tax system that imposes high tax burdens on a taxpayer would increase tax evasive practices. Taxpayers do not perceive tax evasion as being a social evil because of the sense of distrust and detachment to democratic institutions (see Section 2.6.3) (Sharma and Singh 2018: 10). However, the vote-counting exercise shows a low influence of one vote on taxpayer compliance.

Tax amnesties – Tax amnesties refer to the concessions made by the tax authorities in respect of fines or penalties imposed for non-compliance to tax laws and obligations. Tax amnesties may hurt taxpayer compliance as noncompliant taxpayers will continue to evade taxes, in anticipation of future tax amnesty programs (Junpath, Kharwa and Stainbank 2016: 97). Vote counting reflects a low influence of one vote related to tax amnesty policies on taxpayer compliance.

5.3.9 Fiscal Administration

The fiscal administration subgroup relates to the influence of government economic policies, specifically the regulation of trade and industry, on taxpayer compliance. (Nikulin 2020: 111). Figure 5.12 below indicates that, within the CO dimension of TPB, there are two factors related to fiscal administration that negatively influences taxpayer compliance.

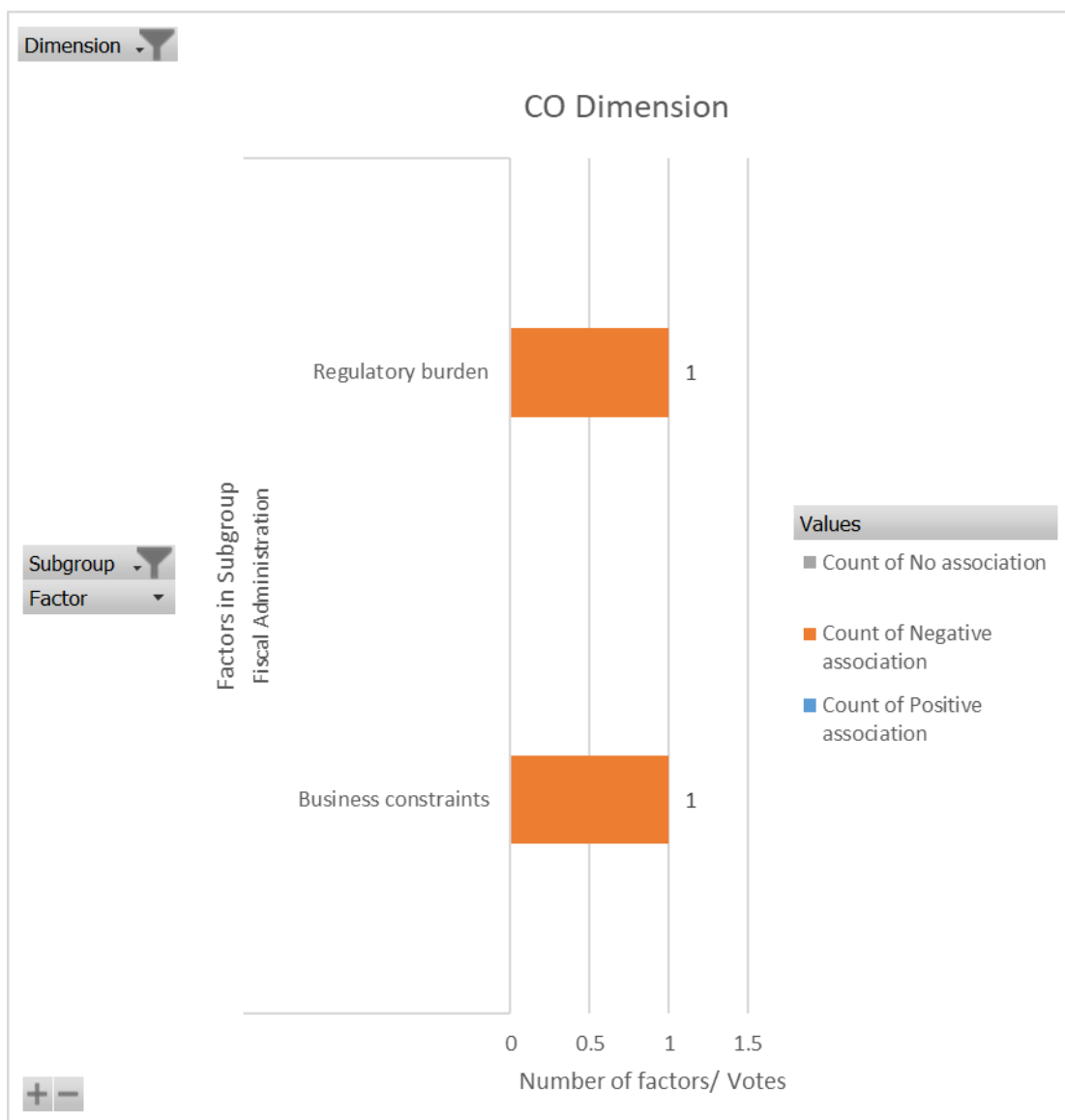


Figure 5.12 – Negative factors influencing fiscal administration in CO

The two factors that impose constraints on tax compliant behaviour include business regulation constraints and an excessive regulatory burden on businesses. Both factors are discussed below:

Regulatory constraints imposed on businesses – Business owners are required to comply with fiscal administration requirements such as obtaining trading and/ or business licenses to legally operate their businesses. These requirements place constraints on the taxpayer especially when the related administration systems are poorly implemented and managed, which result in excessive time delays and onerous compliance requirements (Kamasa, Adu and Oteng-Abayie 2019: 136; Nikulin 2020:

111). Two votes indicate that the regulatory constraints imposed on business have a negative influence on an organisation's decision to practise tax evasion (Kamasa, Adu and Oteng-Abayie 2019: 136; Nikulin 2020: 111). Taxpayers find it easier to trade in the shadow economy rather than operate in the legal economy because the legal economy requires additional cost, time and effort in complying with trade regulations (Kamasa, Adu and Oteng-Abayie 2019: 136; Nikulin 2020: 111). It can be concluded that this factor has a low influence on tax compliance and the tax gaps.

5.3.10 Economy

The economy subgroup factor in this study relates to the taxpayer perception of the influence of government spending on public goods and services. Figure 5.13 shows that taxpayer perception relating to government spending on public goods and services negatively influences taxpayer compliance. The vote counting exercise conducted indicates that these perceptions are influenced only by the SI dimension of TPB only.

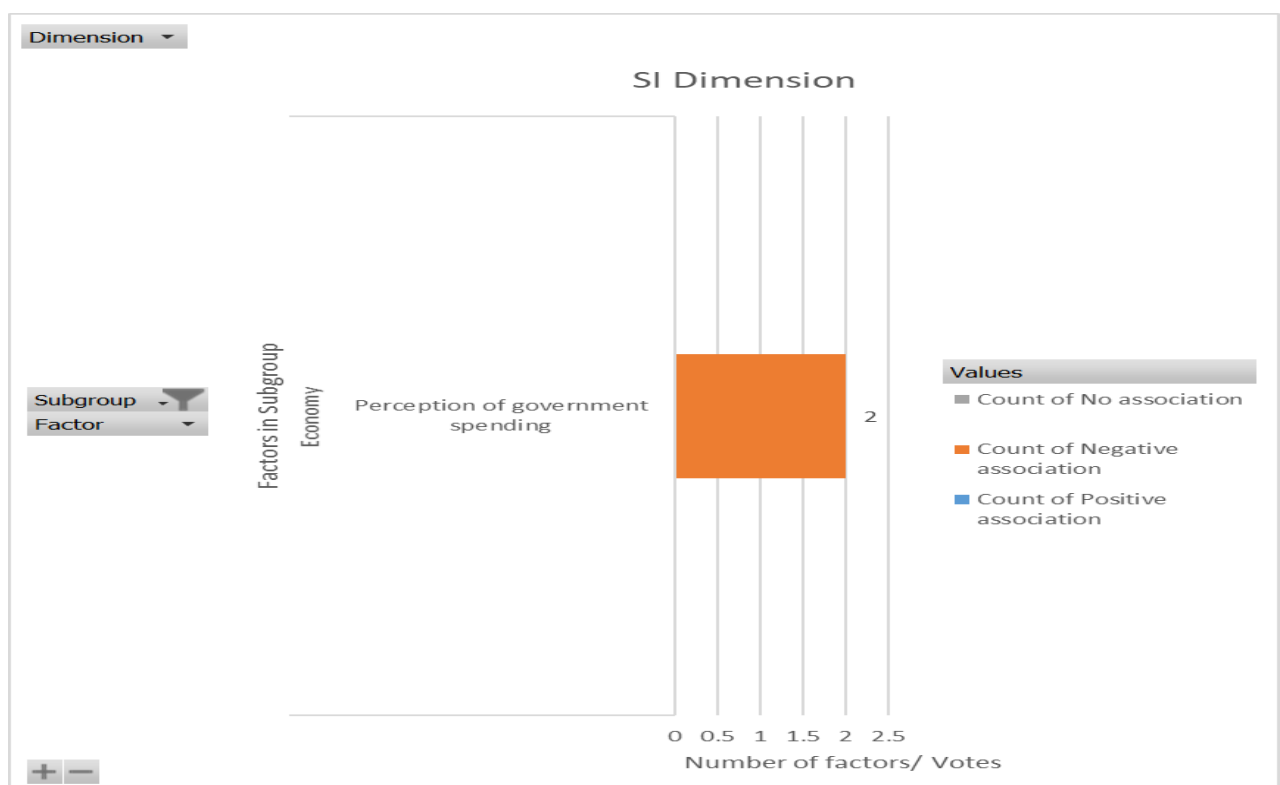


Figure 5.13 – Negative economic factor in SI

Figure 5.13 shows that taxpayer perceptions on government spending influences their perceptions regarding the fairness and trust in government. Government spending refers to tax revenues spent on public goods and services that are necessary for the economic development of a country. Government spending includes, *inter alia*, expenditure on welfare programs, the provision of electricity and other basic services (see Sections 1.3 and 2.6.3) The study found that the experience of taxpayers on the relative ease of access to public goods and services influences their perceptions of trust and fairness in the government. These experiences also influence taxpayer compliance negatively because of the negative perception that government is generally inefficient (Kamasa, Adu and Oteng-Abayie 2019: 137). Furthermore, government corruption also influences these perceptions negatively, as it further erodes the taxpayers trust in the government (Kamasa, Adu and Oteng-Abayie 2019: 137).

Finally, the vote-counting exercise conducted also indicated that the trust and fairness perceptions in government, regarding the provision of public goods and services are influenced by the level of tax rates imposed. Members of the public who have trouble in accessing public goods or who are required to pay high costs to procure public goods believe that they receive very little from the government in return for the taxes paid and therefore resort to violence and other negative social behaviour. The recent socio-political upheavals in South Africa during the period 12th to 16th July 2021, as reported in the media, is an example of society's response to dissatisfaction in governments service delivery performance (Singh 2021:1). Taxpayers also respond negatively to the government when they perceive that they receive very little from the government, thus promoting tax evasive behaviour, thereby further entrenching the tax gap (Inasius 2019:375). This factor has a low influence on tax compliance and the tax gap with only two votes.

5.3.11 Tax morale

Alm and Torgler (2004: 2) described tax morale as the intrinsic motivation of an individual to pay taxes (see Section 2.8.1). Individuals who have a high level of tax morale will behave positively toward complying with tax prescripts and tax obligations (Torgler and Schneider 2009: 6) However, individuals who have low tax morale will behave negatively and practise tax evasion (Horodonic, 2018: 870). Figure 5.14 indicates that the subgroup factor of tax morale is only influenced by the BI dimension in TPB.

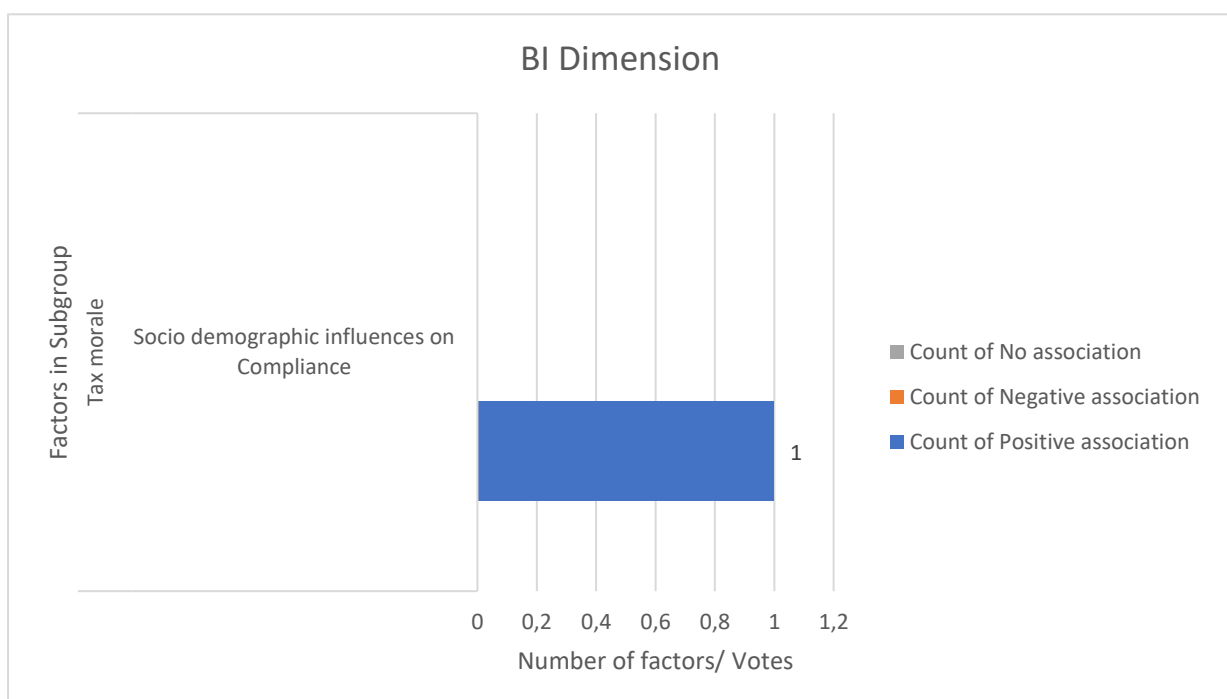


Figure 5.14 –Positive factor influencing tax morale in BI

Figure 5.14 shows that socio-demographic factors such as the organisational form of the business and its location has a positive influence on tax morale. Organisational form refers to whether or not a taxpayer's business is structured as a public or a private company, or as a sole trader. The organisational form choice of the taxpayer determines the businesses access to resources, as well as the type of corporate culture adopted by the business. The study found, through the vote-counting exercise conducted, that one vote indicated that public companies handle tax affairs more professionally because they had sufficient resources to devote to tax compliance

activities. Hence larger companies, with mature corporate cultures, complied with tax laws and their taxation obligations (Pacaldo and Ferrer 2019: 55). The physical location of the company also influenced tax morale. Organisations in the metropolitan areas experienced higher tax morale because of their sense of belonging to the financial and operational hubs in a country (Pacaldo and Ferrer 2019: 55). The organisation form of the taxpayer has a low influence on compliance with a count of one vote.

5.4 Summary

Table 5.4 summarises the results of the vote count. The results of the simple vote count are presented by the category of factor that has the most significant influence on tax compliance. Table 5.4 also indicates the negative factors that contribute to entrenching the tax gap.

Table 5.4 - Factors influencing tax compliance

Categories of factors	% of votes	Negative association
Fairness of Tax System	11.70%	0.00%
Tax audits	8.51%	0.00%
Approach to tax enforcement	5.32%	0.00%
Accountability mechanism of Government	5.32%	15.63%
Monitoring	4.26%	0.00%
Tax Rate	4.26%	3.13%
Penalty framework	4.26%	0.00%
Cost of Tax Compliance	3.19%	6.25%
Satisfaction with the tax office	3.19%	0.00%
Knowledge of tax	3.19%	0.00%
Policy Development	2.13%	3.13%
E -filing	2.13%	0.00%
Regulatory burden	2.13%	6.25%
Sector Morale	2.13%	3.13%
Corruption	2.13%	6.25%
Tax amnesties	2.13%	3.13%
Complexity of Tax system	2.13%	6.25%
Perception of government spending	2.13%	6.25%
Social Consciousness	1.06%	0.00%
Clients instructions	1.06%	3.13%
Sole traders	1.06%	3.13%
Concerns relating to legitimacy and identity- feelings of belongings	1.06%	3.13%
Discrimination	1.06%	3.13%
National pride	1.06%	0.00%
Social Norms on Tax	1.06%	3.13%
Consultants	1.06%	3.13%
Newly formed Firms	1.06%	3.13%
Synergistic and antagonistic tax	1.06%	0.00%
Whistleblowing	1.06%	0.00%
Corporate Reputation	1.06%	0.00%
Peer effects on compliance	1.06%	0.00%
Seriousness of tax evasion	1.06%	3.13%
Detachment with democratic institutions	1.06%	3.13%
Social Norms	1.06%	0.00%
Entrepreneurs	1.06%	3.13%
Socio demographic influences on Compliance	1.06%	0.00%
Personality traits	1.06%	0.00%
Structure of business ownership	1.06%	0.00%
Business constraints	1.06%	3.13%
Improper administration	1.06%	3.13%
Public despair	1.06%	3.13%
Tax evasion	1.06%	0.00%
Female Gender	1.06%	0.00%
Vat Vendors - other tax laws	1.06%	0.00%
Firm Size	1.06%	3.13%
High tax morale	1.06%	0.00%
Patriotism and National Pride	1.06%	0.00%
Grand Total	100.00%	100.00%

The simple vote count indicated that the most significant factor influencing tax compliance is the fairness of the tax system, with 11.70% of all votes. Although fairness of the tax system is the dominant factor influencing tax behaviour, it has a positive influence on taxpayer compliance. The table, however, also indicates the factors which entrench tax gaps, reflected in the “negative association” column. These factors include the accountability mechanisms of the government with 15.63% of votes, indicating that this is the dominant factor that entrenches tax gaps. Although tax audits represented only 8.51% of the votes and were below the significance level of 10% (see Section 5.3.2), it is ranked moderately influential, as the second-largest

factor that influences tax compliance positively. However, governmental interventions of implementing a fair tax administration system, providing greater accountability of government, and implementing regular, effective tax audits may result in increased taxpayer compliance and a narrowing of the entrenched tax gap.

5.5 Study Findings

This MA research investigated the factors influencing taxpayer compliance with tax laws and obligations that contributed to the entrenchment of the tax gap. The study found that the robustness and quality of tax administration had a positive influence on taxpayer compliance. By reviewing and synthesizing the various findings of 45 primary studies conducted, this research produced a further robust conclusion that improving government services and inculcating public trust in government correlates positively with taxpayer compliance. The results of the heterogeneity analysis conducted showed that individual factors relating to the tax administration subgroup factor played an essential role in the influence of other factors affecting taxpayer compliance. This therefore improved government services and exerted a positive influence on compliance across all subgroup factors. Of the nine subgroup factors influencing the relationship between the various tax compliance factors, only tax administration, institutional governance, and behaviour have the potential to influence other subgroups. In other words, the study found that the role of public trust in influencing taxes was universal to all countries.

Table 5.5 below summarises the results of the systematic review from the perspective of subgroups to correlate the results of the systematic review with the MA. Table 5.5 indicates the factors in each subgroup that influence taxpayer behaviour and indicates the factors that have a negative compliance association and entrench tax gaps.

Table 5.5 Factors entrenching tax gaps

Subgroups	Factor	% of votes	Negative association
☐ Tax Administration	Fairness of Tax System	11.70%	0.00%
	Tax audits	8.51%	0.00%
	Approach to tax enforcement	5.32%	0.00%
	Monitoring	4.26%	0.00%
	Satisfaction with the tax office	3.19%	0.00%
	Tax Rate	3.19%	0.00%
	Knowledge of tax	3.19%	0.00%
	E -filing	2.13%	0.00%
	Complexity of Tax system	2.13%	6.25%
	Penalty framework	2.13%	0.00%
	Improper administration	1.06%	3.13%
	Whistleblowing	1.06%	0.00%
	Social Consciousness	1.06%	0.00%
	Synergistic and antagonistic tax	1.06%	0.00%
	Social Norms	1.06%	0.00%
	Tax amnesties	1.06%	0.00%
Tax Administration Total		52.13%	9.38%
☐ Behaviour	Personality traits	1.06%	0.00%
	Vat Vendors - other tax laws	1.06%	0.00%
	Social Norms on Tax Consultants	1.06%	3.13%
	Corporate Reputation	1.06%	0.00%
	Peer effects on compliance	1.06%	0.00%
	Female Gender	1.06%	0.00%
	Seriousness of tax evasion	1.06%	3.13%
	High tax morale	1.06%	0.00%
	Tax evasion	1.06%	0.00%
	National pride	1.06%	0.00%
	Clients instructions	1.06%	3.13%
	Patriotism and National Pride	1.06%	0.00%
Behaviour Total		12.77%	9.38%
☐ Institutional governance	Accountability mechanism of Government	5.32%	15.63%
	Corruption	2.13%	6.25%
	Public despair	1.06%	3.13%
	Discrimination	1.06%	3.13%
	Concerns relating to legitimacy and identity- feelings of belongings	1.06%	3.13%
	Detachment with democratic institutions	1.06%	3.13%
Institutional governance Total		11.70%	34.38%
☐ Business characteristics	Sector Morale	2.13%	3.13%
	Structure of business ownership	1.06%	0.00%
	Sole traders	1.06%	3.13%
	Firm Size	1.06%	3.13%
	Entrepreneurs	1.06%	3.13%
	Newly formed Firms	1.06%	3.13%
Business characteristics Total		7.45%	15.63%
☐ Tax Policy	Penalty framework	2.13%	0.00%
	Policy Development	2.13%	3.13%
	Tax amnesties	1.06%	3.13%
	Tax Rate	1.06%	3.13%
	Regulatory burden	1.06%	3.13%
Tax Policy Total		7.45%	12.50%
☐ Compliance costs	Cost of Tax Compliance	3.19%	6.25%
Compliance costs Total		3.19%	6.25%
☐ Economy	Perception of government spending	2.13%	6.25%
Economy Total		2.13%	6.25%
☐ Fiscal Administration	Regulatory burden	1.06%	3.13%
	Business constraints	1.06%	3.13%
Fiscal Administration Total		2.13%	6.25%
☐ Tax morale	Socio demographic influences on Compliance	1.06%	0.00%
Tax morale Total		1.06%	0.00%
Grand Total		100.00%	100.00%

The findings derived from the systematic analysis of data are discussed in four categories, viz., the quality of the tax administration system, response of taxpayers to tax laws and prescripts, the taxpayers trust in the government and tax policy. These four categories of findings are discussed below.

5.5.1 Quality of the tax administration system

The MA and systematic review identified that the quality of the tax administration system has a significant positive factor influencing taxpayer compliance. A positive influence means that taxpayers comply with tax laws and obligations that result in reducing the tax gaps. The study found that the most significant factor that influenced the quality of the tax administration system is the fairness of the tax administration system implemented by governments. The study found further that procedural fairness in the tax administration system comprised a significant element of a good tax administration system. Taxpayers recognise procedural fairness when all taxpayers are treated equally, the tax burdens amongst taxpayers are equitable and that objective procedures are in place to address taxpayer disputes with the tax authorities (see Section 5.3.1.2).

Other factors that contributed to the dominance of the quality of tax administration were the conducting of regular tax audits by the tax authorities and the robustness of taxpayer compliance enforcement activities by the tax authorities. The study found that taxpayers responded positively to being fairly audited by the tax authorities. Taxpayers also responded positively to the existence of a reasonable probability of being audited. Frequent, rather than once-off tax audits, encouraged taxpayers to comply with tax laws and their tax obligations (see Section 5.3.1.1).

Enforcement activities implemented by the tax authorities had a positive influence on taxpayer compliance and contributed to a reduction in the tax gaps. The study found that taxpayers favoured a balanced approach to tax enforcement, where the tax administration system placed trust in the representations made by the taxpayer, as opposed to treating taxpayers as individuals who wanted to defraud the system. Taxpayers also indicated that balanced enforcement would include an approach where tax enforcement was not excessively regulated. Taxpayers indicated that such a system would place high trust in the taxpayer to comply with his tax obligations, thus reducing the need for the tax authorities to regulate every aspect of the taxpayer's compliance obligations (see Section 5.3.1.2).

Monitoring of taxpayer compliance, an element of enforcement, exerted a positive influence on taxpayer compliance, thus contributing to reduced tax gaps. The study found that ongoing monitoring procedures such as tax inspections implemented by tax

authorities, increased taxpayer compliance behaviour as taxpayers understood that limited opportunities existed to practise non-compliant behaviour, since all taxpayers tax affairs were under continuous scrutiny by the tax authorities (see Section 5.3.1.1).

A conclusion can therefore be drawn that taxpayers respond positively to tax procedurally fair administration systems, subject all taxpayers to a frequent audit, approach tax enforcement in a balanced manner and practise ongoing taxpayer inspections. Good tax administration systems, therefore, increase taxpayer compliance and result in a reduction in the tax gaps. However, should taxpayers' experience that the tax administration system is unfair, they would resort to tax evasive behaviour.

5.5.2 Taxpayer response to tax laws and prescripts

Taxpayers' response to tax law and prescripts refer to those factors that influence the behavioural subgroup identified in the MA and systematic review. No individual dominant factor was identified in this subgroup, rather each of the individual factors identified was analysed to be of equal significance. The study found that individual factors which influenced the behavioural intent of the taxpayer represented the majority of individual factors that had a positive influence on tax compliance. These factors related to maintaining the positive reputation of business entities, taxpayers who had high moral standards, taxpayers objecting to tax evasion, compliance with other tax laws, peer effects on taxpayer compliance, females exhibiting greater moralistic behaviour, patriotism and national pride, and high taxpayer morale (see Section 5.3.2). The study found that taxpayer's behavioural intent towards taxation is influenced positively, primarily, by their social circles, moralistic behaviour and the sense of national pride that taxpayers have for their countries. A conclusion can therefore be drawn that taxpayer compliance is influenced positively, by the moralistic behaviour of taxpayers, the national pride that taxpayers associate with their country and their social circles. Although these factors influence tax compliance positively and do not indicate factors that entrench widening of the tax gaps, the argument is put forward that a change in taxpayers' moral perceptions may have a negative influence resulting in taxpayers engaging in tax evasive practices (see Section 6.6.1).

5.5.3 Taxpayers trust in the government

The study found that taxpayers have legitimate expectations in government to manage the laws and the tax resources of the country effectively to achieve the country's socio-economic development priorities. Taxpayers, therefore, trust that government will design and implement the necessary policies and procedures to manage the country's socio-economic development agenda effectively and efficiently. The study found that taxpayers hold the government accountable for their performance, hence the dominant factor influencing taxpayer trust in governments was the transparency and integrity of governmental accountability to the public. Politically, taxpayers expect transparent behaviour and good governance from the organs of the state. Taxpayers base their trust on the reported levels of corruption and maleficence in the government. Socially, taxpayers hold governments accountable for the quality and ease of access to public goods and services provided by the government.

The study found that society's response to negative public trust, regarding political and social accountability in government, can be violent and disruptive, increasing distrust in government. The study found that taxpayer dissatisfaction and distrust in governments results in tax evasion which contributes to further entrenchment of the tax gaps. It can therefore be concluded that taxpayer compliance with tax laws and obligations is influenced by their trust in the government. Taxpayer trust is influenced by the level and integrity of accountability provided by the government to its public. The study also found that that negative trust in government entrenches tax gaps.

5.5.4 Tax policy

The study found that taxpayers respond positively to well-designed tax policies that do not place excessive tax burdens on the taxpayer and that were easy to understand. The dominant positive factor in this subgroup was therefore policy development. Poor policy development influenced taxpayer compliance negatively. Tax policies that did not consider how taxpayers wanted to be treated resulted in negative taxpayer compliance and further entrenchment of the tax gaps. It can therefore be concluded that well-designed tax policies that are easy to understand and unambiguous, that promote equitable tax burdens, and allows for taxpayer engagement with the government on tax policy, influence taxpayer compliance positively. Positive taxpayer compliance results in a reduction of the tax gaps.

5.6 Conclusion

This chapter presented the study's data and the results of the data analyses conducted. The chapter also presented the conclusions arising from both the MA and systematic data analyses conducted. Chapter 6 discusses the recommendations emerging from this study, the alignment of the study with its purpose, the research questions addressed, and identifies areas for further research.

CHAPTER 6: RECOMMENDATIONS

6.1 Introduction

The preceding chapter discussed the results of the meta-analysis conducted, presented the results of the systematic review of the data, and discussed the conclusions of the study. The results of the study conducted were presented through descriptive analysis, random effects model-forest tree plot, subgroup categorisation, and meta-regression analyses. The results of the systematic review were interpreted following the Theory of Planned Behaviour to contextualise the positive, negative, and no-influence factors on taxpayer compliance that were identified in the primary studies included in this study. This chapter begins with a summary of the previous chapters and proceeds to discuss the alignment of the results of the study with the purpose and research questions. Thereafter it describes the contributions of this study to the existing body of knowledge and also the intrinsic limitations of the study. The recommendations of the study are then presented and the chapter concludes with a discussion on the dissertation statement and identifies areas for further research arising from this study.

6.2 Chapter Summaries

Chapter one noted that governments require funding to provide public goods and services. Government funding is obtained through taxes imposed on its citizens. However, it was argued that taxpayers would not willingly comply with tax laws and their tax obligations and noted that such taxpayer non-compliance entrenches the tax gaps. Chapter two reviewed the literature significant to taxpayer compliance and identified tax evasive behaviour as the main contributor to the tax gaps. Socio-demographic factors such as taxpayer morale, knowledge of tax laws and prescripts, the design of tax policy, and the way taxes are administered were presented as significant factors that influence taxpayer compliance. It was established that institutional governance relating to trust, fairness, and effectiveness was a precursor to taxpayer compliance and that the weakening thereof encouraged non-compliance.

Chapter three discussed the theoretical bases underpinning this study and noted TPB as the theoretical lens through which to conceptualise this study's findings. Chapter four discussed the study's research methodology. The chapter discussed that the study adopted a quantitative approach following the positivist paradigm. The chapter also discussed that MA was applied as the analytical tool and that the PRISMA approach would be applied to synthesize the results of the study. Chapter five presented the data and the results of the analysis conducted. The chapter identified that the fairness of the tax administration was a dominant factor that influenced tax compliance behaviour with the resultant influence on the entrenching of the tax gap.

6.3 Alignment of study with the purpose

Several studies were conducted, globally, to identify factors that entrench the tax gap. Tax evasion was identified, *inter alia*, as the most significant factor that entrenched the tax gaps in both mature and emerging economies. However, limited studies exist that presents a comprehensive analysis of the individual, dominant factors that entrench the tax gap. This study attempts to address this void in the tax literature by presenting a contemporary, comprehensive approach to synthesizing studies. The study, therefore, provides an analysis of the factors that entrench tax gaps. This study distinguishes itself from other studies in three areas of significance. First, PRISMA was used to arrive at the final selection of the 45 primary studies conducted into taxpayer compliance both in South Africa and globally, for the period 2015- 2020. Second, the selected studies were synthesized with the systematic analysis identifying 94 individual factors that influence taxpayer compliance. These 94 factors were analysed, and the similarities and differences were investigated. Third, two types of analysis, being a MA and a systematic analysis were undertaken and reasons were suggested for the similarities and differences found between the factors.

The purpose of this study was to integrate the results of previous studies conducted on taxpayer compliance using the meta-analysis method to examine, understand and analyse all potential factors impacting taxpayer compliance. This study addresses the following important research questions to achieve its purpose:

Research Question 1: *What are the main factors emerging from primary studies, that influence taxpayer compliance?*

This question was resolved in chapters two and five. The study found that nine subgroups of factors influence taxpayer compliance, namely (i) tax administration; (ii) behaviour; (iii) institutional governance; (iv) tax policy; (v) compliance costs; (vi) tax morale; (vii) business characteristics; (viii) fiscal administration; and (viii) government spending. The sub-group analysis identified tax administration as being the dominant subgroup factor influencing taxpayer compliance with behaviour, institutional governance, business characteristics, and tax policy exerting either significant or moderate influence on the compliance behaviour of taxpayers. The systematic analysis investigated the reasons for the results of the MA undertaken and found that fairness of the tax administration system was the dominant factor (11.70%) within the subgroup of tax administration. The tax authority's approach to tax audits also featured significantly within tax administration with a vote count of 8.51%.

Research Question 2: *What are the sources of variations, if any, among studies on the main/significant factors influencing taxpayer compliance?*

This question was resolved in Chapters two and five. Chapter two included a comprehensive review of the relevant literature related to taxpayer compliance. Chapter 5 gave effect to this question. Random-effects meta-analysis in chapter five indicated that variability amongst studies was high, and implied that the proportion of total variance among pooled studies was attributed to the heterogeneity of true effect sizes. The variations, therefore, arose from the heterogeneity of the primary studies conducted.

Research Question 3: *What is the extent to which emerging factors contribute to the tax gap?*

The question was answered in chapter 5. The dominant factor that entrenched tax gaps emerging from this study relates to the accountability mechanisms of government. The accountability mechanism of government represented 15.63% of the possible 94 individual factors votes which had a negative influence on taxpayer

compliance. Additionally, government corruption scored 6.25% of the votes and indicated a negative influence on taxpayer compliance. Other factors such as the complexity of the tax system; costs of tax compliance and perception of government spending, each represented 6.25% of the votes also confirming negative influence on taxpayer compliance,

6.4 Contributions of the study

Attempts by researchers to provide a comprehensive summary of taxpayer compliance factors are limited. Marandu, Mbekomize, and Ifezue (2015: 207-218) provided a modern MA approach to synthesizing tax compliance studies. However, the study conducted by Marandu, Mbekomize, and Ifezue (2015: 207-218) was limited and may also be outdated, having focused on the period between 1985 and 2012. This study analysed the factors influencing taxpayer compliance with tax laws and obligations that influences entrenched tax gaps. The study identified four applied contributions that, if implemented by tax authorities, will influence taxpayer compliance positively, thereby contributing to reducing the entrenched tax gaps. These contributions are discussed as recommendations in Section 6.8 below. Thus the study contributes to the existing body of knowledge on taxation by identifying the factors that entrench tax gaps and by providing recommendations to tax authorities, that when implemented, will contribute to reducing entrenched tax gaps.

6.5 Limitations of the study

This study was conducted by identifying and analysing primary research undertaken into taxpayer compliance with tax laws and obligations. Consequently, only identified, available studies were considered. Therefore, the results of this study are influenced by these identified, available primary studies. It is conceded that other primary studies may have been undertaken which, when factored into this study, may produce different results.

A further limitation of this study is the adoption of a MA theoretical lens. It is acknowledged that other research, adopting other theoretical lenses, such as the

managerial lens, may produce different results. A third limitation is that the quantitative approach to research has been followed in conducting this study. Other studies, following other approaches such as the qualitative and mixed methods approaches, may produce different results for this study.

The underlying behavioural assumption made in this study presents a further limitation. An assumption is made that taxpayers will not voluntarily and willingly comply with tax prescripts and obligations. The adoption of different behavioural assumptions may produce results different from this study. In addition to the limited assumption, only one behavioural factor was analysed, namely taxpayer compliance to tax laws and obligations. It is acknowledged that expanding the scope of behavioural factors such as considering and interrogating the influence of, *inter alia*, religious beliefs, traditions, cultural considerations on taxpayer behaviour may lead to different results.

Finally, the findings, conclusions, and recommendations in this study emanate from secondary research. It is submitted that a primary study conducted may yield results different from those of this study.

6.6 Recommendations

Several recommendations resulted from the key findings of this study. These recommendations, if implemented by tax authorities, may well assist governments, globally, in reducing the existing tax gaps in their countries and may also assist in inhibiting the further entrenchment of existing tax gaps. The four main recommendations offered, arising from the study's findings, include: (1) tax authorities should focus on improving the quality of their tax administration service; (2) improve public morale; (3) increase public trust in the government, and (4) implement tax policy reforms. Each of these recommendations is discussed below.

6.6.1 Improving the quality of tax administration systems

Governments and tax authorities should monitor the quality of their tax administration systems and focus on the fairness of tax administration as it is a dominant factor. The quality of the tax administration system could be improved by focusing on four key aspects of tax administration. These four key aspects are procedural fairness; equitable distribution of tax burdens; frequent tax audits and balanced approaches to enforcement. These aspects are discussed below.

6.6.1.1 Governments should develop procedural fairness in tax administration processes to ensure that all taxpayers are treated equally

Tax authorities should focus on implementing the following six key reforms to ensure procedural fairness in tax administering:

- (i) Tax authorities should critically assess and further develop their information technology systems that enable all tax returns to be assessed electronically. An electronic system ensures that all taxpayers are assessed objectively by applying pre-determined objective criteria. Tax authorities should therefore subject these criteria to regular, independent evaluations to ensure their objectivity and relevance to all taxpayers. Tax authorities should also develop a formal policy that ensures that criteria are always kept objective and relevant.
- (ii) Existing information technology system modules should be developed further and enhanced to ensure that pre-determined assessment criteria, time frames, and other administrative processes are pre-programmed to ensure that all taxpayers are assessed objectively and equitably.
- (iii) The information technology system should be further developed to ensure that objections are enabled electronically and subject to continuous, independent evaluations. A standardised, objective approach to objections and appeals should be created within the IT system.
- (iv) Taxpayer appeals that require intervention by a tax officer should be subjected to a system of auditing internally, and comprehensive records maintained of the audits conducted, processes followed, and adjustments processed. Maintaining

comprehensive records will enable the tax authorities to provide reasons and justification to taxpayers for their decisions.

(v) Programmed edit checks should be incorporated into electronic tax systems that enable the system to select taxpayers whose tax affairs require manual intervention by the tax officers on a frequent basis. These taxpayers should be selected for internal auditing to confirm that the taxpayer was assessed in accordance with the prevailing tax policies.

(vi) Whistle-blowing policies and systems should be implemented/ enhanced by the tax authorities to allow for the *bona fide* reporting of deviant and evasive taxpayer conduct. Tax authorities should create the necessary mechanisms to investigate such reports and to provide the necessary feedback to whistle-blowers.

6.6.1.2 Governments should ensure equitable distribution of the tax burden

Governments should prioritise reforms to ensure that the tax burden amongst their citizens are equitable. These reforms should focus on three key areas which if implemented, would achieve equitable tax burdens by reducing the tax gap and increasing the tax base of a country. These reforms are (i) reduction of the shadow economy; (ii) the implementation of cashless societies and (iii) tax reforms designed to attract foreign investment. Each reform is discussed in detail below.

(i) Government should prioritise initiatives that increase the number of taxpayers contributing to the tax base of a country. One such initiative would require strategies such as government incentive funding for new businesses. These government funding incentives could require that the new businesses register as taxpayers, and therefore would also incentivise the business to join the regulated economy. The government incentives advanced would be recovered from future tax revenue generated by the business. Such initiatives may also reduce the size of the shadow economy which would result in increased participation in the formal economy. For these people to continue with their economic activities, they would have to comply with government regulation and join the regulated economy which would consequently result in people having to register as taxpayers. An increase in the registration of taxpayers will increase the countries tax base. The increased tax base could therefore contribute to

a reduction in tax burdens as more people would be paying taxes thereby increasing taxation revenue.

(ii) Government should implement long-term strategies to move from a cash economy to a cashless economy. Cash is the most liquid of the mediums of transactions exchange, therefore cash transactions are virtually untraceable. The liquidity of cash could lead to the non-detection of large cash transactions by the tax authorities and other government regulators. Therefore, government initiatives to guide economic activities towards bank-regulated electronic transactions would increase transaction visibility and assist governments and tax authorities in enforcing compliance with tax laws and in detecting previously undetectable transactions. Electronically processed transactions are easier to identify and monitor and will therefore result in a reduction of the size of the shadow economy.

(iii) Government should adopt tax strategies from countries that utilise territory or zero-based approaches to identifying the source of a taxpayer's income. Territory-based approaches are regarded as investor-friendly as only income earned within the specified territory of a country is taxable, and other income earned globally is not taxed. Territory-based approaches form the basis of tax systems in countries such as Singapore. Zero-based approaches appeal to investors as zero-based systems encourage investment into the country because investors pay little or no tax on their investments and the resulting returns. The citizens of zero-based tax countries enjoy the benefits of low or zero tax rates by the increased foreign direct investment into the country. These strategies also encourage legal immigration into the country, thereby increasing the tax base, thus resulting in increased tax revenues.

6.6.1.3 Governments should implement strategies that subject all taxpayers to frequent monitoring activities

Governments should implement reforms that ensure that taxpayers are audited by tax authorities frequently and that their tax affairs are subject to ongoing tax inspections. These audits and monitoring reforms are discussed below.

(i) All taxpayers should be subjected to frequent audits by tax authorities. This can be accomplished by implementing information technology changes to the tax system to ensure that the tax system selects taxpayers for audits on a more frequent basis. The

system should focus on taxpayers who earn income from sources other than employment income. Taxpayers who earn income only from employment represent low non-compliance risk, as their taxable remunerations are fixed, and taxes are deducted by their employers as tax agents. Details of the accuracy of tax calculations and the deductions processed can be obtained from employers. Taxpayers who earn income from sources other than only from employment, present a higher non-compliance risk and should therefore be subject to frequent random audits chosen automatically by the electronic tax system.

(ii) The electronic tax system should pre-select taxpayers whose tax affairs are complex and represent a significant contribution to the tax base and subject these taxpayers to more frequent inspections and audit procedures. These procedures could involve frequent visits to the clients' premises, *inter alia*, inspect the taxpayer's operations and obtain an understanding of their tax systems. Such *in loco* inspections also enable tax authorities to assess the impact that these systems have on the completeness of the taxpayer's tax returns.

6.6.1.4 Tax authorities should formulate balanced tax enforcement approaches

Tax authorities should develop reforms to ensure that their approach to tax enforcement is not overly punitive and is designed to enhance voluntary taxpayer compliance. These reforms should focus on (i) the design of enforcement procedures and (ii) positive re-enforcement strategies.

(i) Tax authorities should implement measures to ensure that tax regulations do not penalise taxpayers for computational errors or unintended non-compliance that arises from, *inter alia*, gaps in taxation knowledge. The basis for applying such an enforcement strategy would be to promote voluntary taxpayer compliance with their tax obligations despite the taxpayer making legitimate mistakes or errors in calculating, compiling, or submitting their tax returns. This strategy treats the taxpayer as a trusted partner and may encourage voluntary compliance because of taxpayer understanding that s/he will not be penalised for lack of knowledge of the tax system or unintentional errors in the tax returns submitted to tax authorities.

(ii) A no penalty system for computational and other errors may, however, be abused by the taxpayer. To discourage abuse of a no-penalty system, tax authorities should design and implement positive reinforcement strategies, such as the completion of mandatory education sessions for recurring offenses. Subsequent incidents may thereafter be subjected to the penalty system for the same or similar offenses. In effect, taxpayers are accorded opportunities to improve their knowledge of tax laws and obligations before being penalised for any intentional errors or omissions in completing tax returns.

6.6.2 Improve public morale

The study found that taxpayers' responses to tax laws and prescripts were influenced by individual behavioural factors that related to the taxpayers' social circles, moralistic behaviour, and the sense of national pride that taxpayers had for their countries (see Section 5.3.2). Therefore, governments should implement reforms that would influence public morale positively. These reforms should focus on two key areas, which if implemented could improve public morale, influence tax compliance positively, and reduce entrenched tax gaps. Such reforms include social cohesion initiatives to develop national pride, and policies to build national pride by manufacturing goods and producing services locally:

(i) Governments should create policies that are designed to promote national pride amongst citizens by promoting social cohesion amongst all its people. These policies could include, *inter alia*, equal participation in the economy regardless of race, gender, religious background, and/or any other such considerations. In addition, the availability of sports, arts, and cultural programs by governmental organisations would assist in reinforcing alliances of citizens. Section 5.3.3.1 discusses that reinforcing citizens' alliances would galvanise participation in the financing of public goods and services by increasing taxpayer compliance.

(iii) For emerging economies, tax authorities should develop trade quotas, appropriate tariff structures, and tax incentives that create financial and other incentives such as

less onerous regulatory requirements, that encourage entrepreneurs to manufacture goods and produce services locally. These initiatives will increase economic participation by creating jobs, and producing goods and services within a country, thereby contributing to increased GDP, creation of wealth locally, and building national pride.

6.6.3 Increase public trust in government

The study found that taxpayers have legitimate expectations that the government would manage the laws and the tax resources of the country effectively, for socio-economic development. Taxpayers, therefore, trust that the government will implement the necessary policies and procedures to manage their expectations of socio-economic development. The study found that taxpayers hold the government accountable for their performance, hence the dominant factor influencing taxpayer trust in governments was the transparency and integrity of governmental accountability to the public. Governments should therefore implement strategies and reforms to promote positive public trust in government (see Section 5.3.3).

6.6.3.1 Governments should implement institutional reforms that promote positive public trust in government

Reforms that promote positive public trust in government should focus on educational and communication strategies that increase governments' transparency and accountability to the public. Management strategies that promote service delivery should also be implemented. These reforms are discussed below.

(i) Government should implement education and communication strategies, in addition to the current practice of strategic plans and annual reports, that provide accurate, veracious information to the public on government utilisation of the revenue collected and the related service delivery. Such information increases taxpayer knowledge and information on the benefits of paying taxes. Educational strategies should include targeting school-going youths to inculcate government initiatives such as infrastructure development, job creation, and other success stories that government

would want to share, to build public trust in government. These initiatives would also influence national pride positively as the public would understand the government's building of communities and other social spaces. Communication strategies could include tele-media shows or shows on online media platforms, inviting participation from and engagement with the public, academia, and business to underscore how taxpayer monies are being utilised by the government, thereby broadening the reach and appeal of accountability practices by the government. Another form of communication strategy could include the appointment of an independent body (such as an audit firm) by the government, to manage government accountability expectations of the public. This body's responsibilities would include gathering data and information from the public that should be used to highlight to the government, quarterly, the key issues of concern to the public. The independent body should also provide feedback to the public on initiatives implemented by the government to address public concerns. All responses and actions can accordingly be used by the government to publicise the reforms undertaken to further enhance the public trust in governments.

(ii) Governments should focus on reforms that are designed to increase customer satisfaction by obtaining and reviewing feedback through the use of satisfaction surveys. The information obtained may be used to implement corrective action to address identified deficiencies in the delivery of public goods and services. A further measure that may be implemented by the government to improve the quality of public goods and services is to link the remuneration of public officials who are responsible for the delivery of public goods and services to customer satisfaction levels. To ensure that such an initiative is fair and objective, all information used in this process should be subjected to intensive, independent evaluation and auditing by suitably qualified professionals.

6.6.4 Tax policy reforms

The study found that taxpayers respond positively to well-designed tax policies (see Section 5.3.6). The dominant positive factor found in this subgroup was policy development. Governments should therefore implement reforms to ensure that tax policy is well-designed. Well-designed tax policy should include the following characteristics: (i) tax policy should be complete, relevant, and unambiguous; and (ii) tax policy should be easy to understand by all taxpayers.

6.6.4.1 Governments should consider employing applicable international standards such as ISO 9000 for process design in the development of and implementation of tax policy. These industry standards would ensure that tax policy is well developed, simple to understand, and unambiguous.

6.6.4.2 Tax authorities should further entrench their online and telephonic support centres. The online support should be in addition to the walk-in customer service centres that are taxpayer-centric, and designed to focus on providing advice, guidance, and procedural support to all taxpayers.

This study provided four main recommendations that, if implemented, may result in increased taxpayer compliance with tax laws and taxation obligations, and reduce tax gaps. The study recommends that governments globally should focus on developing fair tax administration strategies and building public trust in their institutions.

6.7 Areas for further research

The results indicated that there were nine subgroups of factors that influence taxpayer behaviour. This study identified tax administration, behaviour, institutional governance, and tax policy as the major subgroups influencing taxpayer behaviour. The study also recommended strategies that may positively influence taxpayer compliance thus resulting in reduced tax gaps. The accountability mechanisms of government and fairness of tax administration emerged as dominant factors, and initiatives were suggested to improve accountability of government to the public and the fairness of the administering of taxes. The implementation of improved government accountability is argued to increase the tax base of the country. Adapting territorial and zero-based approaches to taxation may result in increased foreign direct investments into the country with a resultant positive effect on the country's infrastructure and socio-economic development.

Accountability to the public is a management issue and is therefore beyond the realms of tax studies. Resultantly, future research should be undertaken to develop a hybrid approach to taxation, which would incorporate elements of territorial/zero-based approached approach for emerging economies who still rely primarily on funding from taxpayers to provide public goods and services.

6.8 Conclusion

Taxpayers will not willingly comply with tax laws and prescripts thus entrenching the tax gaps. Opportunities exist for governments, globally, to create platforms and measures that influence taxpayers to voluntarily comply with tax laws and their tax obligations, thereby increasing tax revenues and reducing the tax gaps. Increasing tax revenues that result from increased voluntary taxpayer compliance and a reduced tax gap contribute to a country's effective socio-economic development and the implementation of national priorities.

REFERENCES

- Aamir, M., Qayyum, A., Nasir, A., Hussain, S., Khan, K. I. and Butt, S. 2011. Determinants of tax revenue: *A comparative study of direct taxes and indirect taxes of Pakistan and India*. International Journal of Business and Social Science, 2 (19): 173-178.
- Abdixhiku, L., Krasniqi, B., Pugh, G. and Hashi, I. 2017. *Firm-level determinants of tax evasion in transition economies*. Economic Systems, 41 (3): 354-366.
- Abdul, F. and McFie, J. B. 2020. *Tax complexity and compliance behaviour of large and medium sized business tax payers in Kenya*. Review of Integrative Business and Economics Research, 9 (2): 90-106.
- Abelin, M. S. 2012. *Fiscal sovereignty: Reconfigurations of value and citizenship in post-financial crisis Argentina*. Ph.D Anthropology, Columbia University.
- Adegbite, T. A. and Bojuwon, M. 2019. *Corporate tax avoidance practices: an empirical evidence from Nigerian firms*. Studia Universitatis Babes-Bolyai, 64 (3): 39-53.
- Adu, K. O. and Amponsah, S. 2020. *Correlates of tax registration compliance among self-employed in Denkyira corridor of Ghana*. International Journal of Law and Management, 62 (4): 365-379.
- Affes, W. 2020. *The impact of tax rates on tax evasion: A macroeconomic study*. Accounting and Management Information Systems, 19 (2): 252-282.
- Ajzen, I. 2011. *The theory of planned behaviour: Reactions and reflections*. Psychology & Health, 26 (9): 1113-1127.
- Aliyu, A. A., Bello, M. U., Kasim, R. and Martin, D. 2014. *Positivist and non-positivist paradigm in social science research: Conflicting paradigms or perfect partners*. Journal of Management and Sustainability, 4 (3): 79-95.
- Aliyu, A. A., Singhry, I. M., Adamu, H. and AbuBakar, M. a. M. 2015. *Ontology, epistemology and axiology in quantitative and qualitative research: Elucidation of the*

research philosophical misconception. In: Proceedings of the Academic Conference: Mediterranean Publications & Research International on New Direction and Uncommon.

Allingham, M. G. and Sandmo, A. 1972. *Income tax evasion: A theoretical analysis*. Journal of Public Economics, 1 (3-4): 323-338.

Alm, J. 2019. *What motivates tax compliance?* Journal of Economic Surveys, 33 (2): 353-388.

Alm, J., Bloomquist, K. M. and McKee, M. 2017. *When you know your neighbour pays taxes: Information, peer effects and tax compliance*. Fiscal Studies, 38 (4): 587-613.

Alm, J., Cox, J. C. and Sadiraj, V. 2020. *Audit state dependent taxpayer compliance: Theory and evidence from Colombia*. Economic Inquiry, 58 (2): 819-833.

Alm, J., Enami, A. and McKee, M. 2020. *Who responds? Disentangling the effects of Audits on individual tax compliance behavior*. Atlantic Economic Journal, 48 (2): 147-159.

Alm, J., Kirchler, E., Muehlbacher, S., Gangl, K., Hofmann, E., Kogler, C. and Pollai, M. 2012. *Rethinking the research paradigms for analysing tax compliance behaviour*. In: Proceedings of CESifo forum. München: ifo Institut-Leibniz-Institut für Wirtschaftsforschung an der ..., 33-40.

Alm, J., Schulze, W. D., von Bose, C. and Yan, J. B. 2019. *Appeals to social norms and taxpayer compliance*. Southern Economic Journal, 86 (2): 638-666.

Alm, J. and Soled, J. A. 2017. *Wither the tax gap?* Washington Law Review, 92 (2): 521-566.

Alm, J. and Torgler, B. 2004. *Estimating the determinants of tax morale*. In: *Proceedings of Proceedings*. Annual conference on taxation and Minutes of the annual meeting of the National Tax Association. JSTOR, 269-274.

Alm, J. and Torgler, B. 2012. *Do ethics matter? Tax compliance and morality*. Journal of Business Ethics, 101 (4): 635-651.

Al-Maghrebi, M. S., Ahmad, R. and Palil, M. R. 2016. *Budget transparency and tax awareness towards tax compliance: A conceptual approach*. South East Asia Journal of Contemporary Business, Economics and Law, 10 (1): 95-101.

Alshira'h, A. F. and Abdul-Jabbar, H. 2020. *Moderating role of patriotism on sales tax compliance among Jordanian SMEs*. International Journal of Islamic and Middle Eastern Finance and Management, 13 (3): 389-415.

Al-Ttaffi, L. H. A. and Abdul Jabbar, H. 2015. *A conceptual framework for tax non-compliance studies in a Muslim country: A proposed framework for the case of Yemen*. International Postgraduate Business Journal, 7 (2): 1-16.

Alventosa, A. and Olcina, G. 2020. *Tax compliance and wealth inequality*. Applied Economics Letters, 27 (11): 899-903.

Alvino, L., Constantinides, E. and Franco, M. 2018. *Towards a better understanding of consumer behavior: marginal utility as a parameter in neuromarketing research*. International Journal of Marketing Studies, 10 (1): 90-106.

Al-Zaqeba, M. A. A. and Al-Rashdan, M. T. 2020. *Extension of the TPB in tax compliance behavior: The role of moral intensity and customs tax*. International Journal of Scientific and Technology Research, 9 (4): 227-232.

Amaeshi, K., Adi, B., Ikiebey, G. and McCulloch, N. 2020. *Corporate tax responsibility in Africa: Insight from Nigeria*. Africa Journal of Management, 6 (2): 115-131.

An, Z. Y. 2019. *Two general lessons from the 2019 personal income tax reform of China*. Economists Voice, 16 (1): 5.

Andreoni, J., Erard, B. and Feinstein, J. 1998. *Tax compliance*. Journal of Economic Literature, 36 (2): 818-860.

Anello, C. and Fleiss, J. L. 1995. *Exploratory or analytic meta-analysis: should we distinguish between them?* Journal of Clinical Epidemiology, 48 (1): 109-116.

Antwi, S. K. and Hamza, K. 2015. *Qualitative and quantitative research paradigms in business research: A philosophical reflection.* European Journal of Business and Management, 7 (3): 217-225.

Arendse, J., Stark, K. and Renaud, C. 2015. *The Cohen and Kuttel stories: Is the place where I hang my hat still relevant to determine my residence for tax purposes?* Southern African Business Review, 19 (1): 1-24.

Aribaba, F. O., Oladele, R., Ahmodu, A. L. O. and Yusuff, S. A. 2019. *Tax policies and entrepreneurship sustainability in Ondo State, Nigeria.* Journal of Global Entrepreneurship Research, 9 (1): 13.

Ariyanto, D., Andayani, and Putri. 2020. *Influence of justice, culture and love of money towards ethical perception on tax evasion with gender as moderating variable.* Journal of Money Laundering Control, 23 (1): 245-266.

Assfaw, A. M. and Sebhat, W. 2019. *Analysis of tax compliance and its determinants: Evidence from Kaffa, Bench Maji and Sheka Zones Category B tax payers, SNNPR, Ethiopia.* Journal of Accounting, Finance and Auditing Studies, 5 (1): 32-58Y.

Atria, J., Durán, J. and Ramírez, S. 2021. *Business elites' attitudes toward taxation and the state: The case of Chile.* Geneva: UNRISD, Palais des Nations.

Austin, C. R., Bobek, D. D. and LaMothe, E. G. 2020. *The effect of temporary changes and expectations on individuals' decisions: evidence from a tax compliance setting.* Accounting Review, 95 (3): 33-58.

Awang, Z. 2012. *Research methodology and data analysis.* 2nd ed ed. Selanger, Malaysia: UiTM Press.

Azhar, M., Mohd Hasrol, Z. and Zarinah, H. 2016. *Cash economy: tax evasion amongst SMEs in Malaysia.* Journal of Financial Crime, 23 (4): 974-986.

Azjen, I. 1991. *The theory of planned behavior. Organizational behavior and human decision processes*, 50 (2): 179-211.

Babbie, E. and Mouton, J. 2006. *The Practice of Social Research*. Practice of (Vol. 5th editio).

Bachas, P., Jaef, R. N. F. and Jensen, A. 2019. *Size-dependent tax enforcement and compliance: Global evidence and aggregate implications*. Journal of Development Economics, 140: 203-222.

Baimedetov, S. D., Issakova, S. A., Nauryzbekova, A. Y., Tanatova, A. R., Naurizkulova, S. B., Esenova, M. Z. and Turganbayev, K. D. 2020. *Tax audit and doing business in Kazakhstan: Cognitive map and scenario-based analysis*. Industrial Engineering and Management Systems, 19 (1): 289-300.

Bankman, J. and Griffith, T. 1987. *Social welfare and the rate structure: A new look at progressive taxation*. Calif. L. Rev., 75: 1905.

Barrios, S., Ivaskaite-Tamosiune, V., Maftei, A., Narazani, E. and Varga, J. 2020. *Progressive tax reforms in flat tax countries*. Eastern European Economics, 58 (2): 83-107.

Batrancea, L., Nichita, A., Olsen, J., Kogler, C., Kirchler, E., Hoelzl, E., Weiss, A., Torgler, B., Fookien, J., Fuller, J., Schaffner, M., Banuri, S., Hassanein, M., Alarcon-Garcia, G., Aldemir, C., Apostol, O., Weinberg, D. B., Batrancea, J., Belianin, A., Gomez, F. D. B., Briguglio, M., Dermol, V., Doyle, E., Gcabo, R., Gong, B., Ennya, S., Essel-Anderson, A., Frecknall-Hughes, J., Hasanain, A., Hizen, Y., Huber, O., Kaplanoglou, G., Kudla, J., Lemoine, J. E., Leurcharusmee, S., Matthiasson, T., Mehta, S., Min, S., Naufal, G., Niskanen, M., Nordblom, K., Ozturk, E. B., Pacheco, L., Pantya, J., Rapanos, V., Roland-Levy, C., Roux-Cesar, A. M., Salamzadeh, A., Savadori, L., Scheibe, V., Sharma, M., Summers, B., Suriya, K., Quoc, T., Villegas-Palacio, C., Visser, M., Xia, C., Yi, S. and Zukauskas, S. 2019. *Trust and power as determinants of tax compliance across 44 nations*. Journal of Economic Psychology, 74: 15.

Battiston, P., Duncan, D., Gamba, S. and Santoro, A. *Audit publicity and tax compliance: A natural experiment*. Scandinavian Journal of Economics, 122 (1): 81-108.

Baxter, P. and Jack, S. 2008. *Qualitative case study methodology: Study design and implementation for novice researchers*. The Qualitative Report, 13 (4): 544-559.

Becker, G. S. 1968. *Crime and punishment: An economic approach*. In: The economic dimensions of crime. Springer, 13-68.

Becker, G. S. 1974. *A theory of social interactions*. Journal of political economy, 82 (6): 1063-1093.

Benk, S., Budak, T., Yuzbasi, B. and Mohdali, R. 2016. *The impact of religiosity on tax compliance among Turkish self-employed taxpayers*. Religions, 7 (4): 1-10.

Berisha, G. and Pula, J. S. 2015. *Defining small and medium enterprises: a critical review*. Academic Journal of Business, Administration, Law and Social Sciences, 1 (1): 17-28.

Bernasconi, M. and Bernhofer, J. 2020. *Catch me if you can: Testing the reduction of compound lotteries axiom in a tax compliance experiment*. Journal of Behavioral and Experimental Economics, 84: 14.

Bernasconi, M., Corazzini, L. and Seri, R. 2014. *Reference dependent preferences, hedonic adaptation and tax evasion: Does the tax burden matter?* Journal of Economic Psychology, 40: 103-118.

Bernasconi, M., Levaggi, R. and Menoncin, F. 2020. *Dynamic tax evasion with habit formation in consumption*. Scandinavian Journal of Economics, 122 (3): 966-992.

Bernheim, B. D. and Rangel, A. 2005. *Behavioral public economics: Welfare and policy analysis with non-standard decision-makers*. National Bureau of Economic Research.

Bertinelli, L., Bourgain, A. and Leon, F. 2020. *Corruption and tax compliance: evidence from small retailers in Bamako, Mali*. Applied Economics Letters, 27 (5): 366-370.

Bethencourt, C. and Kunze, L. 2019. *Tax evasion, social norms, and economic growth*. *Journal of Public Economic Theory*, 21 (2): 332-346.

Bethencourt, C. and Kunze, L. 2020. *Social norms and economic growth in a model with labor and capital income tax evasion*. *Economic Modelling*, 86: 170-182.

Bevacqua, J. 2020. *Taxpayer attitudinal responses to tax audits strategic implications of recent findings from the United States*. *Australian Tax Review*, 49 (1): 5-31.

Biernacki, P. and Waldorf, D. 1981. *Snowball sampling: Problems and techniques of chain referral sampling*. *Sociological Methods & Research*, 10 (2): 141-163.

Biernat-Jarka, A. 2016. *Market failure and the provision of public goods in agriculture*. *Acta Scientiarum Polonorum. Oeconomia*, 15 (4)

Bin-Nashwan, S. A., Al-Hamed, A. M., Marimuthu, M. and Ramadhan, A. 2020. *Study on system fairness dimensions and tax compliance in the Middle East context*. *Problems and Perspectives in Management*, 18 (1): 181-191.

Bird, R. M. and Zolt, E. M. 2004. *Redistribution via taxation: The limited role of the personal income tax in developing countries*. *UCLA Law Review*, 52: 1627-1695.

Blankson, S. 2007. *A brief history of taxation*. Lulu. com.

Blaufus, K., Hechtner, F. and Jarzembki, J. K. 2019. *The income tax compliance costs of private households: Empirical evidence from Germany*. *Public Finance Review*, 47 (5): 925-966.

Bobek, D. D., Hageman, A. M. and Kelliher, C. F. 2013. *Analyzing the role of social norms in tax compliance behavior*. *Journal of Business Ethics*, 115 (3): 451-468.

Bobek, D. D., Hatfield, R. C. and Wentzel, K. 2007. *An investigation of why taxpayers prefer refunds: A theory of planned behavior approach*. *Journal of the American Taxation Association*, 29 (1): 93-111.

Borenstein, M., Hedges, L. V., Higgins, J. P. and Rothstein, H. R. 2010. *A basic introduction to fixed-effect and random-effects models for meta-analysis*. Research Synthesis Methods, 1 (2): 97-111.

Bornman, M. 2015. *The determinants and measurement of trust in tax authorities as a factor influencing tax compliance behaviour*. Journal of Economic and Financial Sciences, 8 (3)

Borshchevskiy, G. A. 2020. *Assessment of the tax system and tax authorities efficiency in Russia*. Voprosy Ekonomiki, (6): 56-79.

Bott, K. M., Cappelen, A. W., Sorensen, E. O. and Tungodden, B. 2020. *You've got mail: A randomized field experiment on tax evasion*. Management Science, 66 (7): 2801-2819.

Boudreaux, D. J. 2020. *Today's relevance of Adam Smith's wealth of nations*. The Independent Review, 24 (4): 487-497.

Brautigam, D., Fjeldstad, O.-H. and Moore, M. 2008. *Taxation and state-building in developing countries: Capacity and consent*. Cambridge: Cambridge University Press.

Bricki, N. and Green, J. 2007. *A guide to using qualitative research methodology*. Available: <https://www.alnap.org/help-library/a-guide-to-using-qualitative-research-methodology> (Accessed 15 November 2020).

Bruno, R. L. 2019. *Tax enforcement, tax compliance and tax morale in transition economies: A theoretical model*. European Journal of Political Economy, 56: 193-211.

Bucci, V. 2020. *Presumptive taxation methods: A review of the empirical literature*. Journal of Economic Surveys, 34 (2): 372-397.

Buckenmaier, J., Dimant, E. and Mittone, L. 2020. *Effects of institutional history and leniency on collusive corruption and tax evasion*. Journal of Economic Behavior & Organization, 175: 296-313.

Bullock, C. J. 1898. *Direct and Indirect Taxes in Economic Literature*. Political Science Quarterly, 13 (3): 442-476.

Burnard, P., Gill, P., Stewart, K., Treasure, E. and Chadwick, B. 2008. *Analysing and presenting qualitative data*. British Dental Journal, 204 (8): 429-432.

Butler, J. 2020. *Analytical challenges in modern tax administration*. Ohio State Technology Law Journal, 16 (1): 258-277.

Castaneda, V. M. *Tax equity and its association with fiscal morale*. International Public Management Journal (Article; Early Access): 26. Available: <http://10.1080/10967494.2019.1671926> (Accessed 16 January 2021).

Chalu, H. and Mzee, H. 2018. *Determinants of tax audit effectiveness in Tanzania*. Managerial Auditing Journal, 33 (1): 35-63.

Chauke, K., Sebola, M. and Mathebula, N. 2017. *Reflection on the ability to pay theory of taxation in the context of South African Municipalities*. In: Proceedings of. International Conference on Public Administration and Development ...,

Che Rosli, R., Ming Ling, L. and Embi, R. 2018. *Tax malfeasance of high net-worth individuals in Malaysia: tax audited cases*. Journal of Financial Crime, 25 (1): 155-169.

Chen, H. W., Yang, D. G., Zhang, X. M. and Zhou, N. 2020. *The moderating role of internal control in tax avoidance: Evidence from a COSO-Based Internal Control Index in China*. Journal of the American Taxation Association, 42 (1): 23-55.

Chilisa, B. 2019. *Indigenous research methodologies*. Los Angeles: Sage Publications.

Christians, A. 2016. *A Global Perspective on Citizenship-Based Taxation*. Mich. J. Int'l L., 38: 193.

Clark, J., Friesen, L. and Muller, A. 2004. *The good, the bad, and the regulator: An experimental test of two conditional audit schemes*. Economic Inquiry, 42 (1): 69-87.

Clark, A. M. 1998. *The qualitative-quantitative debate: moving from positivism and confrontation to post-positivism and reconciliation*. Journal of advanced nursing, 27 (6): 1242-1249.

Coates, W. H. 1924. *League of Nations Report on Double Taxation Submitted to the Financial Committee by Professors Bruins, Einaudi, Seligman, and Sir Josiah Stamp*. Journal of the Royal Statistical Society, 87 (1): 99-102.

Collier, D. 1993. *The comparative method*. In: Finifter, A. W. ed. *Political Science: The State of Discipline II*. American Political Science Association. Available: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1540884 (Accessed 21 November 2020).

Combs, J. G., Ketchen, D. J., Crook, T. R. and Roth, P. L. 2011. *Assessing cumulative evidence within 'Macro' research: Why meta-analysis should be preferred over vote counting*. Journal of Management Studies, 48 (1): 178-197.

Cosier, R. A. and Dalton, D. R. 1983. *Equity Theory and Time: A Reformulation*. The Academy of Management Review, 8 (2): 311-319.

Creswell, J. W. and Creswell, J. D. 2009. *Research design: Qualitative, quantitative, and mixed methods approaches*. London: Sage publications.

Creswell, J. W. and Poth, C. N. 2007. *Qualitative inquiry and research design: Choosing among five approaches*. 2nd ed. Thousand Oaks: Sage publications.

Crnogorac, M. and Lago-Peñas, S. 2020. *Determinants of tax morale in former Yugoslavian Countries*. Eastern European Economics, 58 (2): 174-196.

Cruz, J. E. 2020. *Tax management: approach to a taxpayer-centered concept*. Vision Gerencial, 19 (2): 202-213.

Curi, J. A. A. 2019. *Legalism and creativity: tax non-compliance in the eyes of the economic elite*. International Review of Sociology-Revue Internationale De Sociologie, 29 (1): 58-79.

Musimenta D., Nkundabanyanga SK., Muhwezi, M. and Akankunda B, A. 2017. *Tax compliance of small and medium enterprises: a developing country perspective*. Journal of Financial Regulation and Compliance, 25 (2): 30.

Damayanti, T. W., Nastiti, P. K. Y. and Supramono, S. 2020. *Does amnesty influence intention to comply?: if students are taxpayers already*. Business Management and Education, 18 (1): 1-13.

Damayanti, T. W. and Supramono, S. 2019. *Women in control and tax compliance*. Gender in Management, 34 (6): 444-464.

Dare, C., du Plessis, S. and Jansen, A. 2019. *Tax revenue mobilisation: Estimates of South Africa's personal income tax gap*. South African Journal of Economic and Management Sciences, 22 (1): 8.

D'Ascenzo, M. 2015. *Global trends in tax administration*. Journal of Tax Administration, 1 (1): 81-100.

D'Attoma, J. 2020. *More bang for your buck: tax compliance in the United States and Italy*. Journal of Public Policy, 40 (1): 1-24.

Dawson, T. E. 1997. *A Primer on Experimental and Quasi-experimental Design*.

De Giovanni, D., Lamantia, F. and Pezzino, M. 2019. *A behavioral model of evolutionary dynamics and optimal regulation of tax evasion*. Structural Change and Economic Dynamics, 50: 79-89.

De La Feria, R. 2020. *Tax fraud and selective law enforcement*. Journal of Law and Society, 47 (2): 240-270.

De Simone, L., Lester, R. and Markle, K. 2020. *Transparency and tax evasion: Evidence from the Foreign Account Tax Compliance Act (FATCA)*. Journal of Accounting Research, 58 (1): 105-153.

Defitri, S. Y. and Fauziati, P. 2018. *The effect of demographic factors and e-filling usage on tax compliance*. International Journal of Engineering and Technology(UAE), 7 (3): 156-158.

Delattre, M., Ocler, R., Moulette, P. and Rymeyko, K. 2009. *Singularity of qualitative research: From collecting information to producing results*. Tamara: Journal for Critical Organization Inquiry, 7 (3)

Denzin, N. K. 2012. *Triangulation 2.0*. Journal of Mixed Methods Research, 6 (2): 80-88.

Dhami, S. and Al-Nowaihi, A. 2007. *Why do people pay taxes? Prospect theory versus expected utility theory*. Journal of Economic Behavior & Organization, 64 (1): 171-192.

Diakomihalis, M. 2020. *Factors of tax evasion in Greece: taxpayers' perspective*. Journal of Tax Reform, 6 (2): 180-195.

Dinis, A., Martins, A. and Lopes, C. 2019. *The autonomous taxation of corporate expenses in Portugal: Empirical evidence of the Portuguese chartered accountants' perceptions of corporate taxation*. Accounting, Economics and Law: A Convivium,

Dmytryk, O. and Makukh, O. 2020. *Economic principles of taxation: problems of definition and embodiment in the tax legislation of Ukraine and the European States*. Baltic Journal of Economic Studies, 6 (2): 32-38.

Du Preez, H. and Stoman, J. 2019. *An analysis of current tax revolt factors in South Africa*. Meditari Accountancy Research, 28 (3): 455-483.

Dularif, M., Sutrisno, T. and Saraswati, E. 2019. *Is deterrence approach effective in combating tax evasion? A meta-analysis*. Problems and Perspectives in Management, 17 (2): 93-113.

Dunn, P., Farrar, J. and Cass, H. 2018. *The influence of guilt cognitions on taxpayers' voluntary disclosures*. Journal of Business Ethics, 148 (3): 689-701.

Durán-Cabré, J. M., Moré, A. E., Mas-Montserrat, M. and Salvadori, L. 2019. *The tax gap as a public management instrument: application to wealth taxes*. Applied Economic Analysis, 27 (81): 207-225.

Dwyer, T. 2014. *Taxation: The lost history*. The American Journal of Economics and Sociology, 73 (4): 664-988.

Dynarski, S. M. and Scott-Clayton, J. E. 2006. *The cost of complexity in federal student aid: Lessons from optimal tax theory and behavioral economics*. National Bureau of Economic Research.

Eja, B. R., Idaka, S. E. and John, O.-A. 2018. *Inhibiting factors to tax revenue generation in Cross River State, Nigeria*. Global Journal of Social Sciences, 17 (1): 11-19.

Enachescu, J., Olsen, J., Kogler, C., Zeelenberg, M., Breugelmans, S. M. and Kirchler, E. 2019. *The role of emotions in tax compliance behavior: A mixed-methods approach*. Journal of Economic Psychology, 74: 16.

Endalew Gutu, T., Tarekegn, G. and Beyene, Y. 2020. *Effects of tax audit on revenue generation*. Journal of International Trade, Logistics and Law, 6 (1): 65-74.

Eriksen, K. and Fallan, L. 1996. *Tax knowledge and attitudes towards taxation; A report on a quasi-experiment*. Journal of Economic Psychology, 17 (3): 387-402.

Espin, G. R. N., Lopez, W. B. J., Serpa, G. R. and Falcon, A. L. 2019. *The tax remission year 2018 in Ecuador and its impact on the General State Budget*. Dilemas Contemporaneos-Educacion Politica Y Valores, 6: 14.

Etikan, I., Musa, S. A. and Alkassim, R. S. 2016. *Comparison of convenience sampling and purposive sampling*. American Journal of Theoretical and Applied Statistics, 5 (1): 1-4.

Fagan, E. D. 1938. *Recent and contemporary theories of progressive taxation*. Journal of Political Economy, 46 (4): 457-498.

Faizal, S. M., Palil, M. R., Maelah, R. and Ramli, R. 2017. *Power and trust as factors influencing tax compliance behavior in Malaysia*. Asian Journal of Accounting and Governance, 8: 79-85.

Fanea-Ivanovici, M., Musetescu, R. C., Pana, M. C. and Voicu, C. 2019. *Fighting corruption and enhancing tax compliance through digitization: Achieving sustainable development in Romania*. Sustainability, 11 (5): 24.

Faridy, N., Freudenberg, B., Sarker, T. and Copp, R. 2016. The hidden compliance cost of VAT: *An exploration of psychological and corruption costs of VAT in a developing country*. Ejournal of Tax Research, 14 (1): 166-205.

Farrar, J., Massey, D. W., Osecki, E. and Thorne, L. 2020. *Tax fairness: conceptual foundations and empirical measurement*. Journal of Business Ethics, 162 (3): 487-503.

Feld, L. P. and Frey, B. S. 2002. *Trust breeds trust: How taxpayers are treated*. Economics of Governance, 3 (2): 87-99.

Fereday, J. and Muir-Cochrane, E. 2006. *Demonstrating rigor using thematic analysis: A hybrid approach of inductive and deductive coding and theme development*. International Journal of Qualitative Methods, 5 (1): 80-92.

Fidiana, F. 2020. *Compliance behaviour from the holistic human nature perspective*. Journal of Islamic Accounting and Business Research, 11 (5): 1145-1158.

Field, A. P. and Gillett, R. 2010. *How to do a meta-analysis*. British Journal of Mathematical and Statistical Psychology, 63 (3): 665-694.

Fishburn, P. C. 1968. *Utility theory*. Management science, 14 (5): 335-378.

Fjeldstad, O. H., Kagoma, C., Mdee, E., Sjursen, I. H. and Somville, V. 2020. *The customer is king: Evidence on VAT compliance in Tanzania*. World Development, 128: 12.

Forstater, M. 2005. *Taxation and primitive accumulation: The case of colonial Africa*. In: Paul, Z. ed. *The capitalist state and its economy: Democracy in socialism*. Emerald Group Publishing Limited, 51-64. Available: [https://doi.org/10.1016/S0161-7230\(04\)22002-8](https://doi.org/10.1016/S0161-7230(04)22002-8) (Accessed 12 November 2020).

Frecknall-Hughes, J., Moizer, P., Doyle, E. and Summers, B. 2017. *An examination of ethical influences on the work of tax practitioners*. Journal of Business Ethics, 146 (4): 729-745.

Frey, B. S. and Torgler, B. 2007. *Tax morale and conditional cooperation*. Journal of Comparative Economics, 35 (1): 136-159.

Frimmel, W., Halla, M. and Paetzold, J. 2019. *The intergenerational causal effect of tax evasion: evidence from the commuter tax allowance in Austria*. Journal of the European Economic Association, 17 (6): 1843-1880.

Fuentes-Contreras, R., Mungaray-Lagarda, A. and Ramirez-Urquidy, M. 2020. *Tax morale and social business in Mexico*. Journal of Developmental Entrepreneurship, 25 (2): 10.

Gangl, K. and Torgler, B. 2020. *How to achieve tax compliance by the wealthy: A review of the literature and agenda for policy*. Social Issues and Policy Review, 14 (1): 108-151.

Garcia, D., Tessone, C. J., Mavrodiev, P. and Perony, N. 2014. *The digital traces of bubbles: feedback cycles between socio-economic signals in the Bitcoin economy*. Journal of the Royal Society Interface 11(99): 20140623. Available: <http://dx.doi.org/10.1098/rsif.2014.0623> (Accessed 20 August 2021).

Garcia, F., Opromolla, L. D., Vezzulli, A. and Marques, R. 2020. *The effects of official and unofficial information on tax compliance*. Journal of Economic Psychology, 78: 17.

Gemmell, N. and Hasseldine, J. 2012. *The tax gap: a methodological review*. Emerald Group Publishing Limited.

Gemmell, N. and Ratto, M. 2018. *The effects of penalty information on tax compliance: evidence from a New Zealand field experiment*. National Tax Journal, 71 (3): 547-588.

Gillitzer, C. and Sinning, M. 2020. *Nudging businesses to pay their taxes: Does timing matter?* Journal of Economic Behavior & Organization, 169: 284-300.

Gobena, L. B. and Van Dijke, M. 2016. *Power, justice, and trust: A moderated mediation analysis of tax compliance among Ethiopian business owners.* Journal of Economic Psychology, 52: 24-37.

Gobena, L. B. and Van Dijke, M. 2017. *Fear and caring: Procedural justice, trust, and collective identification as antecedents of voluntary tax compliance.* Journal of Economic Psychology, 62: 1-16.

Gonzalez-Robayo, F. G., Gonzalez-Sanabria, J. S. and Tellez-Hernandez, L. 2019. *Computer labs to improve Colombia's tax compliance process.* Revista Cientifica, 3 (36): 325-340.

Gonzalez-Vasco, C., Delgado-Rodriguez, M. J. and de Lucas-Santos, S. 2019. *Tax compliance and wellbeing: an analysis with a global perspective.* Retos-Revista De Ciencias De La Administracion Y Economia, 9 (18): 331-344.

Gorecki, M. A. and Letki, N. *Social norms moderate the effect of tax system on tax evasion: Evidence from a large-scale survey experiment.* Journal of Business Ethics: 20.

Grant, B. M. and Giddings, L. S. 2002. *Making sense of methodologies: A paradigm framework for the novice researcher.* Contemporary Nurse, 13 (1): 10-28.

Guba, E. G. and Lincoln, Y. S. 1994. *Competing paradigms in qualitative research.* In: Denzin, N. K. and Lincoln, Y. S. eds. Handbook of qualitative research. Thousand Oaks, Calif.: Sage, 105-117.

Guo, J. T. and Hung, F. S. 2020. Tax evasion and financial development under asymmetric information in credit markets. Journal of Development Economics, 145: 15.

Guzel, S. A., Ozer, G. and Ozcan, M. 2019. *The effect of the variables of tax justice perception and trust in government on tax compliance: The case of Turkey*. Journal of Behavioral and Experimental Economics, 78: 80-86.

Haig, B. D. 2018. *An abductive theory of scientific method*. Psychological Methods, 10 (4): 371-388.

Hakim, T. A. 2020. *Direct versus indirect taxes: Impact on economic growth and total tax revenue*. International Journal of Financial Research, 11 (2): 146-153.

Hamdah, D. F. L., Rahmadya, R. R. and Nurlaela, L. 2020. *The effect of attitude, subjective norm, and perceived behavior control of taxpayer compliance of private person in tax office Garut, Indonesia*. Review of Integrative Business and Economics Research, 9: 298-306.

Hamid, S. A. 2014. *Tax compliance behaviour of tax agents: a comparative study of Malaysia and New Zealand*.

Haning, M. T., Hamzah, H. and Tahili, M. H. 2020. *Determinants of public trust and its effect on taxpayer compliance behavior in South Sulawesi province, Indonesia*. Viesoji Politika ir Administravimas, 19 (2)

Haning, M. T., Hasniati and Tahili, M. H. 2019. *Investigating the effect of public trust on tax compliance*. Bisnis & Birokrasi, 26 (2): 96-105.

Harju, J., Matikka, T. and Rauhanen, T. 2019. *Compliance costs vs. tax incentives: Why do entrepreneurs respond to size-based regulations?* Journal of Public Economics, 173: 139-164.

Harriman, D. 2010. *The logical leap*. Physics Today, 63 (11): 48-50.

Heale, R. and Twycross, A. 2015. *Validity and reliability in quantitative studies*. Evidence-Based Nursing, 18 (3): 66-67.

Heckathorn, D. D. 2011. *Snowball versus respondent-driven sampling*. Sociological Methodology, 41 (1): 355-366.

Hedges, L. V. and Olkin, I. 1980. *Vote-counting methods in research synthesis*. Psychological Bulletin, 88 (2): 359.

Hickey, R., Lozej, M. and Smyth, D. 2020. *Financing government investment and its implications for public capital: A small open economy perspective*. Economic Modelling, 93: 620-641.

Higgins, J. P. and Thompson, S. G. 2002. *Quantifying heterogeneity in a meta-analysis*. Statistics in Medicine, 21 (11): 1539-1558.

Hoa, N. T., Lien, V. T. P. and Tuan, T. T. 2019. *Determinants affecting tax compliance: A case of enterprises in Vietnam*. Academy of Accounting and Financial Studies Journal, 23 (3)

Hofmann, E., Voracek, M., Bock, C. and Kirchler, E. 2017. *Tax compliance across sociodemographic categories: Meta-analyses of survey studies in 111 countries*. Journal of Economic Psychology, 62: 63-71.

Holden, M. T. and Lynch, P. 2004. *Choosing the appropriate methodology: Understanding research philosophy*. The Marketing Review, 4 (4): 397-409.

Horodnic, I. A. 2018. *Tax morale and institutional theory: a systematic review*. International Journal of Sociology and Social Policy, 38 (9-10): 868-886.

Hox, J. J. and Boeije, H. R. 2005. *Data collection, primary versus secondary*. In: *Encyclopedia of social measurement*. Elsevier, 593-599. Available: <http://dspace.library.uu.nl/handle/1874/23634> (Accessed 15 November 2020).

Inasius, F. 2019. *Factors influencing SME tax compliance: Evidence from Indonesia*. International Journal of Public Administration, 42 (5): 367-379.

Ioannidis, J. P. 2008. *Interpretation of tests of heterogeneity and bias in meta-analysis*. Journal of Evaluation in Clinical Practice, 14 (5): 951-957.

Iqbal, S. and Sholihin, M. 2019. *The role of cognitive moral development in tax compliance decision making An analysis of the synergistic and antagonistic tax climates*. International Journal of Ethics and Systems, 35 (2): 227-241.

Jackson, B. R. and Milliron, V. C. 1986. *Tax compliance research: Findings, problems, and prospects*. Journal of Accounting Literature, 5 (1): 125-165.

Jacobs, B. 2013. *From optimal tax theory to applied tax policy*. FinanzArchiv/Public Finance Analysis: 338-389.

Jacquemet, N., Luchini, S., Malezieux, A. and Shogren, J. F. 2019. *A psychometric investigation of the personality traits underlying individual tax morale*. B E Journal of Economic Analysis & Policy, 19 (3): 25.

Jacquemet, N., Luchini, S., Malezieux, A. and Shogren, J. F. 2020. *Who'll stop lying under oath? Empirical evidence from tax evasion games*. European Economic Review, 124: 14.

Jalan, A. and Vaidyanathan, R. 2017. *Tax havens: conduits for corporate tax malfeasance*. Journal of Financial Regulation and Compliance, 25 (1): 86-104.

James, S. and Alley, C. 2002. *Tax compliance, self-assessment and tax administration*. Journal of Finance and Management in Public Services, 2 (2): 27-42.

James, S., McGee, R. W., Benk, S. and Budak, T. 2019. *How seriously do taxpayers regard tax evasion? A survey of opinion in England*. Journal of Money Laundering Control, 22 (3): 563-575.

Janova, J., Hampel, D. and Nerudova, D. 2019. *Design and validation of a tax sustainability index*. European Journal of Operational Research, 278 (3): 916-926.

Jimenez, P. and Iyer, G. S. 2016. *Tax compliance in a social setting: The influence of social norms, trust in government, and perceived fairness on taxpayer compliance*. Advances in Accounting, 34: 17-26.

Johnson, J. S. 2015. *Qualitative sales research: An exposition of grounded theory*. Journal of Personal Selling & Sales Management, 35 (3): 262-273.

Johnson, R. B., Onwuegbuzie, A. J. and Turner, L. A. 2007. *Toward a definition of mixed methods research*. Journal of Mixed Methods Research, 1 (2): 112-133.

Jolodar, S. Y. E., Ahmadi, M. and Imankhan, N. 2019. *Presenting the model of tax compliance: the role of social-psychological factors*. Asia-Pacific Management Accounting Journal, 14 (2): 135-156.

Journard, I. 2001. *Tax systems in European Union countries*. Available at SSRN 276868,

Junpath, S. V., Kharwa, M. S. E. and Stainbank, L. J. 2016. *Taxpayers' attitudes towards tax amnesties and compliance in South Africa: an exploratory study*. South African Journal of Accounting Research, 30 (2): 97-119.

Kamasa, K., Adu, G. and Oteng-Abayie, E. F. 2019. *Business environment and firms' decisions to evade taxes: Evidence from Ghana*. African Journal of Business and Economic Research, 14 (1): 135-155.

Kamasa, K., Adu, G. and Oteng-Abayie, E. F. 2020. *Firm productivity in sub-Saharan Africa: how relevant is quality of tax administration?* African Journal of Economic and Management Studies, 11 (1): 75-90.

Kamrowski, R. L., Sutton, S. G., Tobin, R. C. and Hamann, M. 2014. *Potential applicability of persuasive communication to light-glow reduction efforts: a case study of marine turtle conservation*. Environmental Management, 54 (3): 583-595.

Kaplanoglou, G., Rapanos, V. T. and Daskalakis, N. 2016. *Tax compliance behaviour during the crisis: the case of Greek SMEs*. European Journal of Law and Economics, 42 (3): 405-444.

Kayaoglu, A. and Williams, C. C. 2020. *Explaining tax non-compliance from a neo-institutionalist perspective: Some lessons from a public opinion survey in Turkey*. Sosyoekonomi, 28 (43): 89-106.

Kendrick, M. S. 1939. *The ability-to-pay theory of taxation*. The American Economic Review, 29 (1): 92-101.

Kennedy, B. L., Thornberg, R. and Flick, U. 2018. *Deduction, induction, and abduction*. In: Flick, U. ed. *The SAGE handbook of qualitative data collection*. London: Sage, 49-64. Available: <https://books.google.co.za/books?id=X0VBDwAAQBAJ&lpg=PA49&ots=AW4abq8Bvb&dq=abductive%20reasoning%20in%20quantitative%20studies&lr&pg=PA52#v=onepage&q=abductive%20reasoning%20in%20quantitative%20studies&f=false> (Accessed

Khlif, H. and Achek, I. 2015. *The determinants of tax evasion: a literature review*. International Journal of Law and Management, 57 (5): 486-497.

Khwaja, M. S. and Iyer, I. 2014. *Revenue potential, tax space, and tax gap: a comparative analysis*. Geneva: The World Bank.

Kicová, M. 2018. *Reporting on Revenue from Non-Exchange Transactions in Public Sector Accounting*.

Kim, H. S. and Lee, H. A. 2020. *Associations among procedural fairness, tax compliance, and tax re-audits*. Journal of Asian Finance Economics and Business, 7 (7): 187-198.

Kirchler, E., Hoelzl, E. and Wahl, I. 2008. *Enforced versus voluntary tax compliance: The “slippery slope” framework*. Journal of Economic Psychology, 29 (2): 210-225.

Kochanova, A., Hasnain, Z. and Larson, B. 2020. *Does E-Government improve government capacity? Evidence from tax compliance costs, tax revenue, and public procurement competitiveness*. World Bank Economic Review, 34 (1): 101-120.

Kogler, C., Mittone, L. and Kirchler, E. 2016. *Delayed feedback on tax audits affects compliance and fairness perceptions*. Journal of Economic Behavior & Organization, 124: 81-87.

Kotb, A., Elbardan, H. and Halabi, H. 2020. *Mapping of internal audit research: a post-Enron structured literature review*. Accounting, Auditing & Accountability Journal, 33 (8): 1969-1996.

Kotnik, Ž., Klun, M. and Slabe-Erker, R. 2020. *Identification of the factors that affect the environmental administrative burden for businesses*. Sustainability, 12 (16): 6555.

Koumpias, A. M., Leonardo, G. and Martinez-Vazquez, J. 2020. *Trust in government institutions and tax morale*. Atlanta, Georgia: International Center for Public Policy, Georgia State University.

Koumpias, A. M. and Martinez-Vazquez, J. 2019. *The impact of media campaigns on tax filing: quasi-experimental evidence from Pakistan*. Journal of Asian Economics, 63: 33-43.

Krauss, S. E. 2005. *Research paradigms and meaning making: A primer*. The Qualitative Report, 10 (4): 758-770.

Lastiati, A., Siregar, S. V., Diyanty, V. and Samingun. 2020. *Tax avoidance and cost of debt: Ownership structure and corporate governance*. Pertanika Journal of Social Science and Humanities, 28 (1): 533-546.

Le, H. T. H., Tuyet, V. T. B., Hanh, C. T. B. and Do, Q. H. 2020. *Factors affecting tax compliance among small-and medium-sized enterprises: Evidence from Vietnam*. Journal of Asian Finance, Economics and Business, 7 (7): 209-217.

Le, H. T. H., Tuyet, V. T. B., Hanh, C. T. B. and Hung, Q. 2020. *Factors affecting tax compliance among small-and medium-sized enterprises: Evidence from Vietnam*. The Journal of Asian Finance, Economics and Business (JAFEB), 7 (7): 209-217.

Leech, N. L. and Onwuegbuzie, A. J. 2009. *A typology of mixed methods research designs*. Quality & quantity, 43 (2): 265-275.

Leon, A. C., Davis, L. L. and Kraemer, H. C. 2011. *The role and interpretation of pilot studies in clinical research*. Journal of Psychiatric Research, 45 (5): 626-629.

Li, J. J. and Wang, X. 2020. *Does VAT have higher tax compliance than a turnover tax? Evidence from China*. International Tax and Public Finance, 27 (2): 280-311.

Liberati, A., Altman, D. G., Tetzlaff, J., Mulrow, C., Gøtzsche, P. C., Ioannidis, J. P. A., Clarke, M., Devereaux, P. J., Kleijnen, J. and Moher, D. 2009. *The PRISMA statement for reporting systematic reviews and meta-analyses of studies that evaluate health care interventions: explanation and elaboration*. Journal of clinical epidemiology, 62 (10): e1-e34.

Lin, K. Z., Mills, L. F., Zhang, F. and Li, Y. B. 2018. *Do political connections weaken tax enforcement effectiveness?* Contemporary Accounting Research, 35 (4): 1941-1972.

Lin, L. and Chu, H. 2018. *Quantifying publication bias in meta-analysis*. Biometrics, 74 (3): 785-794.

Lind, E. A., Kray, L. and Thompson, L. 2001. *Primacy effects in justice judgments: Testing Predictions from fairness Heuristic Theory*. Organizational Behavior and Human Decision Processes, 85 (2): 189-210.

Loayza, S. C., Mamani-Benito, O. and Moreira, D. H. B. 2020. *Effectiveness of the program "How important it is to pay taxes!" in the development of tax education in teenagers*. Apuntes Universitarios, 10 (1): 66-+.

Lois, P., Drogalas, G., Karagiorgos, A. and Chlorou, A. 2019. *Tax compliance during fiscal depression periods: the case of Greece*. Euromed Journal of Business, 14 (3): 274-291.

Luitel, H. S. and Sobel, R. S. 2007. *The revenue impact of repeated tax amnesties*. Public budgeting & finance, 27 (3): 19-38.

Luttmer, E. F. and Singhal, M. 2014. *Tax morale*. Journal of Economic Perspectives, 28 (4): 149-168.

Mack, N., Woodsong, C., MacQueen, K., Guest, G. and Namey, E. 2005. *Qualitative research methods: A data collector's field guide*. North Carolina: Family Health International.

Madrian, B. C. 2014. *Applying insights from behavioral economics to policy design*. Annual Review of Economics, 6 (1): 663-688.

Maguire, S., Hardy, C. and Lawrence, T. B. 2004. *Institutional entrepreneurship in emerging fields: HIV/AIDS treatment advocacy in Canada*. Academy of Management Journal, 47 (5): 657-679.

Malik, R. 2020. *Transparency, elections, and Pakistani politicians' tax compliance*. Comparative Political Studies, 53 (7): 1060-1091.

Malterud, K. 2001. *Qualitative research: standards, challenges, and guidelines*. The Lancet, 358 (9280): 483-488.

Marandu, E. E., Mbekomize, C. J. and Ifezue, A. N. 2015. *Determinants of tax compliance: A review of factors and conceptualizations*. International Journal of Economics and Finance, 7 (9): 207-218.

Marshall, C. R. 1995. *The "what" of the study: building the conceptual framework*. In: Designing qualitative research. 3rd edn. London: Sage.

Martin, I. W., Mehrotra, A. K. and Prasad, M. 2009. *The new fiscal sociology: Taxation in comparative and historical perspective*. Cambridge University Press.

Martins, F. A. 2020. *Ancillary obligations and new trends in terms of cooperative compliance in the tax administration of the state of Sao Paulo*. Revista De La Facultad De Derecho, (48): 43.

Masclet, D., Montmarquette, C. and Viennot-Briot, N. 2019. *Can whistleblower programs reduce tax evasion? Experimental evidence*. Journal of Behavioral and Experimental Economics, 83: 15.

Mas'ud, A., Abd Manaf, N. A. and Saad, N. 2019. *Trust and power as predictors to tax compliance: glocal evidence*. Economics & Sociology, 12 (2): 192-204.

McInnes, M. D., Moher, D., Thombs, B. D., McGrath, T. A., Bossuyt, P. M., Clifford, T., Cohen, J. F., Deeks, J. J., Gatsonis, C. and Hooft, L. 2018. *Preferred reporting*

items for a systematic review and meta-analysis of diagnostic test accuracy studies: the PRISMA-DTA statement. Jama, 319 (4): 388-396.

McKee, M., Siladke, C. A. and Vossler, C. A. 2018. *Behavioral dynamics of tax compliance when taxpayer assistance services are available.* International Tax and Public Finance, 25 (3): 722-756.

McKerchar, M. 2008. *Philosophical paradigms, inquiry strategies and knowledge claims: applying the principles of research design and conduct to taxation.* eJournal of Tax Research 6(1): 5-22. Available: <http://classic.austlii.edu.au/au/journals/eJITaxR/2008/1.html> (Accessed 10 November 2020).

McKibbin, W. and Fernando, R. eds. 2020. *The economic impact of COVID-19.* London: Centre for Economic Polciy Research.

Meadows, B., Langley, P. and Emery, M. 2014. An abductive approach to understanding social interactions. *Advances in Cognitive Systems*, 3: 87-106.

Medina, L. and Schneider, F. 2018. *Shadow economies around the world: what did we learn over the last 20 years?* International Monetary Fund. Available: <https://www.imf.org/en/Publications/WP/Issues/2018/01/25/Shadow-Economies-Around-the-World-What-Did-We-Learn-Over-the-Last-20-Years-45583> (Accessed 10 June 2020).

Merriam-Webster. *The Merriam Webster dictionary* 2021. Available: <https://www.merriam-webster.com/dictionary/morale> (Accessed June 9, 2021).

Mickiewicz, T., Rebmann, A. and Sauka, A. 2019. *To pay or not to pay? Business owners' tax morale: Testing a neo-institutional framework in a transition environment.* Journal of Business Ethics, 157 (1): 75-93.

Misra, F., Sugiri, S., Suwardi, E. and Nahartyo, E. 2020. *Information search behavior and tax consultants' recommendation: Experimental examination on the role of social norms.* Journal of Business Economics and Management, 21 (1): 115-135.

Mohagheghi, P. and Conradi, R. 2004. *Vote-counting for combining quantitative evidence from empirical studies-an example*. In: Proceedings of the International Symposium on Empirical Software Engineering (ISESE'04). Citeseer,

Mohdali, R., Benk, S., Budak, T., Mohdlsa, K. and Yussof, S. H. 2017. *A cross-cultural study of religiosity and tax compliance attitudes in Malaysia and Turkey*. Ejournal of Tax Research, 15 (3): 490-505.

Mohtadi, H., Ross, M. L., Jarrett, U. and Ruediger, S. 2019. *Kleptocracy and tax evasion under resource abundance*. Economics & Politics, 31 (3): 323-373.

Moon, S., Røttingen, J.-A. and Frenk, J. 2017. *Global public goods for health: weaknesses and opportunities in the global health system*. Health Economics, Policy and Law, 12 (2): 195-205.

Morgan, D. L. 2014. *Pragmatism as a Paradigm for Social Research*. Qualitative Inquiry, 20 (8): 1045-1053.

Morrison, K. M. 2009. *Oil, nontax revenue, and the redistributive foundations of regime stability*. International Organization, 63 (1): 107-138.

Mowers, J.-L. 2017. *Evaluating the South African small business policy at the local and district municipality level*. M.B.A, University of Pretoria.

Muh, D., Sutrisno, T., Nurkholis and Saraswati, E. 2019. *Is deterrence approach effective in combating tax evasion? A meta-analysis*. Problems and Perspectives in Management, 17 (2): 93-113.

Murphy, K., Bradford, B. and Jackson, J. 2016. *Motivating compliance behavior among offenders: Procedural justice or deterrence?* Criminal Justice and Behavior, 43 (1): 102-118.

Murphy, R. 2019. *The European tax gap*. Available: https://www.socialistsanddemocrats.eu/sites/default/files/2019-01/the_european_tax_gap_en_190123.pdf (Accessed 15 November 2020).

Musimenta, D. 2020. *Knowledge requirements, tax complexity, compliance costs and tax compliance in Uganda*. Cogent Business & Management, 7 (1): 19.

Musimenta, D., Naigaga, S., Banauka, J. and Najjuma, M., S. 2019. *Tax compliance of financial services firms: a developing economy perspective*. Journal of Money Laundering Control, 23 (1): 14-31.

National Planning Commission. 2012. *National Development Plan 2030: our future make it work*. Pretoria: The Presidency. Available: <https://www.gov.za/issues/national-development-plan-2030> (Accessed 20 August 2020).

South Africa. 2019. *2019 Tax statistics* Pretoria: National Treasury. Available: <https://www.sars.gov.za/AllDocs/Documents/Tax%20Stats/Tax%20Stats%202019/Tax%20Stats%202019%20Full%20doc.pdf> (Accessed 23 April 2020).

Ndonga, D. 2019. *International taxation of e-commerce business income*. The International Tax Journal,

Nemec, J., Cizmarik, P. and Sagat, V. 2017. *An estimation of the compliance costs of Slovak taxation*. E & M Ekonomie a Management, 20 (2): 77-86.

Nemore, F. and Morone, A. 2019. *Public spirit on immigration issues and tax morale in Italy: An empirical investigation*. Journal of Behavioral and Experimental Economics, 81: 11-18.

Neuman, L. W. 2014. *Social research methods*. 7th ed. Harlow, Essex: Pearson Education

Newman, W. and Nokhu, M. 2018. *Evaluating the impact of tax knowledge on tax compliance among small medium enterprises in a developing country*. Academy of Accounting and Financial Studies Journal, 22 (6): 1-14.

Nguyen, L. T., Nguyen, A. H. V., Le, H. D., Le, A. H. and Truong, T. T. V. 2020. *The factors affecting corporate income tax non-compliance: A case study in Vietnam*. The Journal of Asian Finance, Economics and Business, 7 (8): 103-115.

Nguyen, T. T. D., Pham, T. M. L., Le, T. T., Truong, T. H. L. and Tran, M. D. 2020. *Determinants influencing tax compliance: The case of Vietnam*. Journal of Asian Finance Economics and Business, 7 (2): 65-73.

Nichita, A., Batrancea, L., Pop, C. M., Batrancea, J., Morar, J. D., Masca, E., Roux-Cesar, A. M., Forte, D. and Formigoni, H. 2019. *We learn not for school but for life: Empirical evidence of the impact of tax literacy on tax compliance*. Eastern European Economics, 57 (5): 397-429.

Nikulin, D. 2020. *Tax evasion, tax morale, and trade regulations: company-level evidence from Poland*. Entrepreneurial Business and Economics Review, 8 (1): 111-125.

Nkundabanyanga, S. K., Mvura, P., Nyamuyonjo, D., Opiso, J. and Nakabuye, Z. 2017. *Tax compliance in a developing country: Understanding taxpayers' compliance decision by their perceptions*. Journal of Economic Studies, 44 (6): 931-957.

Nordin, Z. S., Muhammad, I., Wahab, K. A. and Yaakub, N. A. 2017. *The personal characteristics that influence tax auditors' conciliatory style: An empirical study*. Pertanika Journal of Social Sciences and Humanities, 25 (2): 961-976.

Norregaard, J. and Khan, T. S. 2007. *Tax policy: Recent trends and coming challenges*. Available: <https://www.imf.org/external/pubs/ft/wp/2007/wp07274.pdf> (Accessed 20 January 2021).

Ocheni, S. 2015. *A causality analysis between tax compliance behaviour and Nigerian economic growth*. Mediterranean Journal of Social Sciences, 6 (1S1): 577-582.

Ochieng, P. 2009. *An analysis of the strengths and limitation of qualitative and quantitative research paradigms*. Problems of Education in the 21st Century, 13: 13-18.

Oddou, R. 2020. *The effect of a progressive taxation scheme on the endogenous formation of jurisdictions*. Journal of Public Economic Theory, 22 (5): 1705-1712.

OECD. 2013. *Policy framework for investment user's toolkit* Available: <http://www.oecd.org/investment/toolkit/policyareas/41890309.pdf> (Accessed 10 December 2020).

Office of Chief Counsel Criminal Tax Division. 2009. *Tax crimes handbook* Available: https://www.irs.gov/pub/irs-utl/tax_crimes_handbook.pdf (Accessed 10 July 2020).

Olsen, J., Kasper, M., Enachescu, J., Benk, S., Budak, T. and Kirchler, E. 2018. *Emotions and tax compliance among small business owners: An experimental survey*. International Review of Law and Economics, 56: 42-52.

Oludele Akinloye, A. 2015. *Determinants of SMEs growth and performance in Cameroon's central and littoral provinces' manufacturing and retail sectors*. African Journal of Economic and Management Studies, 6 (2): 183-196.

Olugbara, C.T., Letseka, M., Ogunsakin, R. E., and Olugbara, O., O. 2021. "Meta-Analysis of Factors Influencing Student Acceptance of Massive Open Online Courses for Open Distance Learning," *The African Journal of Information Systems*: Vol. 13 : Iss. 3 , Article 5. Available at: <https://digitalcommons.kennesaw.edu/ajis/vol13/iss3/5> (Accessed 08 August 2021)

Omarjee, L. 2018. *Ramaphosa's 10-point plan to revive SA's economy*. Available: <https://www.fin24.com/Economy/ramaphosas-10-point-plan-to-revive-sas-economy-20180216> (Accessed 10 August 2020).

Onu, D. and Oats, L. 2016. *"Paying tax is part of life": Social norms and social influence in tax communications*. Journal of Economic Behavior & Organization, 124: 29-42.

Onwuegbuzie, A. J. and Collins, K. M. 2007. *A typology of mixed methods sampling designs in social science research*. The Qualitative Report, 12 (2): 281-316.

Orberg, M. and Koerver Schmidt, P. 2019. *The principle of legality in the context of Danish tax law*. Available: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3389155 (Accessed 12 January 2021).

Ozdemir, D., Celik, A. K. and Bedir Kara, S. 2019. *Analyzing factors affecting tax morale levels in Turkey using alternative ordered response models*. Transylvanian Review of Administrative Sciences, (57E): 86-102.

Pacaldo, R. S. and Ferrer, R. C. 2020. *Determinants of tax morale using Structural Equation Model (SEM)*. DLSU Business & Economics Review, 29 (2): 40-57.

Pahl, M. R., Malek, M. M. and Jaguli, A. R. 2016. *Issues, challenges and problems with tax evasion: The institutional factors approach*. Gadjah Mada International Journal of Business, 18 (2): 187-206.

Palil, M. R. and Mustapha, A. F. 2011. *Factors affecting tax compliance behaviour in self assessment system*. African Journal of Business Management, 5 (33): 12864-12872.

Pampel, F., Andrighetto, G. and Steinmo, S. 2019. *How institutions and attitudes shape tax compliance: a cross-national experiment and survey*. Social Forces, 97 (3): 1337-1364.

Paris, R. 2003. *The globalization of taxation? Electronic commerce and the transformation of the state*. International Studies Quarterly, 47 (2): 153-182.

Patrick, S. M. 2013. *A meta-analysis of dissertation research on the relationship between professional learning community implementation and student achievement*. University of Alabama Libraries.

Peprah, C., Abdulai, I. and Agyemang-Duah, W. 2020. *Compliance with income tax administration among micro, small and medium enterprises in Ghana*. Cogent Economics & Finance, 8 (1): 25.

Pereira, I. V. and Silva, C. A. T. 2020. *The influence of internal and external rewards on people's behavior regarding tax evasion practices in Brazil*. Revista Contabilidade & Finanças, 31 (83): 228-243.

Perez-Truglia, R. and Troiano, U. 2018. *Shaming tax delinquents*. Journal of Public Economics, 167: 120-137.

Phua, S. 2015. *Convergence in global tax compliance*. Singapore Journal of Legal Studies: 77-104.

Pope, J. and Jabbar, H. 2008. *Tax compliance costs of small and medium enterprises in Malaysia: policy implications*. Available: <http://hdl.handle.net/20.500.11937/12643> (Accessed 10 June 2020).

Raczkowski, K. 2015. *Measuring the tax gap in the European economy*. Journal of Economics & Management, 21: 58-72.

Rahi, S. 2017. *Research design and methods: A systematic review of research paradigms, sampling issues and instruments development*. International Journal of Economics & Management Sciences, 6 (2): 1-5.

Rai, P. K. 2004. *The challenges of tax collection in developing economies (with Special Reference to India)*.

Rajasekar, S., Philominathan, P. and Chinnathambi, V. 2013. *Research methodology*. Available: <https://arxiv.org/pdf/physics/0601009.pdf> (Accessed 12 January 2021).

Ramayah, T., Yusoff, Y. M., Jamaludin, N. and Ibrahim, A. 2009. *Applying the theory of planned behavior (TPB) to predict internet tax filing intentions*. International Journal of Management, 26 (2): 272.

Rashid, M. H. U. 2020. *Taxpayer's attitude towards tax evasion in a developing country: Do the demographic characteristics matter?* International Journal of Applied Behavioral Economics, 9 (2): 1-19.

Ravselj, D. and Aristovnik, A. 2018. *Administrative barriers for SMEs in the field of tax compliance and financial and accounting reporting: Evidence from Slovenia*. Problemy Zarzadzania-Management Issues, 16 (1): 75-90.

Reed, W. R. and Rogers, C. L. 2006. *Tax burden and the mismeasurement of state tax policy*. Public Finance Review, 34 (4): 404-426.

Rehman, A. A. and Alharthi, K. 2016. *An introduction to research paradigms*. International Journal of Educational Investigations, 3 (8): 51-59.

Remali, A. M., Khan, A. G. Z., Arif, N. S. H. N. M. K., Zulkifly, N. A. and Yusri, N. A. 2018. *The tendency towards tax non-compliance*. Global Business and Management Research, 10 (3): 1.

Remali, A. M., Satar, A. N. S. A., Mamad, F. N. A., Abidin, N. F. Z. and Zainuddin, S. Z. 2018. *Tax knowledge, tax penalty and tax rate on tax compliance among small medium enterprise in Selangor*. Global Business and Management Research, 10 (3): 12.

Richardson, G., Taylor, G. and Wright, C. S. 2014. *Corporate profiling of tax-malfeasance: A theoretical and empirical assessment of tax-audited Australian firms*. eJournal of Tax Research, 12 (2): 359-382.

Ritchie, J., Lewis, J., Elam, G., Tennant, R. and Rahim, N. 2013. *Designing and selecting samples*. In: Ritchie, J., Lewis, J., Nicholls, C. M. and Ormston, R. eds. Qualitative research practice: A guide for social science students and researchers. 2nd edn. London: Sage. Available: https://books.google.co.za/books?hl=en&lr=&id=EQSIAwAAQBAJ&oi=fnd&pg=PA111&dq=exploratory+studies+and+purposive+sampling&ots=l_RPmuTq7O&sig=NCn0C2PfYe7_6fvo2GTwdtsfkqU#v=onepage&q=exploratory%20studies%20and%20purposive%20sampling&f=true (Accessed

Rivis, A. and Sheeran, P. 2003. *Descriptive norms as an additional predictor in the theory of planned behaviour: A meta-analysis*. Current Psychology, 22 (3): 218-233.

Robbins, B. and Kiser, E. 2018. *Legitimate authorities and rational taxpayers: An investigation of voluntary compliance and method effects in a survey experiment of income tax evasion*. Rationality and Society, 30 (2): 56.

Roberts, M. L., Hite, P. A. and Bradley, C. F. 1994. *Understanding attitudes toward progressive taxation*. Public Opinion Quarterly, 58 (2): 165-190.

Robu, M. 2013. *The dynamic and importance of SMEs in economy*. The USV Annals of Economics and Public Administration, 13 (1): 84-89.

Rodriguez-Justicia, D. and Theilen, B. 2018. *Education and tax morale*. Journal of Economic Psychology, 64: 18-48.

Romani, L., Barmeyer, C., Primecz, H. and Pilhofer, K. 2018. *Cross-cultural management studies: state of the field in the four research paradigms*. International Studies of Management & Organization, 48 (3): 247-263.

Romanus, R. N. P. 2018. *Risk attitude: measurement and consequences in the tax compliance context*. The Journal of Theoretical Accounting Research, 14 (1): 19-54.

Rosenthal, R. and DiMatteo, M. R. 2002. *Meta-analysis*. In: Pashler, H. and Wixted, J. eds. Stevens' handbook of experimental psychology. John Wiley, 391-428.

Rosid, A., Evans, C. and Binh, T. N. 2018. *Tax non-compliance and perceptions of corruption: policy implications for developing countries*. Bulletin of Indonesian Economic Studies, 54 (1): 25-60.

Rosli, R. C., Ling, L. M. and Embi, R. 2018. *Tax malfeasance of high net-worth individuals in Malaysia: tax audited cases*. Journal of Financial Crime, 25 (155-169)

Saad, N. 2010. *Fairness perceptions and compliance behaviour: The case of salaried taxpayers in Malaysia after implementation of the self-assessment system*. eJTR, 8: 32.

Saad, N. 2014. *Tax knowledge, tax complexity and tax compliance: Taxpayers' view*. Procedia-Social and Behavioral Sciences, 109: 1069-1075.

Sadness, N., Juma, B., Orobia, L. and Opiso, J. 2019. *Antecedents of tax compliance of small business enterprises: a developing country perspective*. International Journal of Law and Management, 61 (1): 24-44.

Sadri, F., Toni, F. and Torroni, P. 2001. *Logic agents, dialogues and negotiation: an abductive approach*. In: Proceedings of Proceedings of the AISB 2001 Symposium on Information Agents for E-Commerce. UK,

Samson, W. D. 2002. *History of taxation*. In: The International Taxation System. Springer, 21-41. Available: https://link.springer.com/chapter/10.1007/978-1-4615-1071-0_2 (Accessed 10 July 2020).

SARS. 2021. *Types of taxes*. Available: <https://www.sars.gov.za/TaxTypes/Pages/default.aspx> (Accessed 10 March 2021).

Savitri, E. 2015. *The effect of tax socialization, tax knowledge, expediency of tax ID number and service quality on taxpayers compliance with taxpayers awareness as mediating variables*. *Procedia-Social and Behavioral Sciences*, 211: 163-169.

Scheinkman, J. A. 2008. *Social interactions*. *The new palgrave dictionary of economics*, 2

Sebele-Mpofu, F. Y. 2020. *Governance quality and tax morale and compliance in Zimbabwe's informal sector*. *Cogent Business & Management*, 7 (1): 21.

Seo, S. N. 2016. *A theory of global public goods and their provisions*. *Journal of Public Affairs*, 16 (4): 394-405.

Sharma, A. and Singh, J. 2018. *Unaccounted income vis-à-vis public perception in India: An empirical analysis*. *Journal of Management and Public Policy*, 9 (2): 5-13.

Sikka, P. and Willmott, H. 2013. *The tax avoidance industry: accountancy firms on the make*. *Critical Perspectives on International Business*, 9 (4): 415-443.

Simons, H. C. 1938. *Personal income taxation: The definition of income as a problem of fiscal policy*. Chicago University, Chicago.

Singh, K. D. 2015. *Creating your own qualitative research approach: Selecting, integrating and operationalizing philosophy, methodology and methods*. *Vision*, 19 (2): 132-146.

Skowronek, D. and Duerr, L. 2009. *The convenience of nonprobability: Survey strategies for small academic libraries*. *College & Research Libraries News*, 70 (7): 412-415.

Slemrod, J. 1990. *Optimal taxation and optimal tax systems*. *Journal of economic Perspectives*, 4 (1): 157-178.

Slemrod, J. 2019. *Tax compliance and enforcement*. Journal of Economic Literature, 57 (4): 904-954.

Slemrod, J. and Yitzhaki, S. 2002. *Tax avoidance, evasion, and administration*. In: Handbook of public economics. Elsevier, 1423-1470.

Small, O. and Brown, L. 2020. *Taxpayer service provision and tax compliance: evidence for large taxpayers in Jamaica*. Public Finance Review, 48 (2): 250-277.

Smart, M. 2012. *The application of the theory of planned behaviour and structural equation modelling in tax compliance behaviour: a New Zealand study*.

Smith, A. 1776. *The Wealth of Nations (1776)*. Germany: BookRix Gmbh & Co.KG, Sonnenstrabe 23, 80331, Munich Germany.

Smulders, S., Stiglingh, M., Franzsen, R. and Fletcher, L. 2017. *Determinants of external tax compliance costs: Evidence from South Africa*. South African Journal of Accounting Research, 31 (2): 134-150.

Smulders, S., Stiglingh, M., Riel, F. and Fletcher, L. 2016. *Determinants of internal tax compliance costs: Evidence from South Africa*. Journal of Economic and Financial Sciences, 9 (3): 714-729.

Sobhkhiz, M. R., Ashrafi, A. M., Mojibi, T. and Otadi, M. 2019. *Accountability, legitimacy, and voluntary tax compliance: A case study in tax offices in Mazandaran Province of Iran*. International Journal of Organizational Leadership, 8 (4): 38-55.

Sobhkhiz, M. R., Ashrafi, A. M., Mojibi, T. and Otadi, M. 2020. *Impact of accountability on voluntary tax compliance through influencing taxpayers' public trust: a case study*. Revista Gestao & Tecnologia-Journal of Management and Technology, 20: 166-186.

Somekh, B. and Lewin, C. 2005. *Research methods in the social sciences*. New Delhi: Sage.

Soni, P. 2014. *Entrepreneurship policy in South Africa*. Arabian Journal of Business and Management Review (OMAN Chapter), 3 (9): 29-43.

South Africa. 1962. *South African Income Tax Act 58 1962*. Pretoria: Government Printers. Available: https://www.gov.za/sites/default/files/gcis_document/201505/act-58-1962s.pdf (Accessed 2 June 2021).

South African Revenue Services. 2016. *How SARS views tax crimes?* Available: <https://www.sars.gov.za/TargTaxCrime/WhatTaxCrime/Pages/How-SARS-views-it.aspx> (Accessed 21 August 2020).

Soyode, O. and Oyedokun, G. E. 2019. *Relevance of Adam Smith Canons of taxation to the modern tax system*.

Stantcheva, S. 2020. *Understanding tax policy: How do people reason?* National Bureau of Economic Research. Available: <https://www.nber.org/papers/w27699> (Accessed 17 January 2021).

Stark, K. and Smulders, S. 2019. *Compliance costs matter – the case of South African individual taxpayers*. eJournal of tax research, 16 (3): 801-823.

Steyn, T. L. 2012. *A conceptual framework for evaluating the tax burden of individual taxpayers in South Africa*. Phd., University of Pretoria.

Stiglingh, M., Koekemoer, A., Van Schalkwyk, L., Wilcocks, J. S., De Swardt, R. and Jordaan, K. 2021. *Silke, South African Income Tax 2021*. LexisNexis.

Stockenstrand, A. K. and Nilsson, F. eds. 2017. *Bank regulation: effects on strategy, financial accounting and management control*. London: Routledge.

Stone, D. L. and Rosopa, P. J. 2017. *The advantages and limitations of using meta-analysis in human resource management research*: Elsevier.

Stone, H., Sidel, J. L. and Bloomquist, J. 2004. *Quantitative Descriptive Analysis*. In: Gacula, M. C. ed. *Descriptive Sensory Analysis in Practice*. Trumbull, Connecticut: Food and Nutrition Press, 53-69. Available:

https://books.google.co.za/books?id=DHrWZN_t61UC&lpg=PA63&ots=hi2qxFfREs&lrpg=PA65#v=onepage&q&f=false

(Accessed

Suh, J. W., Lee, H. Y., Kuk, A. E. and Ryu, H. 2019. *Effect of the trusted taxpayer designation on corporate tax avoidance behaviour: Evidence from Korea*. Asian Journal of Business and Accounting, 12 (2): 121-146.

Sutrisno, T. and Dularif, M. 2020. *National culture as a moderator between social norms, religiosity, and tax evasion: Meta-analysis study*. Cogent Business & Management, 7 (1): 20.

Szymanski, D. M. and Henard, D. H. 2001. *Customer satisfaction: A meta-analysis of the empirical evidence*. Journal of the Academy of Marketing Science, 29 (1): 16-35.

Taing, H. B. and Chang, Y. 2021. *Determinants of tax compliance intention: Focus on the theory of planned behavior*. International Journal of Public Administration, 44 (1): 62-73.

Tanzi, V. 1996. *Globalization, tax competition and the future of tax systems*.

Tee, L. S. and Nizam, I. 2020. *The influence of corporate governance on financial performance mediated by gender diversity*. Journal of Asian Business Strategy, 10 (1): 61-79.

Terzic, S., Dzakula, M. and Muminovic, E. 2020. *Tax evasion in Bosnia and Herzegovina: perception from taxpayers and tax inspectors*. Eurasian Journal of Economics and Finance, 8 (1): 24-37.

Tilahun, M. 2018. *Economic and social factors of voluntary tax compliance: Evidence from Bahir Dar city*. International Journal of Accounting Research, 6 (2): 1-7.

Torgler, B. 2002. Does culture matter? Tax morale in an East-West-German comparison. FinanzArchiv / Public Finance Analysis, 59 (4): 504-528.

Torgler, B. 2002. *Speaking to theorists and searching for facts: Tax morale and tax compliance in experiments*. Journal of Economic Surveys, 16 (5): 657-683.

Torgler, B. 2003. *Tax morale and tax compliance: A cross culture comparison*. In: *Proceedings of Annual Conference on Taxation and Minutes of the Annual Meeting of the National Tax Association*. JSTOR, 63-74.

Torgler, B. and Schneider, F. 2007. What shapes attitudes toward paying taxes? Evidence from multicultural European countries. Social Science Quarterly, 88 (2): 443-470.

Torgler, B. and Schneider, F. 2009. *The impact of tax morale and institutional quality on the shadow economy*. Journal of Economic Psychology, 30 (2): 228-245.

Torrance, H. 2012. *Triangulation, respondent validation, and democratic participation in mixed methods research*. Journal of Mixed Methods Research, 6 (2): 111-123.

Tran, Q. T., Lam, T. T., Luu, C. D., Nguyen, T. D., Nguyen, N. K. D., To, P. Q. A., Paramita, R. W. D., Fadah, I., Tobing, D. S. K. and Suroso, I. 2020. *Effect of corporate governance on corporate social responsibility disclosure: Empirical evidence from Vietnamese Commercial Banks*. The Journal of Asian Finance, Economics and Business (JAFEB), 7 (11): 327-333.

Treasury, N. 2019. *Full Budget review*. Available: <http://www.treasury.gov.za/documents/national%20budget/2019/review/Prelims.pdf> (Accessed 20 March 2021).

Tsikis, S. A. 2020. *Enforce taxes, but cautiously: societal implications of the slippery slope framework*. European Journal of Law and Economics, 50 (1): 149-170.

Tulkens, H. and Jacquemin, A. 1971. *The cost of delinquency: a problem of optimal allocation of private and public expenditure*. Kathol. Univ.

Tulkens, H. and Jacquemin, A. 1971. *The cost of delinquency: a problem of optimal allocation of private and public expenditure*. Kathol. Univ.

Turner, P. and Turner, S. 2009. *Triangulation in practice*. Virtual Reality, 13 (3): 171-181.

Tustin, D. 2015. *The physiognomy of SMMEs in South Africa and consequential national strategy reinforcement*. The Retail and Marketing Review, 11 (1): 77-91.

Ullah, F., Khan, M. I. and Sharif, I. 2018. *Impact of tax fairness system on individual compliance behaviors in Pakistan*. City University Research Journal, 8 (1): 47-57.

Umar, M. A., Derashid, C., Ibrahim, I. and Bidin, Z. 2019. *Public governance quality and tax compliance behavior in developing countries The mediating role of socioeconomic conditions*. International Journal of Social Economics, 46 (3): 338-351.

Utz, S. 2001. *Ability to pay*. Whittier Law Review, 23 (4): 867-950.

Valsan, C., Druica, E. and Ianole-Calin, R. 2020. *State capacity and tolerance towards tax evasion: First evidence from Romania*. Administrative Sciences, 10 (2): 17.

Van Aert, R. C., Wicherts, J. M. and Van Assen, M. A. 2019. *Publication bias examined in meta-analyses from psychology and medicine: A meta-meta-analysis*. PLoS One, 14 (4): e0215052.

Van Dijke, M., Gobena, L. B. and Verboon, P. 2019. *Make me want to pay. A three-way interaction between procedural justice, distributive justice, and power on voluntary tax compliance*. Frontiers in Psychology, 10: 1-15.

Venkatesh, V., Brown, S. A. and Bala, H. 2013. *Bridging the qualitative-quantitative divide: Guidelines for conducting mixed methods research in information systems*. MIS Quarterly, 37 (1): 21-54.

Venkatesh, V., Brown, S. A. and Sullivan, Y. W. 2016. *Guidelines for conducting mixed-methods research: An extension and illustration*. Journal of the Association for Information Systems, 17 (7): 435-495.

Walliman, N. 2011. *Research methods: The basics*. London: Routledge.

Wang, E. S.-T. and Chou, C.-F. 2021. *Norms, consumer social responsibility and fair trade product purchase intention*. International Journal of Retail & Distribution Management, 49 (1): 23-39.

Wang, J. H. and Lu, J. K. 2020. *Religion and corporate tax compliance: evidence from Chinese Taoism and Buddhism*. Eurasian Business Review: 21.

Wang, Y. K., Zhang, L. and Ho, W. M. 2020. *Tax amnesty and secondary tax evasion*. Acta Oeconomica, 70 (1): 123-139.

Wang, Z. Y., Singh-Ladhar, J. and Davey, H. 2019. *Business tax to value-added tax reform in China*. Pacific Accounting Review, 31 (4): 602-625.

Wanjuu, L. Z. and Le Roux, P. 2017. *Economic institutions and economic growth: Empirical evidence from the economic community of West African States*. South African Journal of Economic and Management Sciences, 20 (1): 10.

Wilkinson, L. 1999. *Statistical methods in psychology journals: Guidelines and explanations*. American Psychologist, 54 (8): 594-604.

Williams, C. 2007. Research methods. Journal of Business & Economics Research (JBER) 5(3). Available: <https://doi.org/10.19030/jber.v5i3.2532> (Accessed 10 December 2020).

Williams, C. 2020. An Institutional Theory of Tax Non-Compliance in Bulgaria: a Tax Morale Approach. Economic Alternatives, (1): 33-49.

Woiceshyn, J. and Daellenbach, U. 2018. *Evaluating inductive vs deductive research in management studies: Implications for authors, editors, and reviewers*. Qualitative Research in Organizations and Management: An International Journal, 13 (2): 183-195.

Wynter, C. B. and Oats, L. 2019. *Knock, knock: The taxman's at your door! Practice sense, empathy games, and dilemmas in tax enforcement*. Journal of Business Ethics: 14.

Ya'u, A., Saad, N. and Mas'ud, A. 2020. *Effects of economic deterrence variables and royalty rates on petroleum profit tax compliance in Nigeria: an empirical analysis*. International Journal of Energy Sector Management: 1-23.

Yee, C. P., Moorthy, K. and Soon, W. C. K. 2017. Taxpayers' perceptions on tax evasion behaviour: an empirical study in Malaysia. International Journal of Law and Management, 59 (3): 413-429.

Youde, S. and Lim, S. 2019. *The determinants of medium taxpayers' compliance perspectives: Empirical evidence from Siem Reap Province, Cambodia*. International Journal of Public Administration, 42 (14): 1222-1233.

Young, H. P. 1990. *Progressive taxation and equal sacrifice*. The American Economic Review, 80 (1): 253-266.

Yucedogru, R. and Hasseldine, J. 2016. *Understanding tax morale of SMEs: A qualitative study*. Ejournal of Tax Research, 14 (3): 531-566.

Zafarullah, M. 2018. *Impact of VAT on UAE Economy*. Asian Development Policy Review, 6 (1): 41-49.

Zandi, G., Aslam, A. and Elwahj, A. S. M. 2016. *Factors hindering taxpayers towards tax compliance in Malaysia*. International Journal of Economic Perspectives, 10 (4): 190-196.

Żelechowska, D., Żyluk, N. and Urbański, M. 2020. *Find out a new method to study abductive reasoning in empirical research*. International Journal of Qualitative Methods, 19: 1-11.

Zheng, B. D., Gu, Y. F. and Xu, D. 2020. *No taxation without representation? An empirical examination of the relationship between democratization and tax compliance*. Chinese Political Science Review, 5 (2): 200-221.

Zou, S. and Stan, S. 1998. *The determinants of export performance: a review of the empirical literature between 1987 and 1997*. International Marketing Review, 15 (5): 333-356.

Annexures

Annexure A – Studies selected

List of 147 primary studies selected. Column D reflects the final 45 primary studies used in the study.

List of studies (147)		Selected - Yes or no		
A Author	B Year of Study	C Not selected - 102	D Selected-45	E Grand Total-147
Alshirah, et al	2020	0	1	1
Koumpias, et al	2020	1	0	1
LE, et al	2020	1	0	1
Sutrisno and Dularif	2020	1	0	1
Sebele-Mpofu	2020	1	0	1
Abdixhiku, et al	2016	1	0	1
Abdul and McFie	2020	1	0	1
Adegbite and Bojuwon	2019	1	0	1
Affes	2020	1	0	1
Alm and Torgler	2012	1	0	1
Alm, et al	2017	0	1	1
Alm, et al	2019	1	0	1
Alm, et al	2020	0	1	1
Al-Zaqeba and Al-Rashdan	2020	1	0	1
An	2020	1	0	1
Aribaba, et al	2019	1	0	1
Ariyanto, et al	2020	1	0	1
Assfaw and Sebhat	2019	1	0	1
Azhar, et al	2016	1	0	1
Battiston, et al	2018	1	0	1
Benk, et al	2016	1	0	1
Bernasconi, et al	2020	0	1	1
Bertinelli, et al	2020	0	1	1
Bethencourt and Kunze	2020	1	0	1
Bin-Nashwan, et al	2016	0	1	1
Blaufus, et al	2019	1	0	1
Bott, et al	2020	1	0	1
Bucci	2020	1	0	1
Buckenmaier, et al	2020	1	0	1
Chalu, et al	2018	0	1	1
Che Rosli, et al	2018	1	0	1
Chen, et al	2020	1	0	1

Crnogorac and Lago-Peñas	2020	1	0	1
Cruz	2020	1	0	1
Curi, et al	2019	1	0	1
Damayanti and Supramono	2019	1	0	1
Damayanti, et al	2020	0	1	1
Dare, et al	2019	1	0	1
De la Feria	2020	1	0	1
Defitri and Fauziati	2018	0	1	1
Diakomihalis	2020	1	0	1
Dinis, et al	2019	1	0	1
Dmytryk and Makukh	2020	1	0	1
Dunn, et al	2018	1	0	1
Eja, et al	2018	1	0	1
Endalew, et al	2020	1	0	1
Faizal, et al	2017	0	1	1
Faridy, et al	2016	0	1	1
Farrar, et al	2020	1	0	1
Fidiana	2020	1	0	1
Frecknall-Hughes, et al	2017	0	1	1
Frimmel et al	2020	1	0	1
Fuentes-Contreras, et al	2020	1	0	1
Gangl and Torgler	2020	1	0	1
Garcia, et al	2020	1	0	1
Gemmell and Ratto	2018	1	0	1
Gillitzer and Sinning	2020	0	1	1
Gobena and Van Dijke	2017	1	0	1
Gobenaand Van Dijke	2016	0	1	1
Gorecki and Letki	2020	1	0	1
Guo and Hung	2020	1	0	1
Guzel, et al	2019	0	1	1
Hamdah, et al	2020	0	1	1
Haning, et al	2019	1	0	1
Haning, et al	2020	1	0	1
Hoa, et al	2016	0	1	1
Horodnic	2018	1	0	1
Inasius	2019	0	1	1
Iqbal and Sholihin	2018	0	1	1
Jacquemet, et al	2020	0	1	1
James, et al	2019	0	1	1
Jimenez and Iyer	2016	1	0	1
Jolodar, et al	2019	0	1	1
Junpath, et al	2016	0	1	1
Kamasa, et al	2019	0	1	1

Kamasa, et al	2020	1	0	1
Kaplanoglou, et al	2016	1	0	1
Kayaoglu and Williams	2020	1	0	1
Kenneth et al	2020	1	0	1
Kim and Lee	2020	1	0	1
Kochanova, et al	2017	0	1	1
Kogler, et al	2016	0	1	1
Kotnik, et al	2020	0	1	1
Lastiati, et al	2020	1	0	1
Lin, et al	2018	1	0	1
Loayza, et al	2020	1	0	1
Lois, et al	2019	0	1	1
Malik	2020	1	0	1
Masclet, et al	2020	0	1	1
McKee, et al	2017	1	0	1
Mickiewicz, et al	2019	0	1	1
Misra, et al	2020	0	1	1
Mohdali, et al	2017	1	0	1
Muh, et al	2019	1	0	1
Murphy, et al	2016	1	0	1
Musimenta	2020	0	1	1
Musimenta et al	2017	0	1	1
Musimenta, et al	2019	0	1	1
Nemec, et al	2017	1	0	1
Newman and Nokhu	2018	1	0	1
Nguyen, et al	2020	1	1	2
Nichita, et al	2019	1	0	1
Nikulin	2020	0	1	1
Nkundabanyanga, et al	2017	1	0	1
Nordin, et al	2017	1	0	1
Ocheni	2015	1	0	1
Olsen, et al	2018	0	1	1
Oludele	2015	1	0	1
Onu and Oats	2016	1	0	1
Pacaldo, et al	2020	0	1	1
Pahl, et al	2016	1	0	1
Pereira, et al	2020	1	0	1
Rashid	2020	0	1	1
Ravselj and Aristovnik	2018	1	0	1
Remali, et al	2018	1	0	1
Remali, et al	2018	1	0	1
Robbins, and Kiser	2018	1	0	1
Rodriguez-Justicia and Theilen	2018	1	0	1
Romanus	2018	1	0	1

Rosid, et al	2018	1	0	1
Sadress, et al	2019	1	0	1
Sharma and Singh	2018	0	1	1
Slemrod	2019	1	0	1
Small and Brown	2020	1	0	1
Smulders, et al	2016	1	0	1
Smulders, et al	2017	1	0	1
Sobhkhiz, et al	2020	1	1	2
Stark et al	2019	0	1	1
Suh, et al	2020	1	0	1
Terzic et al	2020	0	1	1
Tilahun	2018	1	0	1
Truglia and Troiano	2018	1	0	1
Tsikas	2020	1	0	1
Ullah, et al	2018	1	0	1
Valsan, et al	2020	1	0	1
Van Dijke, et al	2019	0	1	1
Wang and Awang	2020	1	0	1
Williams	2020	0	1	1
Ya'u et al	2019	1	0	1
Yee, et al	2017	1	0	1
Youde and Lim	2019	1	0	1
Yucedogru and Hasseldine	2016	1	0	1
Yücedoğru and Hasseldine	2016	1	0	1
Zandi, et al	2016	1	0	1
Zheng, et al	2020	1	0	1
Grand Total		102	45	147

Annexure B – Theoretical Models identified in selected studies

Authors	Theories	Year
Kogler et al	Fairness and Trust	2016
Gobena et al	Fairness heuristic and Slippery slope	2016
Hoa et al	Literature	2016
Junpath et al	Literature review	2016
Bin-Nashwan et al	Standard economic model	2016
Frecknall et al	Deontology and Consequentialism	2017
Alm et al	economics of crime	2017
Musimenta et al	Fairness and Institutional theory	2017
Kochanova et al	Lit review	2017
Faizal et al	Slippery slope framework	2017
Iqbal et al	Cognitive moral slippery slope	2018
Chalu et al	Economic, contingency, and deterrence	2018
Sharma et al	Literature	2018
Olsen et al	Slippery slope framework	2018
Authors	Theories	Year
Defitri et al	Tax compliance literature	2018
James et al	Becker 1968 economics of crime	2019
Van Dijke et al	Distributive Justice, Procedural justice and Voluntary compliance	2019
Jolodar et al	Distributive Justice, behaviour fairness and trust	2019
Inasius	Economics and behaviour	2019
Guzel et al	Justice and trust Theory	2019
Lois et al	Literature reivew	2019
Mickiewicz et al	Normative, cognative and deterrence	2019

Musimenta et al	reasoned action and utility	2019
Pacaldo et al	Slippery Slope	2019
Kamasa et al	Trust	2019
Gillitzer et al	Thaler and Sunstein (2008), a recent strand of the behavioral economics literature	2020
Misra et al	Theory of motivated reasoning, Social norm activation model	2020
Bernasconi et al	Behavioral	2020
Authors	Theories	Year
Jacquemet et al	Behavioral	2020
Damayanti et al	Behavioral	2020
Sobhkhiz et al	Bovens oppell (2005)	2020
Alshira'h et al	Deterrance and Identity theory	2020
Musimenta	Deterrence theory	2020
Nikulin	Economic deterrance model and various other models associared with it	2020
Bertinelli et al	Fiscal Contract Theories	2020
Rashid	Fischers Model	2020
Williams	Institutional	2020
Nguyen et al	Lit review	2020
Terzic et al	Literature	2020
Kotnik et al	Literature	2020
Masclet et al	Literature reivew	2020
Hamdah et al	Planned behavior	2020
Alm et al	Standard economic model	2020

Annexure C – PRISMA

Source Liberati *et al* (2009:3)

Note that the information is presented directly from a source, except for Columns 4 and 5 which were incorporated into the table by the researcher, to indicate which items from the PRISMA checklist were included in the study and to indicate where these items were applied in the study.

Column 1	Column 2	Column 3	Column 4	Column 5
Item #	Section/ Topic	Checklist item	Utilised in Study (Yes/ No)	Justification
	Title			
1	Title	Identify the report as a systematic review, meta-analysis, or both.	Yes	Chapter 1
	Abstract			
2	Structured Summary	Provide a structured summary including, as applicable: background; objectives; data sources; study eligibility criteria, participants, and interventions; study appraisal and synthesis methods; results; limitations; conclusions and implications of key findings; systematic review registration number	Yes	Chapter 4.5 -4.7
	Introduction			

3	Rationale	Describe the rationale for the review in the context of what is already known.	Yes	Chapter 1
4	Objectives	Provide an explicit statement of questions being addressed with reference to participants, interventions, comparisons, outcomes, and study design (PICOS).	No	primary data has already been collected
	Methods			
5	Protocol and registration	Indicate if a review protocol exists, if and where it can be accessed (e.g., Web address), and, if available, provide registration information including registration number	Yes	Chapter 4
6	Eligibility criteria	Specify study characteristics (e.g., PICOS, length of follow-up) and report characteristics (e.g., years considered, language, publication status) used as criteria for eligibility, giving rationale.	No	Not applicable
7	Information Sources	Describe all information sources (e.g., databases with dates of coverage,	Yes	Chapter 4

		contact with study authors to identify additional studies) in the search and date last searched.		
8	Search	Present full electronic search strategy for at least one database, including any limits used, such that it could be repeated	Yes	Chapter 4
9	Study Selection	State the process for selecting studies (i.e., screening, eligibility, included in systematic review, and, if applicable, included in the meta-analysis).	Yes	Chapter 4
10	Data collection Process	Describe method of data extraction from reports (e.g., piloted forms, independently, in duplicate) and any processes for obtaining and confirming data from investigators.	Yes	Chapter 4
11	Data Items	List and define all variables for which data were sought (e.g., PICOS, funding sources) and any assumptions and simplifications made	Yes	Chapter 4

12	Risk of bias in individual studies	Describe methods used for assessing risk of bias of individual studies (including specification of whether this was done at the study or outcome level), and how this information is to be used in any data synthesis	Yes	Chapter 5
13	Summary measures Synthesis of results	State the principal summary measures (e.g., risk ratio, difference in means	Yes	Chapter 5
14	Synthesis of results	Describe the methods of handling data and combining results of studies, if done, including measures of consistency (e.g., I ²) for each meta-analysis	Yes	Chapter 4
15	Risk of bias across studies	Specify any assessment of the risk of bias that may affect the cumulative evidence (e.g., publication bias, selective reporting within studies).	Yes	The risk of bias is reduced by looking at all primary studies, applying the same eligibility criteria, and remaining with a reasonable number that promotes data validity
16	Additional analysis	Describe methods of additional analyses (e.g., sensitivity or subgroup	Yes	Chapter 4/5

		analyses, meta-regression), if done, indicating which were pre-specified.		
	Results			
17	Study selection	Give numbers of studies screened, assessed for eligibility, and included in the review, with reasons for exclusions at each stage, ideally with a flow diagram.	Yes	Chapter 4/5
18	Study characteristics	For each study, present characteristics for which data were extracted (e.g., study size, PICOS, follow-up period) and provide the citations.	Yes	Chapter 5
19	Risk of bias within studies	Present data on the risk of bias of each study and, if available, any outcome-level assessment (see Item 12).	Yes	Chapter 5
20	Results of individual studies	For all outcomes considered (benefits or harms), present, for each study: (a) simple summary data for each intervention group and (b) effect estimates and confidence intervals, ideally with a forest plot.	Yes	Chapter 5

21	Synthesis of results	Present results of each meta-analysis done, including confidence intervals and measures of consistency	Yes	Chapter 5
22	Risk of bias across studies	Present results of any assessment of the risk of bias across studies (see Item 15)	Yes	Chapter 5
23	Additional analysis	Give results of additional analyses, if done (e.g., sensitivity or subgroup analyses, meta-regression [see Item 16]).	Yes	Chapter 5
	Discussion			
24	Summary of evidence	Summarize the main findings including the strength of evidence for each main outcome; consider their relevance to key groups (e.g., health care providers, users, and policymakers).	Yes	Chapter 5/6
25	Limitations	Discuss limitations at study and outcome level (e.g., risk of bias), and at review level (e.g., incomplete retrieval of identified research, reporting bias).	Yes	Chapter 1 and 6
26	Conclusions	Provide a general interpretation of the	Yes	Chapter 6

		results in the context of other evidence and implications for future research.		
	Funding			
27	Funding	Describe sources of funding for the systematic review and other support (e.g., supply of data); the role of funders for the systematic review.	No	Not applicable

Annexure D – Coded data

This annexure indicates the individual factors that were extracted from the 45 primary studies. 94 factors were identified in total

Number	Author(s)	Theory/Model	Year of Publication	Statistical Method	Sample Size	Country of Data collection	Response	Factor	Code	Subcategory	Category	Explanation	Positive association	Negative association
1	Almet al	Economic of crime model	2020	Lab experiments	278	US	100	Tax audits	TENF	Tax Administration	CO	Increase in number of Audits	Yes	
2	Alshira'h et al	Deterrance and Identity theory	2020	PLS-SEM	385	Jordan	58	Tax audits	TENF	Tax Administration	CO	Increase in number of Audits	Yes	
2	Alshira'h et al	Deterrance and Identity theory	2020	PLS-SEM	385	Jordan	58	Tax Penalty	TENF	Tax Policy	CO	High tax penalty	Yes	
2	Alshira'h et al	Deterrance and Identity theory	2020	PLS-SEM	385	Jordan	58	Tax Rate	TENF	Tax Policy	CO	Tax rate		
2	Alshira'h et al	Deterrance and Identity theory	2020	PLS-SEM	385	Jordan	58	Patriotism and National Pride	TENF	Tax Morale	BI	High levels of patriotism and National pride	Yes	
3	Bernasco ni et al	Behavior	2020	Mathematical modelling	49	49 countries	44	Tax Rate	TENF	Tax Policy	CO	Effect of tax rate is ambiguous on tax evasion		
3	Bernasco ni et al	Behavior	2020	Mathematical modelling	49	49 countries	44	Tax Penalty	TENF	Tax Policy	CO	Heavy fines	Yes	
4	Bertinelli et al	Fiscal Contract Theories	2020	Mathematical Modelling	700	Mali	85	Corruption	TMO R	Tax Morale	SI	Payment of Bribes		Yes
5	Damayan ti et al	Behavioral studies	2020	factorial 2X2 design	117	Indonesia	100	Tax amnesties	TENF	Tax Administration	SI	Feelings that there is justice with their amnesty	Yes	
6	Gillitzer et al	Thaler and Sunstein (2008), a recent strand of the behavioral economics	2020	The model draws closely on Ericson (2017)	4787	Australia	100	Reminder letters	TENF	Tax Administration	CO	Reminder letters	Yes	

		literature												
7	Hamdah et al	Planned behavior	2020	Hypothesis	109	Indonesia	99	Tax evasion	TMO R	Tax Morale	SI	The impact of attitude, subjective norms and PBC	Yes	
8	Jacquem et al	Behavioral Acts	2020	Tax evasion games	128	France	98	Personality traits	PERT	Tax morale	BI	Full liars rarely change their behavior under oath taking Partial liars are affected by the oath, when taking the oath they become fully tax compliant	Yes	
9	Kotnik et al	Literature	2020	Exploratory	720	Slovenia	40	Cost of Tax Compliance	PROC	Tax Administration	CO	Higher compliance costs for medium businesses than small and larger businesses		Yes
10	Masclot et al	Literature review	2020	3X3 design	432	Canada and France	100	Whistleblowing	TENF	Tax Administration	SI	The average declaration rate is significantly higher in the peer reporting treatments compared to other treatments.	Yes	

10	Mas clet et al	Literatu re reivew	2020	3X3 design	43 2	Cana da and Franc e	100	Social Consciou sness	TENF	Tax Admin istrati on	SI	while we would have expecte d declarati on rates to increase when the taxes are specified to finance a global public good relative to the situation where their use is not specified , we find no evidence of this in any of the treatme nts		
10	Mas clet et al	Literatu re reivew	2020	3X3 design	43 2	Cana da and Franc e	100	Social Norms	TENF	Tax Admin istrati on	SI	individu als do not hesitate to report tax evaders despite the absence of any material rewards and a financial cost suggesti ng that the willingn ess to punish evaders mostly outweig hs the norm of loyalty and the associat ed fear of blind retaliati on.	Yes	

10	Masclot et al	Literature review	2020	3X3 design	432	Canada and France	100	Monitoring	TENF	Tax Administration	CO	Monitoring has a weak negative effect on declaration rates		
11	Misra et al	1.Theory of motivated reasoning, and 2. Social norm activation model	2020	Controlled lab experiment	82	India	48	Social Norms on Tax Consultants	TMO R	Tax Morale	SI			Yes
11	Misra et al	1.Theory of motivated reasoning, and 2. Social norm activation model	2020	Controlled lab experiment	82	India	48	Clients' instructions	TMO R	Tax Morale	SI	tax consultants who receive explicit statements from clients, give relatively more conservative tax recommendation to the former than those who are exposed to implicit clients' statements		Yes
12	Musimenta	Deterrence theory	2020	Non-Provided	242	Uganda	73	Complexity of Tax system	PROC	Tax Administration	CO			Yes
13	Nguyen et al	Lit review	2020	Mixed Methods	200	Vietnam	100	Corporate Reputation	TMO R	Tax Morale	SI		Yes	
13	Nguyen et al	Lit review	2020	Mixed Methods	200	Vietnam	100	Structure of business ownership	SMO R	Tax Morale	SI		Yes	
13	Nguyen et al	Lit review	2020	Mixed Methods	200	Vietnam	100	Tax audits	TENF	Tax Administration	CO	High probability of being audited	Yes	
14	Nikulin	Economic deterrence model and various other	2020	Zero-inflated negative binomial model	454	Poland	100	Entrepreneurs	ENTR	Tax Morale	BI	Entrepreneurs have low tax morale		Yes

		models associated with it		ing technique										
14	Nikul in	Economic deterrence model and various other models associated with it	2020	Zero-inflated negative binomial modelling technique	454	Poland	100	Regulatory burden	PROC	Institutional governance	CO	There is a negative relationship between tax morale presented by entrepreneurs and the inclination to evade taxes.		Yes
14	Nikul in	Economic deterrence model and various other models associated with it	2020	Zero-inflated negative binomial modelling technique	454	Poland	100	Satisfaction with the tax office	SATO	Tax Administration	SI	Customer satisfaction with the tax system has a positive effect on tax compliance.	Yes	
15	Rashid	Fischers Model	2020	SEM	497	Bangladesh	62	Fairness of Tax System	FOTS	Tax Policy	SI	if the citizens perceive the tax system as fair, they show a lower tendency to evade tax	Yes	
15	Rashid	Fischers Model	2020	SEM	497	Bangladesh	62	Knowledge of tax	TKOW	Tax Administration	CO	people having more tax knowledge are less likely to be non-compliant.	Yes	
15	Rashid	Fischers Model	2020	SEM	497	Bangladesh	62	Tax audits	TENF	Tax Administration	CO	audit and enforcement initiatives negatively influence taxpayers' attitude	Yes	

												s towards tax evasion		
15	Rashid	Fischers Model	2020	SEM	497	Bangladesh	62	Tax enforcement	TENF	Tax administration	CO	repeatedly inspect whether the taxpayers are complying tax laws and thereby impose fines and penalties on tax evaders resulting in the reduction of tax evasion to a great extent	Yes	
15	Rashid	Fischers Model	2020	SEM	497	Bangladesh	62	Corruption	TMO R	Tax Morale	SI	High corruption prompts tax evasion		yes
15	Rashid	Fischers Model	2020	SEM	497	Bangladesh	62	Discrimination	TMO R	Tax Morale	SI	discrimination among the citizens profoundly affects the tax evasion		Yes
15	Rashid	Fischers Model	2020	SEM	497	Bangladesh	62	Complexity of Tax system	PROC	Tax Administration	CO	complexity in the tax system positively influences the taxpayers' attitude towards tax evasion		Yes

15	Rashid	Fischers Model	2020	SEM	497	Bangladesh	62	Female Gender	SODE	Tax Morale	BI	Female, older, younger, low-earners, married, graduate and self-employed and job holder recognize that if their government discriminates against the citizen due to religion, race, politics, culture, or ethnicity ; they are demotivated to comply with tax law (McGee & Tusan, 2008).	Yes	
16	Sobhkhiz et al	Bovens oppell (2005)	2020	Delphi technique; partial least square s path modeling via Smart PLS	334	Iran	88	Policy Development	TAXL	Tax Policy	CO	Policy development, not in accordance with Taxpayers legitimate expectations		Yes
16	Sobhkhiz et al	Bovens oppell (2005)	2020	Delphi technique; partial least square s path modeling via Smart PLS	334	Iran	88	Accountability mechanism of Government	TGOV	Institutional governance	SI	accountability mechanisms in the tax system indicate the need for four mechanisms of political, managerial, legal and social accountability to meet		Yes

												the legitimate demands and expectations of taxpayers.		
16	Sobhkhiz et al	Bovensoppell (2005)	2020	Delphi technique; partial least squares path modeling via Smart PLS	334	Iran	88	Public Trust	TGOV	Institutional governance	SI		Yes	
16	Sobhkhiz et al	Bovensoppell (2005)	2020	Delphi technique; partial least squares path modeling via Smart PLS	334	Iran	88	Political and social accountability	TGOV	Institutional governance	SI		Yes	
16	Sobhkhiz et al	Bovensoppell (2005)	2020	Delphi technique; partial least squares path modeling via Smart PLS	334	Iran	88	Tax systems accountability	TGOV	Institutional governance	SI		Yes	
17	Terzic et al	Literature	2020	Empirical analysis	300	Boznia and Herzegovina	100	Tax Rate	TENF	Tax Policy	CO	The high tax rate in BiH adversely affects the tax evasion		Yes
17	Terzic et al	Literature	2020	Empirical analysis	300	Boznia and Herzegovina	100	Absence of Penalty framework	TENF	Tax Administration	CO	The absence of an appropriate penalty framework and an optimal tax rate can have a number of adverse consequences, primarily with taxpayers		Yes

18	Williams	Institutional	2020	Ordered logit regression	456	Bulgaria	94	Sector Morale	SMOR	Tax Morale	SI	Tax morale will be lower in some sectors than others. ,it is revealed not only that the tax morale of entrepreneurs failings significantly institutional varies by sector and firm size, but also that the formal associated with low tax morale include a perceived lack of tax fairness, corruption and political instability.		Yes
18	Williams	Institutional	2020	Ordered logit regression	456	Bulgaria	94	Firm Size	ENTR	Tax Morale	BI	entrepreneurs operating as sole traders or with 1-9 employees are more likely to have lower tax morale than those operating businesses with more employees.		Yes

18	Williams	Institutional	2020	Ordered logit regression	456	Bulgaria	94	Sole traders	ENTR	Tax Morale	BI	entrepreneurs operating as sole proprietors are more likely to have lower tax morale than those operating limited companies.		Yes
18	Williams	Institutional	2020	Ordered logit regression	456	Bulgaria	94	Newly formed Firms	ENTR	Tax Morale	BI	entrepreneurs of younger firms are more likely to have a lower tax morale than entrepreneurs in older business ventures.		
18	Williams	Institutional	2020	Ordered logit regression	456	Bulgaria	94	Sector Morale	SMOR	Tax Morale	SI	entrepreneurs operating in larger urban areas are more likely to have a lower tax morale than entrepreneurs operating in rural areas		
18	Williams	Institutional	2020	Ordered logit regression	456	Bulgaria	94	Vat Vendors - other tax laws	OTTL	Tax Morale	BI	entrepreneurs who are not VAT registered are more likely to have a lower tax morale than entrepreneurs	Yes	

												who are VAT registere d.		
19	Guze l et al	Justice and trust Theory	2019	Hypot hesis	39 2	Turke y	98	Trust in governm ents	TGOV	Tax Moral e	SI		Yes	
19	Guze l et al	Justice and trust Theory	2019	Hypot hesis	39 2	Turke y	98	Tax Justice	TAXJ	Tax Policy	SI		Yes	
19	Guze l et al	Justice and trust Theory	2019	Hypot hesis	39 2	Turke y	98	Tax Justice	TAXJ	Tax Policy	SI		Yes	
20	Inasi us	Econom ics and behavio ur	2019	Descri ptive statisti cs	32 8	Indo nesia	33	Tax Rate	TENF	Tax Policy	CO			
20	Inasi us	Econom ics and behavio ur	2019	Descri ptive statisti cs	32 8	Indo nesia	33	Tax audits	TENF	Tax Admin istrati on	CO		yes	
20	Inasi us	Econom ics and behavio ur	2019	Descri ptive statisti cs	32 8	Indo nesia	33	Knowled ge of tax	TKO W	Tax Admin istrati on	CO		yes	
20	Inasi us	Econom ics and behavio ur	2019	Descri ptive statisti cs	32 8	Indo nesia	33	Percepti on of governm ent spending	TGOV	Institu tional gover nance	SI		Yes	
20	Inasi us	Econom ics and behavio ur	2019	Descri ptive statisti cs	32 8	Indo nesia	33	Fairness of Tax System	FOTS	Tax Policy	SI		Yes	
21	Jame s et al	Non- Provide d	2019	Non- Provid ed	48 5	UK	100	Seriousn ess of tax evasion	PERT	Tax Moral e	BI			Yes
22	Jolod ar et al	Distribu tive Justice, behavio ur fairness and trust	2019	Hypot hesis	50 0	Iran	100	High tax morale	TMO R	Tax Moral e	BI		Yes	
22	Jolod ar et al	Distribu tive Justice, behavio ur fairness and trust	2019	Hypot hesis	50 0	Iran	100	Fairness of Tax System	FOTS	Tax Policy	SI		Yes	
22	Jolod ar et al	Distribu tive Justice, behavio ur fairness and trust	2019	Hypot hesis	50 0	Iran	100	Trust in governm ents	TGOV	Tax Moral e	SI		Yes	

23	Kamasa et al	Trust	2019	Empirical model	440	Ghana	61	Electricity outages	ELCO	Institutional governance	BI	promote tax evasion, since it increases cost of production in the sense that firms resort to alternative means of generating power for their production activities		Yes
23	Kamasa et al	Trust	2019	Empirical model	440	Ghana	61	Business constraints	PROC	Institutional governance	CO	Business constraints such as tax rate, transport and business license were also found to causes tax evasion.		Yes
24	Lois et al	Literature review	2019	Linear Regression	164	Greece	82	Fairness of Tax System	FOTS	Tax Policy	SI		yes	
24	Lois et al	Literature review	2019	Linear Regression	164	Greece	82	Competence of Tax administration employees	SATO	Tax Administration	SI		yes	
24	Lois et al	Literature review	2019	Linear Regression	164	Greece	82	Competence of Tax administration employees	SATO	Tax Administration	SI		yes	
25	Mickiewicz et al	Normative, cognitive and deterrence	2019	Hypothesis	279	Russia	100	Concerns relating to legitimacy and identity-feelings of belongings	TMO R	Tax morale	SI	Legitimacy; belonging to nation and perceptions of risk and severity of punishment		Yes

26	Musimenta et al	reasonable action and utility	2019	Hypothesis	152	Uganda	72	National pride	TENF	Tax Morale	BI	National pride and trust in government and its legal systems as dimensions of tax morale independently are significantly associated with tax compliance.	yes	
26	Musimenta et al	reasonable action and utility	2019	Hypothesis	152	Uganda	72	Trust in governments	TGOV	Tax Morale	SI		yes	
26	Musimenta et al	reasonable action and utility	2019	Hypothesis	152	Uganda	72	Fairness of Tax System	FOTS	Tax Policy	SI		yes	
27	Pacaldo et al	Slippery Slope	2019	SEM	864	Philippines	65	Tax enforcement	TENF	Tax administration	CO		yes	
27	Pacaldo et al	Slippery Slope	2019	SEM	864	Philippines	65	Trust in governments	TGOV	Tax Morale	SI		yes	
27	Pacaldo et al	Slippery Slope	2019	SEM	864	Philippines	65	Socio-demographic influences on Compliance	SODE	Tax Morale	BI	The demographic variables such as firm age, organizational form, ownership origin, firm size, location, size of locality, proximity to the capital, and industry have a significant impact on tax morale.	yes	
28	Van Dijke et al	Distributive Justice, Procedural justice	2019	Empirical model	284	Ethiopia and US	58	High Distributive and procedural justice	TAXJ	Tax Policy	SI		Yes	

		and Voluntary compliance												
29	Chal u et al	Economic, contingency and deterrence	2018	EFA	225	Tanzania	100	Frequency of Tax audits	TENF	Tax administration	CO		Yes	
30	Defitri et al	Tax compliance literature	2018	Hypothesis	100	Bali	90	E-filing	PROC	Tax Administration	CO			
31	Iqbal et al	Cognitive moral slippery slope	2018	Empirical model	157	Indonesia	90	Synergistic and antagonistic tax	TMO R	Tax morale	BI		Yes	
32	Shar ma et al	Literature	2018	Factor analysis	415	India	83	Regulatory burden	PROC	Tax Administration	CO			Yes
32	Shar ma et al	Literature	2018	Factor analysis	415	India	83	Detachment with democratic institutions	DDEI	Institutional governance	CO			Yes
32	Shar ma et al	Literature	2018	Factor analysis	415	India	83	Improper administration	PROC	Tax Administration	CO			Yes
32	Shar ma et al	Literature	2018	Factor analysis	415	India	83	Public despair	TMO R	Tax morale	SI			Yes
33	Olse n et al	Slippery slope framework	2018	Scenario 2X2	468	Turkey	78	Trust in governments	TGOV	Tax Morale	SI	we find that highlighting authorities' enforcement capacity (high power) induces negative emotions while elevating enforced compliance and the readiness to evade. Trust, on the other hand, reduces negative emotions and	Yes	

												raises positive feelings, which are associated with intentions to comply voluntarily. Moreover, a combination of high power and high trust reduces negative feelings and increases intentions to comply while undermining the readiness to evade. Our findings suggest that emotions matter in shaping compliance		
34	Alm et al	economics of crime	2017	experimental game	212	US	100	Peer effects on compliance	TMO R	Tax Morale	SI	Providing information on whether one's neighbours are filing returns and/or reporting income has a statistically significant and economically large impact on individual filing	Yes	

												and reporting decisions. However, this neighbour' information does not always improve compliance, depending on the exact content of the information.		
35	Faizal et al	Slippery slope framework	2017	Empirical model	241	Malaysia	15	Trust in governments	TGOV	Institutional governance	SI	Trust has a significant relationship with voluntary tax compliance.	Yes	
36	Frecknell et al	Deontology and Consequentialism	2017	Scenario based Defining issues test	286	Ireland	41	Tax laws	TAXL	Tax Policy	CO	both tax practitioners and the control group of non-tax specialists show a more marked deontological orientation in the tax scenarios, while giving more equal weighting to deontological and consequentialist issues in the social scenarios.	Yes	

37	Kochanov et al	Lit review	2017	DID approach	125	125 countries	100	E-filing	PROC	Tax Administration	CO	(e-filing) of taxes and eprocurement adoption improves the capacity of governments to raise and spend fiscal resources through lowering tax compliance costs, improving tax collection and public procurement competitiveness, and reducing corruption.	Yes	
38	Musimenta et al	Fairness and Institutional theory	2017	correlational/cross study	196	Uganda	64	Tax Fairness	TFAIR	Tax Administration	SI	There is a positive relationship between isomorphic forces and tax compliance.	Yes	
39	Bin-Nashwan et al	Standard economic model	2016	Experiments	242	Jordan	60	Tax fairness	TFAIR	Tax Administration	SI		Yes	
40	Faridy et al		2016	Exploratory	240	Bangladesh	48	Cost of Tax Compliance	PROC	Tax Administration	CO		Yes	

41	Gobena et al	Fairness heuristic and Slippery slope	2016	Hypothesis	231	Ethiopia	77	Power Justice and trust of Tax System	TGOV	Institutional governance	SI	Procedural justice fosters voluntary tax compliance, particularly when legitimate power of the tax authority is low and when coercive power of the authority is high. Moreover, we predicted that these interactive effects are mediated by (cognition-based) trust. Finally, we predicted that coercive power of the tax authority is positively related with enforced tax compliance.	Yes	
42	Hoa et al	Literature	2016	EFA	416	Vietnam	92	Tax penalty	TENF	Tax Policy	CO		Yes	
42	Hoa et al	Literature	2016	EFA	416	Vietnam	92	Tax Inspection	TENF	Tax Administration	CO		Yes	
42	Hoa et al	Literature	2016	EFA	416	Vietnam	92	Knowledge of tax	TKOW	Tax Administration	CO		Yes	

43	Junp ath et al	Literatu re review	2016	Linear Regres sion	14 6	SA	93	Tax amnestie s	TENF	Tax Policy	CO	will have a negative impact on tax compliance if they are consider ed on a recurrin g basis, this will impact both compliance and non compliance taxpayer s adversely		Yes
44	Kogl er et al	Fairness and Trust	2016	Lab experi ment	12 6	Vien na	100	Timing of audit feedback	TENF	Tax Admin istrati on	CO	trong impact of timing of feedback on tax compliance: participa nts in conditio ns of delayed feedback show significa ntly higher compliance than those in conditio ns of immediate feedback. 2. Participa nts receivin g delayed feedback are more likely to state that the probabili ty of audit is high as well as that fines in case of detectio	Yes	

												n are severe, but on the other hand perceive the timing of feedback and the authorities as more unfair		
45	Stark, et al	Literature	2019	Systematic analysis	556	South Africa	95	Cost of Tax Compliance	PROC	Tax Administration	CO	Shift in tax burden into a tapered tax base-high compliance costs		Yes

Abbreviations used in table

SEM – Structural Equation Modeling

PLS – Partial Least Squares

3 x 3 – Three by three factorial design

Annexure E – Individual factors – Subgroup- Dimension

This annexure identifies all 94 individual factors, and how they were allocated to a subgroup and a theoretical dimension of the TPB (CO- Constraints; BI- Behavioural intent and SI- Societal Influence)

#	Author(s)	Factor	Name	Subcategory	Dimension
1	Alm et al	Tax audits	Tax enforcement	Tax Administration	CO
2	Alshira'h et al	Tax audits	Tax enforcement	Tax Administration	CO
3	Alshira'h et al	Penalty framework	Tax enforcement	Tax Administration	CO
4	Alshira'h et al	Tax Rate	Tax enforcement	Tax Administration	CO
5	Alshira'h et al	Patriotism and National Pride	Tax enforcement	Behaviour	BI
6	Bernasconi et al	Tax Rate	Tax enforcement	Tax Administration	CO
7	Bernasconi et al	Penalty framework	Tax enforcement	Tax Administration	CO
8	Bertinelli et al	Corruption	Tax morale	Institutional governance	BI
9	Damayanti et al	Tax amnesties	Fairness of tax administration	Tax Administration	SI
10	Gillitzer et al	Monitoring	Tax enforcement	Tax Administration	CO
11	Hamdah et al	Tax evasion	Personality traits	Behaviour	BI
12	Jacquemet et al	Personality traits	Personality traits	Behaviour	BI
13	Kotnik et al	Cost of Tax Compliance	Tax Process	Compliance costs	CO
14	Masclet et al	Whistleblowing	Fairness of tax administration	Tax Administration	SI
15	Masclet et al	Social Consciousness	Fairness of tax administration	Tax Administration	SI
16	Masclet et al	Social Norms	Fairness of tax administration	Tax Administration	SI
17	Masclet et al	Monitoring	Tax enforcement	Tax Administration	CO
18	Misra et al	Social Norms on Tax Consultants	Tax morale	Behaviour	BI

19	Misra et al	Clients instructions	Tax morale	Behaviour	BI
20	Musimenta	Complexity of Tax system	Tax Process	Tax Administration	CO
21	Nguyen et al	Corporate Reputation	Tax morale	Behaviour	BI
22	Nguyen et al	Structure of business ownership	Perception of business forms	Business characteristics	BI
23	Nguyen et al	Tax audits	Tax enforcement	Tax Administration	CO
24	Nikulin	Entrepreneurs	Perception of business forms	Business characteristics	BI
25	Nikulin	Regulatory burden	Tax Process	Fiscal Administration	CO
26	Nikulin	Satisfaction with the tax office	Fairness of tax adminstration	Tax Administration	SI
27	Rashid	Fairness of Tax System	Fairness of tax adminstration	Tax Administration	SI
28	Rashid	Knowledge of tax	Knowledge of tax	Tax Administration	CO
29	Rashid	Tax audits	Tax enforcement	Tax Administration	CO
30	Rashid	Monitoring	Tax enforcement	Tax administration	CO
31	Rashid	Corruption	Tax morale	Institutional governance	BI
32	Rashid	Discrimination	Tax morale	Institutional governance	BI
33	Rashid	Complexity of Tax system	Tax Process	Tax Administration	CO
34	Rashid	Female Gender	Socio demographic influences on Compliance	Behaviour	BI
35	Sobhkhiz et al	Policy Development	Tax laws	Tax Policy	CO
36	Sobhkhiz et al	Accountability mechanism of Government	Trust in governments	Institutional governance	SI
37	Sobhkhiz et al	Accountability mechanism of Government	Trust in governments	Institutional governance	SI
38	Sobhkhiz et al	Accountability mechanism of Government	Trust in governments	Institutional governance	SI

39	Sobhkhiz et al	Accountability mechanism of Government	Trust in governments	Institutional governance	SI
40	Terzic et al	Tax Rate	Tax enforcement	Tax Policy	CO
41	Terzic et al	Penalty framework	Tax enforcement	Tax Administration	CO
42	Williams	Sector Morale	Perception of business forms	Business characteristics	BI
43	Williams	Firm Size	Perception of business forms	Business characteristics	BI
44	Williams	Sole traders	Perception of business forms	Business characteristics	BI
45	Williams	Newly formed Firms	Perception of business forms	Business characteristics	BI
46	Williams	Sector Morale	Perception of business forms	Business characteristics	BI
47	Williams	Vat Vendors - other tax laws	Effect of compliance with other tax law	Behaviour	BI
48	Guzel et al	Accountability mechanism of Government	Trust in governments	Institutional governance	SI
49	Guzel et al	Fairness of Tax System	Fairness of tax administration	Tax Administration	SI
50	Guzel et al	Fairness of Tax System	Fairness of tax administration	Tax Administration	SI
51	Inasius	Tax Rate	Tax enforcement	Tax Administration	CO
52	Inasius	Tax audits	Tax enforcement	Tax Administration	CO
53	Inasius	Knowledge of tax	Knowledge of tax	Tax Administration	CO
54	Inasius	Perception of government spending	Trust in governments	Economy	SI
55	Inasius	Fairness of Tax System	Fairness of tax administration	Tax Administration	SI
56	James et al	Seriousness of tax evasion	Personality traits	Behaviour	BI
57	Jolodar et al	High tax morale	Personality traits	Behaviour	BI
58	Jolodar et al	Fairness of Tax System	Fairness of tax administration	Tax Administration	SI
59	Jolodar et al	Approach to tax enforcement	Trust in governments	Tax Administration	SI

60	Kamasa et al	Perception of government spending	Trust in governments	Economy	SI
61	Kamasa et al	Business constraints	Tax Process	Fiscal Administration	CO
62	Lois et al	Fairness of Tax System	Fairness of tax administration	Tax Administration	SI
63	Lois et al	Satisfaction with the tax office	Fairness of tax administration	Tax Administration	SI
64	Lois et al	Satisfaction with the tax office	Fairness of tax administration	Tax Administration	SI
65	Mickiewicz et al	Concerns relating to legitimacy and identity- feelings of belongings	Tax morale	Institutional governance	BI
66	Musimenta et al	National pride	Tax enforcement	Behaviour	BI
67	Musimenta et al	Approach to tax enforcement	Trust in governments	Tax Administration	SI
68	Musimenta et al	Fairness of Tax System	Fairness of tax administration	Tax Administration	SI
69	Pacaldo et al	Monitoring	Tax enforcement	Tax administration	CO
70	Pacaldo et al	Approach to tax enforcement	Trust in governments	Tax Administration	SI
71	Pacaldo et al	Socio demographic influences on Compliance	Socio demographic influences on Compliance	Tax morale	BI
72	Van Dijke et al	Fairness of Tax System	Fairness of tax administration	Tax Administration	SI
73	Chalu et al	Tax audits	Tax enforcement	Tax administration	CO
74	Defitri et al	E –filing	Tax Process	Tax Administration	CO
75	Iqbal et al	Synergistic and antagonistic tax	Tax morale	Tax Administration	BI
76	Sharma et al	Regulatory burden	Tax Process	Tax Administration	CO
77	Sharma et al	Detachment with democratic institutions	Tax morale	Institutional governance	BI
78	Sharma et al	Improper administration	Tax Process	Tax Administration	CO
79	Sharma et al	Public despair	Tax morale	Institutional governance	BI

80	Olsen et al	Approach to tax enforcement	Trust in governments	Tax Administration	SI
81	Alm et al	Peer effects on compliance	Tax morale	Behaviour	BI
82	Faizal et al	Approach to tax enforcement	Trust in governments	Tax Administration	SI
83	Frecknall et al	Policy Development	Tax laws	Tax Policy	CO
84	Kochanova et al	E –filing	Tax Process	Tax Administration	CO
85	Musimenta et al	Fairness of Tax System	Fairness of tax adminstration	Tax Administration	SI
86	Bin-Nashwan et al	Fairness of Tax System	Fairness of tax adminstration	Tax Administration	SI
87	Faridy et al	Cost of Tax Compliance	Tax Process	Compliance costs	CO
88	Gobena et al	Fairness of Tax System	Fairness of tax adminstration	Tax Administration	SI
89	Hoa et al	Penalty framework	Tax enforcement	Tax Administration	CO
90	Hoa et al	Tax audits	Tax enforcement	Tax Administration	CO
91	Hoa et al	Knowledge of tax	Knowledge of tax	Tax Administration	CO
92	Junpath et al	Tax amnesties	Tax enforcement	Tax Administration	CO
93	Kogler et al	Tax audits	Tax enforcement	Tax Administration	CO
94	Stark, et al	Cost of Tax Compliance	Tax Process	Compliance costs	CO

Annexure F – Categories of factors

This table reflects the 96 individual factors, grouped into 46 categories of factors to facilitate the system review conducted and to establish the dominance of a factor based on the votes allocated to a category of factor.

	Categories of factors	Individual factors/ votes
1	Fairness of Tax System	11
2	Tax audits	8
3	Approach to tax enforcement	5
4	Accountability mechanism of Government	5
5	Monitoring	4
6	Tax Rate	4
7	Penalty framework	4
8	Cost of Tax Compliance	3
9	Satisfaction with the tax office	3
10	Knowledge of tax	3
11	Policy Development	2
12	E -filing	2
13	Regulatory burden	2
14	Sector Morale	2
15	Corruption	2
16	Tax amnesties	2
17	Complexity of Tax system	2
18	Perception of government spending	2
19	Social Consciousness	1
20	Clients instructions	1
21	Sole traders	1
22	Concerns relating to legitimacy and identity- feelings of belongings	1
23	Discrimination	1
24	National pride	1
25	Social Norms on Tax Consultants	1
26	Newly formed Firms	1
27	Synergistic and antagonistic tax	1
28	Whistleblowing	1
29	Corporate Reputation	1
30	Peer effects on compliance	1
31	Seriousness of tax evasion	1
32	Detachment with democratic institutions	1
33	Social Norms	1
34	Entrepreneurs	1
35	Socio demographic influences on Compliance	1
36	Personality traits	1
37	Structure of business ownership	1

38	Business constraints	1
39	Improper administration	1
40	Public despair	1
41	Tax evasion	1
42	Female Gender	1
43	Vat Vendors - other tax laws	1
44	Firm Size	1
45	High tax morale	1
46	Patriotism and National Pride	1
	Grand Total	94