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Tax evasion by Small and Micro Sized Enterprises (SMEs) in Uzbekistan

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Dedication

This thesis is dedicated to my late grandmother Salima, my parents Murodjon and Oftobhon and my beloved family.

Abstract

The importance of understanding tax compliance and non-compliance behaviour is important to any governments and tax authorities (HMRC, 2009). Insight into the decision-making behaviour of taxpayers is essential to researchers in assisting governments as they struggle to meet new challenges of economy while trying to balance budget deficits and infrastructure demands. This study examines the influence of tax evasion factors on Small and Micro-sized Enterprises (SME) owners' tax evasion decision making behaviour in Uzbekistan. This study examined some selected salient factors of SME owners' tax evasion behaviour by using Ethical Process Thinking Model in an attempt to offer both researchers and policy makers a more defined understanding.

The study begins by identifying key tax compliance and non-compliance factors listed in literature and organising them into a theoretically based model. Jackson and Milliron (1986) and Richardson and Sawyer (2001) categorise fourteen salient factors of tax compliance and non-compliance into four groups namely, noncompliance opportunities, attitudes and perceptions, tax system structure and demographics. Six key factors out of fourteen are then integrated into an Ethical Process Thinking Model allowing the researcher to examine two pathways of this model. The Ethical Process Thinking Model (Rodgers, 2009) depicts various stages and pathways that can influence a taxpayers' compliance/noncompliance decision process. The Ethical Process Thinking Model asserts that four major processing stages of perception, available information, judgement and decision choice with their total effects will provide meaningful relationships of the causes of decisions (Rodgers & Cago, 2001; Rodgers, 2009; Rodgers

et al., 2014). This new approach to the tax evasion decision making process may provide a more complete picture of tax evasion behaviour of SME owners.

In order to understand the tax compliance behaviour of SME owners in this study, a mixed-method approach, combining surveys and semi-structured interviews, was used. Quantitative data was analysed by SmartPLS software version 3.0 using Structural Equation Modelling (SEM) technique. Transcribing, coding and finding relevant themes were used to analyse the qualitative data.

The findings of this study show that taxpayers' perceptual and informational factors had stronger influence on SME owners' tax evasion decision behaviour. Amongst perceptual factors, personal financial difficulty and perception of corruption were the most influential factors to the tax evasion behaviour of SME owners. Complexity of tax laws and compliance costs from informational factors were the highest influential factors on SME owners' tax evasion decision behaviour. The results from the interviews indicate that financial motivation was not a significant factor in SME owners' tax evasion decision behaviour. Moreover, the findings suggest that there is positive relationship between tax audits and SME owners' tax evasion decision behaviour. The interview findings further clarified that SME owners view tax audits as extra compliance costs not as audit checks.

The findings contribute to the theoretical and practical aspects of understanding the tax evasion behaviour of SME owners in Uzbekistan. The findings from this study may be useful for tax authorities and regulators to combat tax evasion.

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List of Abbreviations

EPTM -Ethical Process Thinking Model

GDP - Gross Domestic Product

IFC - International Finance Corporation

PLS -Partial Least Squares

SMEs - Small and Micro-sized Enterprises

SPSS - Statistical Package for the Social Science

TPB -Theory of Perceived Behaviour

TRA -Theory of Reason Action

VAT - Value Added Tax

Key Glossary

Tax:

Tax evasion:

Tax avoidance:

Tax attitudes:

Perceptual factors:

Informational factors:

Decision making:

Ethical behaviour:

Judgement choice:

CHAPTER ONE

INTRODUCTION

1.1 Chapter Overview

This chapter provides an overview of the thesis. It also provides the background of the study, including a brief overview of taxation in Uzbekistan, the importance of Small and Micro-sized Enterprises (SMEs), significance of tax and tax evasion, tax evasion studies and the research gap, the research objectives, the research approach and the significance of the study.

1.2 Background

Uzbekistan is one of the fastest growing developing countries in the Central Asia, located in the centre of it. Uzbekistan is surrounded by five countries: Kazakhstan to the North; Tajikistan to the South East; Kyrgyzstan to the North East; Afghanistan to the South and Turkmenistan to the South West. Uzbekistan has an area of 447,400 square kilometres and a population of over 31 million (According to stat.uz, March 2015). Uzbekistan is divided into twelve provinces, one autonomous republic (Karakalpak) and one city (Tashkent city). Uzbekistan is multi-racial country with mainly Uzbeks (80 percent of the total population), Russians (5.5 percent), Tajiks (5 percent), Kazakhs (3 percent), Karakalpaks (2.5 percent) and others. Uzbekistan became independent in 1991 after the fall of the Soviet Union. The president, late Islam Karimov, was the head of the state. A cabinet of Ministers is the executive power body of the Republic of Uzbekistan. The

Cabinet of Ministers consists of the Prime-Minister, Deputies of the Prime Minister, Ministers, Chairmen of the State Committees of the Republic of Uzbekistan and Heads of the state and economic management bodies.

Since its independence, the government of Uzbekistan has been committed to a gradual transition to a market-based economy. The growth of Uzbekistan's Gross Domestic Product (GDP) was recorded around 7 to 8 percent increase annually during 2011-2014 (World Bank report[1]).

Uzbekistan's GDP has enjoyed the robust growth since 2000, thanks to export of gold, natural gas, cotton, copper. However, Uzbekistan relies largely on taxes for its revenue. Almost half of the GDP in 2008 is produced by small businesses totalling 48.2% of the GDP in 2008 (IFC, 2010 p. 29).

1.3 Tax evasion and Small and Micro-sized Enterprises in Uzbekistan

1.3.1 Significance of Tax

Tax revenues are one of the main sources of income for many governments. Taxes play a fundamental role in establishing and maintaining the infrastructure of most countries in the world. Similarly in Uzbekistan, taxation plays one of the main sources of the government's revenue with 23.4 percent of the GDP (see Table 1) in 2008 (CER, 2010).

[1] http://www.worldbank.org/en/country/uzbekistan/overview

Table 1 Federal revenues, 1995-2009 (period average; as % of GDP. Source CEP, 2010)

	1995-2000	2001-2003	2004-2007	2008-2009
Revenue total	31.5	25.1	22.1	23.4
Direct taxes	10.4	7.3	6.0	6.1
Indirect taxes	15.3	13.8	10.9	11.4
Resource payments and property tax	2.6	2.2	3.6	3.7
Other revenues	3.3	1.9	1.6	2.2

There are two main sources of the budget of the Republic of Uzbekistan: direct and indirect taxes. The indirect taxes generated the highest proportion of revenue around 53.6 and 54.5 percent in 2011 and 2012 respectively while the shares of the direct taxes were 29.3 and 28.3 percent at the same period (See Table 2). This study focuses on the direct taxes which include a) corporate income tax, b) allocation to the state budget from the unified tax payment on trade and public catering businesses, c) allocations to the state budget from the unified tax payment, including from micro-firms and small enterprises, and d) fixed tax on profits of legal entities and individual entrepreneurs. Since 2011, by the order of the President, tax codes were simplified and unified. The more details will be discussed in Chapter two.

Table 2 Sources of Direct taxes and share in budget (adopted from IFC (2010), PWC (2013), and PWC (2014))

#	Parameters	UZS Billion 2008	2008 %	2011 %	2012 %	2013 %
1	Direct taxes	1,798.1	25.3	29.3	28.3	26.9
1.1	Corporate income tax	361.2	5.1	5.6	5.2	4.4
1.2	Allocation to the state budget from the unified tax payment on trade and public catering businesses	145	2.0	6.8	6.4	6.7
1.3	Allocations to the state budget from the unified tax payment, including from micro-firms and small enterprises	145.6	2.0			
1.4	Personal income tax	888.5	12.5	12.5	12	11.5
1.5	Fixed tax on profits of legal entities and individual entrepreneurs	81.7	1.1	1.5	1.7	1.8
1.6	Social infrastructure development tax	176	2.5	2.9	2.9	2.5

1.3.2 Significance of Non-Compliance

Tax compliance has always been an important issue to governments and revenue authorities in general because tax compliance 'affects revenue collection and the ability of the government to achieve its fiscal and social goals' (Tan & Sawyer, 2003).

Likewise, tax non-compliance is a substantial concern for all governments and revenue authorities. The reason is that it impacts on both the equity and efficiency of the economy as well as raising revenues for public expenditure (Torgler, 2003b; Lymer & Oats, 2009). Governments and tax authorities continuously need to tackle the tax evasion if they want to provide better goods and services to the taxpaying community.

Measuring non-compliance can be difficult as it involves estimating the amounts of uncollected tax, which by its nature is not detected by the revenue authorities. However, the amount of tax loss through evasion is huge. In Uzbekistan, the shadow economy was

around 40 percent of the total GDP between 2000 to 2007 (Schneider, 2010). In comparison, in the same year the shadow economy of the UK was 11.1 percent of the total GDP (Schneider, 2012). This also corresponds to HMRC's estimation. In the UK, Her Majesty's Revenue and Customs estimated the total tax gap to be £35 billion (bn)[2] in 2009-10. This equated to around 8% of the estimated total tax liability[3] for 2009-10 (HMRC, 2011). In Australia, an estimation of the underground economy was approximately 10 bn[4] in 2003 and 10.1 per cent of its GDP in 2011 (Schneider, 2012). For example, the US Internal Revenue Services (IRS) estimated the tax evasion to be $345 bn in 2006 (Slemrod, 2007).

The tax non-compliance is not a new phenomenon; Andreoni and co-workers stated 'the problem of tax compliance is as old as taxes itself' (Andreoni et al., 1998). Many governments and tax authorities have become more concerned with rising levels of the non-compliance among the taxpayers. In recent years, they have been trying to increase voluntary compliance due to the costs of enforced compliance (through investigation or tax audits) being high. It is very important for any government and its revenue collecting authority to obtain information about the perceptions and attitudes of taxpayers' towards non-compliance in order to maximize the voluntary compliance. The scale of corruption, trust in authorities, social norms and other social and psychological factors could play a vital role for increased level of non-compliance. It is argued that if taxpayers live in a corrupt country then the level of compliance will be low (Bird et al., 2008).

[2] This report does not include Council Tax and Business Rates as these are administered by local authorities.
[3] Total tax liability is defined as the tax gap plus the amount of tax actually received.
[4] Australian Economic Indicators, ABS Publication, October 2003.

1.3.3 The importance of Small and Micro-sized Enterprises in Uzbekistan

Small and Micro-sized Enterprises play an important role in the economic growth in developing countries, such as Uzbekistan. Since the independence, the Uzbek government started to pay its attention to helping to develop private and small businesses during the transition period to the market economy. The President Islam Karimov and legislative bodies had issued a series of orders and regulatory documents to promote the small and micro-sized enterprises. The government of Uzbekistan has adopted a number of reforms and the special government programme has been developed to promote and support the expansion of small businesses. The president declared the year of 2011 as the 'Year of Small Businesses and Private Entrepreneurship' in order to raise the public profile of the importance of SMEs in the economy.

One of the significant roles of SMEs is job creation. According to the State Statistics Committee, there were 398,600 active micro-firms and small enterprises, comprising almost 90 percent of all the enterprises and 162,100 individual entrepreneurs in Uzbekistan in 2008 (IFC, 2010). Small business sector's share in GDP was 48.2 percent and they contributed 72 percent to employment in 2008 (see Table 3). The number of SMEs had grown to 470,000 in 2011 with 54 percent share in GDP. This sector provided employment to almost 75 percent of all employed persons. In 2010, 480,000 jobs were created due to the development of SMEs (Nabidjanova & Qobulova, 2013 p.84). SMEs also contribute significantly to agriculture, commercial services, construction and manufacturing sectors.

Table 3 Active legal entities and their share in GDP (Adopted from State Statistics Committee, and IFC (2010))

	2008	2009	2010	2011	2012	2013	2014
Small businesses registered (thousand)	398.6	425	455	470	…	…	…
Contribution to employment %	72	73	74.5	74.8	75.7	76.1	77.2
Small business sector share in GDP, %	48.2	50.1	52.5	54.0	54.6	54.5	56.1
Of which: Small enterprises	9.2	…	…	…	…	…	…
Micro-firms	20.3	…	…	…	…	…	…
Individual entrepreneurs	18.7	…	…	…	…	…	…

… Data not available

No data is publicly available in terms of SMEs contribution to the tax revenue. However, in 2014 small businesses provided employment to 9,897,500 people (77.2 percent of total persons employed in the economy), including 7,580,300 people in the individual sector and 2,317,200 people in the small enterprises and micro firms. Considering this, it is presumed that SMEs could contribute to the tax revenue through paying income and capital tax. Having recognised the importance of SMEs and their contribution, the current study examines factors and their influence on the evasion behaviour of SME owners.

1.3.4 Studies on Tax Evasion

Research on tax compliance and non-compliance remains an important area for many governments and revenue authorities. There have been many researches conducted on tax compliance and non-compliance issues by scholars in the last fifty years. Those studies attempted to identify salient factors that affect the taxpayer's compliance/non-compliance decisions (Richardson & Sawyer, 2001).

Tax compliance/non-compliance studies can be grouped generally into two schools: the 'economic school' and the 'psychological school'. The economic school models mainly rely on economic theories of compliance that can be traced back to the works of Bentham (1788) and Beccaria (1764) who based their work on the classic utilitarian theory of crime, which assumes that people are rational actors who will maximise their expected utility. In other words, people assess benefits and risks and disobey the law when the expected fines and probability of being caught is less than the expected profits. Even though economic school models managed to identify compliance/non-compliance factors, not all factors are supported by empirical research (Andreoni et al., 1998). Fischer et al. (1992) criticised economic school assumptions because they fail to represent the real life audit rules and tax systems. Therefore, the economic school models are not always sufficient and helpful to explain tax compliance and evasion behaviours. Consequently, there is need to incorporate social and behavioural factors into the analysis of tax compliance and non-compliance.

The economic models of tax compliance and evasion have been a subject of severe criticism (Batrancea et al., 2012). Many scholars started to focus on researching other models in order to obtain more in-depth understanding of tax compliance. Thus, sociology and psychology scholars viewed taxpayers not as selfish utility maximisers but rather as human beings motivated to pay or evade taxes on the basis of different factors such as attitudes, beliefs, trust, fairness, social norms, perceptions, feelings and demographical backgrounds such as age, gender, religion and etc. (Ajzen (1991); Coleman and Freeman (1997); Hasseldine et al. (2005); Wenzel (2005a; 2005b); Kirchler (2007); McGee (2011)).

1.3.5 Research Gap

There are many theories suggested by economic and psychological school scholars on tax compliance and non-compliance. However, there is no definitive model of tax compliance and non-compliance discovered and findings regarding understanding of taxpayer's behaviour remain inconclusive (Richardson & Sawyer, 2001). Moreover, Andreoni and co-authors pointed that the hypothesis and the policy questions still require further investigations due to the empirical work being loosely connected with the theory (Andreoni et al., 1998). Furthermore, many authors suggest that cross cultural differences exist between countries that can affect the compliance in various ways (Hostede, 1980; Chan et al., 2000). For this reason, it is important to study tax compliance and non-compliance in a wide variety of countries to enable development of appropriate compliance/non-compliance models for those countries and to add to the general tax compliance knowledge. Issues on the effectiveness of tax audits and other alternative mechanisms used by governments and revenue authorities to increase tax compliance still remain as a research problem (Hasseldine et al., 2005). It is noteworthy to mention that findings of all studies were valid but consistent results were difficult to produce due to employment of different methods and variables (Richardson & Sawyer, 2001).

There is no doubt that there are many studies on tax compliance and non-compliance being conducted in many countries such as the US, Europe and East Asian countries. However, there is still very little literature in Central Asian countries on tax compliance and non-compliance, particularly regarding corporate taxpayers. This could be due to different reasons such as strict authoritarian rules regarding freedom of information as well as difficulty in bringing investments from foreign countries. To make the matter

worse, there is neither tax evasion estimates nor does the National Statistics of Uzbekistan publish the amount of taxes and penalties recovered as a result of investigations and audits in Uzbekistan. This makes it hard to approximate a magnitude of tax evasion due to inadequate data from the National Statistics. The tax literature recognises that it is impossible to measure the true amount of tax evasion. However, it is possible to study the compliance behaviours of taxpayers through surveys, interviews and experiments.

1.4 Research Objectives

1.4.1 General objectives

Studies that investigate tax evasion variables among SMEs are scarce internationally as well as in Uzbekistan. The main purpose of this research is to understand the SME owners' tax evasion behaviour in Uzbekistan. Additionally, this study aims to present and analyse findings concerning the tax evasion factors that influence SME taxpayers' behaviour in Uzbekistan, in an attempt to gain an insight into and explore possible influences of the tax evasion factors. The particular attention will be given to the Perceptual and Informational determinants of tax evasion in SMEs.

1.4.2 Specific Objectives

The main objectives of the study are to identify the tax evasion variables that influence SME owners' tax evasion behaviour. This research particularly focuses on two types of factors: a) perceptual, such as attitudes of the SME owners towards tax evasion, personal financial condition (motivation/distress), and corruption and b) informational,

such as complexity of tax laws, tax audits and tax compliance costs. In order to accomplish the general and the specific objectives of this study the research asks the following questions:

i) What are the SME taxpayer's evasion variables?

ii) Do perceptual factors (attitudes towards tax evasion, personal financial condition and perception of corruption) significantly influence the SME owners' tax evasion decision making behaviour?

iii) Do informational factors (complexity of tax laws, tax audits and compliance costs) significantly influence the SME owners' tax evasion decision making behaviour?

iv) To what extent these variables influence the SME owners' evasion behaviour?

1.5 Research method

Traditionally, researchers employ either the quantitative or qualitative approaches in conducting a research. In tax compliance/non-compliance studies, surveys and experimental designs are the common methods used by tax researchers (Richardson & Sawyer, 2001). However, over the years, mixed method research has gained considerable attention in social science research (Bryman & Bell, 2011). The reason for this is the mixed method research is appropriate for various research disciplines in the social sciences (Creswell & Plano Clark, 2011). For example, McKerchar (2010) suggests that using mixed methods approach can inform, validate or compensate the weaknesses of using other approaches.

Based on the advantages of using the mixed method approach in tax studies, this study employs mixed methodological design including quantitative phase followed by a minor qualitative phase to meet the objectives of the study. The quantitative component of this study consists of surveys while qualitative component consists of semi-structured interviews. The use of the mixed method approach provides a better understanding of research problems than either quantitative or qualitative approaches alone can achieve as suggested by McKerchar (2010). Integrating the use of quantitative and qualitative methods will enable the researcher to understand the phenomenon better through the use of the strengths and weaknesses of both designs complementarily. There are many scholars who used the mixed method approach in taxation research (Torgler, 2007; McKerchar, 2008; 2010).

In the first phase, survey questionnaire was distributed to SME owners using random and convenience sampling methods. Total of 140 questionnaires were collected out of 550 distributed forms[5]. In the second phase, 10 semi-structured interviews were conducted to support quantitative methods. The qualitative phase of this study will allow meaningful information through semi-structured interviews.

Statistical Package for the Social Science (SPSS) software version 23 is used to analyse the preliminary and descriptive analyses. Smart Partial Least Squares (PLS) version 3 is used to test the hypotheses based on research questions set out in Chapter 3. As for the interview data, it was analysed thematically using the approach recommended by

[5] Detailed analysis is discussed in Chapter Four, Section 4.3

Lincoln and Guba (1985) and Braun and Clarke (2006). The detailed discussion of the research methods employed in this study is presented in Chapter 4 of this study.

1.6 Significance of the Study

The findings from this study contribute to the existing tax compliance/non-compliance literature in a number of ways.

1.6.1 Theory

This research will contribute to the body of knowledge with its use of the Ethical Process Thinking Model. Several taxpayer compliance models have been described in the literature, but none has gained widespread acceptance, perhaps because tax compliance researchers come from different disciplines and backgrounds and bring various theoretical models to their examinations of the phenomenon (Fischer et al., 1992). Therefore, there is a need for a new model of taxpayer compliance that incorporates economic, social and psychological variables. This research will try to fill the gap by using the Ethical Process Thinking Model, which includes economic, social and psychological variables.

1.6.2 Context

Another important contribution of this study is that it extends the scope of tax evasion research to SME taxpayers and helps to broaden the literature by adding Uzbekistan in to the context. Many tax compliance studies are conducted in countries such as US, Netherlands, Switzerland, Sweden, African and Asian countries. To the best of my

knowledge, there is no study conducted regarding tax evasion in Uzbekistan. Thus, this research fills the gap in the tax evasion literature. This study broadens the tax database, considering this is the first tax evasion study in Central Asian countries, and could improve the understanding of tax evasion issues.

Moreover, the findings from this study could potentially provide guidelines to policy makers in designing suitable strategies to increase voluntary compliance.

1.7 Presentation of Thesis

This thesis is organised into eight chapters, namely, the introduction, an overview of tax evasion theories, research framework, research methodology, the preliminary data analysis, the analysis of quantitative results, the analysis of the qualitative results, discussions and conclusion.

Chapter One provides the background to the study, significance of SMEs in Uzbekistan, significance of tax evasion, research gap, research objectives and questions, research method, significance of the study and organisation of the remaining chapters.

Chapter Two reviews the past literature and concepts relevant to this study. In this chapter, the discussions are focused on the definitions of tax evasion and avoidance concepts, economic and psychological school theories on tax evasion and use of Ethical Process Thinking Model.

Chapter Three presents the development of the research framework and hypotheses. The detailed research questions along with the hypotheses are presented to ensure better understanding of the research content.

Chapter Four discusses the research paradigm, methodology and design. This chapter includes quantitative and qualitative investigation. Each part discusses the procedures for instrument development, data collection and distribution and the sample size. Ethical consideration is also presented in this chapter.

Chapter Five presents the preliminary quantitative data analysis. This chapter discusses the Structural Equation Modelling and justification for using Partial Least Squares.

Chapter Six presents the findings from the PLS analysis. In addition, the structural equation model is also discussed before the results from the hypotheses testing are presented. The findings from the qualitative data are explained in Chapter Seven.

Chapter Eight concludes the study with a discussion of perceptual and informational factors that contribute to SME owners' tax evasion decision making behaviour in Uzbekistan. In addition to, limitation of the study as well as future research recommendations are presented in this chapter.

CHAPTER TWO

MAJOR CONCEPTS AND LITERATURE REVIEW

2.1 Overview

This chapter presents the theories and literature relevant to this study. The discussion begins with a brief overview of tax revenues of the government budgets, followed by a discussion on tax evasion and tax avoidance. The main discussion begins with the traditional school theories (the Economic approach) and the psychological school theories (non-economic) for predicting human behaviour. Next, Rodgers' (2009) Ethical Process Thinking Model used in this study is presented. The discussion of past studies on attitudes, ethics and other variables also form a part of this chapter. The chapter ends with a brief summary.

2.2 Introduction

Tax evasion has always been an area of concern for governments, policy makers, revenue authorities and society in general. The revenue leakage through tax evasion and avoidance is a major problem in both developed and developing countries. This is mainly because tax evasion affects government's revenue collection and the government's ability to achieve its fiscal and social goals. Many governments are relying on taxes as one of the major revenue sources for financing the development of their projects. The level of evasion reduces the amount of collected tax and adversely influences the quality of public goods and services provided by governments to the society (Wenzel, 2003). It has been argued that the distinction between tax evasion and tax avoidance is not easy

to define. This has been a major concern to scholars, academics and policy-makers and is examined next.

2.3 The difference between tax evasion and tax avoidance

It has been argued that minimising taxes is everyone's right while evading taxes is against the law. In many countries, businesses and individuals use different types of tactics to avoid paying their tax obligations. Some use professional advisors to avoid the tax law while others underreport their income or claim improper deductions. At the extreme, some use their political or financial influence to remain outside the scope of tax legislation.

Tax avoidance generally means non-criminal way of minimising one's own tax liabilities by structuring transactions (McBarnet, 1991). Therefore, a taxpayer exploits the loopholes and gaps in tax and other legislations in a way that is not anticipated by tax laws. Tax avoidance disturbs social and judicial goals as many people with significant means do not pay a fair share of taxes (Barker, 2009). This is why it is recognised as a serious threat to the integrity of tax systems in all governments.

Contrary to this, tax evasion is an illegal activity and works outside the tax rules by trying to evade legal obligation (Franzoni, 1998). Even though the tax avoidance and tax evasion seem to be different from legal point of view, both practices have a similar effect, namely, reducing government's revenues. Even if they are both based on the same desire to reduces one's tax obligation (Kirchler et al., 2003), the line between the evasion and avoidance is reasonably clear from the legal perspective. This notion was

beautifully described by Denis Healey, former UK Chancellor of the Exchequer (Elliffe, 2011), as '*The difference between tax evasion and tax avoidance is the thickness of a prison wall*'. However, determining the boundaries between them is problematic. The following section examines the difference between tax evasion and tax avoidance in order to help explain why corporate and individual taxpayers chose to evade or avoid their tax obligations.

2.3.1 Tax avoidance

Tax avoidance generally is a non-criminal activity by taxpayer who tries to minimize or avoid tax liability within the legal framework of the tax law by exploiting loopholes in the tax law. The use of 'avoid' rather than 'evade' is the legal nicety which occurs when taxpayers use their wealth and intellect to legalise non-payment of taxes and obstruct enforcement agencies from conducting investigations and bringing charges against them (Komisar, 2006). According to Kay (1980), tax avoidance is '… when avoidance takes place the facts of the transaction are admitted but they have been arranged in such a way that the resulting tax treatment differs from that intended by the relevant legislation'. Tax avoidance can be defined as 'the lawful carrying out of a transaction which was entered into, or which took a particular form, for the purpose of minimizing taxation' (Kirchler & Maciejovsky, 2001). According to these definitions, the tax avoidance is lawful and yet there are many grey areas where the dividing line is not clear.

Tax avoidance appeals to individuals who want to increase their interests. Avoidance is encouraged as a result of various views of legislation granting favourable tax treatments to specific activities such as corporate interests and tax avoidance industry (Hanno &

Violette, 1996). According to the definitions of tax avoidance, paying the minimum amount required by law is within the law. Evans (2005) stated that the debate about the distinction between tax evasion and avoidance is more than a matter of legal debate, because it involves economic and moral considerations. From the economic perspective, as well as from the moral perspective both avoidance and evasion have very strong similarities and both actions' outcomes are the same.

2.3.2 Tax evasion

Interest in tax evasion in both economic and political schools has received a significant attention because of its economic and social outcomes. Tax evasion has been examined from different perspectives such as the legal, the ethical and the finance (Otusanya, 2010).

2.3.2.1 The Legal Perspective

From the legal perspective, tax evasion is a violation of the tax law when the taxpayers do not report their full income that is liable to tax and they engage in an illegal activity that makes them accountable to administrative or legal action from the authorities (Sandmo, 2005). Moreover, Franzoni (1998) said that tax evasion occurs when taxpayers intentionally fail to comply with their tax obligations. As Green (2004 pp. 169-170) stated that:

> '*The complexity of tax law surrounding the crime of tax evasion reflects the complexity of the tax law itself. Tax evasion requires not only the non-payment of taxes but also a wilful attempt to evade or defeat the tax, conceal income, or mislead the authorities*'.

2.3.2.2 The Ethical Perspective

From the *ethical perspective*, tax evasion has three different ethical views, namely that: 'tax evasion is never ethical'; 'tax evasion is never unethical'; and 'tax evasion may be ethical depending on the facts and circumstances' (McGee, 2011). The first view suggests that tax evasion is never ethical because of different reasons. This view presupposes that individuals owe a duty to God[6]. For example, Cohn (1998) and Tamari (1998) studied Jewish perspective on tax evasion. They concluded that Jewish religion prohibits tax evasion. Cohn (1998) suggested four reasons to pay tax according to Jewish perspective.

- There is a duty to follow the country's statues[7],
- Jewish religion prohibits lying,
- Jewish religion prohibits doing anything that could discredit the religion,
- Jewish religion cannot be practiced properly in prison if person goes to jail due to tax evasion.

Smith and Kimball (1998) studied the Mormon's perspective regarding tax compliance and non-compliance and found that the religion prohibits tax evasion. One reason is that Mormons must obey, honour and sustain the laws of whatever government they live under. According to their thirteenth *Article of Faith*, Mormons believe in being honest.

[6] There are passages in the Bible that suggests this. For example, when Jesus was asked whether people should pay taxes to Caesar, Jesus replied that we should give to Caesar the things that are Caesar's and give to God the things that are God's. Also they think that whoever is in charge of government is there with God's approval and whoever disputes that fact is subject to damnation. It is sin against God to break the law (McGee, 2011).

[7] When Jesus was asked whether people should pay taxes to Caeser, Jesus replied that we should give to Caesar the things that are Caesar's and give to God the things that are God's (McGee, 2011).

DeMoville (1998) studied the Baha'i perspective of tax evasion and concluded that Baha'i religion also prohibits tax evasion similarly to the Mormons.

The second view suggests that tax evasion is always ethical (allowed) because individuals owe no obligation to pay taxes to the state. The rationale for this view is that there is no social contract between governments and citizens and governments cannot take people's property without people's consent (McGee, 2011). In this notion, people have no obligation to pay taxes to the state or to other members of community (McGee, 1999).

The third view is that tax evasion may be ethical in some circumstances and unethical in others (McGee, 2011). McGee (2011) cited Murtaza and Ghazanta (1998) that Muslims have no moral obligation to pay all taxes, and in some cases tax evasion may not be immoral. McGee (2011) stated that partial evasion is justified when extra taxes are imposed on taxpayers. However, it is very difficult to ascertain when and in what circumstances tax evasion becomes ethically justifiable (McGee, 2004).

2.3.2.3 The Financial Perspective

From the financial perspective, tax evasion is withholding taxes by under-reporting actual revenue/wage payments (Yaniv, 1988) or over-reporting expenses (Wang & Connat, 1998) by taxpayers. A number of studies have suggested that tax evasion is not limited to individual taxpayers, but the small businesses and big corporations are also engaged in tax evasion (Hite et al., 1992; Blazic, 2004; Hasseldine et al., 2005; Hansford & Hasseldine, 2012).

Reflecting discussions above, tax evasion can be defined as an illegal intentional non-payment or underpayment of liable taxes, usually resulting underreporting of taxable liabilities to tax authorities or overstating expenses, resulting in legal penalties if the perpetrator of tax evasion is caught.

2.4 The Traditional School Model

The study of tax can be addressed from multidisciplinary areas (McKerchar, 2010), such as accounting, sociology, psychology, law, economy and public finance. Many scholars, such as Jackson and Milliron (1986), Andreoni et al. (1998), Richardson and Sawyer (2001), and James and Alley (2004), indicate that tax compliance and non-compliance studies can be explained mainly by two schools of thought, namely, the Economic (the Traditional) and the Psychological schools. As a result of the different approaches, researchers in tax compliance and non-compliance studies explain tax compliance and evasion as either a problem of economic rationality or behavioural cooperation.

The Economic school theories assume that individuals and entities are rational agents and evaluate the cost and benefits of their activity. As a result, economic parameters, such as penalties, tax rates, and probability of being audited are used in this school's approach to measure the level of tax compliance or non-compliance. On the other hand, the scholars of the Psychological/Sociological approach school argue that human behaviour is more complex and taxpayers' compliance behaviour is also influenced by attitudes, subjective norms, ethics, demographics, and as well as taxpayers' perceptions. In the following sections, the Economic and Psychological school frameworks will be examined in detail.

The Economic School (The Traditional) Model

The economic models mainly rely on economic theories of compliance that can be traced back to the works of Beccaria (1764) and Bentham (1983) (original book published in 1788) who based their work on the classic utilitarian theory of crime. This theory assumes that people are rational actors who will maximise their expected utility. In other words, people assess benefits and risks and disobey the law when the expected fines and probability of being caught is less than the expected profits. The term *utilitarianism* was first introduced by John Stuart Mill (1806-1876). These philosophers were among the first to advance utilitarianism theory. Later, in the twentieth century, Becker (1968) adopted and modernised the *utilitarian theory* of crime to the economic approach in his path-breaking article '*Crime and Punishment: An economic approach*' (Kirchler, 2007). Prior to the Becker's work, it was thought that criminal behaviours were caused by mental illnesses and social oppressions (Becker, 1968 p. 390). Becker rejected these presumptions and instead explored the rational behaviour based on utilitarian principle. Becker (1968, p.176) stated '*a person commits an offense if the expected utility to him exceeds the utility he could get by using his time and other resources at other activities'. Some persons become 'criminals', therefore, not because their basic motivation differs from that of other persons, but because their benefits and costs [resulting from compliance and noncompliance with the law] differ'*. Therefore, he suggested that regulatory authorities should take measures to ensure that expected utility of non-compliance are lower than those obtained through compliance. Governments and regulatory authorities could achieve this in two ways: 1) by increasing the chances of detection and 2) by increasing penalties for non-compliers. Becker's

model shows a straightforward application of an individual's choice under uncertainty which is based on modern risk theory and has become an important model for policy makers and enforcement authorities. Becker stated that his model was applicable to taxation. The concept of understanding crime and punishment from an economic perspective was then applied into taxation by Allingham and Sandmo (1972).

Since then, Allingham and Sandmo's work has become a benchmark in economic school tax compliance studies. Their economic deterrence model was the first formal tax evasion model to explain tax compliance behaviour using Expected Utility Theory. This theory assumes that individuals are rational in decision making despite the risks. The Allingham-Sandmo Model examines the income of individuals in two situations, namely when tax evasion is discovered and when tax evasion is not discovered.

In their seminal works, Allingham and Sandmo (1972) assumed that taxpayers have two options: 1) declare the actual income, or 2) declare less than the actual income. If the taxpayer chooses the second option, the payoff will depend on whether the taxpayer will be investigated by the tax authority or not. If the taxpayer is not investigated, they can then benefit financially. If the taxpayer is investigated and non-compliance is detected, then the taxpayer is worse off. The economic model is based on the assumption that the taxpayers are rational and will generally engage in tax evasion if the benefits outweigh the costs.

Allingham and Sandmo's model is presented as below:

E[U]=[1-p]U(W-tX) +pU[W-tX-F(W-X)]

Where EU = expected utility

W = Income (actual)

p = probability of detection

X = declared income

t = tax rate

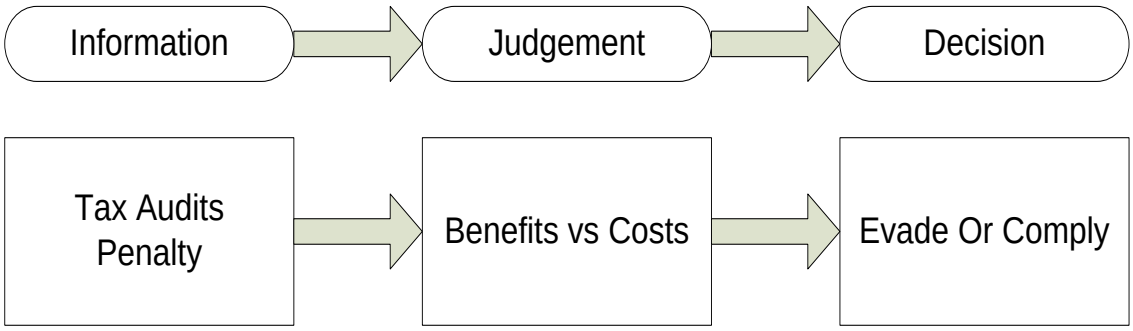
F = penalty if detected

They examined the relationship between the penalty rate for tax evasion, the probability of detection and degree of tax evasion engaged in. They found there is a relationship between these variables; a higher penalty rate and probability of detection[8] increases the tax compliance. However, they suggested there is no clear relationship between income level, the tax rate and tax evasion (Allingham and Sandmo, 1972, pp.329-330).

Rogers' explained the economic school model in his Ethical Process Thinking Model pathways. According to him, individuals take principal based pathway to evade taxes (Rodgers, 2009 p.177). In this perspective, the individual's concern about consequences is supported by a utility function, which allows tax evader to calculate the costs and benefits of his decisions. In this approach, information about the consequences is necessary. Figure 1 shows that the judgements are based on information, and the information is a necessary condition for the decision-making process.

[8] Probability of Detection is done by increasing the audits.

Figure 1 The Economic School Model



After Allingham and Sandmo's seminal paper in 1972, a massive stream of tax evasion theoretical models that took into account of other economic variables (i.e., tax rates, income level and information uncertainty) were proposed. In 1974, Yitzhaki proposed that if the penalty is proportional to the amount of tax evaded, but not to the undeclared income as suggested by Allingham and Sanmo, then non-compliance will be lower when tax rates go up (Yitzhaki, 1974). Yitzhaki wrote that his suggestion solved the major inconsistencies of the Allingham and Sandmo's model. However, Clotfelter's research found that Yitzhaki's model generates counterintuitive results (Clotfelter, 1983).

Allingham and Sandmo's model has been a subject of extensive research among scholars and their suggestions were supported by other scholars using different methodologies, such as actual taxpayer data (e.g., (Witte & Woodbury, 1985), survey research (e.g., Kinsey and Grasmick, 1993) and experimental studies (e.g., Alm et., al, 1992 ; Alm et al, 1995, Wenzel, 2004). However, there were many other studies that found inconsistencies in Allingham and Sandmo's results: the compliance does not increase with the increased penalty (Elffers, et al, 1987; Dubin et al. 1987; Dubin and Wilde, 1988). Other studies also found that many people are honest taxpayers (Porcano, 1988; Gordon, 1989; Erard and Feinstein, 1994b; Andreoni, Erard and Feinstein, 1998; Elffers,

2000), or there are some people who never evade paying taxes even when the risk is sufficiently low to encourage a cheating behaviour (Baldry, 1986).

Despite being replicated and extended in many studies, the economic deterrence model is criticised essentially because of its narrow scope (Andreoni et al., 1998). Some scholars pointed out the limitations and weaknesses of these models because they rely on the following assumptions:

1) The probability of audit is constant.
2) Taxpayer is fully aware of tax legislation, the probability of audit, tax rates and penalties;
3) Taxpayer is fully knowledgeable of their actual income but not the tax authorities;
4) Time is composed of single period and only one form of evasion is available;
5) Tax is levied at a constant rate, **T**, on the taxpayer's declared income, **x;** and
6) Taxpayers are rational evaders and they try to maximise expected utility, **EU.**

Fischer et al (1992) criticised these assumptions because they fail to represent the real life audit rules and tax systems. Additionally, scholars criticised Allingham and Sandmo's model as being costly to maintain. A growing number of researches suggest that economic deterrence system loses its productivity in the long term. Williams (2001) analysed 528[9] taxpayers' tax returns in Australia. His research found that enforcements were successful. However, compliance rates reduced dramatically in following years when the early risk of deterrence had subsided. Furthermore, the economic deterrence model studies the taxpayer's behaviour through the decision of a single person

[9] Who had previously been prosecuted for their non-compliance

(Allingham and Sandmo, 1972, p.323); and therefore, the generalisation of the Allingham and Sandmo's model is impossible. Finally, economic deterrence model suffers from a shortcoming in that it cannot explain why an individual does not evade taxes. This is because the economic deterrence model assumes that the taxpayers are highly risk averse or they overestimate the probability of being audited and fined. Alm et al. (1992) and Hessing et al. (1992) noted that there must be other factors, which are ignored by the economic deterrence model. Therefore, the economic school models are not always sufficient and helpful to explain tax compliance and evasion. Consequently, there is need to incorporate social and behavioural factors into the analysis of tax compliance and non-compliance behaviour.

2.5 Psychological School Model

The economic models of tax compliance and evasion have been a subject of severe criticism (Batrancea et al., 2012) as had been mentioned in the previous sections. Many scholars started to focus on researching other models in order to obtain more in-depth understanding of tax compliance behaviour. Thus, sociology and psychology scholars viewed taxpayers not as selfish utility maximisers but rather as human beings motivated to pay or evade taxes on the basis of different factors such as attitudes, beliefs, trust, fairness, social norms, perceptions, feelings and demographical backgrounds such as age, gender, religion and other factors (Fishbein & Ajzen, 1975; Ajzen, 1991; Erard & Feintein, 1994; Coleman & Freeman, 1997; Frey, 1997; Mumford, 2001; Wenzel, 2004; 2005a; 2005b; Kirchler, 2007; McGee, 2011). There is always a possibility that mixture of economic and psychological factors may influence taxpayers' tax compliance/non-compliance behaviour. Blanthorne and Kaplan (2008) provide an example in which both

economic and psychological factors influence taxpayers' decision in complying with tax laws.

Different types of theoretical approaches with various factors have been suggested in explaining tax compliance and non-compliance behaviour. Based on prior tax compliance and evasion studies, Jackson and Milliron (1986) suggested fourteen variables in tax compliance studies. These identified factors are age, gender, education, source of income, income level, occupation, peer influence, ethics, fairness, complexity, and contact with revenue authority, probability of detection, sanctions and tax rates.

Tax compliance scholars tried to categorise these factor into various groups. For example, the extended tax compliance model by Fischer et al. (1992), known as the Fischer Model, which was based on Jackson and Milliron's (1986) study, broadly classified fourteen factors into four groups. These four groups are:

1) Demographic factors (age and gender),
2) Proxy for non-compliance opportunity (education, income source, income level and occupation),
3) Attitudes and perceptions (ethics, fairness of tax system and peer influence),
4) Structural (complexity of tax system, contact with tax authority, probability of detection, sanctions, and tax rate).

2.5.1 Theory of Planned Behaviour

One of such behavioural models of tax compliance was Fishbein and Ajzen's 'Theory of Reasoned Action' (Fishbein & Ajzen, 1975) and Ajzen's 'Theory of Planned Behaviour' (Ajzen, 1985; 1991). Since the 'Theory of Planned Behaviour' is the extension of the

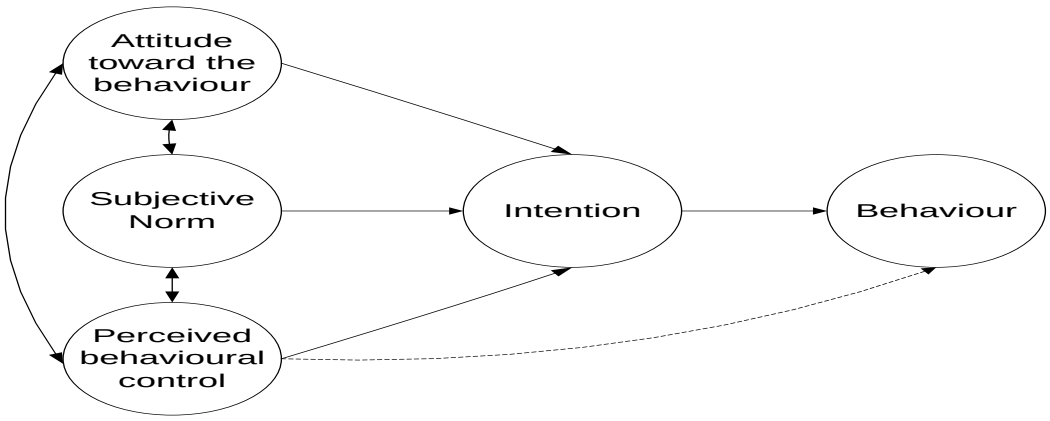
'Theory of Reasoned Action' (TRA), it will be enough to mention the 'Theory of Planned Behaviour' (TPB) here.

In order to overcome the limitation of the TRA, Ajzen (1985) introduced another construct to the TRA, perceived behavioural control, to comprehensively predict human behaviour. The theory assumes that the individual's behaviour is directly determined by his/her intentions. In turn, that behavioural intention is a function of three determinants: attitude, subjective norms and perceived behavioural control.

Attitude towards behaviour is defined by Ajzen and Fishbein (1975) as 'a *learned predisposition to respond in a consistently favourable or unfavourable manner with respect to a given object'.* In general, if the attitude towards the behaviour is more favourable then the individual's intention to perform it should be stronger. In the tax compliance literature, positive attitudes towards evasion are associated with non-compliance (Chan et al., 2000; Bobek & Hatfield, 2003; Alm & Torgler, 2006; Benk et al., 2011; Hai & See, 2011; Batrancea et al., 2012; Langham et al., 2012).

Subjective norms refer to the person's perceptions of expectations of 'the perceived social pressure to perform or not to perform the behaviour' (Ajzen and Fishbein, 1975; Ajzen, 1991). If an individual perceives that significant others approve the behaviour, they are more likely to intend to perform it. If an individual perceives that significant others disapprove the behaviour, then they are less likely to intend to perform it.

Figure 2 Theory of Planned Behaviour



The perceived behavioural control is to measure the individual's ability (how easy or difficult) to perform the behaviour (Figure 2). If the actual behaviour is easy to perform then the perceived behavioural control is high and vice versa. Ajzen (1985) argues that an individual with high perceived behavioural control will be more likely to form behavioural intention compared to an individual with lower perceived behavioural control. The TPB suggests that the perceived behavioural control is determined by control beliefs ('an individual's beliefs about the presence of factors that may facilitate or impede performance of the behavior (Ajzen, 1991), i.e., perceptions of the availability of skills, resources and opportunities. Moreover, TPB suggests that an individual with high perceived behavioural control will perform the actual behaviour directly which was not supported by empirical studies (see dotted line on Figure 2). TPB proposes a direct relationship between intention and actual behaviour. Since measuring actual behaviour is difficult, the TPB proposes to measure intention of a taxpayer. Thus, predicting taxpayers' intention to comply or not to comply with tax laws will determine the actual behaviour.

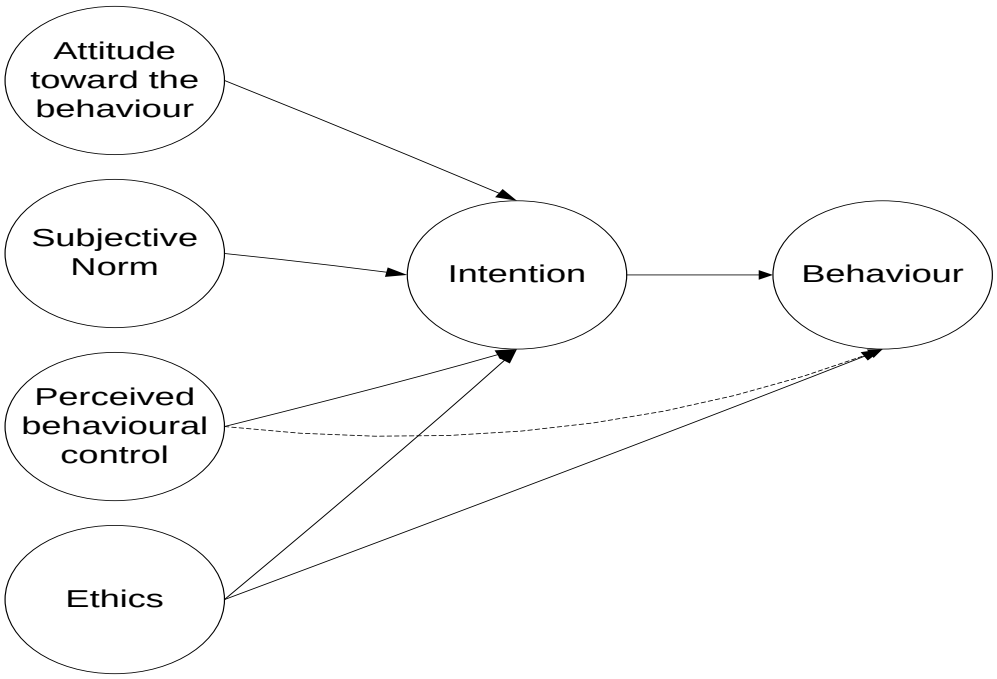
Several social psychology studies have recognized the predictive powers of the Theory of Reasoned Action and the Theory of Planned Behaviour in different contexts, such as smoking, tax compliance, healthcare, driving, traffic control etc (Ajzen, 1991; Langham et al., 2012). To test validity and reliability of his theory, Ajzen (1991) performed a meta-analysis of 16 studies in various areas, such as smoking, drink driving, weight loss, voting elections, traffic control, exam cheating, and tax compliance, all of which support his theory. A meta-analytic studies by Armitage and Conner (2001) and Armitage and Christian (2003) further support the results of Ajzen (1991). For example, Armitage and Conner (2001) examined the competency of the TPB in understanding intentions and behaviour from 185 independent studies published up to 1997. They found that TPB could explain around 27 percent and 39 percent variance in behaviour and intention. In addition to, their study found subjective norms to be weakest predictor of intention. The reason for this could be that use of single item measurement for subjective norms.

The findings from the meta-analytical study by McEachan et al. (2011) from 2006 articles in health care studies support the use of TPB to explain behaviour. Their study found stronger correlation between attitude-intention, subjective norms-intention, and perceived behavioural control-intention, ranging from 0.4 to 0.57 compared to previous study of Armitage and Conner (2001).

Hanno and Violette (1996) used the TRA in a tax compliance setting and found that there was a strong link between intentions and behaviour. They found that the theory explains the taxpayer's compliance decisions. One limitation of their study was the use of non-randomized sampling in a concentrated geographical area. However, their research results represent '…one step in the process of developing an integrated model of tax compliance behaviour' (Hanno and Violette, 1996, pp.72).

Ajzen (1991) notes that the TPB is open to the additional predictor variables if they improve the theory and predict the behavioural intention or actual behaviour after the original variables have been considered. Bobek and Hatfield (2003) used TPB in their tax compliance study and found that attitude, subjective norms, perceived behavioural control and moral obligation have significant effect on taxpayers' intention on tax non-compliance. Moreover, Trivedi et al. (2005) also considered ethics that affects the compliance behaviour (Figure 3) in their tax compliance study.

Figure 3 TPB with ethics Trivedi et al. (2005) model.

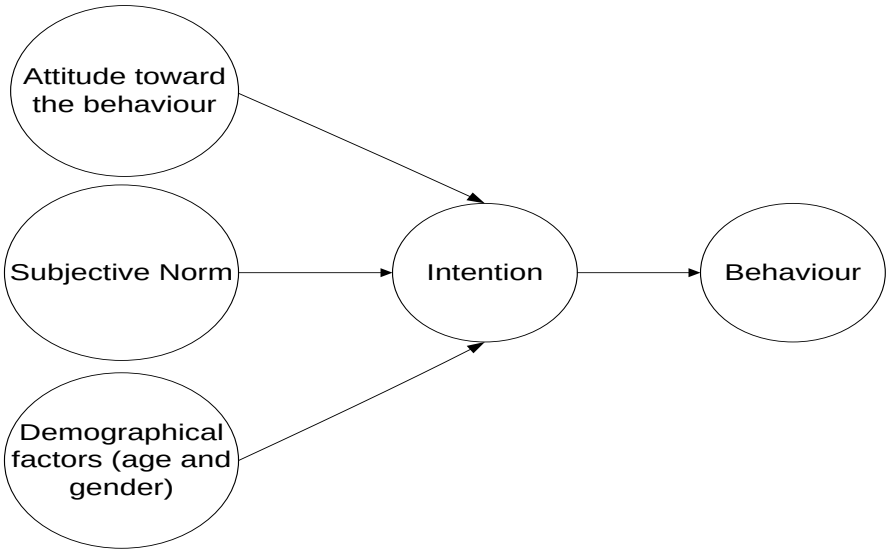


Trivedi's purpose was to test the TPB of Ajzen in the context of experimental economics. They used a laboratory experiment to examine economic and psychological variables as to how these factors affect the taxpayers' compliance decisions. They found that attitudes, subjective norms, perceived behavioural control and ethics were important in the case of tax compliance as the statistical analyses were relatively highly correlated with actual tax evasion behaviour on tax returns (Trivedi et al., 2008) . However, they

found that economic variables, penalty and audit rates did not explain tax compliance behaviour. This study has a number of limitations (Trivedi et al. 2005). The main limitation of their experiment was that the taxpayers' behaviour did not reflect the real-life taxpaying decisions as they used students in their control experiments.

Hai and See (2011) studied the behavioural intention of tax evasion among sole-proprietors in Malaysia. They also used Fishbein and Ajzen's (1975) TRA model by including extra demographical factors (age and gender) (Figure 5). The results of their study showed that the attitudes (fairness of the tax system and future expected tax costs), subjective norms and demographic factors (age and gender) had a positive influence on sole-proprietors' behavioural tax non-compliance. Results from the linear regression analyses showed that all predicted variables in the model were significant.

Figure 4 TRA with demographic variables

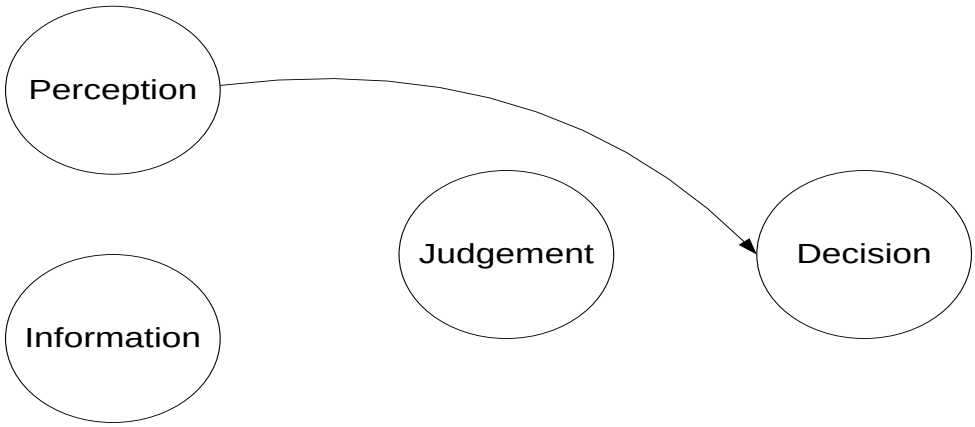


In tax compliance context, another study was done by Benk et al. (2011) who analysed three variables: equity attitude (perception of taxpayers as regards to the tax system),

normative expectations (social norms and moral norms) and legal sanctions (detection risk and penalty magnitude). Their study showed that normative expectations and legal sanctions had significant effect on tax compliance intentions. The equity attitude was not statistically significant.

The entire psychological and social school model places a great deal of weight on perceptions in order to arrive at a decision choice. When individuals' perceptions lead to their decision choice **(P – D)** (Figure 5), this is called preference-based pathway, or ethical egoism (Rodgers & Cago, 2001; Rodgers, 2009). This pathway asserts that people are motivated to act in their perceived self-interests. In this pathway, an individual's decision choice is driven by his/her predisposition or framing of the problem. In other words, people rely upon one's preconceived notions of framing the problem by downplaying information (I) or judgment (J). This might happen due to incomplete information (or unreliable), inadequate understanding or undifferentiated alternatives (Rodgers & Cago, 2001). In a study by Prieto (1995), the greater fear of an audit inspection may lead to the elimination of the fiscal fraud. Thus, the decision about paying taxes was influenced by the perception of the taxpayer about his/her self-interest (to avoid being an object of an inspection) (cited in Rodgers and Cago, 2001).

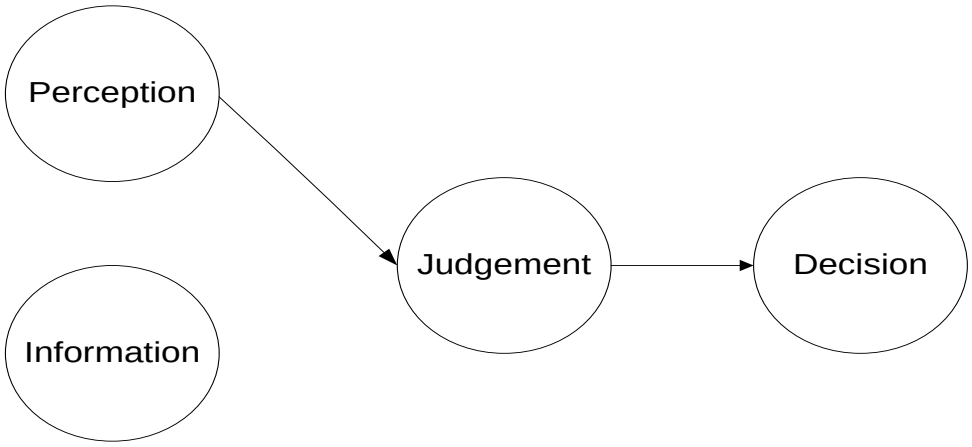
Figure 5 Psychological school model



The TRA and TPB are robust models for predicting different types of behaviour (Langham et al., 2012). Despite the support shown for using the TPB in understanding human behaviour, it has also been criticized for several reasons. The weaknesses in the model arise when the behaviour is complex or when it involves a third party. Firstly, not all taxpayers have complete volitional control of their non-compliance behaviour. To achieve certain tax evasion the taxpayers may need to overcome a number of obstacles, such as complex ways of non-compliance or difficulty of performing the evasion, which brings second weakness. Tax evasion behaviour cannot be taken lightly because it involves breaking the laws and can result in being fined or arrested. Since the perceived behavioural control is to measure the individual's ability to perform the behaviour (Figure 2) then that means the taxpayers cannot take the action without judging how easy or difficult the evasion is. The main criticism of the TPB is that it ignores the bias that human has in making judgments (O'Fallon & Butterfield, 2005; Shawver & Sennetti, 2009). This changes the entire psychological and social school model from **(P – D)** to **(P –J – D).** Therefore, TPB should include the judgment concept.

The **(P – J – D)** is based on *deontology viewpoint* that emphasizes the rights of individuals (Figure 6). In this model, the decision-making process is judgment-oriented and conditioned by taxpayer's perception of the rules and laws. This is also called a rule-based pathway. In this pathway, many of our decisions are made by judgment based on a perception of circumstances (Rodgers, 2009).

Figure 6 P - J - D model



There are three dominant deontological frameworks: existentialism, contractarianism, and Kant's ethics (Rodgers, 2009). In existentialism, only individuals can determine right and wrong. Thus, people determine their own decision choices and are responsible for the consequences of their actions. In contractarianism, or social contract theory, everyone agrees to social contracts in order to be members within a society (Locke, 2003, reviewed in Rodgers, 2009). The basic principle in this framework is to have guided rules and laws that are fair to everyone. Kant attempted to bridge these two viewpoints. He argued that individuals' decision making (wants, needs and desires) should be converted into universal will (procedures, guidelines and laws) (Kant, 1998). If

individuals' decisions were universally accepted, then all individuals would treat other individuals as ends, not as the means to an end.

2.5.2 Ethical Process Thinking

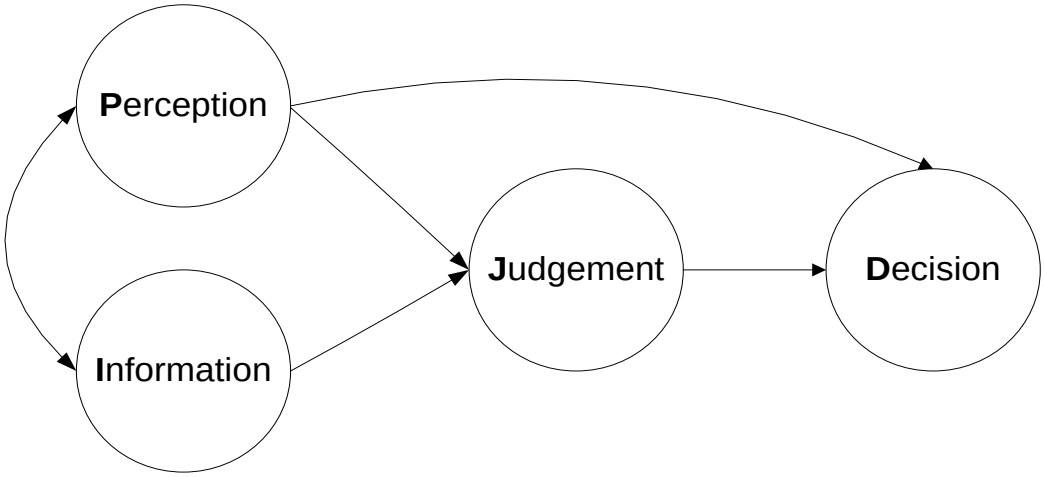
The Ethical Process Thinking Model (EPTM) assumes 'how an individual think about *perceived* ethical dilemmas or how they use information' (Rodgers, 2009, p.7). Taxpayers use their perceptions and information to help to improve judgements and choices. Therefore, ethical decision making is related to problems that require how they will be framed by individuals. A *frame* represents how individuals perceive a problem based on knowledge that they have and they use this pre-formatted knowledge to solve problems (Rodgers, 2009). Oftentimes, individuals use information to help them to judge better and to come to a better decision choice. In our daily life, information affects individuals' decision choice. These decision choices are also influenced by individuals' ethical views. Many individuals define unethical behaviour, as behaviour that differs from what they believe would have been right decision under the circumstances (Rodgers and Sago, 2011).

The Ethical Process Thinking Model enables individuals to depict the various states influenced by individuals' ethical reasoning. In the context of tax evasion, an ethical issue has consequences for others inside or outside the SMEs. The intensity of an ethical issue is related to the perceived importance of an issue to the taxpayers. Thus, one's perception of a dilemma can have an effect on both ethical judgement and decision choice. If an individual can perceive the importance of an ethical issue then he/she will less likely engage with unethical behaviour associated with the issue. Therefore,

individuals' perception of ethical issues is considered a key factor in the Ethical Process Thinking Model.

The Ethical Process Thinking Model has four major concepts that influence how decisions are formulated (Rodgers, 2009), as well as helping to provide insight into how decisions are made. These four concepts: ***Perception (P), Information (I***), ***Judgement (J),*** and ***Decision choice (D)*** provide six different pathways to making a decision (Figure 7).

Figure 7 Ethical Process Thinking Model



In Figure 7:

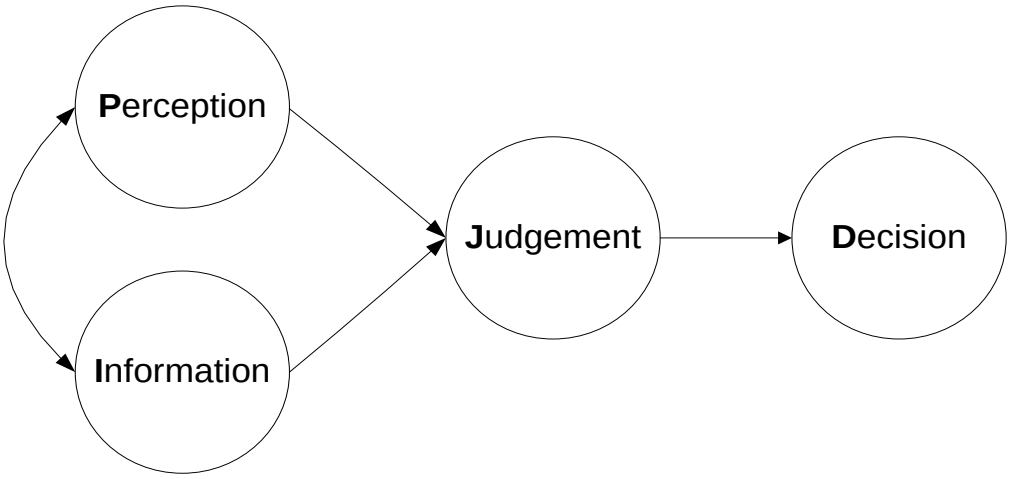
1) **P → D** represents **Preference-based pathway** (referred to in the literature as ethical egoism),
2) **P → J → D** depicts the Rule-based pathway (referred to in the literature as deontology),
3) **I → J → D** highlights the **Principle-based pathway** (referred to in the literature as utilitarianism),
4) **I → P → D** reflects the **Relativist-based pathway,**

5) **P → I → J → D** represents the **Virtue ethics-based pathway,**

6) **I → P → J → D** represents the **Ethics of care-based pathway**.

Although the Ethical Process Thinking Model has six pathways, only two pathways (Virtue ethics-based and ethics of care-based pathways) are going to be used in this research (Figure 8) in detail. This is because these two pathways are the most comprehensive and comprise of other pathways. Other pathways will also be partially analysed in the 4th phase of the research framework (See Figure 10, at page 47) in order to taxpayers' attempt to reduce the negative affect or justification of evasion.

Figure 8 Research model based on Ethical Process Thinking



1) Virtue Ethics-Based pathway. In this perspective, a taxpayer must develop the ability to perceive **(P)** and correctly describe the situational information appropriately **(I)** before the judgement stage **(J)** en route to a decision choice (comply or not to comply with tax laws) **(D)**. This pathway further illustrates that an individual's underlying character is critical for reasoning and making decisions. This pathway takes into account the individuals perceived moral considerations (Attitudes, Motivations, and Corruption),

which influence the principle-based pathway **(I→J→D)**. For this reason, the virtue-ethics based pathway approach states that values, attitudes, or beliefs enable taxpayers to be and to act in ways that develop virtues. Virtues are attitudes or character traits that make it possible for an individual to live and to behave in ways that develop his/her highest potential (Rodgers, 2009, p.238). Once an individual has acquired virtues then he/she will naturally be disposed to act in ways consistent with principle-based pathway **(I→J→D)**.

2) Ethics of care-based pathway. In this pathway, relevant and reliable information **(I)** influences taxpayers' perception **(P)** in a particular situation. Then the modified perceptions are analysed **(J)** and then a decision is made **(D).** This pathway asserts that information **(I)** moderates the rule-based pathway **(P→J→D**).

Several social psychology studies have recognized the predictive power and usefulness of the Ethical Process Thinking Model in different contexts, such as accounting fraud, information usefulness, auditors' behaviour, corporate social responsibility, auditor independence and corporate governance, asset reporting behaviour, executive compensation and etc. (Rodgers & Cago, 2001; Rodgers, 2009; Rodgers et al., 2014).

For example, Rodgers and Cago (2001) examined the effects of culture and ethics on managerial decision making process using Throughput Model. In recent technological advances, decision-makers need financial and cost accounting information for their decision making. Moreover, these decisions are also influenced by individuals' ethical beliefs. In their paper, Rodgers and Gago (2001) highlighted the importance of different philosophical perspectives used by decision makers in arriving at a decision. Decision

makers use accounting information to help them to improve their judgements and decision choice. Examples were provided from both Spanish and English settings to help to emphasize the importance of ethical decision making. In addition, Rodgers and Gago (2003) examined the executive compensation using Ethical Process Thinking Model (Throughput Model).

2.6 Summary

In this chapter, definition of tax evasion and avoidance, relevant theories, concepts and past studies are discussed to provide some understanding of the factors that influence SME owners' tax evasion behaviour.

Based on the discussions above, it is understood that tax is important revenue for any governments. For this reason, governments should increase tax compliance. In order to increase tax compliance, governments should understand taxpayers' tax compliance and non-compliance behaviour. From the discussion, it is understood that tax compliance behaviour is a complex issue. Tax compliance/non-compliance behaviour is normally explained by the economic school or the psychological schools; both schools have contributed to explain tax compliance/non-compliance issue. This study uses the psychological school approach to examine the factors that influence SME owners' tax compliance/evasion decision making, since it is considered more appropriate and relevant to the context of the study.

The review of the economic and the psychological schools suggest the relevance of theories in explaining compliance/non-compliance behaviour. The Ethical Process

Thinking Model, which predicts one's behaviour, is considered most suitable in examining the SME owners' tax non-compliance behaviour. Since tax compliance/non-compliance is a complex issue, and the flexibility of the Ethical Process Thinking Model allows for the additional factors to explain compliance/non-compliance behaviour.

CHAPTER THREE

RESEARCH FRAMEWORK AND HYPOTHESIS DEVELOPMENT

3.0 Chapter overview

This chapter presents the conceptual research framework and the hypotheses development for the study. The chapter begins by presenting the proposed research framework after the conceptual framework of the study based on Ethical Process Thinking Model. The next section presents the discussion on hypotheses development. Chapter ends with a summary.

3.1 Conceptual Framework

The main objective of this study is to examine some of the salient factors that influence SME owners' tax evasion decision behaviour in Uzbekistan. In order to meet this objective, the researcher developed a formal conceptual framework based on Rodgers' (2009) Ethical Process Thinking Model.

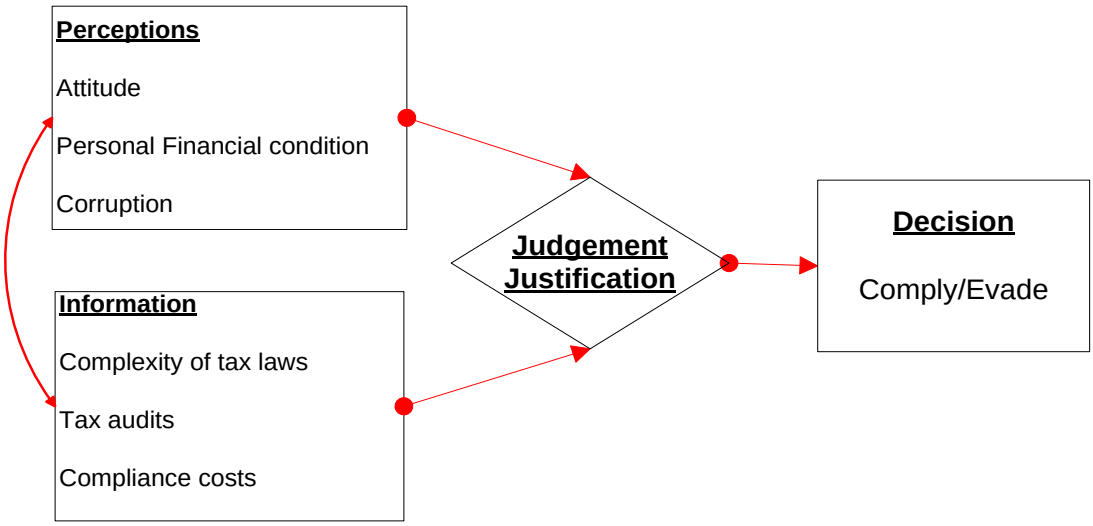
Past studies suggest that the Ethical Process Thinking Model (2009) has been successful in explaining human behaviour in various fields. As a result, the conceptual framework of this study draws mainly from the EPTM to examine the tax evasion behaviour of SMEs in Uzbekistan.

The EPTM proposes that the behavioural decision of a person is directly influenced by the judgements and judgements are influenced by either perceptions or information that he/she receives. Taxpayers use their perceptions and information to help improve judgements and decision choices. Even though EPTM has six pathways, this study uses two, namely, Virtue Ethics and Ethics of Care-based pathways. According to the Virtue Ethics pathway, a taxpayer's perception **(P)** modifies the principle-based pathway **(I→J→D).** Based on this pathway, a taxpayer develops the ability to perceive (attitudes, personal financial condition and perception of corruption) and correctly describe the information (complexity of tax laws, tax audit and compliance cost) before the judgement stage, en route to a decision-making process, occurs. This pathway further illustrates that an individual's underlying character is critical for reasoning and making decisions (Rodgers, 2009, p.238).

According to the Ethics of Care-based pathway, a taxpayer gathers relevant and reliable information which influences his/her perceptions in a particular situation. Then the modified perceptions are analysed and decision is made.

Based on the review of past studies in Chapter 2, the proposed conceptual framework is illustrated in Figure 9. This conceptual framework proposes that the SME owners' tax evasion decision making is influenced by their judgements, perceptions and information.

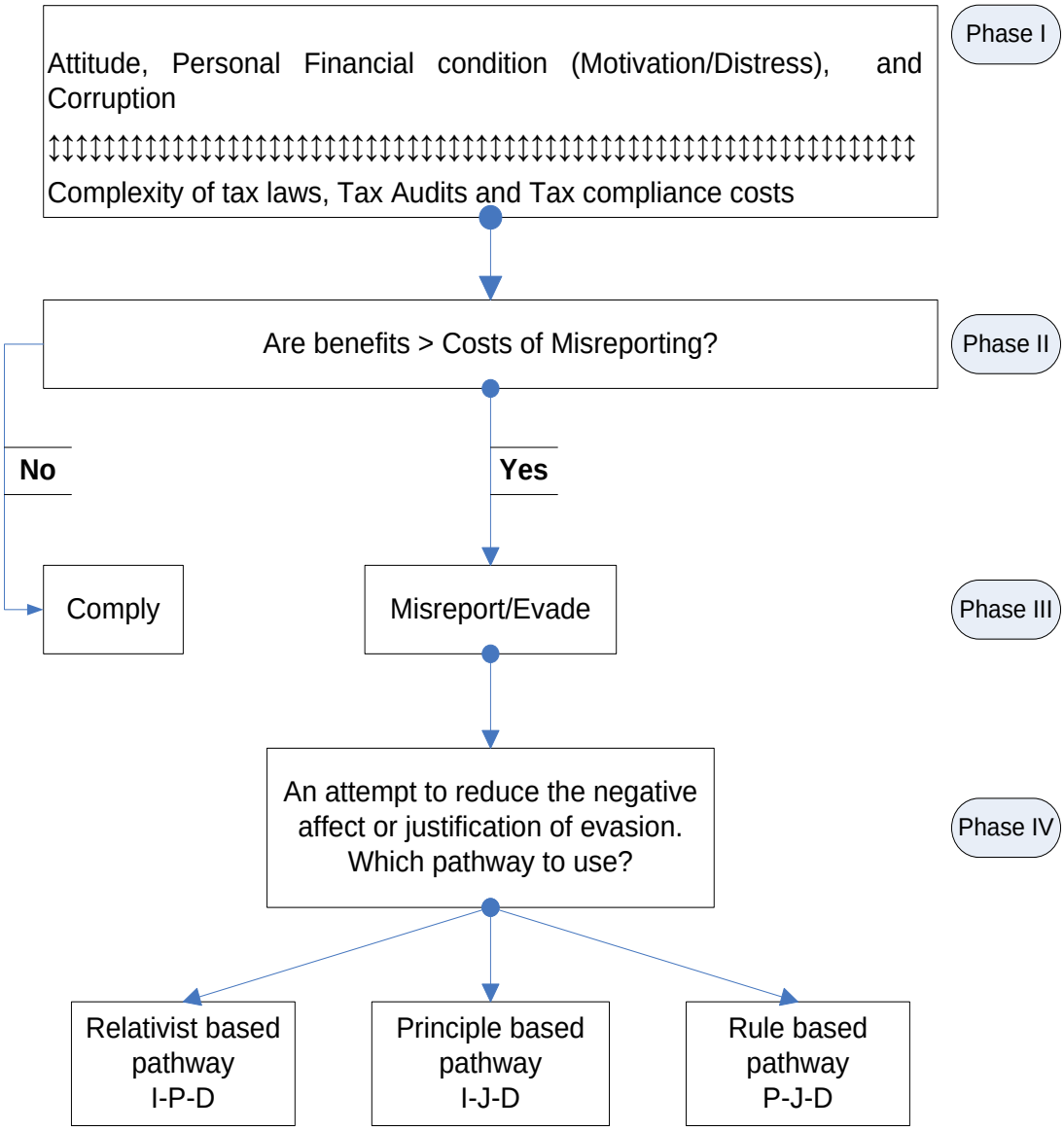
Figure 9 Conceptual framework



3.2 Research framework

This research uses the following research framework based on Ethical Process Thinking Model (Figure 10). The research framework has 4 phases. Phase I describes two different variables (perceptual and informational) that can affect the behaviour of taxpayers. According to the Ethical Process Thinking Model, perceptual factors can affect informational factors and vice versa. Phase II shows the cost and benefit analysis of tax evasion with two outcomes: 1) comply, or 2) evade, which is phase III. In the second phase, taxpayers evaluate the cost and benefits of their tax evasion behaviour. If cost overweight benefits, then taxpayers will not evade tax. If benefits overweight costs, then they evade taxes. Phase IV shows three methods of justification of evasion process or their attempt to reduce negative affect of tax evasion. In this phase the researcher tries to find which factors influenced taxpayers to evade their taxes. The next section reviews perceptual and informational factors before hypotheses development.

Figure 10 Research Framework



3.3 Tax evasion factors and hypotheses

The key objective of this study is to examine some of the selected salient factors that may influence the tax evasion decision making behaviour of SME owners in Uzbekistan. For that purpose, the study uses the Ethical Process Thinking Model which consists of perceptual factors, informational factors, and judgement as foundations to explain SME owners' tax evasion decision making behaviour. To answer the research questions

through empirically testing the proposed tax evasion model demonstrated in Figure 10, hypotheses were developed based on the review of past studies in the next section. In summary, the objectives of the study, the research questions and the hypotheses, are mutually interrelated to explain the tax evasion behaviour of SME owners in Uzbekistan.

Jackson and Milliron (1986) reviewed forty-three (43) tax compliance and non-compliance studies from 1970s to 1980s and identified 14 tax compliance and non-compliance factors that were most commonly analysed in the tax literature. They also discussed methodological issues and explored theoretical areas that may be beneficial in developing a conceptual framework for future studies. They recommended the replication and extension of existing studies, the use of mixed method approaches and comparative analysis studies between different taxpaying countries. Fischer et al. (1992) categorised Jackson and Milliron's 14 variables into four group: 1) attitudinal (ethics, fairness, and peer influence), 2) structural (complexity, probability of detection, sanctions, tax rates, revenue contact), 3) those proxies for non-compliance (income level, education, occupation, income source) and 4) demographic (age and gender).

In 2001, Richardson and Sawyer reviewed over 150 tax compliance and non-compliance studies from 1986 to 1997 (Richardson & Sawyer, 2001). Unlike the Jackson and Milliron's review of the US studies, Richardson and Sawyer included studies conducted outside the US such as Europe and Asia. Richardson and Sawyer (2001) added five additional tax compliance and non-compliance variables to Jackson and Milliron's 14 variables. They were tax agents, positive inducement, tax amnesties, framing and compliance costs.

Jackson and Milliron and Richardson and Sawyer categorised their tax compliance and non-compliance factors based on factors had. In this thesis, due to timing and financial restrictions, only six (6) variables are selected. Selected variables are considered salient in tax compliance/non-compliance studies by the economic and psychological schools. Selected variables need to fit Rodger's Ethical Progress Thinking Model. Thus, only six variables are considered in this research. Attitudes towards tax evasion, personal financial constraint and corruption variables were put into Perceptual category while complexity of tax laws, tax audits and tax compliance cost information were put into Informational category because Ethical Process Thinking Model only considers perceptual and informational factors.

Based on the above reviews, it is argued that a sizeable room remains for future research to provide additional insights into the relationship between tax variables and tax evasion behaviour. Moreover, there should be an integrated approach of economic and behavioural factors in order to better understand the tax compliance/non-compliance behaviour (Devos, 2007, p. 219).

The following sections discuss and review the perceptual and informational factors that are based on Figure 10 in the previous section.

3.3.1 Perceptual factors

Perceptual factors play an important role in tax compliance and non-compliance literature. This section reviews the impact of perceptual factors to taxpayer's tax evasion behaviours. These factors are attitudes, personal financial condition and corruption.

3.3.1.1 Attitudes towards evasion

In every tax system, the taxpayer's attitude is equally important. An attitude can be defined as favourable or unfavourable feelings as regards to a particular object. In tax non-compliance, an attitude can be defined as favourable or unfavourable feelings as regards to tax non-compliance, i.e. tax evasion. Statement of Auditing Standard 99 (SAS 99) considers an attitude as one of the main factors of fraud. 'Some individuals possess an attitude, character, or set of ethical values that allow them to knowingly and intentionally commit dishonest act' (AICPA, 2002).

In the tax non-compliance literature, positive attitudes towards evasion are associated with non-compliance (Song & Yarbrough, 1978; Chan et al., 2000; Bobek & Hatfield, 2003; Alm & Torgler, 2006; Benk et al., 2011; Hai & See, 2011; Batrancea et al., 2012; Langham et al., 2012).

Song and Yarbrough (1978) conducted an experiment in the United States with an objective to investigate the tax ethics and attitudes of taxpayers towards tax evasion. In their study, they tried to see the relationship between tax knowledge and an attitude towards taxation. The survey was conducted in a university town in North Carolina with over 11,000 students, more than 600 university staff and family members from the community. They found that people with higher tax knowledge have positive attitudes towards tax system than those with lower tax knowledge. Thus, tax compliance is a result of positive attitudes toward tax system and is directly correlated with higher tax knowledge. Tax compliant people understood well that tax payments benefit the society

and country's economy. Similarly, other studies reported that low fiscal knowledge correlated with negative attitudes towards tax compliance (Eriksen & Fallan, 1996; Kasipillai et al., 2003).

The limitation of their survey was that their sample could not be used as representative of the whole population of North Carolina. Therefore, generalizations could not be made about national populations. The researchers believe that their findings generally could produce some indication of tax knowledge, ethics and attitudes of taxpayers in general (Song & Yarbrough, 1978).

Eriksen and Fallan (1996) conducted a quasi-experiment in Norway with students. They suggested that '…when attitudes towards taxation are improved, this will in turn increase tax compliance…' (Eriksen & Fallan, 1996, p.398). However, they have not considered other factors such as the effect of audits, ethics and peer reporting behaviour.

Kirchler's (1998), Berti and Kirchler (2001) studied the social representations of taxes in Austria and Italy, respectively. Participants were asked to give their opinion about three different taxpayers: tax evader, typical taxpayer and honest taxpayers. This allowed the researchers to separate judgements as either descriptive or evaluative. Their result showed that participants evaluated tax evader as being the most intelligent and hard-working whereas the typical taxpayer was perceived as being lazy and not intelligent. Honest taxpayer was rated as hard-working but not as intelligent.

Studies on tax compliance and non-compliance used the Theory of Reasoned Action (TRA) and the Theory of Planned Behaviour (TPB) by Fishbein and Ajzen (1975) and Ajzen (1991). These theories attempted to predict people's behaviour based on their intentions. It is assumed that a taxpayer with a positive attitude towards tax compliance tends to be more compliant while a taxpayer with negative attitude towards tax compliance tends to be less compliant (Kirchler et al., 2008). However, Trivedi et al. (2004) found a significant but weak correlation between attitudes and tax evasion in their experimental study.

The evidence clearly shows that various attitudes, fairness of the tax system and tax ethics, towards taxation may influence the inclination towards tax evasion (Jackson & Milliron, 1986; Alm et al., 2012) . It is, therefore, vital to study these attitudes in more detail.

Based on the prior literature review and the research questions, the following hypotheses were developed.

RQ: Do attitudes towards tax evasion significantly influence SME owners' tax evasion Judgement/Justification process?

H1: Attitudes towards tax evasion significantly influences SME owners' Judgement/Justification process.

H1a: There is a positive relationship between attitudes towards tax evasion and SME owners' tax evasion decision behaviour.

3.3.1.2 Personal financial condition

Personal financial constraint or financial gain is another important factor that influences tax evasion behaviour. Decisions whether to comply or evade taxes are heavily reliant on taxpayers' personal circumstances. Personal circumstances (can be personal financial constraint or incentives to make more money) may have an impact on tax evasion as financial distress may encourage an individual to commit tax evasion. AICPA (2002) states, 'even honest individuals can commit fraud in an environment that imposes sufficient pressure on them. The greater the incentive or pressure, the more likely an individual will be able to rationalise the acceptability of committing fraud'.

Mohani and Sheehan (2004) reported that people with financial problems were more likely to evade taxes compared to people in less financial distress. Besley et al. (1997) reported that economic conditions may have been a factor in poll tax non-compliance in England. Their study found an additional explanatory argument that people with greater financial capabilities are less concerned by fixed penalty because they have the financial resources to pay the penalties if caught evading. On the other hand, people with financial difficulties are also less concerned of the threat of penalties if caught evading.

Torgler (2007) argued that the financial situation of an individual may increase the incentive for tax evasion especially when they perceive tax payments as restriction. Additionally, Bloomquist (2003) identified the financial distress as one of the sources of taxpayer's stress, which in turn may lead to tax evasion due to financial condition. On the contrary, Vogel (1974), Warneryd and Walerud (1982) studies showed that people

with no financial distress also evaded taxes and surprisingly, their evasion level could be more serious than that of people in financial distress.

In summary, previous studies showed that a personal financial distress could contribute to tax evasion. However, the degree of the impact is uncertain. Of note, there were no studies conducted regarding the personal financial conditions of the SME taxpayers in Uzbekistan that could impact the tax evasion behaviour. Many SME owners conduct their own accounting in Uzbekistan and their personal financial conditions may impact the tax compliance/non-compliance behaviour.

Based on the above knowledge the following hypotheses were suggested.

RQ: Does personal financial condition significantly influence SME owners' Judgement/Justification process?

H2: Personal financial condition significantly influences SME owners' Judgement/Justification process.

H2a: There is positive relationship between financial motivation and SME owners' tax evasion decision behaviour.

H2b: There is positive relationship between financial difficulty/distress and SME owners' tax evasion decision behaviour.

3.3.1.3 Corruption

Another perceptual factor that may affect the behaviour of a taxpayer is corruption. Corruption and tax evasion are not new problems. According to Adams (2006), the relationship between corruption and tax evasion dates back to the existence of taxes.

While these issues are distinct and can exist without each other, they can easily become intertwined. A corruption may enable more tax evasion as corrupt officials seek more income through bribes. At the same time high level of tax evasion may drive corruption by offering more opportunities for bribes. For this reason, thousands of years ago, Pharoahs introduced *scribes* – highly paid tax collectors – in a hope to provide disincentives for bribes and reduce the tax evasion. These groups of highly paid scribes were assigned to monitor and control the ordinary tax collectors in the field.

It is useful to clarify what corruption means. A body of literature has attempted to define corruption. Corruption is 'the misuse of public office for private ends or private gain' (Rose-Ackerman, 1999). There are many types of corruption. Literature suggests that there have been numerous attempts to classify corruption and provide a systematic method for approaching this phenomenon (Rose-Ackerman, 1999). This research is particularly interested in bribery, the most common form of corruption. OECD Anti-bribery Convention and other international organisations treated corruption as a synonym for 'bribery'. It requires beneficiaries using extra-legal means of payment to acquire government favours and resource allocations. This can involve tax exemptions and other forms of activities such as contracts, public information being monopolised; or getting government to turn blind eye to illegal activities. A World Bank estimated that 1 trillion dollars is paid globally in bribes each year (cited in AAPPG, 2006). According to the IMF, that number reached to 1.5 to 2 trillion US dollars in 2016 (Reuters, 2016).

Tax evasion is an illegal and intentional action taken by individuals to reduce their legal tax obligations. Corruption (i.e. bribery) affects the perception of SME taxpayers towards the institutions which, in turn, increases tax evasion behaviour, causing

'positive feedback loop'. Hindriks et al. (1999) argued that corrupt examiners (i.e. auditors) may also force the taxpayers to evade by overstating their real tax liabilities. In this situation, taxpayers can verify their true tax liabilities via very costly appeals or they might opt for providing bribes.

The general consensus across the studies is that corruption is positively related to tax evasion. Torgler (2003a) investigated the relationship between tax morale and corruption for Transitional Economies and concluded that higher corruption led to lower levels of tax morale, consequently higher evasion. Similar results were found in Torgler (2004) for Asian countries; Torgler (2005) for Latin America; Torgler and Murphy (2004) for Australia; and Torgler (2011) for Central Asia.

According to Tanzi and Davoodi (2001), there is a positive correlation between economies characterised by higher perceived levels of corruption and higher level of evasion behaviour. Picur and Raihi-Belkaoui (2006) study suggests that there is a positive relationship between tax evasion and institutional bureaucracy, as well as a negative relationship between tax evasion and successful control of corruption. A similar relationship was found in Pashev (2005) who studied Bulgarian tax evasion and corruption opportunities. Joulfaian (2009) investigated the relationship between corruption and business evasion in 26 transition economies. His study found that corruption and business evasion rose with the frequency of tax related bribes. Lopez-Claros and Alexoshenko (1998) study found the Russian tax system provided fertile ground for noncompliance due to high corruption levels. Chattopadhyay and Gupta (2002) study also found a strong influence of corruption in the income tax compliance of Indian corporations.

A study by Imam and Jacobs (2007) found the impact of corruption on taxes in the Middle East. Their study revealed that countries with low revenue collection as a share of GDP were usually those that had high rates of corruption. Interestingly, findings in their work suggested that certain taxes were more affected by corruption than others. Taxes requiring frequent interactions between the tax authority and individuals seem to be prone to corruption more than most other forms of taxation.

In summary, a strong and positive relationship between corruption and evasion is found in many studies such as in Bowles (1999), Sanyal et al. (2000), Richardson (2006), McGee and Maranjyan (2006), Nur-tegin (2008) and Riahi-Belkaoui (2009).

The following research question and hypotheses were developed.

RQ: Does perception of corruption significantly influence SME owners' *Judgement/Justification process?*

H3: Perception of Corruption significantly influences SME owners' Judgement/Justification process.

H3a: There is positive relationship between perception of corruption and SME owners' tax evasion decision behaviour.

Table 4 Corruption and Tax Evasion

Variable	Theory	Reference
Corruption	**Positive**	Tirole (1996)
		Bowles (1999)
		Sanyal et al. (2000)
		Tanzi and Davoodi (2001)
		Sanyal (2002)
		Torgler (2003)
		Torgler (2004)
		Torlger and Murphy (2004)
		Pashev (2005)
		Picur and Blekaoui (2005)
		Fjelsdad (2006)
		Richardson (2006)
		Imam and Jacobs (2007)
		Torgler et al. (2010)
		Torgler (2011)
		Alm and McClellan (2012)

3.3.2 Informational factors

The second category of factors is Informational factors. SME taxpayers get various information regarding the tax laws and payments. These informational factors impact the taxpayer's decision making process. The following sections review the impact of informational factors on tax compliance/noncompliance. These factors are complexity of tax laws, tax audits and tax compliance costs.

3.3.2.1 Complexity of tax laws

As tax systems have become increasingly complex over time in many developed and developing countries, complexity of tax laws contributed to tax compliance and non-

compliance behaviour. Many taxpayers want at least a reasonable level of simplicity in tax laws because they come from various backgrounds, with differing levels of education and tax knowledge. In order to increase the tax compliance and minimise the evasion, the tax authorities should come up with a simple, but sufficient tax system. The tax information should be at minimum level and be readily available to taxpayers.

Many developed countries, such as Canada, Denmark and New Zealand, have introduced the simplified tax systems by reducing the number of pages to facilitate and increase tax compliance among taxpayers (Mohani & Sheehan, 2004). In the UK, the HMRC has tried to present more simplified tax returns that ordinary taxpayers understand better. In 2007, the tax return was accompanied by a 35 page guide on how to complete the tax return. There are 8 extra pages of notes that may need to be considered by some taxpayers (HMRC, 2009).

Many studies on tax complexity have been conducted by various researchers. Long and Swingen (1987 p.25) identified six dimensions of tax complexity based on the expert judgements of tax professionals:

1) Ambiguity (more than one defensible position due to uncertainties in tax laws);
2) Computations (difficult computations);
3) Changes (frequent or recent changes in tax laws);
4) Detail (numerous rules and exceptions to rules);
5) Record-keeping; and
6) Forms

Having simple tax return and system is important to taxpayers. Tax non-compliance arises from not knowing tax rules and regulations (Niemirowski and Wearing, 2002). The tax authorities may assume its tax return systems are simple and easy to complete but taxpayers may not agree. Slemrod and Blumenthal (1996) concluded that simplified tax returns and simpler tax regulations will increase tax compliance especially in a self-assessment system because taxpayers do not have to spend much time in ascertaining the accuracy of the returns. Webley's study showed that a VAT non-compliance was a result of errors that did not stem from intentional evasion (Webley, 2004).

The issue of tax complexity and associated tax compliance costs has been widely researched (Evans, 2003). Silvani and Baer (1997) suggested that simplifying tax returns and system will encourage taxpayers to complete the tax return on their own rather than employing a tax agents and thus reducing compliance costs. Results of many studies suggest that tax complexity increases compliance costs.

Complexity of tax system is one of the important determinants of tax compliance and non-compliance behaviour (Jackson & Milliron, 1986). Tax laws are often too complex to be understood by laymen (Kirchler, 2007). The complexity of tax system can be the cause of tax non-compliance because complex tax reporting system requires specific tax knowledge. In many countries (including Uzbekistan) forms need to be completed, and detailed records need to be kept. A categorisation of the tax payments is difficult to understand; therefore, substantial knowledge is needed to comply with tax laws. This is very challenging since tax laws tend to change frequently in Uzbekistan due to the market transition. For example, tax rates, deductions, taxable income, personal allowance and rebates are changing every year. This situation will cause taxpayers to

make mistakes. In order to comply with tax laws SME owners and accountants must be knowledgeable about the different compliance measures and requirements. Simplifying tax system and administration is important because it can reduce compliance costs as well as administration costs (Mohani & Sheehan, 2004).

In summary, tax simplicity appears to be a desirable feature of a tax system. Richardson (2008) who extended Jackson and Milliron's (1986) study, found that out of seventeen factors tested across 45 countries, the complexity of tax system is found to be the most important variable of tax evasion across countries, leading to a low tax compliance in countries with a complex tax system. Therefore, he concluded that 'a more simple tax system and administration can reduce tax evasion' (Richardson, 2008, p.165). Other studies confirmed a positive correlation between complexity of tax system and tax evasion, whether intentional or unintentional (McKerchar, 2002; Blanthorne & Kaplan, 2008). Using a multi-paradigm research method, McKerchar (2002) concluded that both intentional and unintentional non-compliance could be minimised by reducing tax complexity.

The following hypotheses were developed for complexity of tax laws along with research question.

RQ: Does complexity of tax laws significantly influence SME owners' Judgement/Justification process?

H4: Complexity of tax laws significantly influences SME owners' Judgement/Justification process.

H4a: There is positive relationship between complex tax laws and SME owners' tax evasion decision behaviour.

3.3.2.2 Tax audits

Tax audit programmes are the most common enforcement activities carried out by many tax authorities in order to deter tax evasion. A tax audit programme refers to the examination of a taxpayer's business records and financial affairs to ascertain that the right amount of income has been declared and that the right amount of tax has been calculated and paid in accordance with tax laws. Tax audits play a number of important functions and can make significant contributions to the tax system if carried out effectively (OECD, 2009). These functions include:

1) To promote voluntary compliance by taxpayers by reminding them of the risks of non-compliance;
2) To identify areas of the law that require clarification and areas that cause confusion to taxpayers
3) To identify improvements required for record-keeping which in turn may possibly contribute to improved compliance by taxpayers in the future; and
4) To represent the 'public face' (tax auditors) of a revenue body through numerous interactions with taxpayers during the audits.

Audit rate is the most studied factor that impact on tax compliance. Generally, tax audits play an important role as a deterrent to tax non-compliance. Under the assumption of risk-averse taxpayers, an increase in the probability of tax audits or audit rates makes decision to evade riskier (Fischer et al., 1992). They concluded that increase in probability of audits will increase tax compliance behaviour. Bentham (1983) differentiated between specific deterrence (which discourages taxpayers to repeat their non-compliance offence) and general deterrence (which deters the potential offender from evading). Dubin et al. (1990, p. 395) referred to the general deterrence as a 'spill

over effect' which is 'an increase in collections from taxpayers, whether or not they are audited, who report more taxes in response to an increase in the likelihood of an audit'.

Spicer and Thomas (1982) conducted an experimental approach in the laboratory to test different audit probabilities[10] over twenty four time periods. Time periods were divided into three rounds consisting 8 months each. 54 students were divided into three groups based on their notification about tax audits: 1) a group with precise information about audits in each round, 2) a group with an approximate audit probabilities stated as low, medium and high, and 3) a group with no audit information. Each participant was rewarded according to their compliance. The experiment concluded that there was a strong positive correlation between tax compliance and precise audit probability. Even stronger negative correlation was found between tax evasion and precise/imprecise audit probability knowledge.

Alm et al. (1993) investigated random audits, which implied that taxpayers would be investigated if they were found reporting less than a right amount. If any irregularities were found then past and future tax files would be audited. They found that the higher audit rates had a significant effect on tax compliance. The compliance rates were 27.7%, 34.3% and 49.2% when the audit probabilities were 5%, 30% and 50% respectively.
A controlled field experiment conducted by Slemrod et al. (2001) in 1995 in the US found the higher audits resulted in more compliance. They randomly selected more than 1700 taxpayers in Minnesota, US, and sent them a letter with a warning that they would be 'closely examined'. The taxpayers were informed that they had been selected randomly

[10] 5% in the first eight rounds, 25% in the second eight rounds, 15% in the final eight rounds

in that study and if any irregularities were found then their past and current files would be checked. The results of their experiment showed that the impact of audit varied depending on the level of income. They found that low and middle income taxpayers' tax payments increased as compared to the previous year. This increase was interpreted as an evidence of increased compliance as a result of the increased audit. In contrast, the higher income group's reported income fell sharply. Reliable interpretations could not be drawn due to the small size of the high income group.

Plumley (2002) reported that many taxpayers would improve their compliance if they perceived a high audit rate. For example, Dubin et al. (1990 p.406) studied the effect of audit rates on reported income of individual taxpayers using TCMP (Taxpayer Compliance Measurement Program) over the period 1977 to 1986 and reported that a reduction in audit rates led to a significant decline in tax compliance. Similar views were reported by Kamdar (1997), who studied the effect of tax audits on corporate income taxpayer's compliance behaviour using time series analysis. He confirmed that audit rates had a positive and significant effect on compliance. Butler (1993) found that tax audits could change compliance behaviour from negative to positive.

Trivedi et al. (2003) and Trivedi et al. (2004) studied the effects of tax equity, social norms and employment status factors when audit rates were either 0% or 25%. They found that taxpayers' behaved rationally when the audit rate was 0% and evasion was significantly higher compared to the audit rate of 25%. Gemmell and Ratto (2012) investigated the impact of random audit on taxpayers' behaviour in the UK. They compared 8300 tax returns of randomly selected taxpayers who were either audited or not. Randomly selected taxpayers were analysed independently. Gemmell and Ratto's

research found that compliant taxpayers, once audited, reduced their subsequent compliance. On the contrary, non-compliant taxpayers increased their compliance after the audit.

Evans and his co-authors studied the tax compliance of small and medium sized enterprises in Australia (Evans et al., 2005). They examined the relationship between record keeping practices of SMEs and the potential exposure to tax compliance problems. They hypothesised that SME's low tax compliance might encourage the tax authority to increase audits and investigations. They used mail survey method and involved 129 SME owners, 130 tax practitioners and Australian Tax Office (ATO) auditors. They found that audit history, audit frequency, audit outcome and the type of audit of SME owners had a significant indirect effect on tax compliance in terms of record keeping. Their study found that the primary objective of the SME owners doing their record keeping was tax compliance related rather than part of their business management. With the increase in audit investigation, SME owners had made more effort at proper record keeping.

In contrary to the above, other studies showed the ineffectiveness of the tax audits. Tax audits may also have a negative effect on tax compliance behaviour. Some studies suggested that audit experience had little effect on future compliance behaviour (Erard & Feintein, 1994). One possible explanation of this effect is that audits may not turn out as badly as taxpayers initially fear. In other cases, taxpayers may find the audit experience to be a negative one and thus this make them want to evade more in the future (Andreoni et al., 1998 p.844). A comparative study of European tax structure shows that countries with intensive enforcement activities have the lowest compliance

rate (Feld & Frey, 2007). Hessing et al. (1992) study showed that tax audits were effective in deterring tax evasion among honest taxpayers, but not as effective on those who would occasionally evade tax or those who were habitual evaders. As these studies suggest that the quality of a taxpayer's audit experience, either positive or negative, may influence on their compliance behaviour. That is why tax auditors play a critical role in the effectiveness of the tax administration. The attitudes of tax auditors during the audit may also influence taxpayer's compliance behaviour. For example, if taxpayers are treated with respect during the audit, they may have a stronger incentive to comply with tax laws (Kirchler, 2007). Contrary to this, if taxpayers are treated with disrespect then this may reduce their intrinsic motivation to comply with tax laws (Frey, 2003 p.392).

In summary, there have been many studies that investigated the impact of tax audits on tax compliance behaviour from both economic and social, and psychological schools. These school models have highlighted the influence of tax audit on taxpayer's compliance behaviour. However, studies on the relationship between audit rates and their tax compliance show mixed results. In general, most tax researchers concluded that increased tax audits would lead to an increase in tax compliance, thus tax audits act as a deterrent to tax evasion behaviour (Dubin & Wilde, 1988; Dubin et al., 1990; Beron et al., 1992; Butler, 1993; Kamdar, 1997; Alm et al., 2006; Iyer et al., 2010). However, other studies surveyed the impact of perceived audit probability on self-reported tax compliance and found the effect of audit probability was low or failed to identify a clear relationship between the tax audit and the level of tax compliance (Spicer & Thomas, 1982; Warneryd & Walerud, 1982; Witte & Woodbury, 1985; Feld & Frey, 2007).

Based on the prior literature, the following hypotheses were developed.

RQ: Does tax audit activity significantly influence SME owners' Judgement/Justification process and tax evasion decision behaviour?

H5: Tax audits significantly influences SME owners' Judgement/Justification process.

H5a: There is negative relationship between tax audits and SME owners' tax evasion decision behaviour.

3.3.2.3 Tax compliance costs

Complying with tax laws and regulations usually involves various costs for SME owners. Tax compliance costs are defined as those costs 'incurred by taxpayers, or third parties such as businesses (Tran-Nam et al., 2000), in meeting the requirements laid upon them in complying with a given structure and level of tax' (Sandford et al., 1989, p.10). According to Sandford et al. (1989) the compliance costs include the cost of collecting, remitting and accounting for tax purposes; the costs of acquiring relevant tax knowledge and information; payment to external professionals; and also costs related to incidental and overhead costs. Thus, Sandord et al. (1989) outlined three components of compliance costs:

1) Monetary/Fiscal costs. These costs include sums spent on tax professionals (accountants, legal practitioners or tax agents) and expenses relating to taxation guides, books, communication and other incidental costs.
2) Time costs. Time costs are incurred by the taxpayer, mainly on record keeping for tax purposes, completing tax forms and returns as well as time spent on dealing with tax authorities.

3) Psychological costs. They include cost of anxiety and stress of handling complex tax matters.

Compliance costs are also categorised into their sources i.e. internal and external (Pope et al., 1991; Slemrod and Blumental, 1996). Internal compliance costs include both money costs and time costs that are incurred within the business, while external costs are mainly limited to sums paid to external tax professionals. This research estimates compliance costs, covering both internal/external, fiscal, time and psychological costs incurred by the SME companies in complying with tax regulations.

A study by McKerchar (2003) shows that tax complexity forces Australian taxpayers to use tax agents to deal with their tax matters because it is very common problem to understand the tax instructions. This in turn leads to higher compliance costs. Arthur Laffer, the author of the Laffer Curve, argued that the complexity of the tax code in the United States has increased compliance costs substantially, given that businesses (large and small), hire teams of accountants, lawyers and tax professionals to track, measure and pay taxes (Laffer et al., 2011). Such an increase in costs causes taxpayers and business owners to change their behaviour in response to tax policies including evasion. Franzoni (2008) argued that high compliance costs not only tilt the cost-benefit analysis towards evasion, but they may also generate antipathy, distort taxpayers moral considerations towards evasion or even make them respond with evasion as a form of punishment for the tax administration.

There are some other common sources of compliance costs, such as bureaucracy of public and tax administration in transition and/or developing countries. The red tape in

tax administration will take SME owner's time and burden them financially in order to comply with tax laws. The research results on tax compliance costs (Sanford et al., 1989; Tran-Nam et al., 2000; Chittenden et al., 2003; Das-Gupta, 2003; Evans, 2003) indicate that tax compliance costs are regressive (low-income personal taxpayers bear extremely higher burden than high-income personal taxpayers). The regressive tax compliance costs also supported by J. Coolidge (2012) who studied large and small business the tax compliance costs and found that larger companies can spend 1 percent of their turnover on tax compliance while small and medium enterprises can spend from 5 percent to 15 percent or more of their revenues in order to comply with tax laws.

Compliance costs in Uzbekistan is high. Tax accounting (access to information, bookkeeping for tax purposes, tax filings, preparation of VAT invoices) costed legal entities and individual entrepreneurs approximately 123 million USD in 2008 in Uzbekistan (IFC, 2010). The SMEs are required to hire and additional employee: 72 percent hire at least one full-time accountant to fulfil their tax obligations, while 23 percent of the legal entities have at least one part-time accountant. The majority of individual entrepreneurs (94 percent) perform their own accounting or they get their support from relatives and friends (ibid.).

Additionally, typical individual entrepreneurs spend around 69 man hours in order to comply with tax laws while legal entities in sectors other than agriculture spend around 557 man hours per year (IFC, 2010). Apart from these annual compliance costs, legal entities and individual entrepreneurs bear other costs related to tax compliance such as purchasing or renting cash registers, plastic card terminals, and legal databases and accounting software. In 2008, legal entities spent about 20.7 million USD and individual

entrepreneurs 958000 USD on these purposes (ibid.). Word Bank Group survey on tax compliance show that SMEs in South Africa spent 105 (42 for CIT, 18 for payroll, and 45 for VAT) hours to do accounting and filing specific taxes. This number was 158 (79 for Corporate Income Tax (CIT), 24 for payroll, and 55 for VAT) hours in Uzbekistan (IFC, 2010; Smulders et al., 2012).

The following hypotheses were developed based on the prior literature.

RQ: Do tax compliance costs significantly influence SME owners' tax evasion behaviour?

H6: Compliance costs significantly influence SME owners' Judgement/Justification process.

H6a: There is positive relationship between compliance costs and SME owners' tax evasion decision behaviour.

3.4 Conceptual framework hypotheses

Once the factorial hypotheses are tested, the study continues with testing the conceptual framework hypotheses. The following hypotheses are developed with respect to the proposed pathways. This study only uses two pathways as mentioned in Chapter 2 (pathways 5 and 6 below). However, the study also employs other pathways (pathways 1, 2, 3 and 4 below) in order to see how SME owners' justify their tax evasion decision making behaviour.

1) **P → D** represents **Preference-based pathway** (referred to in the literature as ethical egoism),

   Ha: '*Perceptions (Attitudes towards tax evasion, Personal Financial Condition and Corruption) significantly influence SME owners' decision behaviour*'.

2) **P → J → D** depicts the Rule-based pathway (referred to in the literature as deontology),

   Hb: '*Perceptions (Attitudes towards tax evasion, Personal Financial Condition and Corruption) significantly influence SME owners' decision behaviour through the process of Judgement/Justification'.*

3) **I → J → D** highlights the **Principle-based pathway** (referred to in the literature as utilitarianism),

   Hc: 'Informational factors (Complexity of tax laws, Tax Audits and Compliance costs) significantly influence SME owners' decision behaviour through the process of Judgement/Justification'.

4) **I → P → D** reflects the **Relativist-based pathway,**

   Hd: 'Informational factors (Complexity of tax laws, Tax Audits and Compliance costs) significantly influence SME owners' perceptions and in turn perceptions influence SME owners' tax evasion decision'.

5) **P → I → J → D** represents the **Virtue ethics-based pathway,**

   He: 'Perceptual factors (Attitudes, Personal financial condition and Corruption) significantly influence SME owners' tax evasion decisions through the process of Information and Judgement/Justification'.

6) **I → P → J → D** represents the **Ethics of care-based pathway**.
Hf: 'Informational factors (Complexity of tax laws, Tax Audits and Compliance costs) significantly influence SME owners' decisional behaviour through the process of Perception and Judgement/Justification'

3.5 Chapter Summary

This chapter presents the proposed conceptual framework along with research framework as a guide to test the factors that influence SME owners' tax evasion decision making behaviour. The proposed conceptual framework is based on Rodgers' (2009) Ethical Process Thinking Model. The proposed conceptual framework is later translated into formal hypotheses to be tested in this study. Before hypotheses development, prior studies related to perceptual and informational factors are reviewed.

The relationships of the variables proposed in the conceptual framework with tax evasion behaviour of SME owners were translated into nineteen hypotheses. The thirteen hypotheses are related to perceptual and informational factors of EPTM, while other six are related to six pathways. The next chapter discusses the research methodology and design to test the relationships postulated in the conceptual framework.

CHAPTER FOUR

RESEARCH METHODOLOGY AND DESIGN

4.1 Chapter overview

The aim of this chapter is to present the research methodology and design that guided this study. The mixed method research design adopted in this study includes a survey and a semi-structured interview. The chapter consists of four main sections. The first section begins with the introduction of the research paradigm and research design. This is followed by discussions and justifications of employing the mixed method approach. The next section provides the procedures for the quantitative method explaining survey design, survey questionnaire design, data collection and sample size. The third section presents the qualitative method of investigation and data collection. Finally, the ethical consideration and guidelines followed by the researcher throughout this study are presented. The chapter summary concludes this chapter.

4.2 Research Paradigm

The research on tax compliance and non-compliance has adopted a wide variety of research approaches[11]. The traditional positivist approaches were adopted by several

[11] Social science research approaches are positivism, social constructionism, relativism, realism, modernism and postmodernism.

studies[12] to explore anti-social practices. However, some researchers have questioned whether positivist approaches can capture the complexities of social problems (Zakiuddin & Haque, 2002; Akindele, 2005). Hobson (2002) argued that human endeavour cannot be easily treated through mathematically predictable models.

The methodological approach developed in this study borrows from variety of traditions to construct a framework for understanding a human behaviour. Many scholars have explored the work of Burrell and Morgan (1979) in order to understand the social world. This thesis also uses the same work as a guide to craft a research tool to advance its inquiry. This thesis followed the positivist paradigm employing mixed methods. The next section will discuss the research design and justification for employing mixed methods.

4.2.1 Research Design

Research designs are plans and procedures for the research to achieve its objectives that span the decisions from broad assumptions to detailed methods of data collection and analysis (Creswell, 2009, p.3). It is appropriate to discuss the advantages and limitations of quantitative and qualitative methods.

A quantitative research paradigm is an approach or study for developing knowledge (Creswell, 2009). This paradigm draws and develops knowledge from various evidences and deducts a framework to develop research questions and subsequently formulate relevant hypotheses (Riley et al., 2000). The behaviours are explained based on facts

[12] For example, Allingham and Sandmo, 1972; Srinivasan, 1973; Yitzhaki, 1974; Christiansen, 1980; Tanzi, 1998; Gupta et. al, 2000; Tanzi and Davoodi, 2002; Gupta et. al, 2002; and others

and observations gathered using theories and models that have been developed (ibid.). The methods employed in the quantitative research paradigm usually build on the principles of the positivist approach (Riley et al., 2000). The positivist approach assumes that there is a cause and effect relationship that exists between variables. In order to test the correlation between these variables, strategies such as surveys, experiments, observations or data from secondary sources are employed. Questionnaires are commonly used in surveys and experiments.

There are some limitations of questionnaire-based research because they are solely dependent on the respondents' self-reported intention, attitude and behaviour (Hasseldine & Li, 1999, p.98). To improve the reliability of the results, a large data sample from a large population is needed. When data is analysed and a hypothesis is accepted then it is 'a contribution to theory' (Riley et al., 2000, p.11). Results in the quantitative approach may be generalised.

In contrast, the qualitative research paradigm builds on the principles of an interpretive approach (Newman, 2003). In the interpretive paradigm, the social world is seen as a process that is shaped by the actors. The researcher tries to understand social problems subjectively. In this paradigm, the researcher's efforts are focused on discovering how social reality is constructed and maintained. For this, the researcher tries to understand the social world or social problems from the perspective of a participant. The objective is to understand the meaning of individual experiences that are socially and historically constructed, '… with an intent of developing a theory or pattern' (Creswell, 2009). The qualitative research paradigm aims to explain an observed phenomenon that does not involve any formation of hypotheses. The methods of inquiry are also different than the

quantitative research paradigm. Typical data collection methods are use of narratives, ethnographies, phenomenology, grounded theory studies or case studies. The qualitative research paradigm studies do not make general statements about large populations. Studies that use the qualitative paradigm are useful when the focus of research is on the attitudes and behaviour of a population (Ticehurst & Veal, 2000) even though the qualitative paradigm has been criticised for being selective in reporting results (Tashakkori & Teddlie, 1998).

Qualitative and quantitative research paradigm approaches differ in terms of their objectives, assumptions, and data collection methods. By combining both paradigms in the mixed methods, they could complement each other in searching for comprehensive answers to the research questions (Newman, 2003).

4.2.1.1 The motivation for the use of the Mixed Methods Approach.

An informal sector constitutes an important part of economies of developing and transition countries (Schneider, 2010) and one of the dominant features of the informal sector is tax non-compliance. Tax non-compliance can have large effects on the economy directly (e.g. budget deficits, investments in public good) and indirectly (e.g. welfare loses due to a shift to economic activities where taxes can be evaded). Due to these effects, the need for data on tax evasion is important, both for policy purposes and for academic research aimed at understanding this phenomenon and its consequences (Elffers et al., 1987; Schneider, 2010).

There is lack of tax non-compliance data in many transition countries (Gerxhani, 2002). It is virtually impossible to find macro-economic data on tax evasion in Uzbekistan. Due to its sensitive nature, collecting information on tax evasion is an undisputable challenge in and of itself. For this reason, a successful research methodology can circumvent many of the problems involved.

Uzbekistan was one of the communist countries until 1991 and was isolated. When it became independent in 1991, it was struck by a deep crisis. A poverty created suitable conditions for the informal sector in the economy (Gerxhani, 2002). An increase in the informal sector led to distrust to anything that looked 'official'. The combination of informal sector and distrust make this study suitable for using a survey method and semi-structured interviews. The sensitive context of the study and the political situation in Uzbekistan may undermine respondents' willingness to participate. For this reason, country-specific institutional and cultural features must be taken into consideration in order to successfully collect data on a sensitive issue like tax evasion (Tindigarukayo, 2001).

Tax compliance and tax evasion behaviour are complex and sensitive topics because they involve ethical consideration of whether to comply or not to comply with the tax laws. By using the mixed methods approach, it provides an opportunity for the researcher to include various views leading to a deeper and comprehensive understanding of the tax compliance behaviour of SME owners in Uzbekistan. The use of a quantitative approach (survey) in this study allows the researcher to generalise the findings to the whole population and the tax evasion behaviour is explained further by

using qualitative approach, namely the semi-structured interviews which delve into the issue deeper and complement the survey findings.

Given the scope of the research problem, it was felt that a single research paradigm would be insufficient to address the objectives of this research. Thus, the mixed methods design using both the quantitative and the qualitative paradigms was adopted. The mixed methods design uses the advantages of both paradigms, 'allowing the researcher working back and forth between inductive and deductive models of thinking in a research study' and reduces the bias inherent in a single method (Creswell, 2009). The mixed methods design is recognised as a superior approach capable of providing more comprehensive answers than a single method design approach (Neuman, 2010). The quantitative research focuses on the collective viewpoints of respondents in interpreting the findings, while qualitative research emphasises the perceptions of a few participants (Creswell, 2009).

The concept of the mixed methods approach came from a psychology study by Campbell and Fiske in 1959 (quoted in Creswell, 2009, p.15). Johnson et al. (2007), who analysed 19 definitions of the mixed methods research, offered the following definition of the mixed methods research:

'Mixed methods research is the type of research in which a researcher or team of researchers combines elements of qualitative and quantitative research approaches (e.g., use of qualitative and quantitative viewpoints, data collection, analysis, inference techniques) for the purposes of breadth and depth of understanding and corroboration.'

In the mixed methods, triangulation can be either through multiple sources, or multiple approaches such as involving both quantitative and the qualitative styles of research (Creswell, 2009; Neuman, 2010). The main objective of using the mixed methods is to confirm, cross-validate, or corroborate findings within a single study (Creswell, 2009, p.217). The mixed methods design combines the rigor and precision of a quantitative design and in-depth understanding of a qualitative method. It is argued that the mixed methods approach will neutralise any inherent bias in a mono-method approach due to the unique features of the method employed (Creswell, 2009). Moreover, it is generally agreed that multiple sources of data will increase knowledge and confidence of a topic. Tashakkori and Teddlie (1998) suggested that the mixed methods approach was the most appropriate research design in answering research questions in social and behavioural science studies, because it took the advantages of both (quantitative and qualitative) approaches. In the tax compliance and non-compliance studies, McKerchar (2010) suggested that the use of the mixed methods approach in tax studies could address different objectives of the study, inform one approach from the other at the design or analysis stage, and compare findings from multiple approaches.

Over the years the mixed methods approach has gained a considerable support in research (Creswell & Plano Clark, 2011). Johnson et al. (2007) considered the time of the mixed methods approach had come. Understanding the motivation for the use of the mixed methods approach, the following section presents the research design for this study.

4.2.1.2. The Mixed Method Research Design for the Study

In conducting the mixed methods study, researchers have to consider whether both quantitative and qualitative approaches have equal strength or one approach dominates the other. The mixed methods style can be conducted either simultaneously or sequentially (Creswell, 2009). In a simultaneous strategy, both data collection phases are conducted at the same time while in a sequential strategy, the collection and analysis of qualitative data followed by the collection and analysis of quantitative data or vice versa. Onwuegbuzie and Collins (2007) suggested eight mixed methods research designs incorporating the time orientation (concurrent or sequential) and the relationship of the samples. Creswell and Plano Clark (2011) suggested six common mixed methods research designs such as convergent parallel, sequential explanatory, sequential exploratory, embedded, transformative, and multiphase designs.

While there are differences in terms of the number of designs in the mixed methods, researchers agree that the choice of the appropriate mixed methods research design has to incorporate several factors such as the timing of conducting the study, the weight to be given to each quantitative and qualitative approach, the choice of subjects samples for the study and the interpretation of the findings (Onwuegbuzie & Collins, 2007; Creswell, 2009; Creswell & Plano Clark, 2011). It is also possible that the mixed methods designs may emerge during the progress of study and may not be restricted to those being mentioned earlier (Onwuegbuzie & Collins, 2007). Onwuegbuzie and Collins (2007, p.297) commented on that:

'*The exciting aspect of mixed methods sampling model is that a researcher can create more tailored and/or more complex sampling designs than the ones outlined here to fit*

a specific research context, as well as the research goal, research objective(s), research purpose, and research question(s). Also it is possible for a sampling design to emerge during a study in new ways, depending on how the research evolves'.

Based on the above discussions, the researcher concludes that the research design in mixed methods do not necessarily follow any type of the commonly used mixed methods designs. In this study the researcher employs sequential explanatory and concurrent mixed methods designs. These two designs are discussed in this section.

According to Creswell (2009), a sequential explanatory design has two different phases: the quantitative phase proceeds the qualitative phase. The quantitative data collection and analysis are performed at first and then the qualitative data is collected and analysed using the same or different samples based on the findings from the quantitative phase (Creswell & Plano Clark, 2011). In a sequential explanatory design, the qualitative research findings complement the quantitative findings as well as both findings could be interpreted as overall (Creswell, 2009).

In the concurrent mixed methods design[13], the quantitative and the qualitative data collection and analysis are performed simultaneously in a single study (Creswell, 2009; Bryman & Bell, 2011). In this method of design, both the quantitative and the qualitative research are given equal emphasis and collected data from both strands can be analysed

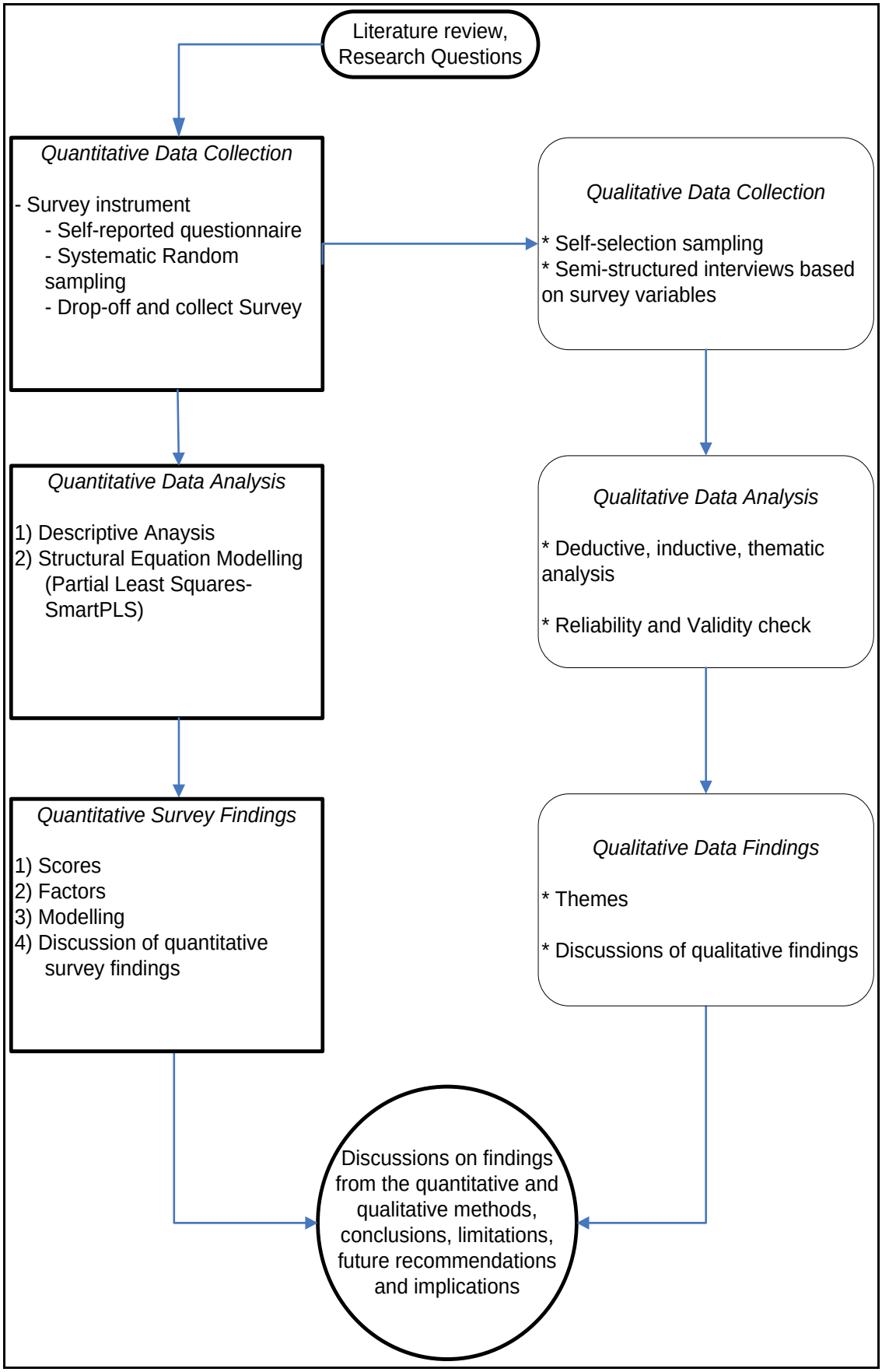
[13] Some scholars use concurrent mixed method design or research such as Johnson and Onweugbuzie (2004) and Bryman and Bell (2011), while others use the term 'concurrent triangulation strategy' (Creswell, 2009) or 'convergent parallel design' (Creswell and Plano Clark, 2011).

independently. The findings from both strands are mixed or compared before providing overall conclusions (Creswell, 2009; Creswell & Plano Clark, 2011).

The purpose of this study is to understand the factors that influence SME owners' tax evasion behaviour. In this study, the researcher performed both the quantitative and the qualitative methods in order to understand this issue. The quantitative data from surveys is used to obtain a general idea or understanding of selected[14] factors that influence SME owners' tax evasion behaviour. However, the surveys could only provide a snapshot of the SME owners' tax evasion behaviour. In order to compensate the limitation (already mentioned in section 4.2.1) of surveys as a method of enquiry, as well as to obtain in-depth insights into the factors that influence SME owners decision-making over tax non-compliance in Uzbekistan, the researcher conducted semi-structured interviews at the same time and after the survey was distributed. Furthermore, McKerchar (2012a) and McKerchar (2012b) suggested that qualitative approach could be used to gain deeper understanding rather than finding the absolute truth in the tax context. Finally, the interview will provide opportunities for SME owners to explain further their responses. The design for the study is illustrated in Figure 11.

[14] Selected factors based on the reviews of past studies.

Figure 11 Research Design Diagram



Due to the time and financial constraints in conducting the study as well as the availability of interview participants, the above diagram reflects a partially sequential explanatory and partially concurrent mixed methods design. As discussed earlier, the quantitative data collection and analysis are performed in the first phase of the study. The qualitative data collection is performed at the same time as survey as well as after the survey data due to the time and the availability of interview participants. Moreover, SME owners were permitted to choose their own time for the interview when the invitation to participate for the interview was distributed. This approach is considered to be suitable considering that SME owners are busy with their businesses, and it assists with motivating them to provide answers comfortably and anonymously. This will also help to avoid any bias in the answers they provide. Finally, if the interviews are conducted only after the quantitative phase then as a result of the time gap there is a possibility that the interview participants may find it difficult to recall the issues during the later interview process.

In summary, this study adopts the partially sequential explanatory and partially concurrent mixed methods designs with surveys and semi-structured interviews as the qualitative data collection. The mixed methods design in this study is consistent with the suggestion by Creswell (2009), Creswell and Plano Clark (2011) and Bryman and Bell (2011).

4.3 Quantitative Investigation (Survey)

Jackson and Milliron (1986), and Richardson and Sawyer (2001) noted that questionnaire surveys are mainly used to collect data in tax studies along with other

methods such as experiments, analytical approaches and regression modelling. However, surveys are more effective in collecting data for the same set of questions from a fraction of population of the study (Saunders et al., 2007). It is regarded as an excellent method in rationalising an individual's attitude towards certain issues (ibid.). The methodological issues and the advances made in all four methods have been fully discussed by Richardson and Sawyer (2001, pp.223-240). All four methods remain utilised in tax research studies and are subject to measurement difficulties to some extent. The most important concern is the honesty and validity of self-responses (ibid.). Nonetheless, no empirical support exists to assert that one method is more accurate than the others.

One of the main advantages of survey method is the feasibility of obtaining a wide variety of standardised information from a large population, which is cost beneficial (Babbie, 2008). Due to the researcher's limited budget and minimal cost, the employment of a survey was considered appropriate. Secondly, due to the sensitivity of tax evasion and non-compliance, a self-administered survey was considered to be the best method because people are more likely to return the completed questionnaire anonymously. Thirdly, due to lack of official data regarding tax evasion in Uzbekistan, survey method was chosen in this study. However, survey research does have some limitations, which include the lack of in-depth information.

In this study, surveys were used to explore general understanding on perceptual and informational factors, as discussed in Chapter Three, which may influence SME owners' tax evasion behaviours. The main objective of this quantitative investigation was to

examine the effects of perceptual and informational factors to SME owners' tax evasion behaviours.

4.3.1 Mixed-Mode Survey

Saunders et al. (2007) divided the questionnaire into two groups: self-administered and interviewer administered. The self-administered questionnaire can be further grouped into two: a) online, postal or mail questionnaires; b) delivery and collection questionnaires. The interviewer administered questionnaires can be telephone questionnaires and structured interviews. In this study, a self-administered questionnaire survey was used to collect the data from SME owners in examining the perceptual and informational factors that may influence their decisions to evade taxes.

Mixed-mode surveys are a combination of different methods to collect data for a single survey study. The postal and drop-off/collection methods will be adopted in this study. This type of mixed-mode surveys were particularly chosen to avoid low response rates as well as to minimise cost (Loosveldt, 2008). This is because Uzbeks might less likely respond to surveys. In tax research studies the postal mail surveys usually achieve from 15 to 25 percent response rate (Loo & Ho, 2005; Ming et al., 2005; Loo, 2006). Sekaran and Bougie (2010) and Bryman and Bell (2011) suggested that mail questionnaires will always get a low responses rate. However, the response rate of around 30 per cent is acceptable. To avoid low response rates in surveys, the researcher employed a drop-off method (Dillman, 2007; Dillman et al., 2009). The drop-off method was used during the market days which happen twice a week.

Evans et al. (2005) stressed that a postal mail survey is the most effective way to reach large number of respondents residing in a large geographical area and could provide the opportunity for respondents to complete the questionnaire at their own leisure time as well as reducing the risk of the researcher influencing responses. Moreover, the postal survey could provide the respondents with anonymity they want because of the sensitivity of tax matters. Due to the lack of internet access and internet knowledge the online questionnaires could not be used in this study.

4.3.2 Sample selection and size

Sample selection could be grouped into two: probability and non-probability sampling (Sekaran & Bougie, 2010). In this study, potential respondents were selected based on systematic random sampling for both mail and drop-off methods. Systematic random sampling chooses the *kth* number of sample from a sample frame (Sekaran & Bougie, 2010). The advantage of using systematic random sampling is easiness of use as well as time and cost effectiveness (ibid.). However, this approach could result in systematic bias which may lead to the possibility of drawing inaccurate conclusions from the data and affect the generalisability of the findings (Sekaran & Bougie, 2010).

A sample is a subset of a population to be examined which ideally should represent the population. Collins et al. (2007) summarised the minimum sample size recommended for most common quantitative (see Table 5) and qualitative research designs. For correlational, causal-comparative, and experimental research designs, the recommended sample sizes represent those needed to detect a moderate statistical

power effect size of 0.80 (using Cohen's [1988] criteria), one-tailed and/or two-tailed statistically significant relationship, at 5 percent level of significance.

Table 5 Recommended Minimum Sample Size for Most Quantitative Research Design. Adopted from Collins et al. (2007).

Research design	Minimum sample size suggestion
Correlational	64 participants for one-tailed hypotheses; 82 participants for two-tailed hypotheses (Onwuegbuzie et al., 2004)
Causal-comparative	51 participants per group for one-tailed hypotheses; 64 participants for two-tailed hypotheses (Onwuegbuzie et al., 2004)
Experimental	21 participants per group for one-tailed hypotheses (Onwuegbuzie et al., 2004)

Sample size is commonly determined by referring to a simplified table provided by Krejcie and Morgan (1970), Saunders et al. (2007) or Sekaran and Bougie (2010). Based on Table 6, the recommended sample size is 384 for a population of almost 5 million. Arguably, a sample size of between 150 and 200 is considered enough to describe a large population because an additional sample size will only provide a modest impact (Fowler, 1993). Fowler (1993, p33) argued that population of 15,000 or 15 million can be explained with only 150 respondents due to the extent of its accuracy being the same.

Table 6 Sample size table (Adopted from Krejcieand Morgan, 1970)

N	S	N	S	N	S	N	S	N	S	N	S
10	10	85	70	220	140	440	205	1200	291	4000	351
15	14	90	73	230	144	460	210	1300	297	4500	354
20	19	95	76	240	148	480	214	1400	302	5000	357
25	24	100	80	250	152	500	217	1500	306	6000	361
30	28	110	86	260	155	550	226	1600	310	7000	364
35	32	120	92	270	159	600	234	1700	313	8000	367
40	36	130	97	280	162	650	242	1800	317	9000	368
45	40	140	103	290	162	700	248	1900	320	10000	370
50	44	150	108	300	169	750	254	2000	322	15000	375
55	48	160	113	320	175	800	260	2200	327	20000	377
60	52	170	118	340	181	850	265	2400	331	30000	379
65	56	180	123	360	186	900	269	2600	335	40000	380
70	59	190	127	380	191	950	274	2800	338	50000	381
75	63	200	132	400	196	1000	278	3000	341	75000	382
80	66	210	136	420	201	1100	285	3500	346	1000000	384

According to the Ministry of Finance, there were 221,140 enterprises registered as MSEs and 227,646 persons listed as individual entrepreneurs in January 2015 (ADB, 2016). That is almost half a million Micro and Small Enterprises in Uzbekistan. To determine the appropriate sample size for this study, the researcher relied on the guideline provided by Fowler (1993) and consider around 100 participants as adequate number.

4.3.3 Pilot study

Pilot study is commonly conducted before disseminating the survey to potential participants in order to test a preliminary version of research instrument and if needed, to refine the questionnaire so that the respondents do not have any difficulty in understanding the content of the survey. This process might give advance warning about potential problems during the fieldwork (Saunders et al., 2007) and it can be helpful in increasing the reliability and validity of the survey instrument (Sekaran & Bougie, 2010). Three pilot testing studies were conducted as preparation for this fieldwork by the researcher. In the first stage, the researcher sent an email invitation to ask 10 PhD

students from Hull and Essex Universities in different areas[15] to give comments and suggestions about an early draft of the questionnaire since it is common to try a questionnaire on friends and colleagues to get their opinions (Simmons, 2008, p.202). Their feedback was mainly about layout and content. The researcher improved the questionnaire after the first stage of recommendations as it was crucial to get different perspectives. The layout of the questionnaire was improved by placing numbers (1 to 5) for each Likert style questions. The contents of the questionnaire were 8 pages long and this was reduced to 5 pages. Some of the questions were also improved after meeting with Prof Waymond Rodgers.

In the second stage, the researcher sent the translated version of the questionnaire to 14 SME owners and 3 tax practitioners in Uzbekistan through email. Their feedback was taken into account; and it was mainly about language issues and sensitivity of some statements in the questionnaire. The language used in the questionnaire was simplified to avoid misunderstandings and ambiguity. Moreover, some statements were dropped from the questionnaire due to their appeared sensitivity.

A final pilot survey was conducted to test the research process, such as different ways of distributing and collecting the questionnaires. An email survey was sent to 20 SME owners but no responses were received. Based on this, it appeared that adopting email survey was inappropriate in the actual study. Moreover, the lack of internet, technical

[15] 2 Accounting and Management staff and 1 Psychology student from Essex University; 3 PhD students, 1 staff in Business and Accounting, 2 Social Science students from Hull University. 1 student did not responded.

skills to complete the questionnaire, anonymity and higher internet fees could deter the potential respondents from replying to my email survey. For these reasons, in order to avoid the potential problems, the researcher decided to distribute the surveys via postal order, drop-off and collect methods. The next section will examine survey distribution and collection procedures.

4.3.4 Survey distribution and collection procedures

The questionnaire distributions were divided into three phases. Initially, the researcher contacted the Tax Office in order to get their permission and agreement to distribute the questionnaire. The approach did not provide fruitful results, the researcher then contacted the Business Registry office through contacts and got the list of registered businesses. Then the researcher used a mail survey to distribute the questionnaire in Uzbekistan. The use of mail survey has some advantages along the disadvantages. For example, if the respondents are geographically widely dispersed then the mail survey has an advantage (Sekaran & Bougie, 2010; Bryman & Bell, 2011). However, it has the disadvantage of low response rate and the possibility of someone else completing the survey (Bryman & Bell, 2011). After considering the advantages and disadvantages, as well as the available list of SME's correspondence details, the researcher decided to send questionnaire through mail.

Due to the possibility of low response rate in tax compliance and evasion involving surveys, the researcher decided to consider drop-off and collection method. The drop-off method will increase the response rate twofold as suggested by Dillman (2007,

p.262). This was evident from other studies, such as Saad (2010, p.41) who employed the same method and obtained 38 percent response rate in her study.

4.3.5 Survey Questionnaire design

The questionnaire survey was divided into four parts. The first part consists of questions related to respondents' demographic background namely age group, gender, education level, business type and responsible person to pay tax. In the second part, the researcher asked several general questions related to respondents' tax audit, tax knowledge and compliance costs. In the third part, the researcher developed seven hypothetical tax scenarios. In the final part of the questionnaire, the researcher asked perceptual, informational, judgemental, and decisional questions in order to gather information about tax compliance and evasion issues.

The questionnaire survey was originally prepared in English, then translated into the Uzbek language as it is the main spoken and written language in Uzbekistan. In order to check its accuracy, the translated version was checked by translating from Uzbek back into English. In the layout of the questionnaire, the Uzbek translation was provided immediately after the English version for each of the sentences to reduce the possibility of misunderstanding. Furthermore, quick references were provided for complex terms such as individual entrepreneurs, micro firms and small businesses.

The questionnaire employed three types of measurement scales, namely ordinal, nominal, and interval. An ordinal scale deals with no specific distance between one rank and another, for example educational level and income group. A nominal scale is simply

a placing of data in a category without any order such as gender. The interval scale has an equal distance from one point to another and is often referred to as a Likert scale (Sekaran & Bougie, 2010). A five-point Likert scale was the main scale employed in this study. It is widely accepted, particularly in taxation studies (for example, McKerchar, 2002; Abdul-Jabbar, 2009) and thus it was employed in this questionnaire to measure SME owners' attitudes, perceptions, judgements and decisions towards tax evasion. The content of the questionnaire survey is further discussed in the next section.

4.3.5.1 Construct development and measurement

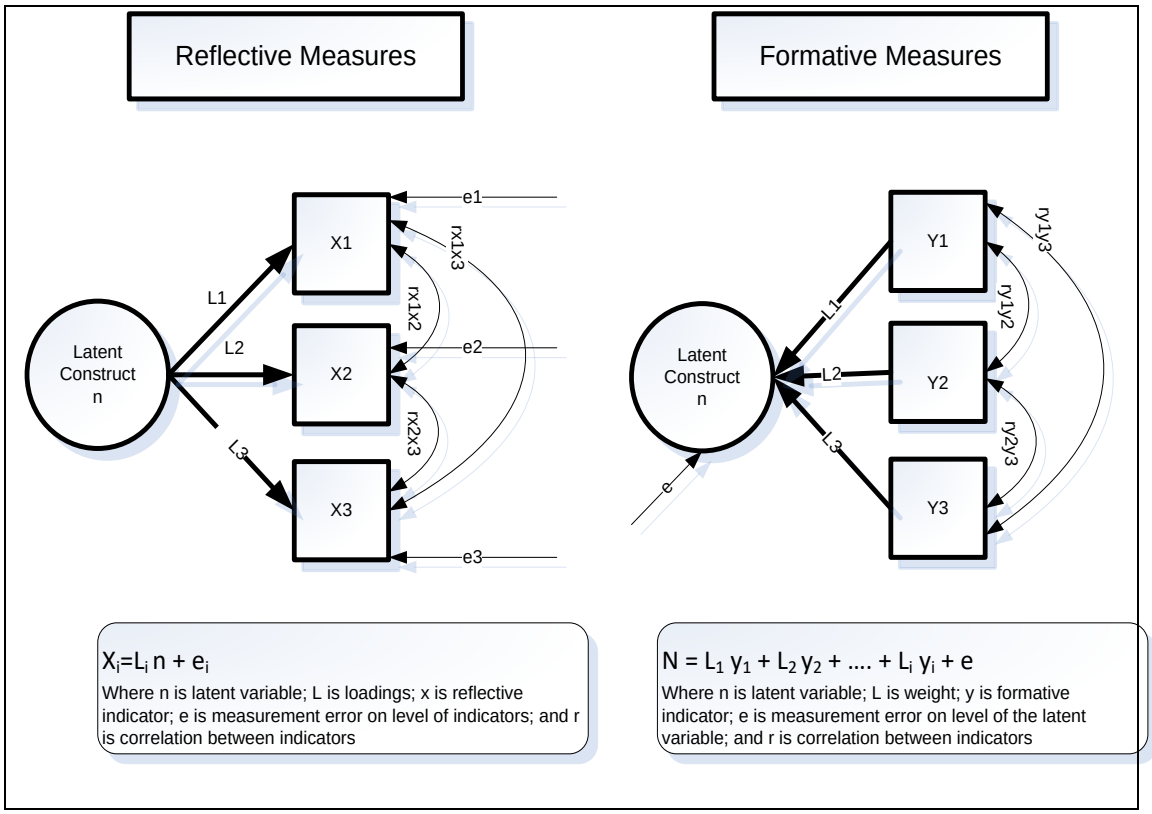
As explained earlier in Section 3. Research Framework, to understand SME owners' tax evasion behaviour in Uzbekistan while operating their business, this study uses Ethical Process Thinking Model. Therefore, the proposed model consists of four constructs, namely perception, information, judgement and decision. These theoretical constructs are latent or unobservable constructs, and to test these constructs, the researcher developed and adapted measures from prior studies in taxation, accounting and human behaviour.

A measure of a construct could be reflective or formative (Sekaran & Bougie, 2010). One of the main points of designing a study is to determine which constructs are reflective and formative. Before explaining the measures applied in this study, the distinction between reflective and formative measures is important because proper specification of a measurement model is necessary to assign meaningful relationships in the structural model. These will be discussed in the next subsection.

4.3.5.2 Reflective and Formative Constructs

Measures or indicators could be distinguished as either influenced by the latent construct (reflective) or have formed the latent construct (formative) which could be determined in a way by examining the direction between the latent construct and the measures. In reflective constructs, the measures or indicators are influenced by the latent construct (Figure 12). Hence, the direction of causality is from the latent construct to the measures (Sekaran & Bougie, 2010).

Figure 12 Causal structures (Sekaran and Bougie, 2010)



In a reflective model, the latent construct exists independent of the measures (Borsboom, et al., 2004). Typical examples of reflective scenarios include measures of attitudes and personality that were measured by eliciting responses to indicators. Since the reflective measures are influenced by the latent construct, they are supposed to

measure the same underlying concept of the latent construct. In reflective measures, the causality flows from the construct to the indicators. That means the reflective measures are expected to be highly correlated and interchangeable (Haenlein & Kaplan, 2004). This interchangeability indicator enables researchers to measure the construct by sampling a few relevant indicators that underlie the domain of the construct. Inclusion or exclusion of one or more indicators will not cause any changes to the meaning of the latent construct as the remaining measures could adequately present the latent construct (Jarvis et al., 2003). However, all reflective measures should change accordingly when the latent construct changes (Urbach & Ahlemann, 2010b). Given the nature of reflective measures, reflective measures incorporate measurement error at the item level. In other words, all error terms are associated with the observed scores (Haenlein & Kaplan, 2004). Researcher can identify and eliminate measurement error for each indicator using common factor analysis because the factor score contains only that part of the indicator that is shared with other indicators, and excludes the error in the items used to compute the scale score (Haenlein & Kaplan, 2004).

On the other hand, in a formative model (See Figure 12), the latent construct is dependent upon a constructivist, operationalist or instrumentalist interpretation by the scholar (Coltman et al., 2008). Formative measures are suitable when a latent construct is defined based on the combination of its measures, which suggest that they influenced the latent construct (Haenlein & Kaplan, 2004). Since they formed the latent construct, the causality flows from the indicators to the construct (Coltman et al., 2008). Unlike reflective indicators, which are supposed to be highly correlated, formative measures could have positive, no correlation or negative relationships (ibid.) In a formative model, a change in the indicators results in a change in the construct and thus the domain of

the construct is sensitive to the number and types of indicators representing the construct. Due to this, adding or removing an indicator can change the conceptual domain of the construct (Haenlein & Kaplan, 2004), since each indicator represents the different dimensions of the latent construct. In a formative model, the measurement error of the indicators will only be accounted for at the latent construct level (ibid).

To differentiate between reflective and formative indicators, Coltman et al. (2008) provided a set of guidelines which is presented in Table 7. These guidelines focused on six main aspects in distinguishing the reflective and formative measures.

Henseler et al. (2009) provided an example of examining cycling fitness in order to illustrate reflective and formative indicators. In a reflective model, the measures are based on a single underlying concept, which is concerned with the heart rate, lactate level, and muscle proportion. A change in the heart rate is correlated with the lactate level and muscle proportion. Similarly, any changes in the lactate level influence the heart rate and muscle proportion. In a formative model, cycling fitness could be measured using different dimensions attributing to fitness such as the hours of training, nutrition and drug abuse.

Table 7 A framework for assessing reflective and formative models (Coltman, et al. 2008)

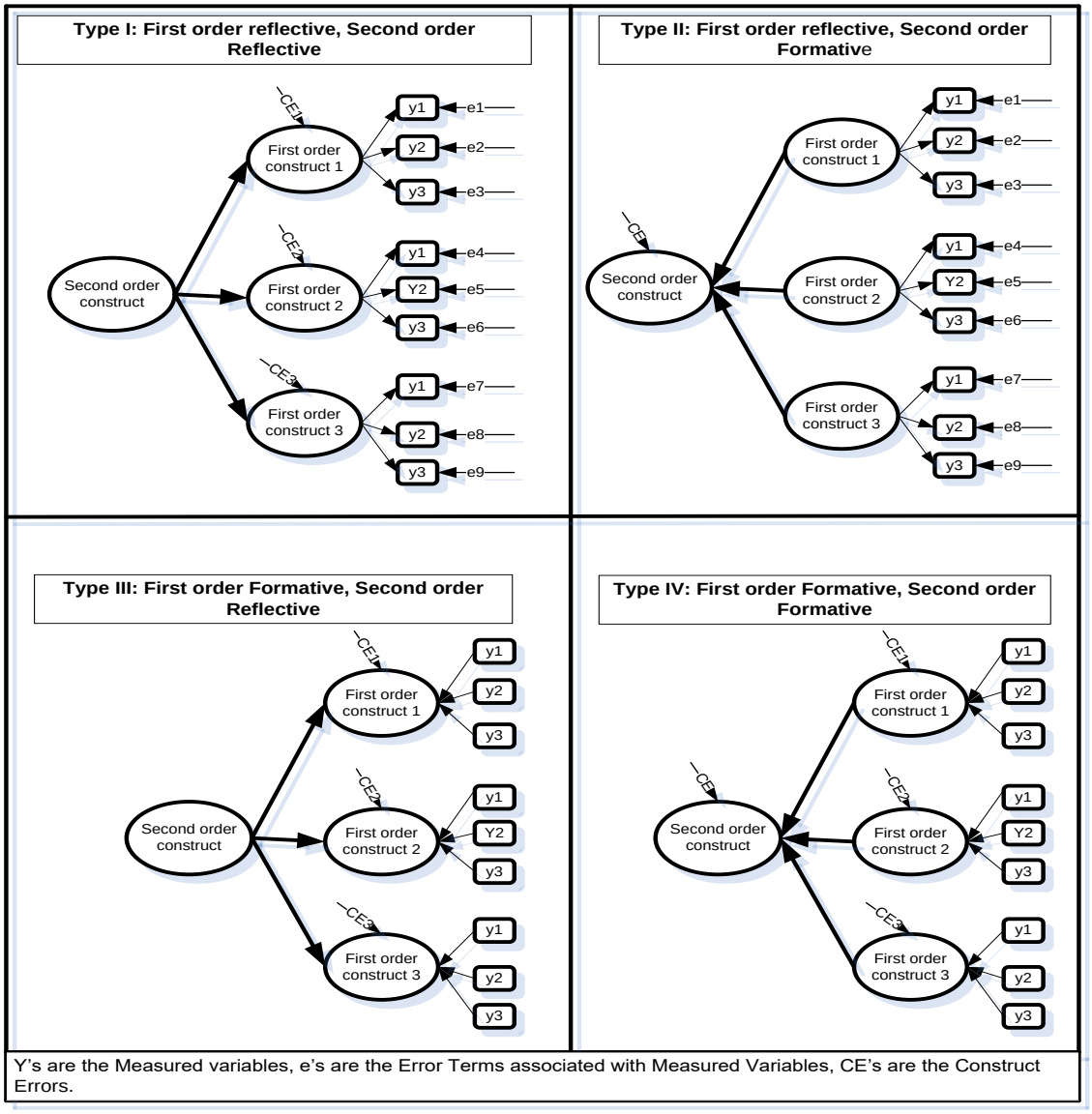
Considerations	Reflective Model	Formative Model
Theoretical Considerations 1. Nature of construct	Latent construct exists independent of the measures used	Latent constructs are determined as a combination of its indicators
2. Direction of causality between items and latent construct	Causality from construct to items • Variation in the construct causes variation in the item measures • Variation in item measures does not cause variation in the construct	Causality from items to construct • Variation in the construct does not cause variation in the item measures • Variation in item measures causes variation in the construct
3. Characteristics of items used to measure the construct	Items are manifested by the construct • Items share a common theme • Items are interchangeable • Adding or dropping an item does not change the conceptual domain of the construct	Items define the construct • Items need not share a common theme • Items are not interchangeable • Adding or dropping an item may change the conceptual domain of the construct
Empirical Considerations 4. Item intercorrelation	Items should have high positive intercorrelations • Empirical test: internal consistency and reliability assessed via Cronbach alpha, average variance extracted, and factor loadings (e.g., from common or corfirmatory factor analysis)	Items can have any pattern of intercorrelation but should possess the same directional relationship • Empirical test: indicator reliability cannot be assessed empirically; various preliminary analyses are useful to check directionality between items and construct
5. Item relationships with construct antecedents and consequences	Items have similar sign and significance of relationships with the antecedents/consequences as the construct. • Empirical test: content validity is established based on theoretical considerations, and assessed empirically via convergent and discriminant validity	Items may not have similar significance of relationships with the antecedents/consequences as the construct • Empirical test: nomological validity can be assessed empirically using a MIMIC model, and/or structural linkage with another criterion variable
6. Measurement error and collinearity	Error term in items can be identified • Empirical test: common factor analysis can be used to identify and extract out measurement error	Error term cannot be identified if the formative measurement model is estimated in isolation • Empirical test: vanishing tetrad test can be used to determine if the formative items behave as predicted • Collinearity should be ruled out by standard diagnostics such as the condition index

4.3.5.3 Multidimensional constructs

The discussion in Section 4.3.5.1 only focused on a unidimensional construct (the first-order latent construct), which is measured by a single dimension, consisting of a set of indicators. However, a latent construct could be conceptualised at a more abstract level

especially when it requires multidimensional measures to explain its underlying concept. A multidimensional construct is a 'higher-level construct that underlies its dimensions' (Law, et al., 1998, p.743). The dimensions or facets are distinct, but connected to the higher-level construct through a single theoretical concept. Roy et al. (2012) suggested four different types of second-order factor models comprising reflective or formative measures in a single construct or a combination of both in a construct. The four options of second-order factor models are illustrated in Figure 13.

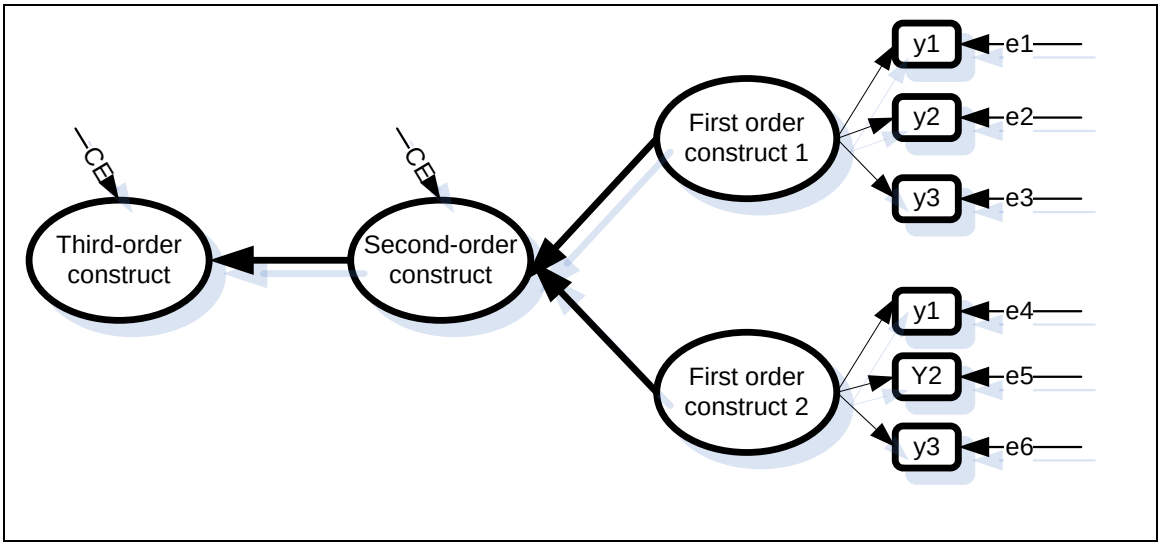
Figure 13 Multidimensional constructs (Adapted from Roy et al., 2012, p.39)



In the first model, Type I, both the first-order and the second-order factors are conceptualised using reflective indicators. In Type II model, the first-order factor is developed based on reflective indicators and the second-order factor is conceptualised using formative constructs. In Type III, the first-order model is explained using formative indicators and the second-order factor is conceptualised using reflective constructs to describe the underlying concept. Finally, in Type IV model both the first-order and the second-order factor models are conceptualised using formative indicators and constructs.

Drawing from the literature review, this study adopts the Type II model, which is The Reflective First-Order, Formative Second-Order model suggested by Roy et al. (2012) in explaining the tax evasion behaviour of SME owners. At the first-order level, the reflective measures are used to explain the underlying concepts of the constructs while formative constructs are developed at the second and third-order factor model (see Figure 14).

Figure 14 Structural Equation Model



4.3.6 The nature of questionnaire

4.3.6.1 Section A – Background of respondents

The first part of the questionnaire, Section A, asked to respondents to provide their demographic background information, namely age, gender, education level, business type and responsible person to pay tax. Respondents were asked to tick the appropriate box to indicate their demographic background information. The age of respondents was divided into 6 groupings: 20-29 years old, 30-39 years old, 40-49 years old, 50-59 years old and finally, over 60 years old. Gender has two categories either 'male' or 'female'. The marital status has three categories such as 'single', 'married' or 'divorced/separated'. Educational information has also three categories namely, 'secondary', 'college' or 'university' level. The business type information has three categories such as, 'individual entrepreneur', 'micro-firms', or 'small business'. Other questions were on responsibility of a person regarding accounting and tax matters in the business. This question has five categories namely, 'yourself', 'spouse/partner', 'friends', 'employee accountant' or 'accounting company'. The effects of these independent variables on tax evasion behaviour of SME owners could be analysed.

4.3.6.2 Section B – Tax evasion, compliance cost and hypothetical questions

Section B of the questionnaire consisted of 11 questions related to the respondent's audit experience, tax compliance and tax knowledge and was based on studies conducted by Loo and Ho (2005), Loo (2006) and (Devos, 2007). Section B questionnaire is consisted of mixture of hypothetical scenarios and open-ended questions. The open-ended questions were developed to examine the taxpayer's general tax knowledge, compliance costs and audit experience. Open-ended questions were asked to gather

information relating to tax audits, tax penalties, tax knowledge and compliance costs of SMEs. One particular question was asked to estimate the yearly cost of compliance including accountants' fees.

The hypothetical questions were measured with 5 point Likert scales where respondents had to choose from 1 (strongly agree) to 5 (strongly disagree). A review by O'Fallon and Butterfield (2005) indicated that hypothetical scenarios are widely used in ethics-based studies. They stated that using hypothetical scenarios will provide opportunities 'to manipulate the variable of interest while controlling for environmental factors'. The use of hypothetical scenarios allows decision-making to be made in situations that are more real. For this study, five hypothetical tax evasion scenarios were developed based on the literature from prior studies done by Chan et al. (2000) and Elliffe (2011). Elliffe (2011) suggested using the hypothetical scenarios on overstating and understating income because they imply the second type of tax gap component in a tax system.

Notwithstanding the advantages of using hypothetical scenarios, they have been criticised by some scholars because in hypothetical scenarios researchers would assume they present the actual dilemma and situation is the same for all respondents (O'Fallon & Butterfield, 2005). This may not be the case in real life situations. In order to overcome this criticism, as well as to increase the validity and reliability of the hypothetical scenarios, the researcher contacted three tax practitioners in Uzbekistan during the development of pilot study (see Section 4.3.3).

4.3.6.3 Section C – Tax Evasion Questions

Section C of the questionnaire consisted of 22 questions related to the respondent's attitudes towards tax evasion (ATE), personal financial condition (Financial distress (FD) and Financial Motivation (FM), perception of corruption (PC), tax knowledge (TK), complexity of tax laws (COTL), impact of tax audits (TA), compliance costs (CC), judgement/rationalisation (JD) and decision (D). All of the questions in the Section C were independent variables and were measured with 5 point Likert scale: from 1-Strongly Agree to 5-Strongly Disagree. The Likert scale has been used extensively in the areas of tax compliance and non-compliance studies (Richardson, 2006; Saad, 2014).

4.3.7 Measures to increase response rate

It has been frequently demonstrated that research which uses postal surveys faces lower response rates. The following measures had been taken in order to increase the response rates.

A) The survey questionnaire was printed in high quality style to ensure a clear layout so that respondents would understand that a professional study was being undertaken.

B) The cover letter also provided an explanation of the project and its independence from any tax authority involvement, in an attempt to further reduce bias in responses. Bryman and Bell (2011) indicated that mentioning sponsorship of a study (such as university) is a good way to increase the response rate because respondents will believe that the research has gone through process of Ethical Committee. Furthermore, mentioning sponsorship or

university also increases confidence in confidentiality as no link with the tax authority is apparent.

C) Stamped, addressed, return envelopes were supplied to ensure no cost to respondents.

D) Finally, the content of the questionnaire was short enough to allow respondents to complete them within 25 minutes.

The following subsections explain sample selection and sample size of the study.

4.4 Data preparation

This section discusses the data preparation for the analyses of the quantitative part of the study. The focus will be given to data screening, nonresponse bias, common method bias and descriptive analyses.

4.4.1 Data screening process

The data collected from both postal, drop-off and semi-structured interview methods were analysed using the PLS (Partial Least Squares) software. Before the analyses, the data from the above collected methods had to be entered to IBM SPSS (Statistical Package for the Social Sciences) software, then coded and examined for any missing data, unusual observations (outliers) were then removed, and lastly tested whether the data fulfil the statistical assumptions of the statistical test being used to analyse it (Sekaran & Bougie, 2010; Bryman & Bell, 2011).

The collected data were coded and carefully keyed into the IBM SPSS software manually and the hard copy of the survey was checked to ensure that no error occurred during

the data entry process. The missing data and the outliers in the data could be determined by using SPSS's scatterplot software (Sekaran & Bougie, 2010). The issue of missing data is common in tax compliance/non-compliance studies because of the sensitivity and self-reports in the data collection. Hair et al. (2014) suggested some ways to solve the missing data: a) a case or a variable should be eliminated if the missing data accounted for more than 10 percent of the particular cases or variables or b) the missing data can be either ignored or c) any imputation methods to solve the missing data could be applied. Fortunately, the missing data in this study was below 10 percent for each variable when checked with Missing Value Analysis test on SPSS.

4.4.2 Non-response bias

Nonresponse bias can usually occur in surveys and it requires careful attention in order to produce reliable and valid results (Sydow, 2006). Nonresponse was a challenging issue in this study similar to other tax compliance/non-compliance studies. A high nonresponse rate could result in bias in responses. Non-response bias occurs due to several reasons such as, respondents could not be contacted, time restraint, ethical issue or for some other unknown reasons (Sekaran & Bougie, 2010; Bryman & Bell, 2011). Due to this non-response, there could be a possibility that the opinions of those who did not respond to the survey might be different from those who responded. Bryman and Bell (2011) suggested that the findings should be generalised only to the respondents who participated in the study when there is a non-response bias.

In order to examine the existence of non-response bias in this study, the researcher followed the suggestion of (Armstrong & Overton, 1977, p.397), comparing postal

survey responses received from 25-30 early respondents to 25-30 late respondents using SPSS's *t-tests*. The mean of the responses from the early and the later respondents were compared to check whether the means between them are significant at 5 percent. If there was no significant difference between these two groups, then no bias was considered to have occurred in the sample. The independent *t-test* results show that non-response bias did not exist in this research.

4.4.3 Common method variance (bias)

There are many reasons why common method variance (CMV) can occur in behavioural type of research (Posdakoff et al., 2003). According to Richardson et al. (2009) common method variance (or bias) is 'systematic error variance shared among variables measured with and introduced as a function of the same method and/or source'. There is little consensus regarding the veracity and magnitude of its impact. Richardson et al. (2009) summarised three CMV perspectives: a) no CMV, noncongeneric and congeneric.

According to the no CMV perspective, CMV does not exist (or if it does, not as typically conceptualised) and, thus, it is unlikely to affect observed same-source, same-method relationships. As a proponent of this perspective, Spector (2006, p. 228) argues that 'CMV is an urban legend, and the time has come to retire the idea and the term'. Spector (2006) further notes that 'there are few scientific data to unequivocally support (the common view of CMV), and there are data to refute it'. Spector (1987) himself finds evidence of CMV in only 1 of 10 studies examined using multi-trait multi-method procedures. Despite evidences that CMV may not exist, the extent to which the research

community subscribes to the *No CMV Perspective* is unclear (Richardson et al., 2009, p.4).

The *Noncongeneric Perspective* is the notion that CMV likely exists in same-source and same-method data. That is, manifest items are contaminated to the same degree by single cause of CMV. The noncongeneric perspective assumes any CMV in a given data set is a function of a single method factor affecting all constructs nearly equally. According to this perspective, CMV a) exists and b) has equal effects. There are many studies that found evidence of CMV without examining whether it is noncongeneric such as Cote and Buckley (1987), Williams et al. (1980) and Posdakoff et al. (2003). For example, Posdakoff et al. (2003, p. 880) summarised a large number of studies examining the prevalence of CMV by stating, '… on average, the amount of variance accounted for when CMV was present was approximately 35% versus approximately 11% when it was not present'. As with the case with the *No CMV Perspective*, Richardson et al. (2009) concludes that it is difficult to determine the extent to which scholars subscribe to the *Noncongeneric Perspective.*

The *Congeneric Perspective* assumes that CMV exists, but method effects are not equal across all same-source, same-method measures in a data set. Rather, 'method effects are expected to vary based on the nature of the rater, item, construct, and/or context' (Richardson et al., 2009). There are three studies that support the congeneric perspective. Williams and Anderson (1994), Williams, Hartman, et al. (2003) and Rafferty and Griffin (2004) reported the evidence of unequal method effects. As with the case of noncongeneric CMV, research articles give little explicit attention to whether potential CMV is congeneric.

In general, the CMV arises as a result of using same source to obtain responses and effect caused by the measurement itself such as repeated scale format, ambiguity, intermixing items and constructs in the questionnaire and effect in the measurement as a result from where the context measures are obtained (Posdakoff et al., 2003). In the data obtained via self-reported survey, there is a possibility of CMV in the responses (Richardson et al., 2009) despite of proactive methods taken by the researcher. The researcher followed the suggestions of Posdakoff et al. (2003) in order to minimise the CMV by assuring anonymity, keeping questions simple, providing definitions for technical terms, counterbalancing the order of the questions and emphasizing that there are no right or wrong answers.

Richardson et al. (2009) and Chin et al. (2012) outlined a list of post hoc statistical methods to detect common method variance, with the most commonly used method being the Harmon's single factor test. Harmon's single factor test was performed using factor analysis in SPSS. The number of factors from the principal component factor analysis is determined based on fixed number of factors (factors to extract) with 1. In addition to Harmon's single factor test, the researcher performed partial correlation test as suggested by Posdakoff et al. (2003) in order to boost the detection of CMV.

4.4.4 Descriptive analysis

Descriptive analysis provides the basic characteristics of the data, using frequency, percentage, mean, median, minimum and maximum values for each item, standard deviation values, correlation and regression analysis. All of these values were derived from the SPSS software package version 22. The descriptive analysis presents

demographic details of respondents in this study. In addition, the *t-test* was used to compare means between two groups and cross-tabulation was employed to examine basic interaction between variables.

For the purpose of tabulation analysis, the respondents who indicated 'strongly disagree', 'disagree' and 'neutral' were grouped into the single category of 'disagree'. Similarly, the respondents who indicated 'agree' and 'strongly agree' were grouped into the single category of 'agree'. Frequency and percentage of respondents in these two categories were also provided for analytical purposes. There are other studies that have used similar re-categorisation (Lewis, 1978; Abdul-Jabbar & Pope, 2009; Isa & Pope, 2010).

The relationships between variables were tested using correlation analysis based on the Pearson correlation coefficient *(r)* and *p* values. All independent variables, namely attitudes towards evasion, personal financial condition, corruption, complexity, tax audits and compliance costs were tested against the dependent variables, namely judgements and decision. The relationships between two dependent variables were also analysed.

In order to predict the determinants for the tax evasion variables, multiple regression analyses were carried out for each dependent variable using SmartPLS software version 3.0. The R^2 is a value that can explain the success of the model predicted.

4.5 Qualitative Investigation

The main objective of the qualitative investigation is a) to complement the survey findings, and b) to explain the survey findings further. In a qualitative research, researchers agree that 'social reality is emergent, subjectively created, and objectified through human interaction' (Chua, 1986, p. 615). Ontologically, the qualitative research sees the data as meanings rather than measured hypothetical constructs (Easterby-Smith et al., 2002). Epistemologically, social events continuously evolve because of the different interpretations of human beings.

The role of the researcher is very vital because he/she is seen as part of the research process. Burrell and Morgan (1979, p.6) noted that 'one can only understand the social world by obtaining first-hand knowledge' on top of understanding the other participants' views. Generally, in the qualitative research, the researcher inquires, interprets and understands people's experiences (Easterby-Smith et al, 2002). The researcher is seen as a part of the research process and he/she explores the behaviour, feelings, and experiences of people (ibid). Thus, the researchers see things from an emic perspective or insider point of view: people's perceptions, meanings and interpretations (Flyvbjerg, 2006). Another characteristic of the qualitative research is that it is context based and the researcher must be context sensitive. Thus, it cannot be used to generalise (Chua, 1986) but may lead to generate new theories (Flyvbjerg, 2006).

According to Lincoln and Guba (1985) there are two types of interviews: structured (formal) and unstructured (informal). Saunders et al. (2007) suggested three types of interviews: structured, semi-structured and unstructured (in-depth) interviews. In a structured interview, a researcher prepares the questions prior to the interview and

participants are expected to provide answers according to the framework prepared by the researcher. Structured interviews use a questionnaire with standardised questions and answers determined *a priori* (Bryman & Bell, 2011). However, in an unstructured interview, the interview depends on the participant's answers during the interview to guide the direction of the interview.

The different types of interviews can be selected depending on types of studies the researcher is doing. According to Saunders et al. (2007), a structured interviews are more suitable for a descriptive or explanatory studies while a semi-structured interviews are more appropriate for exploratory and explanatory studies. The unstructured interviews are more suitable for exploratory studies (ibid.). The researcher needs to choose an appropriate type of interview to align it with the strategy, purposes and research questions (Fontana & Frey, 1994). In this study, the researcher used the semi-structured interviews and discussed them further in the next section.

4.5.1 Justification for using semi-structured interviews

In this study, the main purpose of the interviews was to complement the survey findings and to explain further the findings of the survey. For those reasons, a semi-structured interview was selected. A semi-structured interview is the most common interview type in a qualitative method due to its flexibility compared to structured interviews (Bryman & Bell, 2011). In addition to its flexibility, a semi-structured interview has the ability to disclose important aspects of human behaviour (Qu & Dumay, 2011). This is because a semi-structured interview could reveal answers for 'why' questions in addition to 'what' and 'how' (Saunders et al., 2007). For above reasons, the researcher chose the semi-

structured interview to explain further the variables that have been examined in the survey. Additionally, the semi-structured interview was chosen to discover any other factors that may influence SME owners' behaviours in tax compliance/non-compliance decision-making.

Interviews could be conducted in the form of focus groups or one to one (Saunders et al., 2007). One to one interview can be conducted as a face-to-face or telephone interview (ibid.). The researcher particularly chose to conduct face-to-face interview in this study in order to assure the interviewees, and also to witness the nonverbal reactions (body language) of the participants which could be important in interpreting the findings (Bryman & Bell, 2011). Since tax evasion is considered a sensitive issue, the researcher needs to be perceptive and respectful during the data collection process in order to encourage participants to provide honest answers. There is a good opportunity for the researcher to probe the unclear answers provided by the interviewees by helping them to talk about their views and experiences (Sekaran & Bougie, 2010). Missing data is less likely to occur in a face-to-face interview compared to telephone interviews where participants have the opportunity to disconnect the phone to terminate the interview (Loosveldt, 2008).

4.5.2 Sample selection and size

Sample selection in a qualitative research is different from a quantitative approach. While the qualitative approach tries to obtain rich and in-depth information, the quantitative approach concerns about generalisation in understanding social phenomena that were discussed in Section 4.2.1. To understand the factors that are

affecting the SME owners' tax evasion behaviour in Uzbekistan, the researcher chose SME taxpayer who had a minimum of 5 years' experience as a taxpayer. For this reason, the interview participants were identified from the survey response in the quantitative phase of the study. This type of sampling is known as 'purposeful sampling' (Creswell & Plano Clark, 2011) or self-selection sampling (Saunders et al., 2007) because the researcher allows participants 'to identify their desire to take part in the research'. In this study, the sampling procedure for the interview was based on self-selection sampling. Hence, the sample size relied on the willingness of the respondents to participate in the interviews.

There is a difference of opinions regarding the sample size in qualitative inquiry. Patton (2002, p.184) argues that there is no specific guideline to determine sample size in qualitative studies. Michael Patton argues that:

> '*There are no rules for sample size in qualitative inquiry. Sample size depends on what you want to know, the purpose of the inquiry, what's at stake, what will be useful, what will have credibility, and what can be done with available time and resources.'*

On the other hand, some suggested the minimum sample size in qualitative inquiry. Guest et al. (2006) argues that the minimum sample size for an interview is 12 participants. If the sample is highly homogenous, a sample of 6 interviews would be enough to enable a meaningful theme to appear (ibid.). Collins et al. (2007) provided a summary on the recommended minimum number of sample size for the most common qualitative studies (see Table 8).

Table 8 Recommended sample size

Research Design	Suggested minimum sample size
Case study	3-5 participants (Creswell, 2009)
Phenomenological	10 interviews (Creswell, 1998), 6 interviews (Morse, 1994)
Grounded theory	15-20 participants (Creswell, 2009)

The size of the interview participants came from those survey respondents who agreed to be interviewed, and it was 15. However, only 10 participants were chosen to be interviewed. The remaining 5 had less than 5 years of experience as taxpayers.

4.5.3 Interview Instrument Development

In order to assist the researcher during the interview process, the researcher developed an interview instrument for the semi-structured interview sessions. The list of questions was based on several themes relevant to the study. These themes were related to tax evasion, compliance costs, tax audits, corruption, complexity of tax laws and personal financial condition. Even though the themes were determined based on the literature reviews, the researcher allowed the freedom to interview participants to come up with other themes due to flexibility of semi-structured interviews. While above factors have been examined in the survey, the viewpoints of SME owners' further help to understand the influence of these factors on the SME owners' tax evasion behaviour.

The lack of reliability in findings in semi-structured interviews could be a disadvantage due to the lack of standardisation (Saunders et al., 2007). The use of an interview instrument could be helpful in reducing the reliability issues since the interview instrument helps the researcher to ensure that the interviews are more systematic and focused on within a subject area (Patton, 1990). The use of the interview instrument

guide also helps the researcher to carefully manage the limited time and resources (ibid.). In developing the interview instrument guide, the researcher also obtained suggestions from accounting academics who are experts in qualitative research and pilot tested it to ensure the reliability of the interview questions and procedures. The copy of the interview instrument guide is presented in Appendix **C** of this thesis.

4.5.4 Data collection procedures

As stated earlier, the potential interview participants were asked to provide their contact numbers if they agreed to be interviewed. The researcher made telephone calls requesting the SME owners to confirm the participation date and time. Since the SME owners are busy with their businesses, this approach allows the interview participants to determine their own availability since participating in an interview is time consuming (Saunders et al., 2007). Dates, time and venues for all 10 participants were set according to their availabilities. Before the start of the interviews, the researcher briefly explained the objective of the study, interview process, confidentiality, and asked for their consent to record the interview (See Appendix C). They were aware of their rights to withdraw at any time during the interview without any reason. Recording was crucial and this allowed the researcher to concentrate on the questions during the interview and relevant information could be easily accessed after the interview (Bryman & Bell, 2011). This process may increase the validity of data gathering as compared to relying solely on note taking (Saunders et al., 2007).

The interviews were conducted in Uzbek language due to two reasons. The main reason was to allow the participants to feel comfortable and confident in expressing their views

and the other reason was majority of the people in Uzbekistan do not speak English language. The interview instrument guide was used as a guide to ensure that all required questions were answered by the participants. The duration of each interview session was about 40 to 45 minutes. The interviews were conducted between September 2014 and February 2015.

4.5.5 Data analysis

In order to analyse qualitative data, researchers suggested a few approaches. Saunders et al. (2007) divided qualitative data analysis into two approaches: deductive and inductive. The deductive approach starts with designing the questions according to a predetermined theory and the theme for the interview emerges from the interview questions. On the contrary, in an inductive approach, the researcher collects the data, analyses it and examines which themes he/she will be focused on further. In this approach, theory emerges from the data collection process (ibid.).

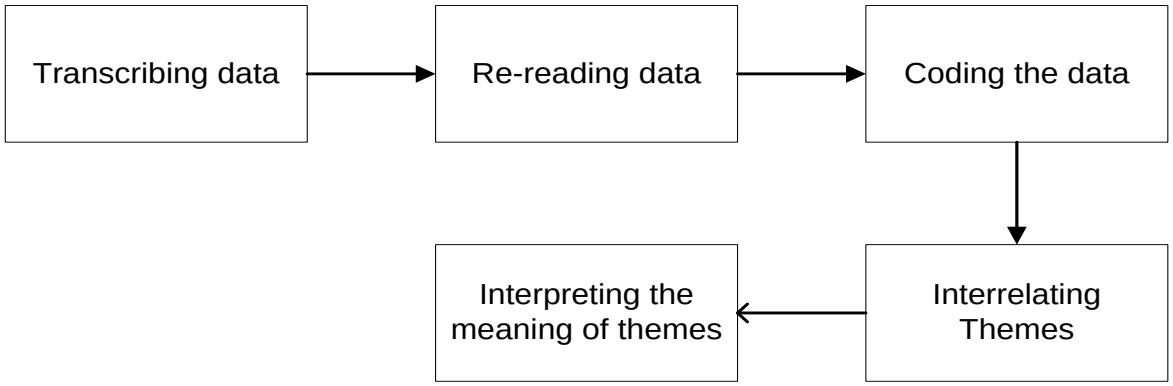
Another approach to analyse qualitative data is by using thematic analysis, suggested by Braun and Clarke (2006). Thematic analysis is a method to identify, analyse, and report the pattern data according to Braun and Clarke (2006, p.79). Despite the argument that thematic analysis is perceived as accepting any themes emerge from the data, it is 'still considered to be essential due to its flexibility, ease to apply, ability to capture similarities and differences across the data set, and ability to generate unanticipated insights' (Braun & Clarke, 2006). The six phases of thematic analysis are shown in Table 9.

Table 9 Thematic analysis (Braun and Clarke, 2006, p.247)

Phases	**Process**
1. Familiarising with the data	Transcribing the data (if necessary)
2. Generating initial codes	Coding systematically interesting features of the data
3. Searching for themes	Collating codes into potential themes
4. Reviewing themes	Checking if the themes represent the data at level 1 and level2
5. Defining and naming themes	Refine the specific themes, the overall account of the data, generating clear definitions and names for each theme
6. Producing the report	Relating back the analysis with the research questions and the literature, producing report.

The qualitative data analysis procedures and steps were adapted based on recommendations of Braun and Clarke (2006) and Creswell (2009). Essentially, there were 5 main steps involved in analysing the interview data for the study. First, the recorded interviews were fully transcribed by the researcher in a text form. The first step is to transcribe the interview recordings because it reflects how the researcher interprets the data (Bailey, 2008). The second step was the process of reading a complete text data and re-read to get the broad idea of the information. The third step involved the process of coding the data (Braun & Clarke, 2006). According to Creswell (2009), this is the core of qualitative analysis. The phrases, sentences or paragraphs were grouped into codes, and codes were grouped into broader themes. In the fourth step of qualitative analysis, the researcher generated the descriptions of the participants based on their particulars. This was important to relate to the identified themes in establishing relationships. Finally, the findings were discussed and the interpretation of data was made based on findings.

Figure 15 Data Analysis Process in Qualitative Research (based on Braun and Clarke (2006) and Creswell (2009))



4.5.6 Reliability and validity of interview findings.

Reliability and validity in qualitative methods have different concepts compared to validity and reliability in quantitative methods. Patton (2002) stated that validity and reliability were two factors in qualitative research and any researcher should be concerned about while designing a study, analysing results and judging the quality of the study. Following the suggestions by Braun and Clarke (2006), Saunders et al. (2007) and (Creswell, 2009), to increase the reliability of the interview findings, the researcher transcribed the interview recording by repeatedly checking the transcript, and cross-checking the transcript against the recording to confirm the accuracy of the information given by every participant.

The concept of validity in qualitative research is described by a wide range of terms. Some qualitative researchers have argued that the term validity is not applicable to qualitative research (Stenbacka, 2001), while others argued for it (Lincoln & Guba, 1985). According to Creswell and Miller (2000), validity is defined as how accurate and reliable the data represent the realities of the interview participants in understanding the social phenomena. To check the validity in a qualitative study, qualitative

researchers routinely employ member checking, triangulation, thick description, peer reviews and external audits (ibid.). One common method to determine the validity is to use the member checking procedure (Lincoln & Guba, 1985; Creswell & Miller, 2000; Creswell, 2009). Lincoln and Guba (1985, p.314) describe member checking as 'the most crucial technique for establishing credibility in a study. The member checking consists of taking data and interpretations back to the participants in the study so that they confirm the credibility of the information and narrative account (Creswell & Miller, 2000). Throughout the interview process, the researcher asked participants if themes and the overall information were accurate (ibid.). In this study, all participants checked the interview transcripts and the themes and they all confirmed with the themes.

4.6 Ethical consideration

Considering that this study involves human participation and sensitive issues on tax evasion behaviour of SME owners in Uzbekistan, the researcher applied for an ethical clearance from the Hull University Business School (HUBS) Research Ethics Committee before collecting data for the study. This ensures that the research was conducted according to the established guidelines in order to maintain public confidence in the university's integrity as well as to protect the rights of participants. The cover letter attached to the questionnaire was distributed to each participant explaining the research overview, potential benefits and risks, confidentiality, anonymity and rights of research participants. Participants were informed that their participation was voluntary and that they could withdraw at any time without any reason. Moreover, permission was taken from interview participants to use audiotape during the semi-structured

interviews. A copy of the ethics approval letter from the HUBS Research Ethics Committee is presented in Appendix **A**.

4.7 Methodology limitation

It is well acknowledged that this approach has a number of limitations. First, the use of postal and drop-off surveys might cause some groups of taxpayers to be eliminated from the sample frame, thus increasing sampling error and threat to validity. However, these concerns were balanced by using the systematic random sampling method.

Secondly, the use of a postal and drop-off surveys may create non-response bias, misunderstanding of questions and variables measured. This refers to a situation in which people who do not return a questionnaire have opinions that are systematically different from the opinions of those who do return their questionnaire. In order to overcome this problem, the researcher followed the suggestion of (Armstrong & Overton, 1977, p.397), comparing postal survey responses received from 30 early respondents to 30 late respondents using SPSS's *t-tests*.

Thirdly, since the data were obtained via self-reported survey, there was a possibility of common method bias in the responses. In order to combat the common method bias, the researcher asked the respondents whether they received postal survey beforehand while doing drop-off method. If the respondents received the postal questionnaire then the researcher did not give them the questionnaire in drop-off method.

Fourthly, some of the tax evasion variables, such as attitudes, financial difficulty and judgement, were measured using hypothetical scenarios. As tax evasion is a sensitive issue, respondents may not feel comfortable answering the questions without any control or direct contact. The actual behaviour of the respondents may vary from the responses given. Acknowledging this constrain; however, it is believed this is the most suitable way to predict SME taxpayers' tax evasion behaviour, as direct questions might lead respondents to answer the questions dishonestly.

4.8 Chapter Summary

This chapter started with the discussions of the research paradigm, followed by the research designs. The motivation for using mixed methods approach was presented and the reasons were given in detail before moving to the discussions on the quantitative and qualitative methods used in the study.

The discussions and justifications on the mixed-mode survey methods, namely postal survey and drop-off survey, were presented. Sample selection, sample size, pilot study, survey distribution and collection procedures were also presented in this chapter. The survey questionnaire design section discussed the construct development and their measurements, reflective and formative constructs before presenting the full nature of questionnaire. The researcher also explained the procedures for data preparation and pre-analysis processes. The non-response bias, common method bias and descriptive analysis were presented in that section before moving to qualitative methods.

The discussions on the qualitative approach (semi-structured interviews) were also presented in this section. The sample selection and size were presented for the semi-structured interviews. The development of interview instrument and procedures to collect data were presented by the researcher. The data analysis process for the interview data and reliability and validity of interview findings were discussed before the methodological limitations. The next Chapter 5 discusses the preliminary analyses and results for the survey data.

CHAPTER FIVE

RESULTS OF QUANTITATIVE STUDY I: PRELIMINARY ANALYSIS AND RESULTS

5.0 Chapter overview

This chapter discusses the introduction to Structural Equation Modelling (SEM) and justification for using Partial Least Squares (PLS). Additionally, in this chapter, the results of preliminary and descriptive analysis of the quantitative study are presented. The chapter is divided into three main parts: the introduction to SEM is presented first and the preliminary analysis is presented before the descriptive analysis. In the preliminary analysis, the discussions focus on the data assessment process, response rate, demographic background of survey respondents, non-response bias and common method bias analysis. In the descriptive analysis, the explanations centre on *t-test* analysis before giving summary of this chapter.

5.1 Introduction to SEM

The use of Structural Equation Modelling (SEM) has gained considerable support over the past decades in social and behavioural science studies and is considered as one of the most important statistical developments in social sciences in recent years (Reinartz et al., 2009; Hair et al., 2014). One of the reasons is that SEM is a powerful technique that can combine complex path models with latent constructs. In another word, SEM undertakes a multivariate analysis of multi-causal relationships among different,

independent phenomena grounded in reality. This technique enables researchers to assess and interpret complex interrelated dependence relationships as well as to include the measurement error on the structural coefficients (Hair et al., 2012). A SEM model consists of two interrelated models, the outer (measurement) model, and inner (structural) model (Urbach & Ahlemann, 2010b). According to Hair et al. (2012), the ability of SEM to assess latent variables (factors) at the observation level (outer or measurement level) and test relationships between latent variables on the theoretical level (inner or structural model) has made it popular choice among researchers. The inner or structural model examines the relationships between independent variables, also known as exogenous variables in SEM, and dependent variables, also known as endogenous variables. These interrelationships depict all of the causality among constructs, the exogenous as well as endogenous variables, which are used in the analysis (Hair et al., 2012). In the same analysis, SEM also evaluates the measurement model. This combined analysis enables measurement errors of the observed variables to be analysed as an integral part of the model, which makes the estimates provided by SEM better than those produced by linear regression models (Reinartz et al., 2009).

When applying SEM, researchers can choose between two types of methods: covariance-based techniques (CB-SEM) and variance-based partial least squares (PLS-SEM) (Hair et al., 2012). Each approach has different assumptions and aims. Both methods are explained in the following subsections.

5.1.1 Covariance-based and PLS SEM

As noted in the earlier sections, Covariance-based SEM (CB-SEM) and PLS analysis are essentially two different methods to solve the same problem. Both of them start with the same set of theoretical and measurement equations but differ in how they approach the parameter estimation problem. The CB-SEM approach aims at reproducing the theoretical covariance matrix, without focusing on explained variance. CB-SEM is normally associated with the software employed to perform the analysis such as LISREL or AMOS (Hair et al., 2012). The roots of the CB-SEM methodology lie in Joreskog's (1969) seminal work on maximum likelihood factor analysis and its later extensions to the estimation of structural equation systems. The CB-SEM focuses on estimating a set of model parameters so that the theoretical covariance matrix implied by the system of structural equations is as close as possible to the empirical covariance matrix, observed within the estimation sample. Therefore, CB-SEM is parameter oriented and aims to show that the null hypothesis is insignificant (Hair et al., 2012). The CB-SEM requires a set of assumptions to be fulfilled, such as the normal distribution of observed variables and sufficient sample size, usually more than 250. Inadequate sample size may result in over rejecting models (Hair et al., 2014). If these assumptions are violated then variance based SEM (PLS) appear to be preferable option for researchers (Reinartz et al., 2009). Moreover, CB-SEM only caters for reflective measures and applicable for formative outer model specifications only under certain conditions (Hair et al., 2014).

PLS-SEM, which was introduced by Wold (1985), aims at maximising the explained variance of the dependent construct (Henseler et al., 2009). It extends the principal component and canonical correlation analysis (Henseler et al., 2009). PLS path modelling is based on some theoretical foundations described by Wold as 'data-rich but theory-

primitive' (Wold, 1985). However, its goal is to predict the behaviour of relationships among constructs and to explore the underlying theoretical concept. PLS-SEM is based on application of least squares using the PLS algorithm with regression-based methods and tend to maximise explained variance (Hair et al., 2012). For this reason, PLS is based on theory, but is data driven to predict and provide knowledge and new theoretical rationale about the researched phenomenon. PLS-SEM, unlike CBSEM, has less strict demands regarding sample size and does not need normal distribution of observed variables (Reinartz et al., 2009). Thus, PLS-SEM is suitable for applications where strong assumptions cannot be fully met and is often referred to as a distribution-free 'soft modelling approach' (Hair et al., 2012). In addition, PLS-SEM supports both exploratory and confirmatory based researches (Chin, 2010) and works well even with a small number of samples (Hair et al., 2012) and with several indicators (Henseler et al., 2009). While CB-SEM does not allow measures to be developed formatively, PLS analysis can unrestrictedly handle both reflective and formative measures (Chin, 1998). The summary of CB-SEM and PLS are summarised in Table 10.

Table 10 CBSEM and PLS differences (Source: adopted from (Davcik, 2014).

TOPIC		COVARIANCE (CBSEM)	VARIANCE (PLS)
Theory	Theory background	Strictly theory driven	Based on theory, but data driven
	Relation to theory	Confirmatory	Predictive
	Research orientation	Parameter	Prediction
Model specification	Type of the latent measures	Reflective (and formative, if identified by reflective)	Reflective and/or formative
	Latent variables	Factors	Components
	Model parameters	Factor means	Component weights
	Latent variable score	Indeterminate	determinate
	Reliability measures	Cronbach's α (and/or Guttman's λ and GLB)	a) Cohen's f^2 b) ρ_c indicator or Cronbach's α, Guttman's λ and GLB (for the reflective models only)
	Input data	Covariance/correlation matrix	Individual-level raw data
Sample	Sample size	Minimal recommendations range from 200 to 800	Minimal recommendations range from 30 to 100 cases
	Data distribution	Identical (normal) distribution	Normal distribution is not assumed
Goodness-of fit	Model fit	a) overall (absolute) fit measures b) comparative fit measures c) model parsimony	a) Model predictiveness (coefficient of determination, Q^2 predictive relevance and average variance extracted – AVE) b) Stability of estimates, applying the resampling procedures (jack-knifing and bootstrapping)
	Residual co/variance	Residual covariances are minimised for optimal parameter fit	Residual variances are minimised to obtain optimal prediction
	Software	LISREL, AMOS, etc.	SmartPLS, SPSS (PLS module), etc.

5.1.2 Justification for using PLS

The previous subsection (5.1.1) discussions provide some basis to justify the use of PLS in this study. First, due to the nature of this study, which is to predict the tax evasion behaviour of SME owners, PLS is more appropriate to use because it is prediction oriented software. Second, constructs and measures were developed in both formative and reflective ways based on Ethical Process Thinking Model. While PLS can cater for

both formative and reflective measures, CB-SEM only works with formative measures. Third, the small number of sample size due to its sensitivity nature is allowed as in previous tax compliance and evasion studies indicate. Of note, PLS can work with small and moderate number of samples whereas CB-SEM only works when sample size is at least 200. Fourth, due to the nature of this study, it is difficult to get normally distributed data. While CB-SEM only work with normally distributed data, PLS can work with data that has no normal distribution. For these reasons, it is more appropriate to use PLS rather than CB-SEM. The study used SmartPLS 3.0 software to perform the PLS analysis for the quantitative part of the study.

5.1.3 Assessing PLS-SEM Measurement model

This section discusses the measurement model that evaluates the association between measures and latent constructs. Determination of the validity and reliability of measures in each construct is performed before testing the relationships of constructs at the structural level. The measurement model could consist of either formative indicators or reflective indicators exclusively, or combine both indicators into one, depending on the observed construct (Fornell & Larcker, 1981; Henseler et al., 2009). Depending on which measures are being used in the measurement model, the validity and reliability of the measurement model is determined differently. For example, a reflective construct incorporates measurement error in each measure or indicator of the measurement model, whereas a formative construct consists of independent measures which form the construct, and therefore measurement error is only be accounted for at the latent construct level (Haenlein & Kaplan, 2004).

5.1.3.1 Construct reliability

Construct reliability is a consistency test of the indicators which directly assess the level of measurement error (Noar, 2003). A reflective indicator is tested by observing indicator variances (covariance) and factor analysis (Jarvis et al., 2003). In a reflective construct, the reliability is determined at the individual level and the construct level (ibid.). The reliability in the individual level is assessed based on its factor loadings while internal consistency of the construct can be observed using composite reliability rather than Cronbach's alpha (Henseler et al., 2009; Peterson & Kim, 2013; Hair et al., 2014).

As mentioned earlier, the reliability of individual indicators is measured based on factor loadings. There is no absolute threshold for factor loadings in the PLS model. Some scholars suggest a cut-off loadings of 0.50 (Hair et al., 2010a), while others suggest 0.70 for the level of acceptability (Kock, 2013) (see Table 11). However, loadings of 0.40 are acceptable in a study that has newly developed measures (Hair et al., 2012). Factor loadings lower than 0.40 should be eliminated according to Hair et al. (2012). According to Henseler et al. (2009), eliminating a reflective indicator from the model should only be done if the loadings are low. Removing the reflective indicator increases the overall internal consistency of the construct. While a single-item measure is allowed in PLS, the caution needs to be given since the use of single indicator may have tendency to overestimate the measurement model and underestimate the structural model (Ringle et al., 2012).

Table 11 Construct reliability thresholds

Assessment	Indicators	Acceptable value	Studies
Reliability	Cronbach's Alpha (Composite Reliability)	Above 0.70	Nunnally (1978) Nunnally and Bernstein (1994) Hair et al. (2010a) Urbach and Ahlemann (2010a)
		Above 0.60	Lyberg et al. (1997)
Item reliability	Item loadings (individual)	Above 0.70	Kock (2013)
		Above 0.50	Nunnally (1978) Hair et al. (2010a)
		Above 0.40	Gorsuch (1974) (Hair et al., 2012)
		Less than 0.40 (eliminated from the model)	Homburg (1995) Krasnova et al. (2008)

The composite reliability measure checks how well a construct is measured by its assigned indicators and it is interpreted similar to Cronbach's alpha (Hair et al., 2012). However, the Cronbach 'alpha underestimates the true reliability of a measure' (Osburn, 2000, p.344). Because of this reason, numerous alternative estimators of true reliability have been preferred, such as *stratified alpha coefficient* (Cronbach, Schonemann, and McKie, 1965), Raju coefficient, Feldt coefficient, standardised alpha coefficient, beta coefficient (Revelle and Zinbarg, 2009) and others (Peterson & Kim, 2013). Moreover, in the Cronbach alpha, the loadings or weights for alpha coefficient are constrained to be equal. In contrary, in the composite reliability, the construct loadings or weights are allowed to vary. For this reason, structural equation modelling has the ability to

empirically assess and overcome some of the limiting assumptions of alpha coefficient (Peterson & Kim, 2013). Consequently, the composite reliability is favoured in explaining the construct reliability in PLS (Chin, 2010).

The composite reliability formula in the PLS is:

$$CR = \frac{(\sum \lambda_i)^2}{(\sum \lambda_i)^2 + (\sum \epsilon_i)}$$

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Where, λ (lambda) is the standardized factor loading for item *i* and ε is the respective error variance for item *i*. The error variance (ε) is estimated based on the value of the standardized loading (λ) as:

$$\epsilon_i = 1 - \lambda_i^2$$

The Composite reliability generally interpreted in the same way as Cronbach's alpha. The composite reliability value varies between 0 and 1, with higher values indicating higher levels of reliability. Fornell and Larcker (1981) suggested that a higher composite value which is above 0.70 for a construct to be included in the model. However, Henseler et al. (2009) and Hair et al. (2012) argue that a composite values of 0.60 to 0.70 are acceptable in exploratory research, while in more advanced stages of research, values between 0.70 and 0.90 can be regarded as satisfactory. Composite reliability values below 0.60 portray a lack of internal consistency reliability. Finally, the values above 0.90 (and definitely above 0.95) are not desirable because they indicate that all the indicator

[16] (Hair et al., 2014)

variables are measuring the same phenomenon and therefore not likely to be valid measure of the construct (Hair et al., 2014).

The reliability in formative measures is not important due to the formative measures being considered as multidimensional.

5.1.3.2 Construct validity

Another type of validity evidence is construct validity. Construct validity assesses how well the test measures the construct that it supposed to measure (Hair et al., 2014). One method of establishing this type of validity evidence is through confirmatory factor analysis (CFA) in smartPLS. Convergent validity and discriminant validity are either considered subcategories or subtypes of construct validity. The convergent validity examines whether the measures of constructs that should be related, are related (Henseler et al., 2015) and can be observed using the average variance extracted (AVE) of the construct. AVE is defined as amount of variance that a construct explains in its indicator variables relative to the overall variance of its indicators (Fornell & Larcker, 1981). The AVE formula is:

$$AVE = \frac{\Sigma \lambda^2}{\Sigma \lambda^2 + \Sigma \operatorname{var}(\varepsilon i)}$$

Where, λ_i is a factor loading for item *i* and ε is the respective error variance for item *i*. The error variance (ε) is estimated based on the value of the standardized loading (λ) as:

$$\epsilon_i = 1 - \lambda_i^2$$

The value of AVE should be at least 0.50 or higher to fulfil the criterion (more than half of the variance of a construct's measures) (Fornell & Larcker, 1981; Hair et al., 2014; Henseler et al., 2015).

The discriminant validity test assesses whether or not a construct's variance is represented by its indicators. In another words, discriminant validity ensures that a construct measure empirically represents phenomena of interest that other measures in a structural equation model do not capture (Hair et al., 2010b). In PLS studies examination of Fornell-Larcker criterion, cross-loadings and the Heterotrait-monotrait ratio of correlations (HTMT) have been used to determine the discriminant validity (Hair et al., 2014; Henseler et al., 2015).

The Fornell-Larcker criterion test was developed by Fornell and Larcker (1981) and it says that a factor's AVE should be higher than its squared correlations with all other factors in the model to achieve discriminant validity. This is to indicate that a construct shares more variance with any other construct. Recent research suggests that the Fornell-Larcker criterion is not effective under certain circumstances (Henseler et al., 2015), pointing to a potential weakness in the most commonly used discriminant validity criterion. However, these studies do not provide any systematic assessment of the Fornell-Larcker criterion's efficacy regarding testing discriminant validity.

Another popular approach to establish discriminant validity is the assessment of cross-loadings, which is also called 'item-level discriminant validity' (Henseler et al., 2015). According to Gefen and Straub (2005, p.95), 'discriminant validity is shown when each measurement item correlates weakly with all other constructs except for the one to

which it is theoretically associated'. In other words, item-level discriminant validity suggests that the indicator loading for each measure should be higher compared to all its cross-loadings (Götz et al., 2010). While the commonly accepted level for item loadings is 0.70 (ibid.), Hair et al. (2010a) and Chin (2010) accept a cut-off value of 0.50. Hair et al. (2012) suggested that loadings of 0.40 are acceptable in studies involving newly developed measures.

An alternative criterion for assessing discriminant validity is Heterotrait-monotrait ratio of correlations (HTMT) which was suggested by Henseler et al. (2015). Henseler, Ringle and Sarstedt (2015) demonstrated this approach had superior performance via Monte Carlo simulation study, in which they compared the new approach to the Fornell-Larcker criterion and the assessment of (partial) cross-loadings. The HTMT derives from the classical multitrait-multimethod (MTMM) matrix (Campbell and Fiske, 1959). The HTMT approach is an estimate of the correlation between the constructs ξi and ξj (see at Henseler et al. (2015)). The two advantages of the HTMT are a) the HTMT does not require a factor analysis to obtain factor loadings, and b) it does not require the calculation of construct scores (Henseler et al., 2015). The HTMT value smaller than 1 show the true correlation between the two constructs should they differ. If the value is higher than 1, then there is a lack of discriminant validity. However, some authors suggest a threshold of 0.90 (Henseler et al., 2015), while others suggest a threshold of 0.85 (Kline, 2011).

In order to test the validity of formative constructs in PLS analysis, the weights and the significance of the formative indicators are observed. This procedure is done through bootstrapping (Henseler et al., 2009). Based on *t-statistics* and *p-values*, decision will be

made whether to drop a measure or retain them from the model. The decision to drop a formative measure has to take into account its contribution to the construct, since dropping a measure could possible change the meaning of the construct (ibid.). If multicollinearity exists, then the elimination of the measure is recommended from the model (Götz et al., 2010).

In PLS, the level of multicollinearity among the formative indicators could be examined by calculating the variance inflation factor (VIF), the condition index for each indicator and the tolerance value (Hair et al., 2014). The lower VIF value suggests less multicollinearity among indicators. Some scholars suggest a cut-off value of VIF should not exceed 3.3 (Diamantopoulos & Siguaw, 2006), 5.0 (Hair et al., 2012) and 10 (Hair et al., 2010a). The tolerance value of 20 and lower indicate the possibility of multicollinearity (Hair et al., 2014).

5.1.4 Assessing PLS-SEM structural model

Once the measurement model has confirmed that the construct measures are reliable and valid, the next step is to assess the structural model. This involves examining the model's predictive capabilities and the relationships between constructs. The evaluation of the structural model in PLS could be performed based on coefficient of determination (*R-squares*), effect size (f^2) and path coefficients after the measurement model has been analysed.

5.1.4.1 Coefficient of determination (R-square value)

The most commonly used measure to evaluate the structural model is the **coefficient of determination** (R-square value). The R-square value is a measure of the model's predictive accuracy and is calculated as the squared correlation between a specific endogenous construct's actual and predictive values (Hair et al., 2014). The R-square value represents the exogenous latent variable's combined efforts on the endogenous latent variable. Because of its squared correlation of actual and predictive values, it also represents the amount of variance in the endogenous constructs explained by all of the exogenous constructs linked to it. The R-square value ranges from 0 to 1 and closer to 1 indicates higher level of predictive accuracy (ibid.). There is no threshold level for acceptable R-square value as it depends on the model complexity and the research discipline (Götz et al., 2010). For example, R-square values of 0.20 are considered high in disciplines such as consumer behaviour studies compared to studies that aim at explaining customer satisfaction of 0.75. The rough rule of thumb is that R-square values of 0.75. 0.50 and 0.25 are described as substantial, moderate and weak respectively (Henseler et al., 2009; Hair et al., 2014).

5.1.4.2 Effect size (f^2)

In addition to the R-square values, it is also useful to examine the impact of exogenous constructs on the endogenous constructs. The change in R-square value when a specified exogenous construct is omitted from the model can be used to evaluate whether omitted exogenous construct has a substantive impact on the endogenous constructs. This impact is known as the effect size, signified by f^2. The effect size can be calculated as

$$f^2 = \frac{R^2included - R^2exluded}{1 - R^2\text{included}}$$

where $R^2_{included}$ and $R^2_{excluded}$ are the R^2 values of the endogenous latent variable when a selected exogenous latent variable is included in or excluded from the model. The effect size is calculated by performing calculation twice, first time with the exogenous latent variable included (yielding $R^2_{included}$) and second time with the exogenous latent variable excluded (yielding $R^2_{exluded}$). Guidelines for assessing the effect size is similar to Cohen's (1988) f^2 values of 0.02, 0.15, and 035 representing small, medium, and large effects of the exogenous latent variable respectively (Hair et al., 2014).

5.1.4.3 Path coefficients and bootstrapping

The path coefficient estimates path relationships for the structural model (i.e., between the latent variables in the model) (Hair et al., 2014). They are similar to standardised betas in regression analysis. In order to assess the significance of the path coefficients, Hair et al. (2014) suggesst using bootstrapping to obtain *t* and *p values*. According to Urbach and Ahlemann (2010), the strength of the relationship should be at least 0.10 and the level of significance should be at least 0.50 but there are no strict guidelines regarding these. PLS does not require normal data distribution and it relies on non-parametric resampling technique in its evaluation. Bootstrapping technique generates *t values* and confidence intervals. In bootstrapping, a large number of subsamples (i.e., bootstrap samples) are drawn from the original dataset before the next observation is drawn. Each bootstrap samples contain the same number of cases as in the original dataset. As a rule, 5000 bootstrap samples are recommended (Hair et al., 2014). This study follow the suggestion of Hair et al. (2014) and use 5000 bootstrapping samples.

5.2 Preliminary Analysis

The preliminary analysis involved several analyses, namely, a data assessment process, response rate, demographic background, nonresponse bias and common method bias analysis.

5.2.1 Data Assessment Process

Once the data from SME taxpayers were collected, data from the questionnaire survey had to be keyed in, coded, examined for any missing data, checked for any outliers, as well as tested whether or not the data fulfil the statistical assumptions of the statistical test being used to analyse the data (Sekaran & Bougie, 2010). The data collected from the questionnaire survey were keyed and coded into SPSS software. Missing data is considered as a common problem in research (ibid.) and a check on data revealed that survey data has less than 10 percent for each variable, thus remedial action was unnecessary (Hair et al., 2012). The normality of the data was not needed for this study due to using PLS analsyis software as discussed in Section 5.1.2. Therefore, there were no need for skewness and kurtosis analyses.

5.2.2 Response rate

In any survey studies, the survey response rate is important for the generalisation of the findings to the whole population (Sekaran & Bougie, 2010; Bryman & Bell, 2011). In order to generalise the survey findings, a high response rate is required since a low response rate suggests that the findings need to be generalised with great caution (Bryman & Bell, 2011). In total, 550 postal mail survey questionnaires were posted in December 2014 and data collection was made between April 2015 and September 2015.

140 questionnaires were collected out of 550 distributed forms. The response rate was 25.45% and this is acceptable in tax compliance and evasion research studies. During the analysis, 88 questionnaire forms were accepted for analysis and 52 forms were omitted due to missing data or different answers to similar type of questions. These types of tricky questions were introduced during the pilot study in order to reduce the box ticking process and increase the reliability of the survey method. Moreover, in addition to the mail survey, the drop off survey was conducted on Sundays, which were market days, and the researcher distributed 50 questionnaire surveys to different SME owners after getting the confirmation from them that they had not received prior postal surveys. Out of dropped 50 only 15 questionnaires were received back with only 10 accepted for analysis due to their missing data. The response rate from the drop off was 30 per cent. There could be many reasons for not getting higher response rates. Many of the SME owners indicated to the researcher that they were busy during the market hours and did not find enough time to fill the questionnaires. Some of them indicated their reluctance to participate after they received the survey questionnaire. The total response rate is 16.33 per cent for postal and drop-off surveys (see Table 12). The response rate for the postal and drop-off survey was determined by calculating the ratio of number of responses received to total surveys sent. Furthermore, 10 interviews conducted based on the questionnaire and added to the data set.

Table 12 Postal and drop-off survey response rate

Particulars	Quantity
Number of postal surveys Received Omitted	550 140 52
Number of drop-off surveys Received Omitted	50 15 5
Total available to use	**98**
Total response rate %	**16.33**

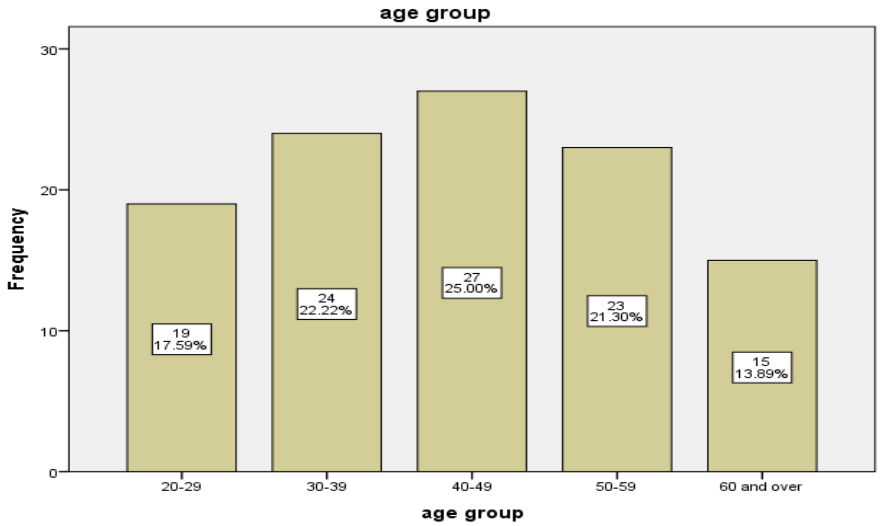
5.2.3 Demographic background

This section describes respondent's demographic information such as age group, gender, marital status, educational level and types of firms.

5.2.3.1 Age

Figure 16 represents the age group statistics. There were five age groups involved in this study with a 10-year range in each group except for '60 and over' category. The largest group of the respondents were aged between 40 and 49 years old with 25 per cent of the survey population. The respondents in the group '60 and over' was the lowest number with 15 responses (13.89%).

Figure 16 Age group



5.2.3.2 Gender

The Table 13 shows that the majority of the survey respondents were males with 59 (54.6 per cent) compared to 49 females (45.4 per cent) SME owners in this study sample. However, according to the Business registry data more small and medium sized businesses were registered to females.

Table 13 Gender

gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	male	59	54.6	54.6	54.6
	female	49	45.4	45.4	100.0
	Total	108	100.0	100.0	

According to the Table 14, males dominate in every age group except ’30-39’ age group in this study sample.

Table 14 Age and gender cross tabulation

age group * gender Crosstabulation

Count

		gender		
		male	female	Total
age group	20-29	14a	5a	19
	30-39	9a	15a	24
	40-49	16a	11a	27
	50-59	12a	11a	23
	60 and over	8a	7a	15
Total		59	49	108

Each subscript letter denotes a subset of gender categories whose column proportions do not differ significantly from each other at the .05 level.

5.2.3.3 Marital Status

Table 15 shows the marital status of the respondents. Majority of the respondents (77 percent) were married at the time of the survey while the share of single and divorced/separated category has 12 and 11 percent respectively.

Table 15 Marital Status

marital status

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	single	13	12.0	12.0	12.0
	married	83	76.9	76.9	88.9
	divorced/separated	12	11.1	11.1	100.0
	Total	108	100.0	100.0	

5.2.3.4 Education

Table 16 shows the education level of SME owners. Majority of the SME owners had good academic qualifications. Interestingly, higher educated people owned small businesses compared to college and secondary school graduates, while college

graduates owned more micro-sized firms compared to others. Majority of the survey respondents in the individual entrepreneur category were secondary school graduates.

Table 16 Education level

Education level * business type Cross tabulation

Count

		business type			
		individual entrepreneur	micro-firms	small business	Total
education level	secondary school	8	7	4	19
	college	14	24	5	43
	university/institute	3	15	28	46
Total		25	46	37	108

5.2.3.5 Type of Firms

The data in the Table 17 shows that the majority of the survey respondents came from micro-sized firms with 46 participants. They consisted of 42.6 per cent of the total survey participants. The second largest group of respondents came from small businesses with 37 participants corresponding to 34.3 per cent. There were 25 participants from individual entrepreneurs that corresponded to 23.1 per cent.

Table 17 Type of Firms

Business type

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	individual entrepreneur	25	23.1	23.1	23.1
	micro-firms	46	42.6	42.6	65.7
	small business	37	34.3	34.3	100.0
	Total	108	100.0	100.0	

Table 18 shows that the majority of the survey respondents own micro-sized firms (46) compared to other businesses (individual businesses have 25 participants and small

businesses have 37 participants). Additionally, females (25) owned more micro-sized firms compared to males (21). Majority of individual entrepreneurs and small businesses were owned by males at the time of the research.

Table 18 Gender and Business type crosstabulation

Gender * business type Cross tabulation

Count

		Business type			
		individual entrepreneur	micro-firms	small business	Total
gender	male	14	21	24	59
	female	11	25	13	49
Total		25	46	37	108

5.2.4. Non-response bias

A non-response bias test was performed to check for the possibility of response bias in the sample. The responses were divided into two groups (early and late responses) in order to examine the existence of non-response bias as explained in subsection 4.4.2. For this purpose, the difference of means of the early and late responses on thirteen items was compared to determine whether or not it was significant at $p \leq 0.05$ level using independent *t-test* analyses.

The results from the independent *t-test* analysis between early and late responses are shown in Table 19 below, consisting of the mean, standard deviation and the related *p*-values (two tailed). The results from the independent *t-test* analysis suggest that non-response bias in not a serious threat to the study since both early and late participants responded similarly to the survey. All of the items have p-values of more than 0.05

except for item ATE (Attitudes towards tax evasion) which has a *p*-value of less than 5 percent but more than 1 percent. Nevertheless, it is not completely guaranteed that there is no response bias in this study considering the small number of samples. The detailed results from the independent t-test analysis are attached in Appendix D.

Table 19 Independent T-test analysis

Group Statistics

	group	N	Mean	Std. Deviation	*p (2- tailed)*
ATE	early	30	3.33	1.093	0.025
	late	30	3.97	1.033	
FD	early	30	3.93	.907	0.447
	late	30	4.13	1.106	
FM	early	30	3.27	1.081	0.917
	late	30	3.23	1.357	
PC	early	30	4.07	.868	0.273
	late	30	4.33	.994	
COTL	early	30	4.10	.845	0.886
	late	30	4.07	.944	
TA	early	30	3.30	1.088	0.721
	late	30	3.40	1.070	
CC	early	30	2.93	.640	0.830
	late	30	3.60	1.303	
J1	early	30	3.90	.885	0.792
	late	30	3.83	1.053	
J2	early	30	3.53	.860	0.439
	late	30	3.73	1.112	
J3	early	30	4.33	.758	0.629
	late	30	4.20	1.297	
D1	early	30	2.97	.928	0.606
	late	30	2.80	1.495	
D2	early	30	2.87	1.008	0.291
	late	30	2.57	1.165	
D3	early	30	3.73	.944	0.500
	late	30	3.90	.960	

5.2.5 Common method Variance analysis

As mentioned earlier in section 4.4.3, a Harmon's single factor test was performed to detect the extent of common method variance in the study by loading all variables in a single factor. In addition to Harmon's single factor test, the researcher performed partial correlation test as suggested by Posdakoff et al. (2003).

The results from the principal factor analysis suggest that less than 50 percent variance (45.306 percent) exists between the independent factors. From the analysis, it could be suggested that the impact of common method variance is not a serious issue in the survey findings. The partial correlation analysis shows a correlation between the independent variables in this study. The Pearson correlation coefficient shows that there might be some factors with r values more than 0.5. Therefore, it is not fully guaranteed that the survey findings for this study are free from any bias. However, this is very minimal. The detailed analyses for common method variance are presented in Appendix **E.**

5.3 Descriptive Analysis

The following subsections will analyse descriptive analysis of the study. Descriptive analysis is frequently used to interpret and analyse basic characteristics of the data using frequency, percentage, mean, median and standard deviation. All the figures presented were derived from the descriptive analysis in the SPSS.

5.3.1 Survey Respondents

SME taxpayers were represented by respondents who were responsible for the tax compliance matters of their companies. Each company was represented by one

respondent only. Table 20 shows the responsible person for tax compliance for each type of company. Over half of the respondents in this survey indicated that almost 55 percent of the time employee accountant would deal with tax compliance matters while 17.6 percent indicated that they would use tax practitioners with regards to tax compliance. Only 7.4 percent respondents indicated that they would deal with tax compliance themselves. 11.1 percent of the survey respondents' use their spouses/partners to deal with tax compliance while 9.3 percent ask their friends to deal with tax compliance matters.

Table 20 Responsible person for tax compliance

who deals with tax matters					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	yourself	8	7.4	7.4	7.4
	spouse/partner	12	11.1	11.1	18.5
	friends	10	9.3	9.3	27.8
	employee accountant	59	54.6	54.6	82.4
	tax practitioner	19	17.6	17.6	100.0
	Total	108	100.0	100.0	

As expected, the majority of the individual entrepreneurs would deal with tax compliance matters themselves or their spouses/partners would help, while majority of the small businesses use tax practitioners to deal with tax compliance matters (see Table 21). This is because they have standard tax bands and they pay standard fees. However, micro-firms (30) and small businesses (29) in this survey use their accountants to deal with tax compliance matters. There is an increasing tendency to use external tax practitioners by small and micro-sized enterprises. According to the crosstabulation

(Table 21), small business and micro-sized business owners are using external tax practitioners to deal with their tax compliance issues.

Table 21 Crosstabulation of responsible person in each firm type who deals with tax matters * business type Cross tabulation

Count

		business type			
		individual entrepreneur	micro-firms	small business	Total
who deals with tax matters	yourself	7	1	0	8
	spouse/partner	7	4	1	12
	friends	6	4	0	10
	employee accountant	0	30	29	59
	tax practitioner	4	7	8	19
Total		24	46	38	108

It is fair to assume that respondents occupy a knowledgeable position within their company regarding the financial and accounting aspects, and thus they answered the survey questions as sincerely and accurately as possible.

5.3.2 Measures of attitudes towards evasion

The descriptive results for measurement of attitudes towards evasion are presented in Table 22 below. To interpret the results, the lower means of attitudes, imply the less possibility of tax evasion. Contrary to the above, the higher means of attitudes imply the greater possibility of tax evasion. Attitude towards behaviour is defined as 'a *learned predisposition to respond in a consistently favourable or unfavourable manner with respect to a given object'* (Ajzen, 1985). Statement of Auditing Standard 99 (SAS 99) considers an attitude as one of the main factors of fraud. 'Some individuals possess an

attitude, character, or set of ethical values that allow them to knowingly and intentionally commit dishonest act' (AICPA, 2002).

In general, if the attitude towards the behaviour is more favourable then the individual's intention to perform it should be stronger. In the tax compliance literature, positive attitudes towards evasion are associated with non-compliance which were discussed in detail in Section 3.3.1.1

Table 22 Descriptive statistics on measures of Attitudes towards Evasion

Measures	N	Min	Max	Mean	Std. Deviation
ATE1- For me not to declare this transaction is good	108	1	5	3.19	1.156
ATE2- For me to declare this transaction is harmful	108	1	5	2.78	1.035
ATE3- If I had the opportunity I would not have paid tax	108	1	5	3.74	.989
ATE- Attitude towards Tax Evasion	108	1	5	3.64	1.131

Overall, the results suggest that respondents in this study have positive attitude towards evasion. For example, when respondents were asked whether not declaring unrecorded transactions was good, they responded with an overall mean of 3.19 suggesting positive attitudes towards evasion (ATE1). The second question (ATE2) was directed to measure the respondents' attitudes towards declaring unrecorded transactions and the mean of 2.78 (just over 55 percent) suggested that the respondents said it was harmful. On the contrary, when the respondents were asked ATE3 question 'if I had the opportunity I would not have paid tax', the mean of 3.74 indicated that the respondents' attitudes towards tax. When respondents were asked about their perception on tax evasion by

SMEs, they responded with the mean of 3.64. This might suggest that their attitude towards tax evasion is positive. The overall mean of 3.34 suggests there is a positive relationship between attitude towards evasion and tax evasion. Based on the preliminary results, it could be suggested that the hypothesis stating, '*There is positive relationship between attitudes towards evasion and SME owners' tax evasion behaviour*' is fully supported.

A t-test is used to assess whether the means of two groups (i.e., male and female) are not statistically different from each other with regards to attitudes towards tax evasion. The table below shows that there is no difference between males and females with regards to attitudes towards tax evasion. They all confirmed that not declaring taxes are good for them (ATE1; mean = 3.22, SD = 1.08, for males and mean = 3.16, SD = 1.24 for females). Additionally, they all confirmed if they had the opportunity they would not have paid tax (ATE3 mean = 3.73, SD = 0.997 for males and mean = 3.76, SD = 0.990 for females).

Group Statistics

	gender	N	Mean	Std. Deviation	Std. Error Mean
ATE1	male	59	3.22	1.084	.141
	female	49	3.16	1.247	.178
ATE2	male	59	2.73	1.014	.132
	female	49	2.84	1.067	.152
ATE3	male	59	3.73	.997	.130
	female	49	3.76	.990	.141

Stepwise method of linear regression analysis was done between Attitude variables, Judgement and Decision to see which independent variables are significant so the researcher can keep them in the PLS model analysis. In the output results (See Appendix

F, section A for analysis results), we can see that the predictor variables of ATE and ATE1 are significant because both of their p-values are below 0.05 ($p<0.05$). The researcher had a choice to choose one of the above variables to the PLS model because of the reflective nature of ATE and ATE1 variables. However, the p-value for ATE2 is greater than the common alpha level of 0.05, which indicates that it is not statistically significant. Typically, the coefficient p-values are used to determine which terms to keep in the regression model. It is acceptable to have one variable in the PLS analyses. In the model above, removing ATE2 was considered.

5.3.3 Measures of Personal financial condition

Personal financial constraint or financial gain is another crucial factor that influences tax evasion behaviour. Decisions whether to comply or evade taxes are heavily reliant on taxpayers' personal circumstances. Personal circumstances (can be personal financial constraint or incentives to make more money) may have an impact on tax evasion as financial distress may encourage an individual to commit tax evasion. AICPA (2002) states 'even honest individuals can commit fraud in an environment that imposes sufficient pressure on them. The greater the incentive or pressure, the more likely an individual will be able to rationalise the acceptability of committing fraud'.

Table 23 shows the results from the descriptive statistics analysis for the effects of Personal financial conditions to tax evasion behaviour. Financial motivation was measured with two variables (FM1 and FM2) while the financial difficulty was measured with three variables (FD, FD1 and FD2).

Table 23 Descriptive statistics on Measures of Personal Financial Condition

Descriptive Statistics					
	N	Min	Max	Mean	Std. Deviation
FD-being in financial difficulty cause tax evasion	108	1	5	3.94	1.026
FD1- will consider evading tax when I am in financial distress	108	1	5	3.10	1.023
FD2- never consider evading tax even in financial difficulty	108	1	5	2.46	.999
FM1- financial incentive is main priority and I do not mind where the money comes from	108	1	5	3.31	1.197
FM-Financial Motivation and tax evasion	108	1	5	3.13	1.111

Overall, the results suggest that financial difficulty causes tax evasion. For example, when respondents were asked about it, they responded with an overall mean of 3.94 suggesting it is not morally wrong to evade taxes when you are in financial difficulty (FD). The second question (FD1) was directed to measure the respondents' perception towards considering evading tax when they are in financial distress, they responded with the mean of 3.10. This may suggest that the sample respondents will consider evading tax when they are in financial difficulty. On the contrary, when the respondents were asked FD2 question 'I will never consider evading tax even if I am in financial difficulty', their response mean was 2.46. This may suggest that they may not evade tax even if they are in financial difficulty. When respondents were asked about their perception on financial incentive and motivation, they responded with mean of 3.31 and 3.13 for FM1 and FM respectively. The overall mean of 3.19 suggests that there is a positive relationship between financial difficulty and financial motivation and tax evasion.

A t-test is used to assess whether the means of two groups (i.e., male and female) are not statistically different from each other with regards to financial condition. The table below shows that there is no difference between males and females. They all confirmed

that they will consider evading tax when they are in financial difficulty Uzbekistan (FD1; mean = 3.07, SD = 0.94 for males and mean = 3.14, SD = 1.12 for females).

Group Statistics

	gender	N	Mean	Std. Deviation	Std. Error Mean
Financial difficulty1	male	59	3.07	.944	.123
	female	49	3.14	1.118	.160
FD2	male	59	2.37	1.015	.132
	female	49	2.63	1.035	.148

Based on the preliminary results, it could be suggested that the hypothesis stating '*There is positive relationship between financial motivation and SME owners' tax evasion behaviour'* is fully supported as well as the hypothesis *'There is positive relationship between financial difficulty/distress and SME owners' tax evasion behaviour'.*

Stepwise method of linear regression analysis was done between Financial Difficulty and Financial Motivation variables and Decision to see which independent variables are significant so the researcher can keep them in the PLS model analysis. While analysing the results, the researcher considered the moderating effects of Judgement construct. In the output results (See Appendix F, section B for analysis results), we can see that the predictor variables of FD are significant at 5 percent ($p<0.05$) along with FM. However, the p-values for other variables are greater than the common alpha level of 0.05, which indicates that they are not statistically significant. When total effect of the model was taken into account, the *p-value* for the financial motivation (FM) became insignificant resulting dropping from the model.

5.3.4 Measurement of Corruption

There are many types of corruption. Literature suggests that there have been numerous attempts to classify corruption and provide a systematic method for approaching this phenomenon (Rose-Ackerman, 1999). This research is particularly interested in bribery, the most common form of corruption. OECD Anti-Bribery Convention and other international organisations treated corruption as a synonym for 'bribery'. It requires beneficiaries using extra-legal means of payment to acquire government favours and resource allocations. This can involve tax exemptions and other forms of activities such as contracts, public information being monopolised; or getting government to 'turn blind eye' to illegal activities.

Table 24 shows the results from the descriptive statistics analysis for the effects of Corruption on tax evasion behaviour. Corruption was measured with three variables.

Table 24 Measurement of Corruption

Descriptive Statistics					
	N	Min	Max	Mean	Std. Deviation
PC-Bribery/corruption causes tax evasion	108	1	5	4.11	.931
PC1-Bribery/corruption is high in Uzbekistan	108	1	5	3.33	1.077
PC2-Bribery/Corruption is common in Uzbekistan	108	1	5	2.69	1.212

Overall, the results suggest that corruption causes tax evasion. When respondents were asked about the perception of corruption (PC), they responded with an overall mean of 4.11. The second and third questions (PC1 and PC2) were directed to measure the respondents' perception towards corruption in Uzbekistan. The results suggest that the respondents in this sample perceive corruption as high and common in Uzbekistan with

the means of 3.33 and 2.69 respectively. The overall mean of 3.38 suggests that there is a positive relationship between corruption and tax evasion.

A t-test is used to assess whether the means of two groups (i.e., male and female) are not statistically different from each other with regards to perception of corruption. The table below shows that there is no difference between males and females. They all confirmed that bribery is high in Uzbekistan (PC1; mean = 3.22, SD = 1.07 for males and mean = 3.47, SD = 1.08 for females). Additionally, they all confirmed that corruption is common in Uzbekistan (PC2 mean = 2.61, SD = 1.35 for males and mean = 2.78, SD = 1.03 for females).

Group Statistics

	gender	N	Mean	Std. Deviation	Std. Error Mean
Perception of Corruption1	male	59	3.22	1.068	.139
	female	49	3.47	1.082	.155
Perception of Corruption2	male	59	2.61	1.352	.176
	female	49	2.78	1.026	.147

Based on the preliminary results, it could be suggested that the hypothesis stating, '*There is positive relationship between perception of corruption and SME owners' tax evasion behaviour'* is fully supported.

Stepwise method of linear regression analysis was done between perception of corruption, Judgement and Decision in order to see which independent variables were significant so the researcher could keep them in the PLS model analysis. In the output results (See Appendix F, section C for analysis results), we can see that the predictor

variables of PC are significant at 5 percent ($p<0.05$). However, the p-values for other variables (PC1 and PC2) are greater than the common alpha level of 0.05, which indicates that they are not statistically significant. Thus, they were removed from the PLS model analysis.

5.3.5 Measurement of Complexity of tax law

Complexity of tax system is one of the important determinants of tax compliance and non-compliance behaviour (see Section 3.7.2.1) Tax laws are often too complex to be understood by non-professionals. The complexity of tax system can be the cause of tax non-compliance because complex tax reporting system requires specific tax knowledge. In many countries (including in Uzbekistan) forms need to be completed, and detailed records need to be kept and categorisation of the tax payments are difficult to understand. Therefore, substantial knowledge is needed to comply with tax laws. This is very challenging since tax laws tend to be changing frequently in Uzbekistan due to the market transition.

Table 25 shows the results from the descriptive statistics analysis for the effects of Complexity of tax laws towards tax evasion behaviour. Complexity of tax laws was measured with three variables such as COTL1, COTL2 and COTL3. To prevent box ticking process, the researcher arranged the questions in multi-dimensional way. In SmartPLS, the questions need to be in one directional. When all questions are one directional then this brings reliability issue. To combat both box ticking and keeping validity intact, the researcher rearranged the questions into one directional during the entering them into SPSS.

Table 25 Measurement of complexity of tax laws

Descriptive Statistics					
	N	Min	Max	Mean	Std. Deviation
COTL-Complexity of Tax Laws cause more evasion	108	1	5	3.76	.965
COTL1-For me tax laws are easy to understand	108	1	5	2.25	.958
COTL2-For me tax laws are very complex	108	2	5	4.00	.773

The overall results suggest that complexity of tax laws leads to tax evasion. The respondents in this study were asked about whether complexities in the tax laws caused tax evasion (COTL) and they responded with an overall mean of 3.76. The second and third questions (COTL1 and COTL2) were directed to measure the respondents' perception towards complexity of Uzbek tax laws. For the second question (COTL1-For me tax laws are easy to understand), the respondents in the sample responded with the mean of 2.25, suggesting a complexity of Uzbek tax laws. For the third question (COTL2-For me tax laws are very complex), the respondents in this sample responded with the mean of 4.00, suggesting a very complex tax laws in Uzbekistan. The overall mean of 3.34 suggests that there is a positive relationship between complexity of tax laws and tax evasion.

A t-test is used to assess whether the means of two groups (i.e., male and female) are not statistically different from each other with regards to tax law knowledge. The table below shows that there is no difference between males and females with regards to complexity of tax knowledge. They all confirmed that tax laws are very complex (COTL2; mean = 3.97, SD = 0.78 for males and mean = 4.04, SD = 0.763 for females). Additionally,

they all confirmed that tax laws are difficult to understand (COTL1 mean = 2.27, SD = 1.03 for males and mean = 2.22, SD = 0.87 for females).

Group Statistics

	gender	N	Mean	Std. Deviation	Std. Error Mean
Complexity of Tax Laws1	male	59	2.27	1.031	.134
	female	49	2.22	.872	.125
Complexity of Tax Laws2	male	59	3.97	.787	.102
	female	49	4.04	.763	.109

Based on the preliminary results, it could be suggested that the hypothesis stating, '*There is positive relationship between complex tax laws and SME owners' tax evasion behaviour'* is fully supported.

Stepwise method of linear regression analysis was done between complexity of tax laws, Judgement and Decision in order to see which independent variables are significant so the researcher could keep them in the PLS model analysis. In the output results (See Appendix F, section D for analysis results), we can see that the predictor variables of COTL is significant at 5 percent ($p<0.05$). However, the p-values for other variables (COTL1 and COTL2) are greater than the common alpha level of 0.05, which indicates that they are not statistically significant. Thus, they are removed from the PLS model analysis.

5.3.6 Measures of Tax audits

The effects of tax audits are mixed (see in Section 3.7.2.2). In general, most tax researchers concluded that increased tax audits would lead to an increase in tax

compliance, thus tax audits act as a deterrent to tax evasion behaviour. However, in other cases, taxpayers may find the audit experience to be a negative one and thus this make them want to evade more in the future (Andreoni et al., 1998 p.844). A comparative study of the European tax structure shows that countries with intensive enforcement activities have the lowest compliance rate (Feld & Frey, 2007). Hessing et al. (1992) study showed that tax audits were effective in deterring tax evasion among honest taxpayers, but not as effective on those who would occasionally evade tax or those who were habitual evaders. It is not a secret that the intensive and frequent tax audit activities in Uzbekistan causes a lot of trouble to SME's activities as well as to their owners. Many of the SME owners try to expedite the audit process by bribing tax auditors. These kinds of tax audits may not be effective in deterring tax evasion.

Table 26 shows the results from the descriptive statistics analysis for the effects of tax audits towards tax evasion behaviour. Tax audits were measured with four variables such as TA, TA1, TA2 and TA3.

Table 26 Measures of tax audits

Descriptive Statistics					
	N	Min	Max	Mean	Std. Deviation
TA-gave bribe, gift or favour to tax auditors in order to obtain tax service	108	1	5	3.52	1.009
TA1-Hypothetical question1-comply tax law due to tax audits	108	1	5	2.33	1.059
TA2-Hypothetical question2-evade tax due to tax audit cost	108	1	5	3.74	1.017
TA3-Tax auditors can be easily bribed.	108	1	5	3.39	1.126

The overall results suggest that tax audits cause tax evasion. The respondents in this study were asked about whether they have given bribes, gifts or favours to tax auditors

in order to obtain tax evasion service (TA) and they responded with an overall mean of 3.52. In the second and third hypothetical cases, questions (TA1 and TA2) were directed to measure the respondents' behaviour towards tax evasion under the hypothetical scenarios. For the second question (TA1-Would you declare future commissions due to tax audit if you were in Ali's position), the respondents in the sample responded with the mean of 2.33, suggesting that they will not declare future commissions. This means that the respondents would not declare their future commissions when they lost their money due to the audits. For the third question (TA2-Would you not declare your commission for the next year due to tax audit if you were in Ali's position), the respondents in this sample responded with the mean of 3.74, suggesting agreement with the statement. The third question was about how easy to bribe tax auditors in Uzbekistan. The respondents in this sample suggested that it is reasonably easy to bribe tax auditors with the mean of 3.39. The overall mean of 3.25 suggests that there is a positive relationship between tax audit activities and tax evasion.

Based on the preliminary results, it could be suggested that the hypothesis stating '*There is negative relationship between tax audits and SME owners' tax evasion behaviour*' is not fully supported.

Stepwise method of linear regression analysis was done between tax audit activities, Judgement and Decision in order to see which independent variables are significant so the researcher could keep them in the PLS model analysis. In the output results (See Appendix F, section E for analysis results), we can see that the predictor variable of TA is significant at 5 percent ($p<0.05$). However, the p-values for other variables (TA1, TA2

and TA3) are greater than the common alpha level of 0.05, which indicates that they are not statistically significant. Thus, they were removed from the PLS model analysis.

5.3.7 Tax compliance costs

Compliance costs are also categorised into their sources i.e. internal and external (Pope et al., 1991; Slemrod and Blumental, 1996). Internal compliance costs include both money costs and time costs that are incurred within the businesses, while external costs are mainly limited to sums paid to external tax professionals. This research estimates compliance costs, covering both internal/external, fiscal, time and psychological costs incurred by the SME companies in complying with tax regulations (See Section 3.7.2.3).

Table 27 shows the results from the descriptive statistics analysis for the effects of compliance costs towards tax evasion behaviour. Compliance costs were measured with four variables such as CC, CC1, CC2 and CC3.

Table 27 Measures of compliance costs

Descriptive Statistics					
	N	Min	Max	Mean	Std. Deviation
CC-high compliance costs cause evasion	108	1	5	3.21	1.086
CC2-For me compliance costs are high.	108	1	5	3.39	1.244
CC3-For me compliance costs are low	108	1	5	2.37	.903
CC1 SME CC grouping	108	1	5	3.34	.81

The overall results suggest that high compliance costs cause tax evasion. The respondents in this study were asked about whether high compliance costs cause tax evasion (CC) and they responded with an overall mean of 3.21. The following questions

(CC2 and CC3) were directed to measure high or low compliance costs. For the second question (CC2-for me compliance costs are high), the respondents in the sample responded with the mean of 3.39, suggesting that the compliance costs are high for them. For the third question (CC3-For me compliance costs are low), the respondents in this sample responded with the mean of 2.37, suggesting disagreement with the statement. This means that compliance costs are high. The fourth question was about the percentage of their income they spend in order to comply with tax rules in Uzbekistan. The respondents in this sample indicated with the mean of 3.34, which was between 7.1 and 11 percent. The overall mean of 3.07 suggests that there is a positive relationship between tax compliance costs and tax evasion.

Based on the preliminary results, it could be suggested that the hypothesis stating '*There is positive relationship between compliance costs and SME owners' tax evasion behaviour'* is fully supported.

Stepwise method of linear regression analysis was done between tax compliance costs, Judgement and Decision in order to see which independent variables are significant so the researcher could keep them in the PLS model analysis. In the output results (See Appendix F, section F for analysis results), we can see that the predictor variable of CC is significant at 5 percent ($p<0.05$). However, the p-values for other variables (CC1, CC2 and CC3) are greater than the common alpha level of 0.05, which indicates that they are not statistically significant. Thus, they were removed from the PLS model analysis.

5.4 Chapter Summary

In this chapter, the discussions started with the introduction to structural equation modelling (SEM) applied in the study, followed by differences between covariance-based SEM and partial least squares SEM, and justification of using the PLS SEM.

The next section discussed the results from the preliminary analysis. The discussions were centred on process of data assessment, response rate, demographic backgrounds (age, gender, marital status, education and type of firms), non-response bias and common method variance analysis. A nonresponse bias was conducted between early 30 and late 30 respondents. The results indicate that nonresponse bias was not a serious threat in the study. In addition to this, the common method variance test suggests that common method variance was not a serious issue in this study.

The descriptive statistics analyses were discussed in the following section. The survey respondents and the cross tabulation of business type with responsible person who dealt with tax compliance were analysed. Measures of independent variables were discussed along with preliminary test result analyses. The preliminary test results show that all hypotheses were accepted except tax audit variable, which was rejected. The next section continues with quantitative analysis II using the PLS analysis.

CHAPTER SIX

RESULTS OF QUANTITATIVE STUDY II: MAIN MODEL EVALUATION

6.0 Chapter overview

This chapter presents the results from the measurement model at the first, second and third order factors by examining the reliability and validity of the indicators and constructs. In addition, the structural equation model is also discussed before the results from the hypotheses testing are presented. The chapter ends with a summary.

6.1 Measurement model – First order factor model

Model estimation delivers empirical measures of the relationships between the indicators and the measurement model (constructs), as well as the between the constructs (structural model). The empirical measures determine how well the theory (theoretically established measurement) fits the data. The model assessment focuses on the measurement models. In the measurement model, the reliability and validity of the measures in each construct have to be performed to ensure they are acceptable. The study has four constructs: perception, information, judgment/justification and decision. The following sub subsections will assess the reliability and validity of reflective constructs.

6.1.1 Reliability Assessment

a) The reliability of reflective construct could be determined at two stages, at the individual level and construct level as discussed in Chapter 4 (Section 4.3.5.2). Factor loadings are used at the individual level (composite reliability) and at the construct level the composite reliability (overall consistency of the construct) AVE scores are used (Hair et al., 2012; Hair et al., 2014). In general assessment of reflective measurement models includes composite reliability to evaluate internal consistency, average variance extracted (AVE) to evaluate convergent validity. Moreover, the Fornell-Larcker criterion, cross loadings and Heterotrait-monotrait ratio correlations (HTMT) are used to assess discriminant validity.

6.1.1.1 Indicator reliability

Table 28 to Table 30 present the loadings, *t* and *p values* of each measure used in this study. This step is important to determine which measures are significant so they are kept in this study. For example, based on the reliability test, not all measures for perception and information are included in the revised model later on. Similar approaches were taken by Saad (2012) and Rodgers et al. (2014) in determining which measures should be retained in the model.

As discussed earlier in Chapter 5, section 5.1.3.1, there is no absolute threshold for factor loadings. The general acceptable loading is 0.70 but some scholars say 0.50 is acceptable (Hair et al., 2012). According to some scholars, 0.40 is acceptable in a study involving newly developed measures (Henseler et al., 2009; Hair et al., 2012). In Table

28, several reflective indicators in italics are candidates for deletion at the next level. This is because these indicators' factor loadings are less than 0.40.

Table 28 Reflective constructs, measures, and loadings (original model)

Indicators and Constructs	PLS loadings	T Statistics (|O/STDEV|)	P Values
Perception	AVE=0.209		
ATE <- Perception	0.567	4.766	0.000
ATE1 <- Perception	*0.350*	*2.451*	*0.015*
ATE2 <- Perception	*-0.123*	*0.936*	*0.350*
ATE3 <- Perception	*-0.044*	*0.237*	*0.813*
FD <- Perception	0.830	24.120	0.000
FD1 <- Perception	0.419	3.633	0.000
FD2 <- Perception	*-0.298*	*2.227*	*0.026*
FM <- Perception	0.606	4.927	0.000
FM1 <- Perception	*-0.168*	*1.164*	*0.245*
PC <- Perception	0.726	10.456	0.000
PC1 <- Perception	*0.394*	*2.764*	*0.006*
PC2 <- Perception	*0.144*	*0.796*	*0.426*
Information	AVE=0.219		
CC <- Information	0.799	14.078	0.000
CC1 <- Information	*-0.140*	*0.672*	*0.502*
CC2 <- Information	*0.234*	*1.297*	*0.195*
CC3 <- Information	*0.321*	*1.329*	*0.184*
COTL <- Information	0.794	14.913	0.000
COTL1 <- Information	*0.048*	*0.218*	*0.827*
COTL2 <- Information	*0.160*	*0.777*	*0.438*
TA <- Information	0.683	7.885	0.000
TA1 <- Information	0.543	3.399	0.001
TA2 <- Information	*-0.367*	*1.736*	*0.083*
TA3 <- Information	*0.189*	*0.916*	*0.360*
Judgment/Justification	AVE=0.600		
J1 <- Judgement_Justification	0.657	5.764	0.000
J2 <- Judgement_Justification	0.856	18.069	0.000
J3 <- Judgement_Justification	0.797	18.937	0.000
Decision	AVE=0.646		
D1 <- Decision	0.779	15.943	0.000
D2 <- Decision	0.811	16.326	0.000
D3 <- Decision	0.820	21.059	0.000

The deletion of some indicators in Table 28 was done in the subsequent analyses. As a result, deletion of reflective constructs contributed to a better AVE value. The majority

of these indicators are not significant except ATE1 which was significant but below the threshold of 0.50. Some studies, such as Duarte and Raposo (2010) retained a construct with an AVE of 0.36 in their measurement model. The reconstructed Table 29 contains the indicators, which remained after indicators in italics in Table 28 were removed.

Table 29 Reflective construct, indicators, and loadings (revised model)

Indicators and Constructs	PLS loadings	T Statistics (|O/STDEV|)	P Values
Perception	AVE=0.653		
ATE <- Perception	0.725	9.854	0.000
FD <- Perception	0.841	40.549	0.000
PC <- Perception	0.851	33.278	0.000
Information	AVE=0.653		
CC <- Information	0.814	14.328	0.000
COTL <- Information	0.842	28.907	0.000
TA <- Information	0.767	17.182	0.000
Judgment/Justification	AVE=0.599		
J1 <- Judgement_Justification	0.681	6.631	0.000
J2 <- Judgement_Justification	0.849	18.069	0.000
J3 <- Judgement_Justification	0.784	18.261	0.000
Decision	AVE=0.640		
D1 <- Decision	0.766	14.266	0.000
D2 <- Decision	0.781	13.903	0.000
D3 <- Decision	0.850	30.889	0.000

Even though FM was significant in Table 28, FM's loadings dropped to 0.501 after deletion of other non-significant measures. In order to increase the AVE score, the FM measure was dropped from the model. After the deletion of some indicators, the AVE scores increased considerably. For example, Perception construct AVE increased to 0.653 from 0.209 in Table 28; it applies to information construct, which increased to 0.653 from 0.219. Similarly, the indicator loadings also increased for all constructs in Table 30.

Table 30 Reflective indicator results

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values
ATE <- Perception	0.725	0.720	0.074	9.854	0.000
FD <- Perception	0.841	0.846	0.021	40.549	0.000
PC <- Perception	0.851	0.850	0.026	33.278	0.000
COTL <- Information	0.842	0.841	0.029	28.907	0.000
TA <- Information	0.767	0.768	0.045	17.182	0.000
CC <- Information	0.814	0.809	0.057	14.328	0.000
J1 <- Judgement_Justification	0.681	0.674	0.103	6.631	0.000
J2 <- Judgement_Justification	0.849	0.844	0.047	18.069	0.000
J3 <- Judgement_Justification	0.784	0.787	0.043	18.261	0.000
D1 <- Decision	0.766	0.763	0.054	14.266	0.000
D2 <- Decision	0.781	0.775	0.056	13.903	0.000
D3 <- Decision	0.850	0.850	0.028	30.889	0.000

6.1.1.2 Composite reliability

As mentioned in section 5.1.3.1 of Chapter 5, once the indicators' reliability are satisfied, the next step is to analyse the composite reliability (internal consistency) of the constructs. Fornell and Larcker (1981) suggested a threshold value of 0.70 for a construct to be included in the model. However, Hair et al. (2014) and Henseler et al. (2009) suggested that a value of 0.60 should be considered acceptable in a newly developed measure studies. The results in Table 31 show the composite reliability for all constructs. The results indicate that all of the constructs have high composite reliability, which suggest that internal consistency of constructs is satisfied.

Table 31 Composite reliability results

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values
Perception	0.849	0.848	0.025	33.654	0.000
Information	0.849	0.848	0.023	36.275	0.000
Judgement_Justification	0.817	0.815	0.032	25.882	0.000
Decision	0.842	0.839	0.028	30.354	0.000

6.1.2 Validity of constructs

As discussed in section 5.1.3.2 of Chapter 5, convergent validity and discriminant validity test are done under the confirmatory factor analysis technique to confirm the strength of the measure.

6.1.2.1 Convergent validity (AVE)

As mentioned in section 5.1.3.2 of Chapter 5, convergent validity is examined by observing the AVE values of constructs. Convergent validity is the extent to which a measure correlates positively with alternative measures of the same construct (Hair et al., 2012). The items that are indicators of a specific construct should converge or share a high proportion of variance. In order to establish convergent validity, researchers consider the outer loadings of the indicators as well as the average variance extracted (AVE). The outer loadings were already assessed in section 6.1.1.1. In this section, the AVE values will be assessed. The AVE is defined as the grand mean value of the squared loadings of the indicators associated with the construct (i.e., the sum of the squared loadings divided by the number of indicators). Using the same logic as that used with the individual indicators, an AVE value of 0.50 or higher indicates that, on average, the construct explains more than half of the variance of its indicators. If AVE value is less

than 0.50 then, on average, more error remains in the items that the variance explained by the construct. The AVE values are presented in Table 32 below. All constructs have met the threshold value of 0.50.

Table 32 Convergent Validity results (AVE results)

	Original Sample (O) (AVE)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values
Decision	0.640	0.637	0.046	13.995	0.000
Information	0.653	0.652	0.040	16.148	0.000
Judgement_Justification	0.599	0.600	0.047	12.685	0.000
Perception	0.653	0.654	0.042	15.563	0.000

6.1.2.2 Discriminant validity

As discussed in section 5.1.3.2 of Chapter 5, the discriminant validity differentiates whether or not items are different among constructs. In another words, the discriminant validity is the extent to which a construct is truly distinct from other constructs by empirical standards (Hair et al., 2014). Three techniques (Fornell-Larcker criterion, cross-loadings and Heterotrait-monotrait ratio correlations) were used to test the discriminant validity.

b) Fornell-Larcker Criterion.

As mentioned in section 5.1.3.2, according to the Fornell-Larcker criterion, factor's AVE should be higher than its squared correlations with all other factors in the model to achieve discriminant validity. This is to indicate that a construct shares more variance with any other construct. The results in Table 33 indicate that the square roots of each construct are greater than their correlations with other constructs. This suggests that discriminant validity has been achieved.

Table 33 Fornell-Larcker Criterion results

	Decision	Information	Judgement Justification	Perception
Decision	0.800			
Information	0.643	0.808		
Judgement_Justification	0.601	0.677	0.774	
Perception	0.577	0.699	0.732	0.808

c) Item cross-loadings

As mentioned in section 5.1.3.2 of Chapter 5, second approach to test discriminant validity is the assessment of cross-loadings, which is also called 'item-level discriminant validity' (Henseler et al., 2015). Item-level discriminant validity suggests that the indicator loading for each measure should be higher compared to all its cross-loadings (Götz et al., 2010). Table 34 presents the loadings and cross-loadings of all measures. The results indicate that all items loaded were higher than compared to all its cross-loadings.

Table 34 Cross-loadings results

	Perception	Information	Judgement_Justification	Decision
ATE	**0.725**	0.467	0.498	0.321
FD	**0.841**	0.670	0.652	0.643
PC	**0.851**	0.523	0.604	0.371
COTL	0.558	**0.842**	0.541	0.526
TA	0.643	**0.767**	0.580	0.395
CC	0.492	**0.814**	0.518	0.635
J1	0.588	0.470	**0.681**	0.388
J2	0.562	0.566	**0.849**	0.508
J3	0.553	0.531	**0.784**	0.493
D1	0.396	0.501	0.455	**0.766**
D2	0.342	0.358	0.302	**0.781**
D3	0.586	0.620	0.608	**0.850**

d) Heterotrait-monotrait ratio correlations (HTMT)

As discussed in section 5.1.3.2 in Chapter 5, Heterotrait-monotrait ratio of correlations (HTMT) which was suggested by Henseler et al. (2015) is another criterion for assessing discriminant validity. The HTMT value smaller than 1 show the true correlation between the two constructs should they differ. If the value is higher than 1, then there is a lack of discriminant validity. However, some authors suggest a threshold of 0.90 (Henseler et al., 2015), while others recommend 0.85 (Kline, 2011). The results in Table 35 indicate that the discriminant validity has been achieved.

Table 35 HTMT results

	Perception	Information	Judgement/ Justification	Decision
Perception				
Information	**0.930**			
Judgement_Justification	**0.842**	**0.862**		
Decision	**0.711**	**0.838**	**0.737**	

6.2 Second order factor model

In previous sections, the reliability and validity of measures in the measurement first order model have been analysed. The results indicated that both reliability and validity of measures were satisfied. There is a need to test the second order factor model in this study because of Justification/Judgement construct. Table 36 shows the loadings for Justification/Judgement construct were significant at 1 per cent level ($p<0.001$). All indicators' values are higher than the suggested threshold except J1, which was close to the threshold and therefore was retained in the model.

Table 36 Justification/Judgment loadings in the second order model

Name	Loadings	T-statistics	P-value
J1 <- Judgement_Justification	0.681	6.631	0.000
J2 <- Judgement_Justification	0.849	18.069	0.000
J3 <- Judgement_Justification	0.784	18.261	0.000

In order to test multicollinearity for formative constructs, the variance inflation factor (VIF) was obtained from smartPLS. Multicollinearity occurs if two or more formative indicators are entered in the same block of indicators with exactly the same information in them. In this case, they are perfectly correlated. If this occurs, researchers need to eliminate the redundant indicators. High level of collinearity between formative indicators are a crucial issue because they have an impact on the estimation of weights and their statistical significance (Hair et al., 2014). High level of collinearity often affect the results of analysis in two aspects. Firstly, high collinearity can result in the weights being incorrectly estimated. Secondly, collinearity boosts the standard errors and thus reduces the ability to demonstrate that the estimated weights are significantly different from zero.

Table 37 shows the VIF values for Judgement/Justification construct and it can be concluded that multicollinearity is not a threat to the model. This is because VIF values are less than 2, which is smaller than the threshold number that was suggested by some scholars as 3.3 (Diamantopoulos & Siguaw, 2006), 5.0 (Hair et al., 2012) and 10 (Hair et al., 2010a).

Table 37 VIF results for second order constructs

	Judgement_Justification
Information	**1.954**
Perception	**1.954**

The outer VIF values indicate that there is no multicollinearity issue among loadings.

J1	**1.177**
J2	**1.592**
J3	**1.438**

6.3 Third order factor model

After discussing the second order construct, there is a need to test the third order factor model since the model includes third model of Decision. Table 38 shows the results for the third order factor model. All indicators are higher than the threshold of 0.70 and significant at 1 percent level ($p<0.001$).

Table 38 Third order factor model results

Name	Loadings	T-statistics	P-value
D1 <- Decision	0.766	14.266	0.000
D2 <- Decision	0.781	13.903	0.000
D3 <- Decision	0.850	30.889	0.000

Since the third order factor has two formative constructs, the multicollinearity of these constructs must be tested. The VIF values in Table 39 indicate that the multicollinearity is not a problem in the third order factor model because they are smaller than the threshold numbers suggested by Diamantopoulos and Siguaw (2006) as 3.3, Hair et al. (2012) as 5.0 and Hair et al. (2010a) as 10.

Table 39 VIF values for third order factor model

	Decision
Perception	**2.579**
Information	**2.207**

6.4 Structural model

The previous sections discussed and analysed the measurement models at the first, second and third orders. This section will evaluate the structural model. As discussed in section 5.1.4 of Chapter 5, the evaluation of structural models for the study are based on the R-square values, effect size and path coefficients. Figure 17 illustrates the full structural model.

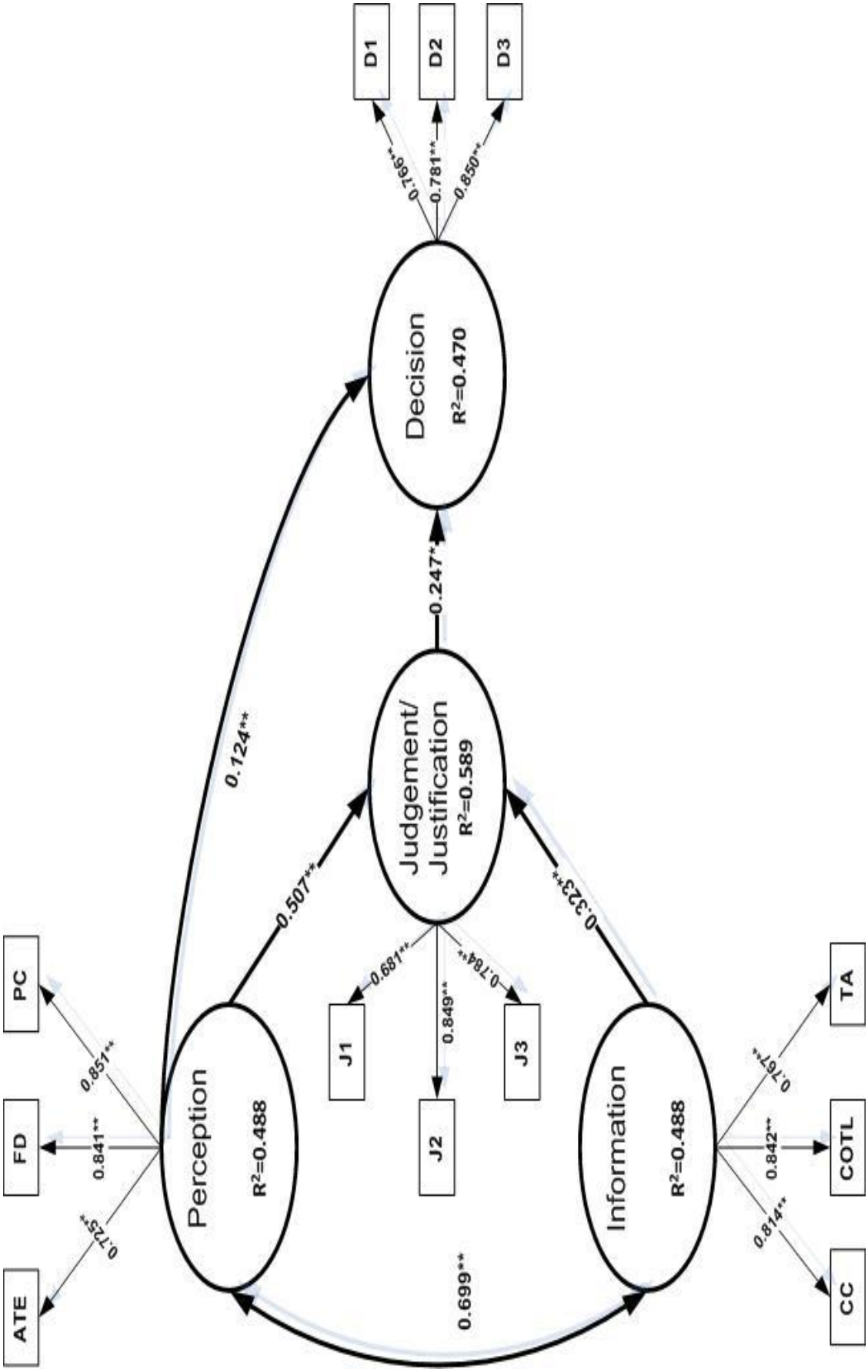


Figure 17 Full Structural model

Notes: ** Significant at ρ < 0.01, *Significant at ρ < 0.05.

6.4.1 R-squares

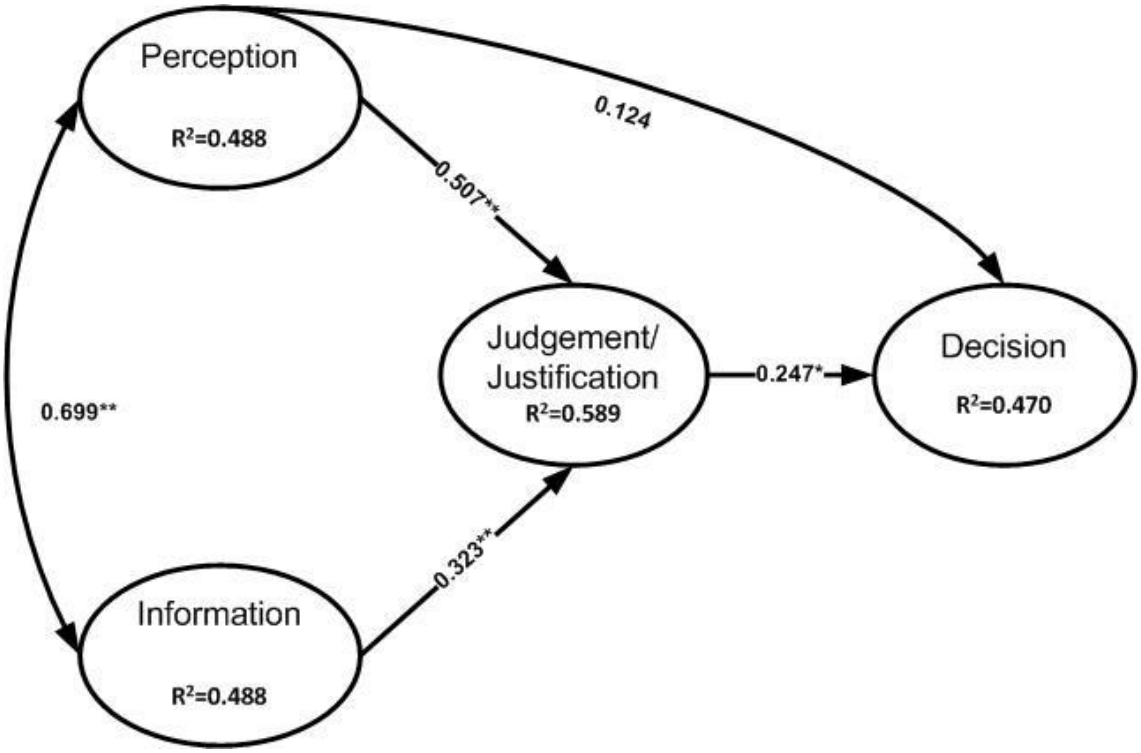
As discussed in section 5.1.4.1 of Chapter 5, the most commonly used measure to evaluate the structural model is the coefficient of determination (R square values). R^2 values are considered as the primary analysis to test the structural model. The R-square value is a measure of the model's predictive accuracy and is calculated as the squared correlation between a specific endogenous construct's actual and predictive values (Hair et al., 2014). The coefficient represents the exogenous latent variables' combined effects on the endogenous latent variable. Since the coefficient is the squared correlation of actual and predicted values, it also represents the amount of variance in the endogenous constructs explained by all of the exogenous constructs linked to it. The R square value ranges from 0 to 1 with higher levels indicating higher levels of predictive accuracy. Figure 18 shows the result for the structural model for tax evasion behaviour of SME owners.

R Square results

	R Square	R Square Adjusted
Decision	0.470	0.455
Judgement_Justification	0.589	0.581
Perception	0.488	0.483

Figure 18 Structural model for tax evasion behaviour

Notes: ** Significant at ρ < 0.01, *Significant at ρ < 0.05.



The R^2 value of 0.470 for decision to evade indicated that perception, information and judgement accounted 47 percent of the variance of the construct. The R^2 value of 0.589 for judgement indicated that perceptional and informational factors accounted for 59 percent of the variance of the construct. All variables were highly significant at the 0.001 level. There are positive correlations between all latent constructs, i.e. perception, information, judgement and decision. Furthermore, results suggested that information and judgement were significantly influenced by the perceptions.

6.4.2 Effect size

As discussed in section 5.1.4.2, the R-square values are also useful to determine the impact of exogenous construct to the endogenous constructs. Based on the

recommendation by Cohen (1988), it can be concluded that Perception and Information has medium impact on Justification/Judgement of SME owners to evade taxes. However, Perception and Judgement/Justification has small effect on Decision process of SME owners' behaviour. Perception has large effect on Information and vice versa (Table 40).

Table 40 Effect size results

	f^2	Impact size
Information -> Judgement_Justification	0.130	Medium
Information -> Perception	0.954	Large
Judgement_Justification -> Decision	0.047	Small
Perception -> Decision	0.011	Small
Perception -> Judgement_Justification	0.320	Medium
Perception -> Information	0.954	Large

6.4.3 Path coefficient and hypotheses testing

The path coefficient in PLS estimates path relationships for the structural model (i.e., between the latent variables in the model) and the relationship is assessed using bootstrapping method as discussed in section 5.1.4.3 in Chapter 5. They are similar to standardised betas in a regression analysis. Table 41 presents the path coefficient results.

Table 41 Path coefficient results

	Path coefficient (β)	T Statistics (|O/STDEV|)	P Values
Information -> Judgement_Justification	0.323	3.529	0.000
Information -> Perception	0.699	13.742	0.000
Judgement_Justification -> Decision	0.247	1.953	0.051
Perception -> Decision	0.124	0.937	0.349
Perception -> Judgement_Justification	0.507	5.931	0.000
Perception -> Information	0.699	13.742	0.000

Based on these findings, Hypothesis H1 '*Attitudes towards tax evasion significantly influences SME owners' Judgement/Justification process'* and Hypothesis H1a '*There is a positive relationship between attitudes towards tax evasion and SME owners' tax evasion decision behaviour'* were supported.

The Hypothesis H2 '*Personal financial condition significantly influences SME owners' Judgement/Justification process'* and Hypothesis H3 '*Perception of Corruption significantly influences SME owners' Judgement/Justification process*' were accepted. In addition to, Hypothesis H2b '*There is positive relationship between financial difficulty/distress and SME owner' tax evasion behaviour'* and Hypothesis H3a '*There is positive relationship between perception of corruption and SME owner' tax evasion behaviour'* were accepted.

Likewise, Hypothesis H4 which states '*Complexity of tax laws significantly influences SME owners' Judgement/Justification process'* and Hypothesis 4a '*There is positive relationship between complex tax laws and SME owners' tax evasion decision behaviour'* were accepted.

The Hypothesis 5 '*Tax audit significantly influences SME owners' Judgment/Justification process'* was accepted. However, and Hypothesis 5a '*There is negative relationship between tax audits and SME owners' tax evasion decision behaviour'* were not accepted. The findings from this study suggest that tax audits influenced SME owners' tax evasion decision behaviour. Increase in tax audits lead to increase in SME owners' tax evasion decision behaviour.

Similarly, the Hypothesis 6 '*Compliance costs significantly influence SME owners' Judgement/Justification process'* and Hypothesis 6a '*There is positive relationship between compliance costs and SME owners' tax evasion decision behaviour'* were accepted.

The Hypothesis Ha '*Perceptions (Attitudes towards tax evasion, Personal Financial Condition and Corruption) significantly influence SME owners' decision behaviour'* and the Hypothesis Hd '*Informational factors (Complexity of tax laws, Tax Audits and Compliance costs) significantly influence SME owners' perceptions and in turn perceptions influence SME owner's tax evasion decision*' were not accepted due to nonsignificant path coefficients.

The Hypothesis Hb '*Perceptions (Attitudes towards tax evasion, Personal Financial Condition and Corruption) significantly influence SME owners' decision behaviour through the process of Judgement/Justification'* was accepted. Likewise, the Hypothesis Hc '*Informational factors (Complexity of tax laws, Tax Audits and Compliance costs) significantly influence SME owners' decision behaviour through the process of Judgement/Justification*' was accepted.

The Hypothesis He '*Perceptual factors (Attitudes towards tax evasion, Personal financial condition and Corruption) significantly influence SME owners' tax evasion decisions through the process of Information and Judgement/Justification'* and the Hypothesis Hf *'Informational factors (Complexity of tax laws, Tax Audits and Compliance costs) significantly influence SME owners' decisional behaviour through the process of Perception and Judgement/Justification'* were accepted.

6.5 Chapter summary

In this chapter the evaluation of the measurement model at the first second, third orders and structural model were performed by using PLS-SEM technique by applying the SmartPLS software version 3.0 (Ringle et al., 2015). The measures and constructs have been validated before the hypotheses testing.

The R^2 value of 0.470 for decision to evade indicated that perception, information and judgement accounted 47 percent of the variance of the construct. The R^2 value of 0.589 for judgement indicated that perceptions and information accounted 59 percent of the variance of the construct. All variables were highly significant at the 0.001 level. The values for path coefficients range between 0.247 and 0.699 with 1 percent significance. The findings also indicate that nonsignificant pathway between perceptions and decision constructs.

CHAPTER SEVEN

RESULTS OF QUALITATIVE STUDY

7.0 Chapter overview

This chapter presents the interview findings with some SME owners in Uzbekistan. The semi-structured interviews focused on the perceptions of SME owners with regards to tax evasion behaviour and the influence of informational factors. The chapter ends with a summary.

7.1 Qualitative data analysis and interview findings

As discussed in section 4.5.2 of Chapter 4, the researcher chose SME taxpayer who had a minimum of 5 years' experience as a taxpayer. For this reason, the interview participants were identified from the survey response in the quantitative phase of the study. The interview participants came from those survey respondents who agreed to be interviewed and the size of the interview participants were 15. However, only 10 participants were chosen to be interviewed. The remaining 5 were omitted from the interview process due to having less than 5 years of experience as taxpayers.

The demographic profiles for all participants are illustrated in Table 42-43 below. The interview participants came from different types of firms, ranging from individual entrepreneurs, micro-sized firms and small businesses; 3 individual entrepreneurs, 4

micro-sized enterprises and 3 small business owners. Their gender background is 3 males and 7 females.

Table 42 Gender and type of firms, the interview participants come from

Reference ID	Gender	Type of Firms
P1	Female	Individual entrepreneur
P2	Male	Micro-size
P3	Male	Small business
P4	Male	Small business
P5	Female	Individual entrepreneur
P6	Female	Micro-size
P7	Female	Individual entrepreneur
P8	Female	Small business
P9	Female	Micro-size
P10	Female	Micro-size

All individual entrepreneurs' age was between 20 and 29 while micro-firm owners' age was between 30 and 39. The small business owners' age was between 40 and over 60.

Table 43 Business type and age group cross-tabulation

		age group					
		20-29	30-39	40-49	50-59	60 and over	Total
business type	individual entrepreneur	3	0	0	0	0	3
	micro-firms	0	4	0	0	0	4
	small business	0	0	1	1	1	3
Total		3	4	1	1	1	10

All SME owners were married at the time of interview except 2 individual entrepreneurs who were single (Table 44).

Table 44 Marital status of interview participants

business type * marital status Crosstabulation

		marital status		
		single	married	Total
business type	individual entrepreneur	2	1	3
	micro-firms	0	4	4
	small business	0	3	3
Total		2	8	10

In terms of education level, three individual entrepreneurs and 2 micro-sized firm owners were college graduates while 2 micro-sized firm owners and 3 small business owners were graduated from universities (Table 45 below)

Table 45 Education levels of interview participants

business type * education level Crosstabulation

		education level		
		college	university/institute	Total
business type	individual entrepreneur	3	0	3
	micro-firms	2	2	4
	small business	0	3	3
Total		5	5	10

In regard to who deals with tax reports, 2 individual entrepreneurs were dealing with their tax issues, while one individual entrepreneur's partner was dealing with tax issues. On one hand, all micro-sized firm owners and 2 small business owners left tax compliance matters to their accounts. On the other hand, only one small business owner was dealing with external accounting firm to deal with their tax compliance issues (Table 46).

Table 46 Who deals with tax reports

business type * who deals with tax matters Crosstabulation

Count

		who deals with tax matters				
		yourself	spouse/partner	employee accountant	tax practitioner	Total
business type	individual entrepreneur	2	1	0	0	3
	micro-firms	0	0	4	0	4
	small business	0	0	2	1	3
Total		2	1	6	1	10

7.2.1 Tax compliance and evasion behaviour

In order to measure the participants' general understanding of tax compliance and tax evasion behaviour, they were asked to define the term 'tax compliance', 'tax evasion' and 'tax avoidance'. The majority of the participants' understanding with regard to tax compliance was translated into meeting the deadlines for filing of tax returns, and payments from earnings made to the Tax Authority on time. However, when asked about tax evasion and avoidance, the twenty percent of the interview participants (2 out of 10) could not differentiate between them. The correct definitions were then given to them. The following views are some examples of how SME owners in this interview understand tax evasion and avoidance.

> *'In my opinion, tax evasion and tax avoidance means the same thing, not paying tax at all'*
>
> (Participant 1, individual entrepreneur)

> '*Tax evasion is not paying tax by not reporting true income while tax avoidance is hiding one's earnings to the Tax Authority and end up paying less tax. Basically, they are both similar to each other'*
>
> (Participant 6, micro-sized business owner)

However, the majority of the participants understood the difference between tax evasion and tax avoidance.

'Tax evasion means … not complying with tax regulations and not paying tax at all…'

'… Tax avoidance is when someone finds loopholes in tax regulations and pay no tax from his/her earnings or pay less tax than the usual ...'

(Participant 3, small business owner)

'Tax evasion is act of evading taxes by any means (i.e., corruption, bribery, overstating expenses) and an illegal act according to the tax regulation. Whereas, tax avoidance is finding legal ways to minimise tax liabilities'

(Participant *4,* small business owner)

7.2 Attitudes towards evasion

When enquired further, the interview participants confirmed that their attitudes to certain extent guide them to comply or not to comply with the tax laws. There were several reasons given by the participants to justify their tax evasion or tax avoidance behaviours. For instance, besides attitudes, corruption and social pressure could be among other reasons for tax evasion or tax avoidance. Here is the interview quotes about the effects of attitudes towards evasion behaviour by SME owners.

'For me it is our attitudes towards tax evasion that affect SME owners' tax evasion behaviour. It starts with our attitudes and our behaviour changes according to our attitudes. As a human, people do not like to pay taxes then obviously, you try to evade tax as much as you can. Simple.'

(Participant 2, micro-sized business owner)

'Since the independence our attitudes changed towards paying taxes. Before the independence there were no private businesses. Everything was owned by the government. Since the independence, we, businessmen, found out that there are ways to evade taxes. That changed our attitudes. Every single business owner does not want to pay. They find ways not to pay taxes.'

(Participant 6, micro-sized business owner)

'Sure, they (attitudes) influence our decision-making process. However, they are not as influential as corruption, social pressure, compliance costs and complexities of tax laws. I do not see any positive returns from my tax payments'

(Participant 9, micro-sized business owner)

Interestingly, there is one opinion by an interview participant who mentions that attitudes may influence one's decision making, once the costs and benefits of tax evasion are assessed.

'Attitudes towards tax evasion may influence the SME owners' tax evasion behaviour directly. However, I believe there must be some sort of assessment of costs and benefits of tax evasion. If this trade-off is beneficial then SME owners will evade taxes'.

(Participant 3, small-business owner)

7.3 Personal financial condition

In addition to attitudes, the impact of personal financial condition on tax evasion behaviour was examined based on the responses of the participants. The findings from these interviews revealed that all interview participants unanimously agreed that financial difficulty affect their decision-making process to a huge degree.

> *'Various factors affect one's tax evasion behaviour. Personally, I think personal financial condition is the main factor to evade taxes. Small businesses have difficulty to access their money in banks and withdraw them. This puts businesspersons into financial difficulty, thus, they evade taxes in return. However, I do not believe that financial motivation can affect one's tax evasion behaviour as much as financial difficulty.*
>
> (Participant 4, small business owner)

> *'I would say personal financial condition could influence SME owners' tax evasion behaviour. Small businesses have many financial difficulties in the current times from withdrawing money from bank accounts to extra 'fees' to tax auditors and others forces. Those all payments could put SME owners into financial difficulty. Thus, they may have major impact on SME owners' decision making process'.*
>
> (Participant 2, micro-sized business owner)

Similar views were recorded from other participants 5 and 6. They mentioned that every business has motivation of earning money. Businesses are built on financial motivation

but this motive cannot affect their tax evasion behaviour. According to them, what affects their tax evasion behaviour is the financial difficulty.

> *'Financial difficulty can affect SME owner's tax evasion behaviour hugely. There is no doubt about it. I also believe that people are getting greedy year by year. They try to do everything to get richer. I think the financial motivation is main reason for their tax evasion.'*
>
> (Participant 10, micro-sized business owner)

7.4 Corruption

To understand the influence of corruption on tax evasion behaviour, the interview participants were asked several questions regarding corruption and bribery in Uzbekistan. The findings from the interviews indicate that there are mixed views amongst Uzbek SME owners regarding the effects of corruption and bribery. This could be due to the different roles they had when dealing with tax issues. Based on the interview discussions, taxpayers' perception of corruption would be crucial in shaping taxpayers' tax evasion behaviour as clearly shown in the comments.

> *'The corruption in Uzbekistan is rampant. It is from to top to bottom. If you do not give 'something' (meaning bribe money) to the right people then you cannot do business here (meaning in Uzbekistan).'*
>
> (Participant 1, 5 and 7, individual entrepreneurs)

'I am confident that everyone pays some sort of money in return to do some sort of business in this country. I speak with other business owners and they all agree to that. However, they do not want to say it openly because of the fear they have from security officers. Corruption is the essence of the tax evasion.'

(Participant 4, small-business owner)

Some of the participants, such as participant 2, 6 and 8, do not believe that the corruption is not the main factor to affect the SME owners' tax evasion behaviour. Here is what participant 8 said about corruption.

'I cannot deny the fact that the corruption and bribery are widespread in Uzbekistan. However, it is not the main factor for tax evasion behaviour. For me there are other factors such as personal financial difficulty that influence the decision-making process of SME taxpayers.'

(Participant 8, small business owner)

Interestingly, all of the interview participants mentioned that they had received some sort of levy from tax evasion for the expense of giving bribes.

'I blame the corruption for the tax evasion behaviour of SMEs. SME owners can get away by bribing tax auditors. Because they know that other SME owners do this. In addition, even if they are caught they still get away from

punishment by bribing justice officials. So, corruption is social phenomena and needs tackling. People know this issue but nobody talks about it.''

(Participant 9, micro-sized business owner)

7.5 Complexity of tax law

Complexities of tax laws were examined based on the participants' experience with tax laws. Majority of the interview participants deal with their own tax compliance issues. Complexities in the tax law can cause some misunderstandings. Since the independence, there have been so many changes in the tax laws in Uzbekistan. Uzbek government also tried to simplify tax laws so that no complexities can arise in complying with tax laws as well as minimising tax evasion by mistake. Almost all interview participants blame the complex tax system except the participant 8. Here are their quotes regarding this issue.

'Tax laws are very complex in Uzbekistan. Every year or every other year tax rules change. Information regarding tax laws are getting complex every year. You need to follow the new rules in order to comply with them. Many times, you do not know which new tax law abrogated the old rule. It is difficult for people like me who does not understand tax rules.'

(Participant 2, micro-sized business owner)

'Well, what can I say about tax laws? They are very complex. Businessmen have no clue. So, they just follow what tax authority say. They cannot understand tax rules. I cannot remember how many times tax rules changed in the last 10 years. You try to understand the tax rules and try to comply with

them. You end up receiving warning or penalty from the tax authority because your calculations were wrong or you did not fill all required forms. They assume that you tried to evade tax. In reality it was not the case'

(Participant 3, small-business owner)

Similar views were recorded from other participants as well. Many of them tried to comply with tax rules but they end up receiving warning from the tax authority for evading tax. As for individual entrepreneurs, it is easy. They all follow what tax authority has ordered them to pay because of their single tax category. However, for micro-sized and small businesses they have to calculate their tax payments according to their revenues. This is what participant 8 said.

'I tried to comply with tax laws but ended up receiving warning from the tax authority. So, I made a decision that I hire a tax practitioner to deal with tax compliance issues. It is less problematic and costs less compared to doing it myself or by my accountant. I think complexities of the tax laws can influence tax evasion behaviour as much as attitudes. However, there is a flip side of the coin. If you know the tax rules and regulations then this level of knowledge may also determine your tax evasion behaviour'.

(Participant 8, small-business owner)

7.6 Tax audits

The interview participants were asked about their tax audit experiences in order to understand the effectiveness of the tax audits on SME owners' tax evasion behaviour.

Moreover, the interview participants were asked about the effectiveness of the tax audits to combat the tax evasion activities. The tax audits were viewed as effective by some of the participants but ineffective by others. One of the common issues raised was that the Uzbek tax authority auditors had good relationships with SME owners. This may lead to more people committing offences because they were certain that they would be free from any punishment. In addition to that, tax audits cost extra to the SME owners. In conclusion, most of the participants agree that tax audits cause more tax evasion rather than minimise it. The quotes are shown below.

> *'… The communication between tax auditors and SME owners are good. If you hide something from them, they will find out it and then you are in trouble. So let them do their jobs and if they find something irregular, then you can deal with them in a nice way'*
>
> (Participant 10, micro-sized business owner)

> *'You need to have a good relationship with tax auditors. If you do not, then you opened up the door to the trouble. If you do not want any trouble and bureaucracy then just give them what they want. Their job is not to audit you or try to minimise tax evasion. They audit you in order to get money from you.'*
>
> (Participant 3, small business owner)

> *'I have learnt my lesson. When tax auditors come to audit my company, I will give them some money so they can finish their job quickly. Otherwise, they*

will make your life difficult through various ways. They only work for themselves not for the government'.

(Participant 9, micro-sized business owner)

All of the interview participants complained about long tax audit inspections if taxpayers do not give bribes. According to Word Bank Group reports Uzbek tax audits take 90 hours for small businesses and 148 hours for small businesses (IFC, 2010).

7.7 Tax compliance costs

As mentioned in the previous section, tax audits may be extra burden to SME owners rather than prevention of tax evasion. Moreover, the interview participants were asked about the amount of tax they pay and about their costs to comply with tax regulations. Almost all interview participants stated that compliance costs were too high for them except the participant 8. In addition to the compliance costs, they had to pay other taxes and extra 'payments' to tax auditors, police, fire brigade, local community taxes etc. Those all eats up their profits and they have no choice other than evade some taxes. Here are some of these quotes.

'I have no issues with tax payments alone. However, I do not like other 'extra' costs that are involved, such as fire brigade costs and etc.'

(Participant 2, micro-sized business owner)

'I must say that compliance costs are too high. The complex tax rules and tax auditor 'fees' make cost of compliance high. You end up paying more than

you normally do because of extra 'fees'. I think government should tackle corruption first. Businessmen need to make money. They cannot work and survive without the profit. The last resort is to evade taxes. I do not blame them'.

(Participant 3, small business owner)

'I lowered my compliance costs since I transferred the tax compliance issues to the tax practitioner. They sort everything out for me. I do not have to deal and pay extra 'fees' to other people. However, there are other hidden costs that we, businessmen, encounter in our daily lives, such as local authority hidden costs.

(Participant 8, small business owner)

All interview participants in the study stated that they gave bribes, gifts or made unofficial payments to tax auditors during tax inspections or meetings with them. According to Word Bank Group survey in 2008, more than half of business entities indicated that during the tax audits or meetings with tax inspectors they were expected to give gifts or unofficial payments (IFC, 2010).

7.8 Discussions of the interview findings

The previous sections in this chapter have demonstrated the effects of perceptual and informational factors to SME owners' tax evasion behaviour. This section summarises the interview findings.

Overall, based on interview responses, interview participants have similar understanding with regard to compliance. Their understanding is translated into filling tax forms, preparing proper documentation, meeting deadlines for tax payments, and declaring their income on time. However, they have differed with regards to tax evasion and avoidance. When probing into each concept, the findings indicate some differences on how SME owners interpret the concepts. Only 2 out of 10 interview participants could not differentiate between tax evasion and tax avoidance.

The discussion in the interviews also attempted to understand the effects of attitudes of SME owners towards tax evasion. Generally, the interview participants agree that their attitudes could influence their tax evasion behaviour. For example, there is agreement by some interview participants that people do not like paying taxes. This kind of attitude may determine SME owners' tax evasion behaviour. Moreover, there is also an opinion that SME owners' attitude towards tax evasion to some extent is influenced by the trade-off between costs and benefits. As commented by an interview participant, losses made or penalty paid in previous year's tax returns may need re-assessment if it proves to be beneficial.

In an attempt to understand the influence of personal financial condition, the interview participants were asked to comment about the effects of the financial motivation and the financial difficulty to their daily decision making process. When inquiring further, the interview participants unanimously agreed to huge extent, that personal financial difficulty or distress affected their decision making. Financial difficulty could influence the SME owners' tax evasion decision making more compared to financial motivation.

Almost all interview participants agreed on the effects of corruption to one's tax evasion decision making. When discussing the issue of corruption, interview participants mentioned corrupt procedures in all levels of society. Thus, these have effects on SME owners' tax evasion decision making behaviour. Interestingly, SME owners can get away from punishment through bribery and corruption when they are caught evading taxes.

The study also discussed the effects of complexities of tax laws in Uzbekistan. All participants unanimously agreed that Uzbek tax laws are very complex and difficult to understand, thus, leading to unintentional tax evasion. Since the independence, Uzbekistan was on the road to change old tax system that was used in former USSR. Uzbek government is trying to change complex tax rules so that ordinary business people can understand it when complying with tax laws. These processes led to many changes in the tax laws and regulations as mentioned by interview participants.

The discussion in the interviews also delved into the importance of tax audits minimising tax evasion behaviours. All interview participants mentioned that instead of minimising tax evasion, tax audits helped tax evasion behaviour due to the fact that SME owners have good relationships with them. Surprisingly, the findings suggest that interview participants had similar views on the effects of tax audits in their decision making.

With regards to tax compliance costs, the interview participants were asked about their tax compliance costs. The results indicate that the smaller business are the greater the tax compliance costs. When inquiring further, interview participants responded that compliance costs influence SME owners' tax evasion decision making behaviour. The interview participants mentioned further hidden costs they encounter when dealing

with tax auditors. These costs include but not limited to fire brigades, police, and costs related to local authority.

The interview findings are meant to provide further understanding of the tax evasion decision making behaviour of SME owners in this study. Drawing from the discussion with 10 SME owners, the findings indicate that the interview participants generally had similar views in most issues. The key concepts from the interview findings are summarised in Table 47.

Table 47 Summary of findings of interviews with SME owners

Topic of discussions	Summary of interview findings
Attitudes towards tax evasion	1) Humans do not like to pay tax, 2) Change of attitudes since the independence, 3) No positive return from tax payments.
Personal financial condition	1) Difficulty in accessing money in the bank, 2) Extra hidden 'fees' involved, 3) Greed.
Perception of Corruption	1) Good relationship with right people from the authority, 2) Widespread bribery, 3) Getting away from punishment due to bribery.
Tax audits	1) Having good relationship with tax auditors, 2) To minimise red tape, 3) To minimise costs.
Tax compliance costs	1) Hidden costs involved, 2) High compliance costs.

7.9 Summary

In this chapter, the discussions, analyses and findings from the semi-structured interview with SME owners were presented. This chapter discussed the influences of

perceptual factors such as attitudes towards tax evasion, personal financial condition, perception of corruption, and informational factors such as complex tax laws, tax audits and compliance costs towards SME owners' tax evasion decision making. The interview participants perceived tax compliance as meeting the deadlines for filing of tax returns, and payments from earnings made to the Tax Authority on time. They agreed that to certain extent, all of those perceptual factors influence SME owners' decision making behaviour.

The first factor, considered as important by the interview participants in the study, is the influence of attitudes towards tax evasion. Interestingly, one participant noted that their attitudes changed since the independence of Uzbekistan towards tax evasion. As for the personal financial condition, the interview participants agreed on the influence of personal financial distress towards SME owners' tax evasion decision behaviour. Minority of the group mentioned the importance of the influence of financial motivation towards SME owners' tax evasion decision making. The influence of perception of corruption was discussed by the interview participants in more details. The findings indicate some agreement and disagreement among participants in relation to the influence by perception of corruption.

Furthermore, the interview participants also stated that, informational factors, namely complexity of tax laws, tax audits and tax compliance costs, affected their tax evasion decision behaviour. In interpreting the concepts discussed in the study, it was discovered that complexity of tax laws and tax audits contributed to the tax compliance costs in the form of extra 'hidden' costs. Interesting to note, instead of minimising tax evasion behaviour, tax audits contributed to the evasion behaviour. The threat of being

audited and punished was perceived as ineffective in deterring SME owners from evading taxes due to the corruption of tax audit officials.

Overall, the findings from the interviews provided useful information to help to understand the possible grounds behind the findings gathered from the survey participants. The next chapter presents discussions of the key findings of the study, contributions and limitations of this study.

CHAPTER EIGHT

DISCUSSIONS AND CONCLUDING STATEMENTS

8.0 Chapter overview

This chapter presents comprehensive discussions of the factors investigated in this study by integrating the findings from the surveys and interviews. The presentation of the findings is the reflections of the findings in Chapter 6 and 7. The discussion begins with the perceptual factors that influence SME owners' tax evasion behaviour. This is followed by a discussion of the impact of informational factors on SME owners' tax evasion behaviour in Uzbekistan. Judgement/Justification is also explored as a moderating variable to understand the influence on the relationship between SME owners' tax evasion decision making and external factors, namely perceptual and informational factors. A discussion on the contribution, limitation of the study and future research direction conclude the chapter.

8.1 The purpose of the study

The purpose of this study is to understand the SME owners' tax evasion behaviour in Uzbekistan. Previous studies, such as Jackson and Milliron (1986), Richardson and Sawyer (2001), Kirchler (2007), Trivedi et al. (2008) and McGee (2011), suggested various factors that can influence an individual's tax compliance and non-compliance behaviour. Given the wide scope of tax compliance and non-compliance studies, based on the prior studies, this study selected several factors that could potentially contribute

to the SME owners' tax compliance/evasion decision making behaviour by using the Ethical Process Thinking Model by Rodgers (2009).

The Ethical Process Thinking Model is conceptually illustrated in a framework in Chapter 3. Considering that this study is explorative in nature, it is essential to explore the impacts of perceptual (attitudes towards tax evasion, personal financial condition and perception of corruption) and informational (complexity of tax laws, tax audits and tax compliance costs) factors that affect SME owners' tax evasion decision making behaviour.

Based on conceptual framework, twelve research questions, later translated into hypotheses, were developed to achieve the objectives of this study using the mixed-methods approach. This study adopts the partially sequential explanatory and partially concurrent mixed methods designs with surveys and semi-structured interviews as the qualitative data collection. The mixed method design in this study is consistent with the suggestion by Creswell (2009), Creswell and Plano Clark (2011) and Bryman and Bell (2011).

The Structural Equation Modelling (SEM) was used to answer research questions and test hypotheses. The use of the partial least squares (PLS) was discussed in Chapter 5 in detail. The qualitative data analysis procedures and steps were adapted based on recommendations of Braun and Clarke (2006) and Creswell (2009). The next section presents the main findings of the study from the surveys and interviews.

8.2 Ethical Process Thinking Model factors and tax evasion behaviour

In this section, the integration of findings from the quantitative and the qualitative data are discussed for each perceptual and informational factors using EPTM model in this study. This section starts with the influence of perceptual factors, namely attitudes towards tax evasion, personal financial condition and corruption towards SME owners' tax evasion behaviour. The interview data from qualitative method is expected to complement the results from the study's surveys in assisting the researcher to answer the relevant research questions.

8.2.1. Attitudes and tax evasion behaviour

The path coefficient and *p*-value for attitudes towards tax evasion indicate that attitude has a strong impact on SME owners' tax evasion decision making though process of justification/judgement. When the conceptual model was tested, attitudes towards tax evasion were found to be significant variables in explaining SME owners' tax evasion behaviour in Uzbekistan.

Hypothesis 1 '*Attitudes towards tax evasion significantly influence SME owners' Judgement/Justification process'* and Hypothesis H1a '*There is positive relationship between attitudes towards tax evasion and SME owners' tax evasion behaviour'* were accepted. The effect size of attitude towards tax evasion on SME owners' justification/judgement was large.

The interview findings explain further the influence of attitude in tax evasion behaviour of SME owners in Uzbekistan. Change of attitudes towards tax evasion since the

independence was one of the interesting findings of this study. Establishment of private businesses after the independence changed the attitudes of SME owners more towards tax evasion.

The significant influence of attitudes in explaining SME owners' tax evasion behaviour in this study supports the findings of prior studies such as Bobek and Hatfield (2003), Trivedi et al. (2004), Trivedi et al. (2008), Saad (2012) and Kamleitner et al. (2012). The interview findings provide clearer understanding of how SME owners' tax evasion behaviour was affected by their attitudes.

8.2.2 Personal financial condition and tax evasion behaviour

The findings from the survey on the path coefficient and *p*-value for personal financial condition suggested that personal financial difficulty significant affects the SME owners' tax evasion behaviour; however, personal financial motivation has lower loadings compared to personal financial difficulty/distress.

The findings resulted in acceptance of the Hypothesis 2 '*Personal financial condition significantly influences SME owners' Judgement/Justification process*', Hypothesis 2a '*There is positive relationship between financial motivation and SME owners' tax evasion behaviour*' and Hypothesis 2b '*There is positive relationship between financial difficulty/distress and SME owners' tax evasion behaviour'.*

It is, however, interesting to find that the interview findings on the influence of personal financial motivation were not consistent with the results of the survey. Essentially, SME

owners in the interview study agreed that influence of personal financial motivation exists in their decision making, but it is nor as influential as personal financial difficulty. One possible explanation for such a discrepancy could be due to the fact that interview participants did not perceive the financial motivation as an important factor as personal financial difficulty.

The significant influence of personal financial condition in explaining SME owners' tax evasion behaviour in this study supports the findings of prior studies such as Besley et al. (1997), Bloomquist (2003), Mohani and Sheehan (2004), and Torgler (2007).

8.2.3 Corruption and tax evasion behaviour

Perception of corruption (PC) is another variable examined in this study. The path coefficients and *p*-value for PC in Uzbekistan suggest that PC has significant influence on SME owners' tax evasion decision.

The Hypothesis 3 '*Perception of Corruption significantly influence SME owners' Judgment/Justification process'* and Hypothesis 3a '*There is positive relationship between perception of corruption and SME owners' tax evasion decision behaviour'* were accepted. The survey results indicate that perception of corruption has the highest influence on SME owners' tax evasion decision behaviour and the interview participants concurred with that result.

The significant influence of perception of corruption in explaining SME owners' tax evasion behaviour in this study supports the findings of prior studies such (Imam &

Jacobs, 2007), Torgler (2004), Torgler (2005), Pashev (2005), Torgler and Murphy (2004), Joulfaian (2009) and Torgler (2011). For example, Imam and Jacob (2007) study found that countries with low revenue collection as a share of GDP were usually those that had high rates of corruption. Taxes require frequent interactions between the tax authority and individual taxpayers seem to be prone to corruption. In Uzbekistan's case, this study found the effect of perception of corruption was the highest amongst the perceptual factors.

8.2.4 Complexity of tax laws and tax evasion behaviour

The highest loadings score (represented by the path coefficient and *p*-value) perceived by SME owners in Uzbekistan among informational factors proved that the complexity of tax laws has a strong influence in tax evasion behaviour.

The findings resulted in acceptance of the Hypothesis 4 '*Complexity of tax laws significantly influences SME owners' Judgement/Justification process* and Hypothesis 4a '*There is positive relationship between complex tax laws and SME owners' tax evasion behaviour*'.

The significant influence of complexity of tax laws in explaining SME owners' tax evasion behaviour in this study supports the findings of prior studies such as Mohani and Sheehan (2004) and Richardson (2008).

8.2.5 Tax audits and tax evasion behaviour

Tax audits (TA) is another informational variable examined in the study. The path coefficients and *p*-value for PC in Uzbekistan suggest that PC also strongly affects SME owners' tax evasion decision.

The Hypothesis 5 '*Tax audits significantly influence SME owners' Judgment/Justification process'* was accepted in this study. The survey results indicate that TA had a significant influence on SME owners' tax evasion behaviour. However, Hypothesis 5a '*There is negative relationship between tax audits and SME owners' tax evasion decision behaviour'* were rejected as SME owners viewed the TA as extra tax compliance costs. Further probing in the interview process revealed that SME owners believed that they could avoid punishment even if caught evading. As a result, they did not believe in tax audits as beneficial tool to combat the tax evasion in a state where corruption was common, such as Uzbekistan. Furthermore, for SME owners who were already paying taxes, the further TA could only encourage them to be less compliant.

The findings in this study supports other similar studies such as Frey (2003) and Hessing et al. (1992).

8.2.6 Tax compliance costs and tax evasion behaviour

The findings from the survey on the path coefficient and *p*-value for personal financial condition suggest that Compliance Costs (CC) is an important factor in elucidating SME owners' tax evasion behaviour. CC has second highest loadings among informational factors that influence SME owners' tax evasion behaviour.

The findings resulted in acceptance of the Hypothesis 6 '*Compliance cost significantly influences SME owners' Judgement/Justification process* and Hypothesis 6a '*There is positive relationship between compliance costs and SME owners' tax evasion behaviour*'. A statistically significant positive relationship was observed between compliance costs and SME owners' tax evasion behaviour.

The significant influence of CC in explaining SME owners' tax evasion behaviour in this study supports the findings of prior studies such as Franzoni (2008) and Coolidge (2012).

8.2.7 Conceptual framework

Preference-based pathway:

Hypothesis Ha '*Perceptions (Attitudes, Personal Financial condition and Corruption) towards tax evasion significantly influence SME owners' decisional behaviour*' was rejected due to nonsignificant *p*-value.

Rule-based pathway:

Hypothesis Hb '*Perceptions (Attitudes, Personal Financial condition and Corruption) towards tax evasion significantly influence SME owners' decisional behaviour through the process of Judgement/Justification'* was accepted.

Principle-based pathway:

Hypothesis Hc '*Informational factors (Complexity of tax laws, Tax Audits and Compliance Costs) significantly influence SME owners' decisional behaviour through the process of Judgement/Justification'* was also accepted.

Relativist-based pathway:

Hypothesis Hd '*Informational factors (Complexity of tax laws, Tax Audits and Compliance Costs) significantly influence SME owners' perceptions and in turn perceptions influence SME owners' tax evasion decision'* was accepted.

Virtue ethics-based pathway:

Hypothesis He '*Perceptual factors (Attitudes, Personal financial condition and Corruption) significantly influence SME owners' tax evasion decisions through the process of Information and Judgement/Justification'* was accepted.

Ethics of care-based pathway:

Hypothesis Hf '*Informational factors (Complexity of tax laws, Tax Audits and Compliance Costs) significantly influence SME owners' decisional behaviour through the process of Perception and Judgement/Justification' was also accepted.*

8.3 Contribution of the study

The study has attempted to understand the evasion behaviour of SMEs in Uzbekistan using selected factors. The study uses Ethical Process Thinking Model. The researcher is of the view that this study makes several contributions to the existing literature as well as accounting profession.

8.3.1 Theoretical contribution

This research makes its contribution to knowledge by investigating the effects of tax evasion factors to small and micro-sized enterprise owners' tax evasion behaviour in

Uzbeksitan. The data was collected through survey questionnaires and supporting data collected through semi-structured interviews.

Firstly, although, there have been calls for more tax compliance and non-compliance studies in tax literature (Andreoni et al., 1998; Richardson & Sawyer, 2001; McGee, 2011), tax studies in Central Asian regions remain scarce. To the best of the researcher's knowledge, this study is the first to explore SME owners' tax non-compliance behaviour in Uzbekistan and it assists with providing some insights into tax noncompliance behaviour of SME owners. Most of the prior studies have been carried out in developed countries such as the USA, Europe and Australia and in some developing countries such as African and Asian countries. Given the general focus of researchers on individual tax compliance and non-compliance, this research advance the current knowledge on tax evasion by extending the investigation to the business context as well as to the Central Asian countries: two largely neglected topics in the field of tax evasion literature.

Secondly, this study further contributes by providing evidence of tax compliance and non-compliance factors in a developing country, particularly in the Central Asian countries that were previously not researched. This research can be used in other countries which have similar taxpayer backgrounds, economic social and cultural environments as well as financial policies.

Thirdly, as indicated earlier, the prior tax compliance and non-compliance studies have only focused on certain factors which are important in understanding tax compliance and non-compliance behaviour by using Theory of Reasoned Action or Theory of Planned Behaviour. This research used Ethical Process Thinking Model which is new in

the research. The researcher categorised some of the salient factors taken from prior studies (Jackson & Milliron, 1986; Andreoni et al., 1998; Richardson & Sawyer, 2001; Richardson, 2006) into Perceptual and Informational factors in order to fit them to EPTM. The tax evasion behaviour was explored based on four different components, namely perceptions, information, judgement/justification and decision. The Ethical Process Thinking Model has been proven to explain individual taxpayers' behaviour in this research. However, the application of the EPTM in tax studies is still scarce. In order to increase the applicability of EPTM, other cross-cultural studies should be carried out.

Fourthly, with regards to methodological contribution, the researcher is of the opinion that this study has the potential to contribute to the research method. A mixed methods approach has been widely used in other social science research areas of study (Creswell & Plano Clark, 2011). However, the mixed methods approach is still not widely used to explore tax compliance and non-compliance studies (McKerchar, 2010). Thus, applying the mixed methods approach by combining the quantitative (survey) and qualitative (semi-structured interviews) approaches, to answer the research questions of this study will contribute to the existing literature. It is also noteworthy that the interview findings have contributed to richer understanding of SME owners' tax evasion behaviour in this study. The use of the mixed methods approach is consistent with the growing trend to incorporate a combination of quantitative and qualitative research methods in a study. Moreover, using hypothetical and direct questions in the questionnaire survey were believed to increase the validity and generalisability of the results. With regards to the research methods applied in this study, the researcher is of the opinion that this study has the potential to contribute in several ways:

1) Adoption of mixed method,

2) The use of structural equation modelling (SEM). The use of SEM in tax studies is still limited. The application of SEM in this study, namely Partial Least Squares (PLS), allows for a single, comprehensive and systematic analysis to be performed on all variables simultaneously.

Fifthly, six salient factors from two perspectives (perceptual and informational) that affect tax non-compliance were valuable information to the Tax Authorities. These factors were vital in helping the Tax Authorities to understand the behaviour of small and micro-sized business owners in relation to tax evasion. This research finds that information factors such as compliance costs and complexity of tax laws, are strongly statistically significant related to the level of tax evasion in Uzbekistan. While higher compliance costs and complexity of tax laws increase tax evasion. According to the proponents of economic school researchers tax audits reduce tax evasion. However, in this research, tax audits increased tax evasion.

8.3.2 Practical contribution

Based on the findings of the study, the researcher has the opinion that findings from this study have shown the importance of perceptual and informational factors on SME owners' tax evasion behaviour. Based on the survey and interview findings, the Uzbek government needs to address some of the issues, such as corruption, compliance costs, tax audits and complexities of tax law in order to ensure that Uzbek SME owners' attitudes are always positive towards paying taxes.

The presence of high compliance cost, complex tax laws and tax audits intertwined with corruption in the tax authorities were evident in the interviews. It is now believed that often SME owners make their judgement/justification to evade taxes based on perceptions and information they receive from others. Therefore, use of social media by the government to educate and inform about tax audits, compliance costs and complexities in the tax laws, would be a helpful and welcomed step forward in building SME owners' perception about taxes in general. According to Corruption Perceptions Index (CPI), Uzbekistan ranked 153 out of 167 countries (Transparency International, Feb 2016). The Corruption Perception Index shows that perception of corruption in Uzbekistan is high. These perceptions could influence SME owners' tax evasion behaviour.

Additionally, the results could also be useful to the Tax Authorities and the policy holders in designing their auditing and investigation process because a good close relationship between the auditors and taxpayers is a crucial factor for taxpayers to evade more taxes. Based on the results of this study, tax auditors should be rotated so that this close relationship would not be a reason for tax evasion.

Furthermore, corruption free tax audits and severe penalties are the keys to eliminate the taxpayers' perceptions that everyone can get away with tax evasion. Even though Uzbek government has established legal framework and laws to tackle widespread corruption among public servants, it is strongly suggested that the government should face and resolve these issues seriously by implementing anti-corruption laws. Effective enforcement of anti-corruption laws and severe penalties are the keys to diminish public's perception that everyone can get away with their wrongdoings. This could be

done if enforcement of the law is exercised uniformly throughout the country on all levels of society. Those found guilty of evading taxes should be punished according to laws pertaining to tax evasion without any political and financial influences.

Finally, the complexity of tax laws also contributes to SME owners' tax evasion decision making behaviour. It is interesting to note that complexity of tax laws was found to be the most significant factor among informational variables that influence SME owners' tax evasion decision making process. Over the years, the Uzbek government has been trying to simplify the tax laws and regulations. However, these laws are not fully implemented by the local tax authorities due reasons such as corruption. The government should organise a committee to oversee the implementation of new rules and regulations. In addition to that, Tax Authorities should collaborate with the Ministry of Higher Education to help further development of a suitable syllabus for college students in order to educate the nations of the importance of tax to the government and the people of Uzbekistan. The tax education could be expected to help cultivate responsible taxpayers in Uzbekistan.

In summary, perception of corruption, tax audits, compliance costs and complexity of tax laws were viewed as main factors that influence SME owners' tax evasion behaviour by most of the participants. The widespread corruption problems along with tax audits, compliance costs (including hidden audit costs), and complex tax laws in Uzbekistan are perceived by most SME taxpayers negatively, which may in turn, increase positive perception towards tax evasion. Therefore, the rising issue of corruption along with other factors may not only affect taxpayers' non-compliance attitudes but also pose a risk to Uzbekistan's economic growth.

8.4 Limitations of the study

Despite the significant contributions of this study, it also has some limitations, which need to be considered in interpreting its findings. The first major limitation of this study is low response rates. However, the number of useable responses was adequate for the researcher to perform relevant statistical analysis. The low response rates could be due to the method of data collection which is the second limitation of this research. This research primarily relied on self-reported survey method data collection. Respondents may not respond sincerely when dealing with sensitive issues, such as tax evasion, because they do not want to reveal their true beliefs (Rasinski et al., 1999) or they are concerned that their information could be used by a third party (Rosenfeld et al., 1996) or due to the fear of punishment from authorities. In addition, SME owners are usually busy with their businesses and are reluctant to spend time filling survey questionnaire or participating in interview process. These factors may have been the cause of low response rates for this study. Furthermore, the interview participants might have felt uneasy to respond to sensitive questions about their tax evasion behaviours due to the employment of face-to-face interviews in this study or due to fear of lack of true anonymity even though the researcher had assured them. Consequently, they may have tended to give answers other than what they really did feel in order to avoid further trouble.

The third limitation of this research is that observed samples do not truly represent the population of SMEs in the country. Respondents came from small city of Uzbekistan and SME owners' tax evasion decision could differ in other parts of the region. However, given the limited studies on SME owners ethical decision making in Uzbekistan, the findings from this study are still useful in understanding their tax evasion behaviour.

Finally, some of the loadings for the measures used in this study from the PLS analysis were marginally below the suggested threshold values. However, it is acceptable to retain the low loadings measure for content validity purpose in a study, which involved some newly developed measures.

8.5 Directions for future research

The model proposed in this study indicates the potential of the model to explain the tax evasion behaviour of SME owners. The key direction for future research in this particular field would be to test the model in other tax jurisdictions. It could be a worthwhile effort to test the stability of the model and allow for comparisons with other countries to be made. The comparison between Uzbekistan and other Central Asian countries could offer similarities and differences of factors that influence SME owners' tax evasion behaviour.

Finally, the use of the mixed methods approach in this study has the potential to offer better understanding of tax evasion behaviour of taxpayers. For example, the qualitative findings from the semi-structured interviews complemented the quantitative method and even revealed some other interesting factors that influence SME owners' tax evasion behaviour. As a result, future tax compliance/non-compliance studies should be encouraged to adopt the mixed methods approach.

8.6 Summary of the study and the results

Tax compliance has always been an important issue to governments and revenue authorities in general because tax non-compliance affects revenue collection and the ability of the government to achieve its fiscal and social goals. This is why many countries spend huge amount of their budget revenues to combat tax non-compliance. There have been many researches conducted on tax compliance and non-compliance issues by scholars from different fields in order to understand the effects factors. The levels of compliance will vary based on a variety of factors and the levels may change from year to year. Managing the levels of compliance are therefore key challenges that the tax authorities has to resolve.

As outlined in Chapter 1, the objectives of this study are to identify tax evasion variables that influence SME owner's tax evasion behaviour. Additionally, this research investigates tax evasion variables among SMEs and try to understand the SME owners' tax evasion behaviour in Uzbekistan. In order to accomplish the general and the specific objectives of this study the research tried to answer some questions.

Chapter 2 discusses the theories and literature relevant to this study. The discussions regarding the difference between tax avoidance and tax evasion are presented followed by the economic school models. Psychological school models are presented in this chapter. The justification of using Ethical Process Thinking Model is discussed along with its flexibility to adapt to tax non-compliance studies.

Chapter 3 discussed the conceptual framework along with research framework as a guide to test factors that influence SME owners' tax evasion decision making behaviour.

The proposed conceptual framework is based on Rodger's Ethical Process Thinking Model. Based on conceptual framework, this research adopted research framework which has 4 phases. Then prior studies related to tax compliance and non-compliance factors are reviewed. Six factors were chosen based on literature reviews and those variables grouped into two groups, namely perceptual and informational. Nineteen hypotheses were designed along with the research questions in this chapter.

Chapter 4 discussed research methodology and design including data collection methods implemented. This chapter began with the introduction of the research paradigm and research design followed by discussions and justification of employing mixed method approach. Additionally, this chapter discussed the procedures for data preparation and pre-analysis process by analysing non-response bias, common method bias and descriptive analyses. The researcher also explained the procedures for the qualitative approach by discussing sample selection and sample sizes.

Chapter 5 discussed the preliminary analyses and results for the survey data. This chapter started with the introduction to structural equation modelling (SEM) applied in this study, followed by differences between covariance-based SEM and partial least squares SEM (PLS SEM). The justification of using the PLS SEM was also presented. The preliminary analyses results were centred on process of data assessment, response rate, demographic backgrounds (age, gender, marital status, education and business type), non-response bias and common method variance. Measures of independent variables were discussed along with preliminary test results.

Chapter 6 presented the results from the measurement model at first, second and third order factors by examining the reliability and validity of the indicators and the constructs. Additionally, the structural equation model analyses were also presented in this chapter by using PLS SEM technique. Results of the hypotheses testing were also discussed in this chapter.

Chapter 7 presented the results of the qualitative study by discussing the analyses and findings from the semi-structured interviews. In the first part of this chapter, the influences of perceptual factors such attitudes towards tax evasion, personal financial condition and perception of corruption were discussed followed by the influence of informational factors such as complexity of tax laws, tax audits and compliance costs. Overall, the findings from the interviews provided useful information to help to understand the possible grounds behind the findings gathered from the survey participants.

In the concluding chapter, comprehensive discussions of the effects of perceptual and informational factors were presented. In addition to, discussions on the contribution and limitation of the study and future research directions were presented.

Appendix

Appendix A: Human Ethics Approval Letter

Ref: HUBSREC 2014/40

10 December 2014

Mr Alisher Erkaboev

Department of Accounting, University of Hull

Dear Alisher

Re: Tax evasion by small and micro sized enterprises (SMEs) in Uzbekistan

Thank you for your research ethics application.

I am pleased to inform you that on behalf of the Business School Research Ethics Committee at the University of Hull, Jon Simon has approved your application on 9 December 2014.

I wish you every success with your research.

Yours sincerely,

Hilary Carpenter

Secretary,

Research Ethics Committee

Appendix B: Sample of survey questionnaire

Tax evasion by Small and Micro Sized Enterprises (SMEs) and the role of the accountants in Uzbekistan.

Questionnaire survey: Confidential

The survey is carried out to support a doctoral research study under the supervision of Professor Waymond Rodgers, the University of Hull. The study investigates tax evasion by Small and Micro sized Enterprises (SMEs) and the role of the accountants in Uzbekistan. Its aim is to gain insights into the extent of impact and understanding of tax evasion cases in practice by SMEs. It also aims to explore the actual and potential role of accountants in relation to tax evasion in Uzbekistan.

You have been selected randomly as a respondent for this questionnaire. I assure you that replies are completely anonymous and strictly confidential. Your identity will not be revealed to anyone in any way or shape in Uzbekistan and the answers you provide will be used for research purposes only to support my studies in the UK. Please note that this questionnaire will be kept in a safe location once the research has been completed. Your participation in this research is voluntary and is free to withdraw at any time and without adverse consequences and any information gathered until such time will not be used.

I hope that you will find time from your busy schedule to complete this questionnaire. I thank you in advance for your cooperation in support of this research study. Your help and feedback is very important for me.

The questionnaire will take approximately 25-30 minutes to complete. There is no right or wrong answers.

If you have any queries about the study please do not hesitate to contact me:

Alisher Erkaboev, PhD Accounting: Email: a.erkaboev@2011.hull.ac.uk

Hull University Business School

Cottingham road, Hull,

North Humberside. HU6 7RX.

O’zbekistandagi Kichik va Mikro bizneslarning soliq to’lovidan qochishlari va xisobchilarni bundagi o’rni.

Anketa savollari: Maxfiydir.

Ushbu anketa mening asperantura ishlanishimni davom ettirishim uchun Hull Universitetinining Biznes Maktabi Professori Vaymond Rodjers kuzatuvi ostida amalga oshiriladi. Mening izlanish soxam esa O’zbekistondagi Kichik va Mikro Bizneslarni (KMB) soliq to’lovlaridan qochishlari va xisobchilarning unda tutgan o’rgani xaqidadir. Ushbu izlanishni maqsadi esa O’zbekistondagi KMBlardagi soliqdan qochishini aniqlash va tushunishdir. Shu bilan birga xisobchilarni bu soxadagi va kelajakdagi ro’lini ko’rib chiqishdir.

Siz bu anketani to’ldirish uchun tanlandingiz. Men sizni ishiontirib aytamanki ushbu anketadagi javoblaringiz anonimdir va judayam maxfiydir. Sizning kimligingiz O’zbekistondagi hech kimga bildirilmaydi va maxfiy saqlanadi. Sizning javoblariningiz faqatgina meni Angliyadagi asperantura izlanishimni davom ettirishim uchun yordam beradi. Sizni anketangiz javoblari meni asperantura ishim tugagandan keyin Universitetning arxivida sir saqladi. Sizning ushbu anketada ishtirokingiz ixtiyoriydir va xoxlagan vaqtingizda anketani to’ldirishdan bosh tortishingiz mumkin. Sizga hech qanday ziyoni tegmaydi.

Men ishonamanki siz usbu anketani to’dirib menga qaytarasiz. Sizga meni ishimni dastaklaganligingiz uchun oldindan katta raxmat aytaman. Chunki sizning yordamingiz men uchun judayam muximdir.

Anketani to’ldirish uchun 25-30 minut sarflash yetadi. Unda tog’ri yoki no’to’gri javoblar yo’q. Agar sizda qandaydir savollar bo’lsa menga murojat qilishingiz mumkin.

Alisher Erkaboev, Asperantura o’quvchisi. Email: a.erkaboev@2011.hull.ac.uk

Hull Universiteti Biznes Maktabi,

Cottingham ko’chasi, Hull,

North Humberside. HU6 7RX.

This is an anonymous questionnaire. Please ensure that you do not write your name, or any other comments that will make you identifiable, on the attached questionnaire. / **Bu anonim anketadir. Iltimos anketani ustiga ismingizni yoki sizni kimligingizni bildiradigan biror bir narsalar yozmang.**

Mark the applicable answer/s, by circling your choice.

Tog'ri keladigan jovoblarni belgilang.

1) Please indicate your age group / **Yosh guruhingiz:**

20-29	1
30-39	2
40-49	3
50-59	4
60 and over/**dan oshiq**	5

2) Please indicate your gender/ **Jinsingiz:**

Male/**Erkak**	1
Female/**Ayol**	2

3) Please indicate marital status/Oilaviy holatingiz:

Single/**Bo'ydoq**	1
Married/**Uylangan**	2
Divorced/separated/**Ajrashgan**	3

4) Please indicate your educational background /**Ma'lumotingiz:**

Secondary school/**Maktab**	1
College / **Kollej**	2
University/**Universitet**	3

5) Please indicate your business type/ Bisnes turi:

Individual entrepreneur/ **Yakka tadbirkor**	1
micro-firms/**Mikro firma**	2
small businesses/**Kichik biznes**	3
Employed accountant (Go to Q7)/**Buxgalter (7-savolga o'ting)**	4

6) Who does the accounting job in your business? **Buxgalteriya ishlarini kim qiladi?**

Yourself / **O'zingiz**	1
Spouse/partner/ **Sherik**	2
Friends / **O'rtoqlaringiz**	3
Employee accountant / **Buxgalter**	4
Accounting company /**Buxgalteriya korxonasi**	5

7) Who deals with tax matters? / **Soliq ishlarini kim bajaradi?**

Yourself / **O'zingiz**	1
Spouse/partner / **Sherik**	2
Friends / **Do'stingiz**	3
Employee accountant / **Buxgalter**	4
Tax practitioner / **Buxgalteriya kompaniyasi**	5

8) How many times you have been penalized by the Tax Authority? **Soliq qo'mitasi tomonidan necha marta jazoga tortilgansiz?**

9) How many times you have been warned by the Tax Authority? **Necha marotaba Soliq Qo'mitasi tomonidan ogohlantirilgansiz?**

10) How many times you have been audited in the last ten years? **Oxirgi 10 yil ichida necha marotaba taftish qilingansiz?**

11) Do you know how many times (at least) the Uzbek tax laws changed since the independence?
O'zbekistan mustaqilligidan keyin soliq qonunlariga eng kamida necha maratoba o'zgartirish kiritildi?

12) Do you know how many times (at least) the Uzbek tax laws changed since 2000?
O'zbekistan 2000- yildan keyin soliq qonunlariga eng kamida necha maratoba o'zgartirish kiritildi?

13) What percentage of your income do you spend in order to comply with tax rules including accountant's salaries? **(CC1) Soliq tizimiga amal qilib soliq to'lash uchun daromadingizni qancha foizini sarflaysiz (buxgalterning oyligi bilan birga)?**

14) Imagine yourself in this situation and please circle the appropriate action that you will take.
Aziz has a computer servicing business. He was paid 1,000,000 Uzbek Soums cash for the work that he has done outside his business. The Tax Committee is not aware of this transaction. Aziz has negative attitude (He does not like to pay tax) towards paying tax. What would you do if you were in the same situation as Aziz?
O'zingizni quyidagi xolatta tasavvur qiling va nima qilishingizni bildiring.
Azizning kompyuter ta'mirlash biznesi bor. U ishidan tashqari kunda qilgan xizmati uchun 1,000,000 so'm ishladi. Bundan esa soliq qo'mitasining xabari yo'q. Aziz soliq to'lashni yoqtirmaydi. Uning o'rnida bo'lganingizda siz nima qilardingiz?

	Strongly Disagree				
ATE1 - For me not to declare this transaction is good / **Men uchun soliqqa bildirmaslik**	1	2	3	4	5

15) Dilshod has a clothing business. He sells his products from his shop in the town. However, he goes to the market stall twice a week to sell his products without cash register. Neither does Dilshod keep a record of the sales nor does he report it on his company accounts. He finds difficult to record of all sales because of complexities of tax law. To make matters easy he only includes the sales from his shop but not from the market. Please indicate below what decision would you take in the same situation?.
Dilshodning kiyim-kechak biznesi bor. U asosan tovarlarini shaxardagi magazinidan sotadi. Ammo u haftada ikki marotaba bozorga chiqadi. Bozordagi sotuvlarini kassadan o'tkazmaydi. Buxgalteriya ishlarini oson qilish

maqsadida u faqat magazinidagi sotuvdan kelgan daromadidan soliq to'laydi. Agar siz Dilshodning o'rnida bo'lganingizda siz qanday yo'l tutardingiz qilarmidingiz.

1 StronglyDisagree/ Kuchli norozi	2 Disagree / Norozi	3 Neutral / Norozi ham Rozi ham emas	4 Agree / Rozi	5 StronglyAgree / Kuchlik rozi

Ali is an accountant in a SME and earns average monthly salary of 450,000 Uzbek Soums and commissions on top of his performance. The commissions are paid in cash and do not appear on the payslips. He never declared his commissions to the Tax Committee for the last 5 years. His commission was 1,500,000 Uzbek Soums in 2013. In the year tax audit the Tax Audit Committee auditor investigated him and penalized him 1,500,000 Uzbeks Soums on that underreported commissions.

Ali kichik bir korxonada o'rtacha oylikka (450,000 so'm) buxgalter bo'lib ishlaydi va yilda bir ishiga qarab mukofot puli oladi. Mukofot pullari naqd pulda to'lanadi va u oylik maoshida ko'rinmaydi. U oxirgi 5 yillik mukofot pullarini Soliq qo'mitasiga bildirmaydi. Uning 2013 yildagi mukofor puli 1,500,000 so'mni tashkil etti. Shu yili Soliq qo'mitasi qilgan audit natijasida uning mukofot pullari olganligi ma'lum bo'ldi va Ali Soliq qo'mitasi tomonidan 1,500,000 som jarimaga tortildi. Agar siz Alining o'rnida bolganingizda:

16) Do you think Ali will comply with tax laws and declare future commissions due to tax audits? / **Sizningcha Ali soliq auditi tufaylik kelasi yilgi mukofot pullarini bildiradi? (TA1)**

1 StronglyDisagree/ Kuchli norozi	2 Disagree / Norozi	3 Neutral / Norozi ham Rozi ham emas	4 Agree / Rozi	5 StronglyAgree / Kuchlik rozi

17) Do you think Ali would not declare his commission for the next year due to the loss of tax audits? / **Sizningcha Ali kelasi yilgi mukofot pulini soliqqa bildirmaydi chunki u soliq auditi tufayli zarar ko'rdi. (TA2)**

1 StronglyDisagree/ Kuchli norozi	2 Disagree / Norozi	3 Neutral / Norozi ham Rozi ham emas	4 Agree / Rozi	5 StronglyAgree / Kuchlik rozi

Imagine the same scenario as above. The tax auditor wanted to collude to reduce official tax penalty to 500,000 Uzbek Soums and divide the 'savings between themselves' (500,000 Uzbek Soums to the tax auditor and 500,000 Uzbek Soums to Ali).

O'zingizni 11- misoldagi kabi his qiling. Soliq auditori sizga solingan soliqni 500,000 so'mga qilib belgilab qolgan 1,000,000ini sizni bilan teng bo'lishmoqchi.

18) Please indicate below what decision you would take if your motivation were to earn more money.

Agar sizni maqsadingiz pul topish bo'lsa ushbu xolatta siz nima qaror bergan bo'lardingiz?

1 StronglyDisagree/ Kuchli norozi	2 Disagree / Norozi	3 Neutral / Norozi ham Rozi ham emas	4 Agree / Rozi	5 StronglyAgree / Kuchlik rozi

19) Please indicate below what decision you would take if you were in a financial difficulty.

Agar moliyaviy qiyinchilikda bo'lganingizda ushbu xolatga nima qaror bergan bo'lardingiz?

1 StronglyDisagree/ Kuchli norozi	2 Disagree / Norozi	3 Neutral / Norozi ham Rozi ham emas	4 Agree / Rozi	5 StronglyAgree / Kuchlik rozi

20) Assume that you live in a country that has 0 (zero) percent income tax and you will never be audited by the Inland Revenue authority. Tax payments are voluntary. In this kind of situation what percentage of your income will you be intending to pay as a tax?

O'zingizni soliq to'lamaydigan mamlakatta yashaysiz deb hayol qiling va siz hecham soliq qo'mitasi tomonidan audit qilinmaysiz. Soliq to'lovlari esa ixtiyoriydir. Shunday xolatta siz maoshingizni qancha foizini soliq uchun to'lardingiz?

a) 0% b) 1-3% c) 4-7% d) 8-10% e) over 11% **oshiq.**

For the following questions, please rate your agreement using a scale of 1-5 where (1) means 'strongly disagree and (5) means 'strongly agree' / **Quyidagi savollarni ularga qanchalik roziligingizni bildiring. 1 'kuchli norozi' dan 5 'kuchlik rozi'.**

1 **Strongly Disagree** **Kuchli norozi**	**2** **Disagree / Norozi**	**3** **Neutral / Norozi ham** **Rozi ham emas**	**4** **Agree / Rozi**	**5** **Strongly Agree** **Kuchli rozi**
21) In your opinion, tax evasion is common among SMEs in Uzbekistan. (ATE) **O'zbekistonda kichik va mikro miqyosdagi bizneslarda soliq to'lovidan qochish umumiy xolattir.**				
1	2	3	4	5
22) Tax evasion is justified because it is a common practice in Uzbekistan. (J1) **Soliqndan qochish aoslidir hunki bu xolat O'zbekistonda umumiy xolattir.**				
1	2	3	4	5
23) For me bribery/corruption causes tax evasion. (PC). Men uchun poraxo'rlik/korrupstiya soliqdan qochishga sababchidir				
1	2	3	4	5
24) You have been required to give a bribe, gift or favour to tax audit officials in order to obtain a tax evasion service. (TA)				
1	2	3	4	5
25) Tax evasion is justified if the tax system is unfair. (J2). Soliq tizimi adolatsiz bo'lganda soliq to'livini kamaytirib to'lash tog'ridir.				
1	2	3	4	5
26) There is nothing morally wrong with paying less than the proper amount if you are financial distress. (FD) **Moliyaviy qiyinchlikda ekanligingizda soliq to'lovini kamaytirib to'lashda hech ayb yo'qdir.**				
1	2	3	4	5
27) There is nothing wrong paying less tax than the proper amount because the cost of tax compliance is high. (CC) **Soliq to'lovlari uchun qilinadigan xarajatlar ko'p bo'lganda soliq to'lovini kamaytirib to'lashda hech ayb yo'qdir**				
1	2	3	4	5
28) (FD1) I will consider evading tax when I am in financial distress. **Men moliyaviy qiynalib turgan vaqtimda soliqdan to'lovidan qochish yo'lini tutishim mumkin.**				
1	2	3	4	5
29) Tax evasion is justified if a significant portion of money collected ends up in the pockets of corrupt politicians. (J3) **Agar soliq to'lovlarining katta qismi poraxo'r siyosatchilarning cho'ntagiga tushadigan bo'lsa soliq to'lovi to'lamaslik to'g'ridir.**				
1	2	3	4	5
30) Having more cash available as a consequence of not complying with the tax laws is good. (FM) **Soliq to'lovlarini to'lamaslik natijasida orttirilgan pul yaxshidir.**				
1	2	3	4	5
31) (CC2) For me compliance costs are high. Men uchun soliq to'lovlari miqdori yuqori.				
1	2	3	4	5

32) (PC1) For me corruption is high in Uzbekistan. Korrupstiya O'zbekistonda yuqoridir.				
1	2	3	4	5
33) (PC2) Corruption is common in Uzbekistan. O'zbekistnda korrupstiya ommaviy holdir.				
1	2	3	4	5
34) (TA3) Tax auditors can be easily bribed. Soliq auditorlarini pora bilan sotib olish oson.				
1	2	3	4	5
35) For me tax compliance costs are low. Men uchun soliq to'lovlari miqdori ozdir. (CC3)				
1	2	3	4	5
36) (TA4) The possibility of more tax audits encourage businesses to comply with tax laws. Soliq auditlarini ko'payishi bizneslarni soliq qonunlariga bo'ysunishini rag'barlantiradi.				
1	2	3	4	5
37) COTL1 - For me tax laws are easy to understand./Men uchun soliqq qonunlarini tushunish oson.				
1	2	3	4	5
38) Complexity tax laws cause more evasion (COTL) . Murakkab soliq qonunlari soliqdan qochishga sabab bo'ladi.				
1	2	3	4	5
39) (FD2) I will never consider evading tax even if I am in financial difficulty. Men moliyaviy qiyinchilikka tushgan vaqtimda ham soliqdan qochish yo'lini tutmayman.				
1	2	3	4	5
40) (FM1) For me financial incentive is main priority and I do not mind where the money comes from. Men uchun pulning qaerdan kelishi muhim emas. Asosiysi pul kelsa bo'ldi.				
1	2	3	4	5
41) COTL2 - For me tax laws are very complex / Men uchun soliq qonunlari murakkab.				
1	2	3	4	5

If you would like to participate in an interview please indicate your desire by ticking the box.

Agar suxbat qilishga rozi bo'lsangiz quyida javobingizni bering.

Yes **No/Yo'q** **Tel No:/Telefon:**

THANK YOU VERY MUCH FOR YOUR PARTICIPATION

ISHTIROKINGIZ UCHUN KATTA RAXMAT.

Appendix C: Interview Guide

Introduction

Thank you very much for accepting my invitation to attend this interview. Before we start our interview, I would like to remind you the purpose and the procedures for the interview.

Purpose

The main purpose of this interview is to examine the salient factors that influence SME owners' tax compliance/non-compliance decision making behaviour.

Procedure

This interview should not take more than 40 minutes.

The questions are related to your experience as SME taxpayer and I would be grateful if you could provide your honest answers for better understanding.

The interview will be recorded and the interview participants will be by numbers to maintain confidentiality.

The after the research the audio will be destroyed and no info will be given to the third parties.

Tax compliance, avoidance and evasion.

Could you please explain briefly what do you understand by the term 'tax compliance', 'tax avoidance' and 'tax evasion'?

Could you please explain whether or not your own attitude towards tax evasion influences your decision to evade taxes?

Could you please explain whether or not your own personal financial difficulty or financial motivation influences your decision to evade taxes?

Could you please explain whether or not your perception of corruption influences your decision to evade taxes?

Could you please explain whether or not complexity of tax laws influences your decision to evade taxes?

Could you please explain whether or not tax audits influence your decision to comply with tax laws?

Could you please explain whether or not compliance costs influence your decision to evade taxes?

Judgement/Justification

Could you please explain what do you base your judgements on when evading taxes?

Could you please explain how do you justify tax evasion or when tax evasion is justified?

Decision

Could you please explain how do you make decisions when complying with tax laws?

In tax evasion decision making, do you consider the risks of being caught and punished?

Wrap up section.

What is the most important factor that motivates you to evade taxes?

What do you think the Uzbek government should do to tackle the tax evasion among SMEs?

Appendix D: Non-response bias test results

Independent Samples Test										
		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
ATE	Equal variances assumed	.380	.540	-2.306	58	.025	-.633	.275	-1.183	-.084
	Equal variances not assumed			-2.306	57.816	.025	-.633	.275	-1.183	-.083
FD	Equal variances assumed	.845	.362	-.766	58	.447	-.200	.261	-.723	.323
	Equal variances not assumed			-.766	55.865	.447	-.200	.261	-.723	.323
FM	Equal variances assumed	2.947	.091	.105	58	.917	.033	.317	-.601	.667
	Equal variances not assumed			.105	55.240	.917	.033	.317	-.601	.668
PC	Equal variances assumed	.710	.403	-1.106	58	.273	-.267	.241	-.749	.216
	Equal variances not assumed			-1.106	56.968	.273	-.267	.241	-.749	.216
COTL	Equal variances assumed	.018	.894	.144	58	.886	.033	.231	-.430	.496
	Equal variances not assumed			.144	57.295	.886	.033	.231	-.430	.497
TA	Equal variances assumed	.009	.925	-.359	58	.721	-.100	.279	-.658	.458
	Equal variances not assumed			-.359	57.985	.721	-.100	.279	-.658	.458
CC	Equal variances assumed	.976	.327	-.216	58	.830	-.067	.308	-.684	.550
	Equal variances not assumed			-.216	55.973	.830	-.067	.308	-.684	.551
J1	Equal variances assumed	.411	.524	.265	58	.792	.067	.251	-.436	.569
	Equal variances not assumed			.265	56.323	.792	.067	.251	-.436	.570
J2	Equal variances assumed	.748	.391	-.779	58	.439	-.200	.257	-.714	.314
	Equal variances not assumed			-.779	54.558	.439	-.200	.257	-.715	.315
J3	Equal variances assumed	5.774	.019	.486	58	.629	.133	.274	-.416	.682
	Equal variances not assumed			.486	46.740	.629	.133	.274	-.419	.685
D1	Equal variances assumed	26.253	.000	.519	58	.606	.167	.321	-.476	.810
	Equal variances not assumed			.519	48.458	.606	.167	.321	-.479	.812
D2	Equal variances assumed	3.362	.072	1.067	58	.291	.300	.281	-.263	.863
	Equal variances not assumed			1.067	56.825	.291	.300	.281	-.263	.863
D3	Equal variances assumed	.216	.644	-.678	58	.500	-.167	.246	-.659	.325
	Equal variances not assumed			-.678	57.985	.500	-.167	.246	-.659	.325

Appendix E: Common method bias

Common Method Variance (partial correlation analysis)

Correlations														
		ATE	FD	FM	PC	TA	CC	COTL	J1	J2	J3	D1	D2	D3
ATE	Pearson Correlation	1	.399**	.171	.542**	.467**	.279**	.340**	.573**	.443**	.262**	.284**	.110	.284**
FD	Pearson Correlation	.399**	1	.474**	.544**	.519**	.503**	.544**	.379**	.580**	.519**	.378**	.418**	.629**
FM	Pearson Correlation	.171	.474**	1	.319**	.343**	.417**	.334**	.274**	.489**	.499**	.458**	.425**	.442**
PC	Pearson Correlation	.542**	.544**	.319**	1	.588**	.267**	.363**	.517**	.434**	.456**	.210*	.105	.441**
TA	Pearson Correlation	.467**	.519**	.343**	.588**	1	.359**	.441**	.464**	.497**	.480**	.338**	.068	.372**
CC	Pearson Correlation	.279**	.503**	.417**	.267**	.359**	1	.511**	.349**	.477**	.345**	.386**	.413**	.568**
COTL	Pearson Correlation	.340**	.544**	.334**	.363**	.441**	.511**	1	.274**	.559**	.391**	.320**	.238*	.489**
J1	Pearson Correlation	.573**	.379**	.274**	.517**	.464**	.349**	.274**	1	.501**	.264**	.276**	.190	.398**
J2	Pearson Correlation	.443**	.580**	.489**	.434**	.497**	.477**	.559**	.501**	1	.567**	.445**	.324**	.580**
J3	Pearson Correlation	.262**	.519**	.499**	.456**	.480**	.345**	.391**	.264**	.567**	1	.352**	.160	.482**
D1	Pearson Correlation	.284**	.378**	.458**	.210*	.338**	.386**	.320**	.276**	.445**	.352**	1	.488**	.340**
D2	Pearson Correlation	.110	.418**	.425**	.105	.068	.413**	.238*	.190	.324**	.160	.488**	1	.515**
D3	Pearson Correlation	.284**	.629**	.442**	.441**	.372**	.568**	.489**	.398**	.580**	.482**	.340**	.515**	1
**. Correlation is significant at the 0.01 level (2-tailed).														
*. Correlation is significant at the 0.05 level (2-tailed).														

Common method Variance (Factor analysis)

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5.890	45.306	45.306	5.890	45.306	45.306
2	1.547	11.902	57.208			
3	.945	7.273	64.481			
4	.828	6.368	70.849			
5	.693	5.330	76.179			
6	.559	4.303	80.482			
7	.509	3.915	84.396			
8	.448	3.449	87.845			
9	.409	3.150	90.995			
10	.341	2.624	93.619			
11	.300	2.309	95.929			
12	.273	2.101	98.029			
13	.256	1.971	100.000			

Extraction Method: Principal Component Analysis.

Appendix F: Linear Regression Analysis

A) Linear Regression analysis for Attitudes.

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations		
		B	Std. Error	Beta			Zero-order	Partial	Part
1	(Constant)	1.236	.287		4.304	.000			
	ATE-Attitude towards Tax Evasion	.559	.075	.584	7.408	.000	.584	.584	.584

a. Dependent Variable: Judgement/Justification 1

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations		
		B	Std. Error	Beta			Zero-order	Partial	Part
1	(Constant)	2.343	.304		7.709	.000			
	ATE-Attitude towards Tax Evasion	.326	.080	.368	4.081	.000	.368	.368	.368

a. Dependent Variable: Judgement/Justification 2

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations		
		B	Std. Error	Beta			Zero-order	Partial	Part
1	(Constant)	3.391	.273		12.442	.000			
	ATE1	.237	.080	.276	2.954	.004	.276	.276	.276
2	(Constant)	2.829	.379		7.471	.000			
	ATE1	.219	.079	.254	2.749	.007	.276	.259	.253
	ATE-Attitude towards Tax Evasion	.171	.081	.194	2.102	.038	.223	.201	.193

a. Dependent Variable: Justification/Judgement 3

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations		
		B	Std. Error	Beta			Zero-order	Partial	Part
1	(Constant)	1.755	.324		5.424	.000			
	ATE1	.358	.095	.343	3.755	.000	.343	.343	.343
2	(Constant)	.819	.440		1.861	.066			
	ATE1	.327	.092	.313	3.535	.001	.343	.326	.311
	ATE-Attitude towards Tax Evasion	.284	.094	.267	3.011	.003	.301	.282	.265

a. Dependent Variable: Decision 1

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations		
		B	Std. Error	Beta			Zero-order	Partial	Part
1	(Constant)	2.067	.311		6.649	.000			
	ATE1	.246	.092	.252	2.683	.008	.252	.252	.252

a. Dependent Variable: Decision 2

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations		
		B	Std. Error	Beta			Zero-order	Partial	Part
1	(Constant)	2.865	.309		9.281	.000			
	ATE-Attitude towards Tax Evasion	.253	.081	.291	3.127	.002	.291	.291	.291
2	(Constant)	2.421	.375		6.462	.000			
	ATE-Attitude towards Tax Evasion	.235	.080	.270	2.927	.004	.291	.275	.268
	ATE1	.160	.079	.187	2.029	.045	.217	.194	.186

a. Dependent Variable: Decision 3

B)

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations		
		B	Std. Error	Beta			Zero-order	Partial	Part
1	(Constant)	1.769	.388		4.555	.000			
	FD-financial distress to tax evasion	.381	.096	.361	3.988	.000	.361	.361	.361

a. Dependent Variable: Judgement/Justification 1

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations		
		B	Std. Error	Beta			Zero-order	Partial	Part
1	(Constant)	1.406	.321		4.384	.000			
	FD-financial distress to tax evasion	.539	.079	.553	6.839	.000	.553	.553	.553
2	(Constant)	.748	.337		2.217	.029			
	FD-financial distress to tax evasion	.455	.076	.467	5.982	.000	.553	.504	.450
	Financial difficulty1	.319	.076	.326	4.178	.000	.450	.378	.315
3	(Constant)	.684	.330		2.072	.041			
	FD-financial distress to tax evasion	.386	.079	.396	4.871	.000	.553	.431	.358
	Financial difficulty1	.217	.085	.222	2.555	.012	.450	.243	.188
	FM-Financial Motivation and tax evasion	.209	.083	.232	2.509	.014	.518	.239	.184

a. Dependent Variable: Judgement/Justification 2

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations		
		B	Std. Error	Beta			Zero-order	Partial	Part
1	(Constant)	1.909	.310		6.166	.000			
	FD-financial distress to tax evasion	.569	.076	.587	7.471	.000	.587	.587	.587
2	(Constant)	1.601	.313		5.112	.000			
	FD-financial distress to tax evasion	.461	.081	.476	5.700	.000	.587	.486	.430
	FM-Financial Motivation and tax evasion	.235	.075	.262	3.145	.002	.465	.293	.237

a. Dependent Variable: Justification/Judgement 3

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations		
		B	Std. Error	Beta			Zero-order	Partial	Part
1	(Constant)	1.000	.424		2.359	.020			
	FD-financial distress to tax evasion	.482	.104	.410	4.626	.000	.410	.410	.410
2	(Constant)	.469	.469		1.000	.319			
	FD-financial distress to tax evasion	.414	.106	.352	3.920	.000	.410	.357	.340
	Financial difficulty1	.257	.106	.218	2.429	.017	.311	.231	.210
3	(Constant)	1.173	.557		2.105	.038			
	FD-financial distress to tax evasion	.386	.105	.328	3.688	.000	.410	.340	.314
	Financial difficulty1	.248	.104	.210	2.383	.019	.311	.228	.203
	FD2	-.226	.101	-.192	-2.238	.027	-.253	-.214	-.190

a. Dependent Variable: Decision 1

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations		
		B	Std. Error	Beta			Zero-order	Partial	Part
1	(Constant)	.860	.385		2.236	.027			
	FD-financial distress to tax evasion	.506	.095	.461	5.349	.000	.461	.461	.461

a. Dependent Variable: Decision 2

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations		
		B	Std. Error	Beta			Zero-order	Partial	Part
1	(Constant)	1.392	.294		4.733	.000			
	FD-financial distress to tax evasion	.609	.072	.633	8.417	.000	.633	.633	.633
2	(Constant)	1.975	.373		5.290	.000			
	FD-financial distress to tax evasion	.586	.071	.610	8.229	.000	.633	.626	.605
	FM1	-.149	.061	-.181	-2.448	.016	-.259	-.232	-.180

a. Dependent Variable: Decision 3

C)

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations		
		B	Std. Error	Beta			Zero-order	Partial	Part
1	(Constant)	.705	.402		1.756	.082			
	PC-Perception of Corruption	.624	.095	.536	6.543	.000	.536	.536	.536

a. Dependent Variable: Judgement/Justification 1

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations		
		B	Std. Error	Beta			Zero-order	Partial	Part
1	(Constant)	1.724	.401		4.295	.000			
	PC-Perception of Corruption	.439	.095	.409	4.609	.000	.409	.409	.409

a. Dependent Variable: Judgement/Justification 2

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations		
		B	Std. Error	Beta			Zero-order	Partial	Part
1	(Constant)	2.098	.386		5.429	.000			
	PC-Perception of Corruption	.499	.092	.467	5.440	.000	.467	.467	.467

a. Dependent Variable: Justification/Judgement 3

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations		
		B	Std. Error	Beta			Zero-order	Partial	Part
1	(Constant)	1.690	.517		3.269	.001			
	PC-Perception of Corruption	.294	.123	.226	2.394	.018	.226	.226	.226

a. Dependent Variable: Decision 1

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations		
		B	Std. Error	Beta			Zero-order	Partial	Part
1	(Constant)	1.899	.391		4.857	.000			
	PC-Perception of Corruption	.459	.093	.433	4.950	.000	.433	.433	.433

a. Dependent Variable: Decision 3

D)

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations		
		B	Std. Error	Beta			Zero-order	Partial	Part
1	(Constant)	2.063	.405		5.099	.000			
	COTL-Complexity of Tax Laws	.321	.104	.286	3.075	.003	.286	.286	.286
2	(Constant)	.915	.596		1.534	.128			
	COTL-Complexity of Tax Laws	.274	.103	.245	2.657	.009	.286	.251	.241
	Complexity of Tax Laws2	.331	.129	.236	2.566	.012	.279	.243	.233
3	(Constant)	-.232	.758		-.307	.760			
	COTL-Complexity of Tax Laws	.280	.101	.250	2.775	.007	.286	.263	.246
	Complexity of Tax Laws2	.464	.138	.332	3.363	.001	.279	.313	.298
	Complexity of Tax Laws1	.262	.110	.232	2.376	.019	.070	.227	.211

a. Dependent Variable: Judgement/Justification 1

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations		
		B	Std. Error	Beta			Zero-order	Partial	Part
1	(Constant)	1.503	.333		4.510	.000			
	COTL-Complexity of Tax Laws	.539	.086	.520	6.272	.000	.520	.520	.520

a. Dependent Variable: Judgement/Justification 2

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations		
		B	Std. Error	Beta			Zero-order	Partial	Part
1	(Constant)	2.458	.349		7.045	.000			
	COTL-Complexity of Tax Laws	.450	.090	.437	5.002	.000	.437	.437	.437

a. Dependent Variable: Justification/Judgement 3

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations		
		B	Std. Error	Beta			Zero-order	Partial	Part
1	(Constant)	1.076	.434		2.477	.015			
	COTL-Complexity of Tax Laws	.485	.112	.388	4.331	.000	.388	.388	.388

a. Dependent Variable: Decision 1

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations		
		B	Std. Error	Beta			Zero-order	Partial	Part
1	(Constant)	1.565	.420		3.725	.000			
	COTL-Complexity of Tax Laws	.342	.108	.294	3.162	.002	.294	.294	.294
2	(Constant)	2.561	.625		4.096	.000			
	COTL-Complexity of Tax Laws	.383	.108	.328	3.536	.001	.294	.326	.323
	Complexity of Tax Laws2	-.287	.135	-.197	-2.124	.036	-.140	-.203	-.194

a. Dependent Variable: Decision 2

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations		
		B	Std. Error	Beta			Zero-order	Partial	Part
1	(Constant)	1.772	.328		5.406	.000			
	COTL-Complexity of Tax Laws	.536	.084	.525	6.345	.000	.525	.525	.525

a. Dependent Variable: Decision 3

E)

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations		
		B	Std. Error	Beta			Zero-order	Partial	Part
1	(Constant)	1.397	.331		4.223	.000			
	TA- Effect of Tax Audit activities	.532	.090	.496	5.885	.000	.496	.496	.496

a. Dependent Variable: Judgement/Justification 1

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations		
		B	Std. Error	Beta			Zero-order	Partial	Part
1	(Constant)	2.093	.321		6.523	.000			
	TA- Effect of Tax Audit activities	.408	.088	.412	4.652	.000	.412	.412	.412
2	(Constant)	1.484	.357		4.157	.000			
	TA- Effect of Tax Audit activities	.331	.087	.334	3.812	.000	.412	.349	.322
	Tax Audits3	.259	.078	.292	3.328	.001	.381	.309	.281
3	(Constant)	1.002	.410		2.445	.016			
	TA- Effect of Tax Audit activities	.309	.086	.312	3.598	.000	.412	.333	.299
	Tax Audits3	.299	.078	.337	3.816	.000	.381	.350	.317
	TA1-Hypothetical question1	.182	.081	.193	2.258	.026	.141	.216	.187
4	(Constant)	-.183	.703		-.260	.795			
	TA- Effect of Tax Audit activities	.323	.085	.326	3.808	.000	.412	.351	.311
	Tax Audits3	.262	.079	.295	3.302	.001	.381	.309	.270
	TA1-Hypothetical question1	.337	.109	.357	3.081	.003	.141	.291	.252
	TA1-Hypothetical question2	.241	.117	.245	2.060	.042	.062	.199	.168

a. Dependent Variable: Judgement/Justification 2

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations		
		B	Std. Error	Beta			Zero-order	Partial	Part
1	(Constant)	2.608	.313		8.320	.000			
	TA- Effect of Tax Audit activities	.438	.086	.445	5.111	.000	.445	.445	.445
2	(Constant)	2.183	.350		6.237	.000			
	TA- Effect of Tax Audit activities	.426	.084	.433	5.090	.000	.445	.445	.432
	TA1-Hypothetical question1	.200	.080	.213	2.503	.014	.237	.237	.213

a. Dependent Variable: Justification/Judgement 3

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations		
		B	Std. Error	Beta			Zero-order	Partial	Part
1	(Constant)	1.407	.235		5.996	.000			
	Tax Audits1	.639	.092	.561	6.969	.000	.561	.561	.561
2	(Constant)	.043	.370		.116	.908			
	TA1-Hypothetical question1	.618	.084	.542	7.324	.000	.561	.581	.541
	TA- Effect of Tax Audit activities	.402	.089	.336	4.541	.000	.366	.405	.335

a. Dependent Variable: Decision 1

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations		
		B	Std. Error	Beta			Zero-order	Partial	Part
1	(Constant)	1.290	.205		6.280	.000			
	TA1-Hypothetical question1	.669	.080	.630	8.345	.000	.630	.630	.630

a. Dependent Variable: Decision 2

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations		
		B	Std. Error	Beta			Zero-order	Partial	Part
1	(Constant)	2.465	.321		7.688	.000			
	TA-Effect of Tax Audit activities	.376	.088	.384	4.285	.000	.384	.384	.384
2	(Constant)	1.838	.346		5.307	.000			
	TA-Effect of Tax Audit activities	.358	.083	.367	4.326	.000	.384	.389	.366
	TA1-Hypothetical question1	.295	.079	.317	3.736	.000	.337	.343	.316

a. Dependent Variable: Decision 3

F)

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations		
		B	Std. Error	Beta			Zero-order	Partial	Part
1	(Constant)	2.126	.306		6.938	.000			
	CC-high compliance costs causes evasion	.355	.090	.357	3.931	.000	.357	.357	.357

a. Dependent Variable: Judgement/Justification 1

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations		
		B	Std. Error	Beta			Zero-order	Partial	Part
1	(Constant)	2.232	.273		8.189	.000			
	CC-high compliance costs causes evasion	.403	.080	.438	5.017	.000	.438	.438	.438
2	(Constant)	1.271	.450		2.824	.006			
	CC-high compliance costs causes evasion	.414	.078	.450	5.286	.000	.438	.458	.449
	CC1 SME CC grouping	.277	.105	.225	2.643	.009	.201	.250	.224

a. Dependent Variable: Judgement/Justification 2

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations		
		B	Std. Error	Beta			Zero-order	Partial	Part
1	(Constant)	2.961	.276		10.740	.000			
	CC-high compliance costs causes evasion	.369	.081	.404	4.543	.000	.404	.404	.404

a. Dependent Variable: Justification/Judgement 3

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations		
		B	Std. Error	Beta			Zero-order	Partial	Part
1	(Constant)	1.259	.325		3.870	.000			
	CC-high compliance costs causes evasion	.510	.096	.459	5.318	.000	.459	.459	.459

a. Dependent Variable: Decision 1

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations		
		B	Std. Error	Beta			Zero-order	Partial	Part
1	(Constant)	1.389	.307		4.528	.000			
	CC-high compliance costs causes evasion	.455	.091	.439	5.030	.000	.439	.439	.439
2	(Constant)	3.085	.481		6.407	.000			
	CC-high compliance costs causes evasion	.436	.084	.421	5.207	.000	.439	.453	.420
	CC1 SME CC grouping	-.489	.112	-.352	-4.358	.000	-.374	-.391	-.352

a. Dependent Variable: Decision 2

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations		
		B	Std. Error	Beta			Zero-order	Partial	Part
1	(Constant)	2.057	.241		8.537	.000			
	CC-high compliance costs causes evasion	.538	.071	.593	7.575	.000	.593	.593	.593

a. Dependent Variable: Decision 3

Appendix G: Full PLS analyses

Path Coefficients

	Decision	Information	Judgement_Justification	Perception
Decision				
Information	0.389		0.323	0.699
Judgement_Justification	0.247			
Perception	0.124		0.507	

Indirect Effects

	Decision	Information	Judgement_Justification	Perception
Decision				
Information	0.254		0.354	
Judgement_Justification				
Perception	0.125			

Total Effects

	Decision	Information	Judgement_Justification	Perception
Decision				
Information	0.643		0.677	0.699
Judgement_Justification	0.247			
Perception	0.249		0.507	

Outer Loadings

	Decision	Information	Judgement_Justification	Perception
ATE				**0.725**
CC		**0.814**		
COTL		**0.842**		
D1	**0.766**			
D2	**0.781**			
D3	**0.850**			
FD				**0.841**
J1			**0.681**	
J2			**0.849**	
J3			**0.784**	
PC				**0.851**
TA		**0.767**		

Outer Weights

	Decision	Information	Judgement_Justification	Perception
ATE				0.335
CC		0.415		
COTL		0.412		
D1	0.411			
D2	0.295			
D3	0.535			
FD				0.504
J1			0.400	
J2			0.453	
J3			0.438	
PC				0.391
TA		0.412		

R Square

	R Square	R Square Adjusted
Decision	0.470	0.455
Judgement_Justification	0.589	0.581
Perception	0.488	0.483

f Square

	Decision	Information	Judgement_Justification	Perception
Decision				
Information	0.130		0.130	**0.954**
Judgement_Justification	0.047			
Perception	**0.011**		**0.320**	

Construct Reliability and Validity

	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
Decision	**0.728**	**0.765**	**0.842**	**0.640**
Information	**0.733**	**0.733**	**0.849**	**0.653**
Judgement_Justification	**0.660**	**0.668**	**0.817**	**0.599**
Perception	**0.737**	**0.766**	**0.849**	**0.653**

Discriminant Validity

Fornell-Larcker Criterion

	Decision	Information	Judgement_Justification	Perception
Decision	0.800			
Information	0.643	0.808		
Judgement_Justification	0.601	0.677	0.774	
Perception	0.577	0.699	0.732	0.808

Heterotrait-Monotrait Ratio (HTMT)

	Perception	Information	Judgement/ Justification	Decision
Perception				
Information	**0.930**			
Judgement_Justification	**0.842**	**0.862**		
Decision	**0.711**	**0.838**	**0.737**	

Cross Loadings

	Decision	Information	Judgement_Justification	Perception
ATE	0.321	0.467	0.498	0.725
CC	0.635	0.814	0.518	0.492
COTL	0.526	0.842	0.541	0.558
D1	0.766	0.501	0.455	0.396
D2	0.781	0.358	0.302	0.342
D3	0.850	0.620	0.608	0.586
FD	0.643	0.670	0.652	0.841
J1	0.388	0.470	0.681	0.588
J2	0.508	0.566	0.849	0.562
J3	0.493	0.531	0.784	0.553
PC	0.371	0.523	0.604	0.851
TA	0.395	0.767	0.580	0.643

Collinearity Statistics (VIF)

Inner VIF Values

	Decision	Information	Judgement_Justification	Perception
Decision				
Information	**2.207**		**1.954**	**1.000**
Judgement_Justification	**2.434**			
Perception	**2.579**		**1.954**	

Outer VIF Values

	VIF
ATE	**1.413**
FD	**1.458**
PC	**1.782**
COTL	**1.663**
TA	**1.315**
CC	**1.541**
J1	**1.177**
J2	**1.592**
J3	**1.438**
D1	**1.370**
D2	**1.608**
D3	**1.427**

Bootstrapping

Mean, STDEV, T-Values, P-Values

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values
Information -> Decision	0.389	0.386	0.107	3.625	0.000
Information -> Judgement_Justification	0.323	0.323	0.092	3.506	0.000
Information -> Perception	0.699	0.703	0.052	13.453	0.000
Judgement_Justification -> Decision	0.247	0.259	0.126	1.955	0.051
Perception -> Decision	0.124	0.119	0.130	0.952	0.341
Perception -> Judgement_Justification	0.507	0.507	0.086	5.910	0.000

Outer Loadings

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values
ATE <- Perception	0.725	0.720	0.074	9.854	0.000
CC <- Information	0.814	0.809	0.057	14.328	0.000
COTL <- Information	0.842	0.841	0.029	28.907	0.000
D1 <- Decision	0.766	0.763	0.054	14.266	0.000
D2 <- Decision	0.781	0.775	0.056	13.903	0.000
D3 <- Decision	0.850	0.850	0.028	30.889	0.000
FD <- Perception	0.841	0.846	0.021	40.549	0.000
J1 <- Judgement_Justification	0.681	0.674	0.103	6.631	0.000
J2 <- Judgement_Justification	0.849	0.844	0.047	18.069	0.000
J3 <- Judgement_Justification	0.784	0.787	0.043	18.261	0.000
PC <- Perception	0.851	0.850	0.026	33.278	0.000

TA <- Information	0.767	0.768	0.045	17.182	0.000

R Square

Mean, STDEV, T-Values, P-Values

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values
Decision	0.470	0.491	0.063	7.437	0.000
Judgement_Justification	0.589	0.599	0.059	9.913	0.000
Perception	0.488	0.497	0.072	6.771	0.000

R Square Adjusted

Mean, STDEV, T-Values, P-Values

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values
Decision	0.455	0.476	0.065	6.993	0.000
Judgement_Justification	0.581	0.591	0.061	9.598	0.000
Perception	0.483	0.493	0.073	6.641	0.000

Average Variance Extracted (AVE)

Mean, STDEV, T-Values, P-Values

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values
Decision	0.640	0.637	0.046	13.995	0.000
Information	0.653	0.652	0.040	16.148	0.000
Judgement_Justification	0.599	0.600	0.047	12.685	0.000
Perception	0.653	0.654	0.042	15.563	0.000

Composite Reliabiity

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values
Perception	0.849	0.848	0.025	33.654	0.000
Information	0.849	0.848	0.023	36.275	0.000
Judgement_Justification	0.817	0.815	0.032	25.882	0.000
Decision	0.842	0.839	0.028	30.354	0.000

Heterotrait-Monotrait Ratio (HTMT)

Mean, STDEV, T-Values, P- Values

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values
Information -> Decision	0.838	0.842	0.078	10.750	0.000
Judgement_Justification -> Decision	0.737	0.739	0.101	7.276	0.000
Judgement_Justification -> Information	0.862	0.866	0.089	9.721	0.000

Perception -> Decision	0.711	0.714	0.091	7.816	0.000
Perception -> Information	0.930	0.931	0.069	13.399	0.000
Perception -> Judgement_Justification	0.842	0.847	0.064	13.133	0.000

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