

PUBLIC MANAGEMENT AS CITIZEN COMPLIANCE:
A CASE STUDY OF INCOME TAX COMPLIANCE BEHAVIOR IN THAILAND

By

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Maneekwan Chandarasorn

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Chairperson H. George Frederickson

Charles Epp

Alfred Tat-Kei Ho

Jacob Fowles

Dennis F. Karney

Date Defended: July 3, 2012

The Dissertation Committee for Maneekwan Chandarasorn
certifies that this is the approved version of the following dissertation:

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Chairperson H. George Frederickson

Date approved: July 3, 2012

Abstract

This dissertation proposes that in democratic government understanding citizens is a key to effective public management and understanding taxpayers is a key to successful tax administration. Tax compliance has long been a prevalent issue in many countries including Thailand, where a personal income tax gap is at least 200 billion Baht (\$6.7 billion) or 10% of the total revenue. The two major purposes of this study are 1) to explore citizens' perceptions of the Thai personal income tax system and the matter of tax compliance and 2) to identify important determinants of tax compliance behavior in Thailand. This study used two research methods: a face-to-face survey of 1,148 citizens in Bangkok and interviews with 15 Thai tax experts. The survey findings suggest that significant determinants of tax compliance behavior in Thailand are: enforcement perceptions, fairness of the tax system perceptions, tax knowledge, and demographic characteristics, which confirm that both the traditional utility maximization and the alternative behavioral approaches are necessary for understanding tax compliance issues. Tax experts' opinions support the survey results. This study recommends a comprehensive package of strategies for increasing tax compliance in Thailand, which includes making tax system more fair via lowering tax rates, broadening tax base, eliminating unnecessary allowances and deductions, linking welfare benefits to tax filing, improving the penalty enforcement, educating citizens about tax duties and the sense of citizenship, and improving government administration and revenue spending in the long run. This study contributes to both academics and practitioners by serving as the first comprehensive tax compliance database in Thailand.

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Chapter 1

Introduction

Public management has shifted away from a closed-system approach, characterized by managerial focus within their own organizations (Taylor, 1912; Weber, 1922; Maslow, 1954; McGregor, 1960), and has moved toward an open-system approach, adaptive systems, and contingency theories, characterized by strategic interactions with external environments. This suggests that public organizations operate within complex and dynamic environments and adjust or adapt themselves in order to survive (Kath and Kahn, 1966; Thompson, 1967; Cohen, March, and Olsen, 1972; Gaus, 1947; Selznick, 1949; Schon, 1978). One way that public organizations adapt themselves to external environments is by engaging citizens into decision making processes e.g. public participation, representative bureaucracy, and collaborative governance. The benefits of engaging citizens derive from understanding the demand of the constituents better, and thus, reduce conflicts and constraints faced by public organizations. As a result, objectives of public organizations, of not only effectiveness and efficiency, but also fairness and social equity will be easier to achieve.¹

Engaging citizens in the decision making processes of government also affects how tax collection agencies approach the issue of tax revenue collection. This research proposes to the field of Public Administration that understanding citizens' behavior is a key to effective public management. Rather than focusing only on tax administration within an organization, taxpayer

¹ In 1968, young and brilliant public administration scholars under 35 years old under the lead of H. George Frederickson, W. Henry Lambright, and Frank Marini was gathered in the first Minnowbrook Conference to discuss about the problems in the field of public administration and proposed to the field "the new public administration". New public administration is more interested in real problems and in the public. It, thus, adds social equity as another core value of public administration and focuses more on citizen participation (Frederickson, 1971, 1980; Frederickson & Smith, 2003) Other concepts include the promotion of changes e.g. decentralization, devolution, evaluation, contracts, and client involvement.

behavior should become a center of attention. Although paying taxes is a compulsory duty of most citizens, citizen compliance is essential in determining the effectiveness of tax collection agencies, i.e., how much tax revenues will be collected in practice?

Statement of the Problem

Tax compliance has long been a prevalent issue in many countries. In 2006, the Internal Revenue Service (IRS) estimated that the United States has about \$300 billion tax gap, which is the amount of income taxes not collected due to noncompliance (Alm & McKee, 2006). Tax compliance situation outside the United States are even worse (Slemrod, 1992). The statistics (Ministry of Finance of Thailand, 2011a) showed that in 2009 there were only about 9 million people who file tax in Thailand out of 18 million people who were obliged to pay taxes of those 30 million people who were in labor force. Out of that 9 million people, only 2 million people were really paying personal income taxes (i.e., others are exempted or get tax returns). It is predicted that there are approximately 8 million people in Thailand who do not file taxes. However, there is no official tax gap calculation for Thailand. In my opinion, it is reasonable to expect that if there are about 2 million people that are obliged to pay taxes, out of those 8 million people, Thailand will have approximately 200 billion Baht² (\$6.7 billion) tax gap in personal income taxes. That gap would be 10 percent of total revenues for Thailand.

The author lives in Thailand and also works as an economist at the Fiscal Policy Office, Ministry of Finance of Thailand. From the author's experience, tax compliance issues have not

² Based on 2010 statistics (Ministry of Finance of Thailand, 2011b), personal income taxes' revenue was 208 billion Baht from 2 million people currently paying taxes. The tax gap is estimated as generating equal revenue from having 2 million people more that will legally have to pay taxes.

been given enough attention especially for personal income taxes. Thailand is among the three least tax compliant countries with a tax evasion score of 53.34 percent of GDP while the United States (8.6%), Switzerland (9.13%), and Austria (10.43%) are the most tax compliant countries (Tsakumis, Curatola, & Porcano, 2007). So far, there has been no systematic study for ways to increase tax compliance in Thailand even though the tax evasion situation is more severe than in the United States.

Most tax compliance studies are about the tax systems in the United States and other developed countries. There are relatively few studies analyzing tax compliance in developing countries, mainly because of data availability problems (Alm, 1999). Studies of tax compliance are also very limited in Thailand with only a few studies on tax evasion and tax administration problems (Channarong, 2009; Gallkiew, 1985; Machamnean, 1999). The one that is most related to this study is Gallkiew's study back in the year 1985. Gallkiew explored problems in direct tax administration in Thailand, which he found four causes why people did not file income tax from personal service: 1) low standard of education of taxpayers, 2) negative attitude of taxpayers toward the government and the Revenue department, 3) ambiguity of the Revenue Code, and 4) inefficiency in tax administration of the Revenue Department. The other two studies focus on the legal perspectives that involve the revision of the Revenue Code. Machamnean (1999) looked at the insufficiency of the Revenue Code in handling with tax avoidance so that he suggested the introduction of statutory general anti-avoidance measures instead of using interpretation from the Supreme Court's decisions. Channarong (2009) focused on the abuse of tax units to minimize tax burden by filing personal income taxes as an ordinary partnership or a non-juristic body of persons instead of as individuals. He proposed anti-abusive measures that include the revision of the Revenue Code to address the loopholes of deduction allowance among different tax units.

However, none of these studies comprehensively explored the citizens' perceptions on tax administration and the determinants of tax compliance from the citizens' point of view. A more comprehensive and up-to-date research on the perceptions of citizens towards tax administration and tax compliance is still very much needed. Learning about factors that affect tax compliance behavior will help Thai tax administration agencies increase citizen compliance, and hence, raise organizational effectiveness by increasing revenues. Comparing these results to the United States and other developed countries as well as applying the results to other similar developing countries would contribute to the understanding of public management as citizen compliance for both academics and practitioners.

Since tax compliance literature in the United States have found several factors that could affect income tax compliance behavior, namely tax audits, penalties, positive incentives, tax amnesties, and attitudes and perceptions toward tax systems together with control variables such as tax rates, actual income levels, and other demographic characteristics, it would be very interesting to see whether these factors will yield similar effects in Thailand. Because of different economic, social, and political contexts and higher tax evasion than in the United States, it is unlikely that the perceptions and determinants of tax compliance will be the same in Thailand.

The primary purpose of this study is to explore citizens' perceptions of the Thai tax system and the matter of tax compliance. And, the secondary purpose is a causal analysis of what causes, explains, or influences tax compliance. The primary research question is then: how citizens perceive the Thai personal income tax system? And, the secondary research question is: what are the important determinants of taxpayer compliance in Thailand?

The Significance of Tax Compliance Issues

Tax compliance is important in many respects. First, tax revenues are the largest and most significant sources of revenues for every country. If the governments can promote more compliance from taxpayers, tax revenues will increase without having to raise tax rates or expand the tax base, which could avoid political tensions. This is especially important during economic downturns.

Second, tax compliance reflects a country's true tax system. As discussed by Slemrod (1992), a country's tax system could not only be determined by tax rate and the tax base but also tax administration and enforcement. Progressive tax rate structure could even become regressive if the taxes are not collected from high-income groups. If that is the case, tax policy will be distorted or will not serve its purpose to achieve efficiency and equity.

Third, related to the second point, tax compliance concerns equity and fairness issues in public administration. If taxes are not collected from some groups within society, tax systems, bureaucrats, and the government are not perceived as fair and ethical by its citizens, and then lose their legitimacy. In today's anticorruption era, fairness and transparency are among the most critical issues included in tax administration as governments need to be responsive to their citizens.

Lastly but most importantly, tax compliance helps address the problem of organizational design in public management theory. Tax authorities, despite having imperfect information about the tax compliance behavior of citizens, have to design taxation, audit, and punishment schemes to meet their revenue objectives (Andreoni, Erard, & Feinstein, 1998, p. 819). This is the classic principal-agent problem. Modern public management theories suggest that public organizations

operate in an open system and must be responsive to their environment. Incorporating tax compliance behavior of citizens will help tax collection agencies develop better strategies and increase tax collection efficiency. Thus, tax compliance could be considered an important issue for a public management that strives for both efficiency and equity.

Theoretical Approach

The three most popular phrases encountered by tax administrators and public finance scholars regarding the issue of tax compliance are tax avoidance, tax evasion, and tax compliance. Tax avoidance refers to a situation in which people legally find loopholes in tax laws for the purpose of not paying taxes or paying lower taxes. Tax evasion refers to those who illegally avoid paying taxes they owe. Tax compliance describes persons who pay taxes they owe, the opposite of tax noncompliance and tax evasion. Tax avoidance is, however, not considered tax noncompliance as they still comply with tax laws.

James D. Sorg (1983) classified the term compliance into four categories: intentional compliance (intend to comply and successfully comply), intentional non-compliance (intend not to comply and successfully non-comply), unintentional compliance (intend not to comply but unsuccessfully non-comply), and unintentional non-compliance (intend to comply but unsuccessfully comply). Sorg originally used these categories to explain the behaviors of frontline implementer - a lower participant in the organization. His broadest definition of frontline implementer includes private citizens in the case of many regulatory and tax policies that are the people who ultimately affect the implementation of the policy (Sorg, 1983, p. 391). Sorg's four compliance categories, therefore I believe, could be employed to address tax

compliance behaviors of citizens, which could be intentional or unintentional and successfully or unsuccessfully comply in paying taxes.

Tax compliance has been systematically studied after the publication of Allingham and Sandmo's "*Income Tax Evasion: A Theoretical Analysis*" (Allingham & Sandmo, 1972). Allingham and Sandmo studied income tax compliance behavior by relating it to studies of the economics of criminal activities by Becker (1968), including rational decision making under uncertainty, and expected utility theory. There are two major streams in tax compliance literature: traditional utility maximization approach and alternative approach. Mikesell and Birskyte (2007) called these two approaches the compliance lottery view and the responsible taxpayer view respectively. In the compliance lottery view, taxpayers have two choices: to declare actual income or declare less than actual income (Allingham & Sandmo, 1972, p. 324). Taxpayers make a rational calculation by weighing the gains from successful non-compliance (tax obligation that is not paid and kept for personal use) against the expected loss of being caught (values of the penalty times the probability of detection) (Mikesell & Birskyte, 2007, p. 1046). Declared income is then expected to increase as penalty rate and probability of detection rise. This approach, however, assumes that people pay taxes primarily because of the fear of detection and punishment, in other words tax compliance depends solely on enforcement (Alm, 1999, p. 743). Tax compliance studies under this compliance lottery view aims at reducing tax avoidance and tax evasion and increasing tax compliance through enforcement measures that reduce intentional non-compliance.

As one might expect, there are other factors that could affect taxpayers' decision to underreport. According to Mikesell and Birskyte (2007), the other major view on tax compliance is the responsible taxpayer view. People will pay taxes when: 1) they are motivated to do so, 2)

they understand clearly what their taxpaying obligations are, and 3) payment of those obligations is made convenient (Mikesell & Birskyte, 2007, p. 1048). This model promotes compliance via a softer approach which encourages the compliance of unintentional non-compliance taxpayers rather than intentional non-compliance. Convenience, assistance, and education are necessary to correct unintentional non-compliance.

The compliance lottery and the responsible taxpayer are the two major views in tax compliance literature. Understanding both perspectives is crucial for the government to develop measures and techniques to reduce both intentional and unintentional non-compliance and promote intentional and unintentional compliance.

Research Methodology

This study will explore citizens' perceptions of the Thai personal income tax system which includes perceptions of enforcement, fairness of the tax system, government administration, tax knowledge, and demographic characteristics.

Secondarily, this study will assess what could influence tax compliance behavior by testing five primary hypotheses:

Hypothesis 1 (H1): Perceptions of greater enforcement increase tax compliance behavior in Thailand.

Hypothesis 2 (H2): Perceptions of fairer tax system increase tax compliance behavior in Thailand.

Hypothesis 3 (H3): Perceptions of better government administration increase tax compliance behavior in Thailand.

Hypothesis 4 (H4): Greater tax knowledge increases tax compliance behavior in Thailand.

Hypothesis 5 (H5): Those with higher income (H5.1), those who are older (H5.2), those who are married (H5.3), those who are female (H5.4), those who are not self-employed (H5.5), and those with higher levels of education (H5.6) tend to have higher tax compliance.

This study uses a mix-method research approach which includes both quantitative and qualitative analyses. The primary source of data this study will be based on a survey in order to develop a database of personal income tax compliance behavior in Thailand. The research will focus on studying perception and compliance behavior of personal income taxpayers in Bangkok. Bangkok is the capital city of Thailand with a population of over 10 million people or about 2.5 million households (four people per family on average), which represents the largest proportion of taxpayers in Thailand. Approximately 1,000 people will be asked for their opinions on a five-point Likert scale under various circumstances designed to test hypotheses 1 to 5. The quantitative analysis would be done via exploratory factor analysis and structural equation modeling.

In addition to the quantitative analysis from the survey, qualitative analysis will be conducted via in-depth interviews with tax experts. The interviews of tax experts, which include tax administrators, tax policy experts, and professors, will be conducted to gain better insights of tax compliance issues and investigate further explanations of tax compliance behavior in

Thailand. The interview results will be used to supplement the survey results for a more comprehensive understanding of tax compliance issues.

Expected Contributions

This study will contribute to both academics and practitioners. The findings will theoretically benefit to the fields of public administration and public finance in explaining the problems of citizen compliance and developing strategies to improve tax compliance situation by understanding citizens. The results of this study will also provide the first firmly-established database on income tax compliance for researchers in Thailand to build upon. For practitioners, the study will provide useful information and analysis for tax authorities in Thailand and other similar developing countries to aid in designing strategies to increase taxpayer compliance and, therefore, achieve higher organizational effectiveness.

This study proposes public management as the citizen compliance approach to understand and serve the citizens better by asking directly what they think and what would make them willing to comply more. Public administration in the era of governance³ seeks cooperation and participation from citizens. Taxpayers, as the largest group of citizens, surely deserve the attention of public administration research. This study will give a clearer picture of the effects of

³ The word “governance” is now very popular in public administration literature and even used interchangeably with “public administration” or “public management” (Frederickson & Smith, 2003; Garvey, 1997; Kettl, 2000; Peters & Pierre, 1998; Salamon & Lund, 1989). The relationship between government and society has indeed changed especially after global reform efforts known as the “New Public Management” in New Zealand and other Westminster model or parliamentary countries since 1980s and the “Reinventing Government” in the United States reform in President Bill Clinton. Since then, governments have become less hierarchical, more decentralized, and increasingly delegates works to private sector (Kettl, 2000). Governments need to find ways to manage contracted-out services or third-party government, coordinate among organizations both vertically and horizontally and among different types of organizations including private and non-profit sectors, and response to ever changing citizens’ demands in the globalization era.

enforcement perception, fairness of the tax system perception, government administration perception, tax knowledge, and demographic characteristics on tax compliance behavior in Thailand. This study integrates both the traditional utility maximization approach (compliance lottery view) and alternative approach (responsible taxpayer view) to determine primary factors that affect taxpayer compliance in Thailand from a comprehensive view.

To conclude, public management as citizen compliance offers tax authorities ways in incorporating taxpayer compliance behavior to increase organizational tax-collection effectiveness and yield higher revenues for the country. Learning about perceptions and factors that affect taxpayer compliance will help tax authorities in Thailand and other similar developing countries to develop strategies that help enhance citizen compliance and, hence, increase public organizational effectiveness of tax authorities. Ultimately, this study will add another valuable perspective to the field of public administration by focusing on citizens as a central public management key.

Summary of Subsequent Chapters

This chapter has introduced the issues of tax compliance, major theoretical approaches, research methodology, and the expected contributions of this study to the field of public administration. In subsequent chapters, a more comprehensive discussion of tax compliance literature, detailed hypotheses and research methodology, data analysis and findings, and conclusion and recommendations will be presented. A brief summary of each subsequent chapter is provided below.

Chapter two presents a review of literature on tax compliance. This chapter includes an overview of Thai tax system, tax compliance studies in Thailand and the comparative perspectives, evolution of tax compliance literature, tax compliance research methodologies, and determinants of tax compliance. This chapter focuses on identifying the gap of the existing literature and the establishment of a conceptual framework for this study.

Chapter three describes the research questions, the hypotheses, and the research methodology used in this study. The survey and interview processes are presented. The research analysis techniques are also provided here.

Chapter four presents the survey results for the first research question on citizens' perception of Thai personal income tax system and tax compliance. The descriptive statistic findings are presented in six categories including tax rates perceptions, tax non-compliance reasons, perceptions of tax compliance related issues, audit and penalty knowledge and perceptions, tax compliance strategies, and tax compliance behaviors.

Chapter five presents the survey results for the second research question on the determinants of tax compliance behavior in Thailand. Factor analysis and latent transition analysis are used to test the five major hypothesis of this study. The results of the five hypotheses on what influence tax compliance in Thailand are discussed.

Chapter six presents opinions of tax experts from the interview results. The experts' opinions on reasons for tax non-compliance and tax evasion situation in Thailand, weaknesses and strengths of current tax administration systems, factors that affect tax compliance behavior, and strategies that could help increase tax compliance are explored.

The final chapter summarizes the key findings and presents implications and recommendations from this study. The chapter concludes with academic and practical contributions and directions for future research.

Chapter 2

The Review of Tax Compliance Literature

The studies on tax compliance and tax evasion both attempt to improve the efficiency of tax administration. In my opinion, however, these two terms convey different meanings. The term tax compliance, in particular, has a positive connotation, i.e. citizens generally comply with tax laws. Tax compliance studies infer the attempt to *raise citizens' willingness* to comply with tax laws. Tax evasion studies imply an attempt to *stop citizens* from evading taxes. The term tax evasion, on the other hand, has a negative connotation, i.e. citizens are likely to evade taxes. Tax evasion studies imply an attempt to *stop citizens* from evading taxes. This study uses the term tax compliance with a specific purpose to convey a positive connotation associated with it. Although paying taxes is considered a duty of every citizen, government in a democratic society should listen more to citizens' voices in order to know their concerns. Understanding the citizens better may help raise their willingness to pay taxes and mitigate tax avoidance and tax evasion, which should definitely work better than forcing them to comply with tax laws.

The purpose of this chapter is to explore what have been done and what are still missing in tax compliance literature. First of all, an overview of Thai tax system is presented in order to provide some background essential to the context of this study. Next, tax compliance studies in Thailand are presented along with the comparative perspectives on tax compliance. Then, the evolution of tax compliance literature is discussed. After that, the research methodology in tax compliance is explored. Next, the determinants of tax compliance are presented. The chapter concludes with key points discussed in the chapter.

I. The Overview of Thai Tax System

- *Revenue Structure*

Net taxes amounts to 1,510,387.7 million Baht in fiscal year 2011, equivalent to 73 percent of the estimated receipts. Tax revenues usually account for 16 - 17 percent of GDP. The major differences between Thai or other developing countries' tax system and the United States or other developed countries is that Thai system relies very much on indirect taxes. Indirect taxes, which include general sales tax (e.g. value added tax, specific business tax, and stamp duties), specific sales tax (e.g. petroleum and petroleum products, excise tax on imports, consumption tax, mining royalties, petroleum royalties, and natural resources royalties), export and import duties, and licensing fees account for 60 percent of gross tax revenue. Direct taxes, which include personal income tax, corporate income tax, and petroleum income tax, account for 41 percent of gross tax revenue. The largest amounts of tax revenues are from value added tax (29% of gross taxes) and corporate income tax (24% of gross taxes). Personal income tax, in particular, accounts for only 12 percent of gross tax revenue (Bureau of the Budget, 2011). See Table 2.1 for tax revenue composition.

Taxes	Revenues (Million Baht)	% from Gross Taxes
Direct Taxes	737,200	41%
Personal Income Tax	217,000	12%
Corporate Income Tax	430,200	24%
Petroleum Income Tax	90,000	5%
Indirect Taxes	1,081,687	59%
General Sales Tax	568,150	31%
Value Added Tax	531,800	29%
Specific Business Tax	23,000	1%
Stamp Duties	8,350	0%
Specific Sales Tax	424,867	23%
Petroleum and Petroleum Products	151,700	8%
Excise Tax on Imports	36,590	2%
Consumption Tax	198,771	11%
Mining Royalties	802	0%
Petroleum Royalties	36,997	2%
Natural Resources Royalties	6	0%
Export – Import Duties	86,100	5%
License Fees	2,571	0%
Deductions	-308,500	-17%
Revenue Department's Rebates	-212,800	-12%
Allocation of VAT to the Provincial Administrative Organizations	-11,900	-1%
Export Compensation	-13,300	-1%
Allocation to Local Administrative Organizations	-70,500	-4%
Gross Taxes (Direct Taxes + Indirect Taxes)	1,818,887	100%
Net Taxes (Direct Taxes + Indirect Taxes – Deductions)	1,510,387	83%

Table 2.1: Tax Revenue Composition

Source: Thailand's Budget In Brief Fiscal Year 2011 (2011), Bureau of the Budget, Thailand.

The reason why developing countries rely more on indirect taxes could be because it is easier to administer and have less (direct) effect on the wealthier groups (i.e. the groups that are more politically powerful). The problem with too much reliance on indirect tax is that it fails to address the problem of equity or income distribution unlike direct taxes. Income taxes with the use of progressive tax rates could tax the rich with higher tax rates than the poor to address the equity problem. If the direct tax system does not working properly to address the equity problem, the rich will keep getting richer and the poor will keep getting poorer.

There are three ways to increase any tax revenues 1) increase tax rates, 2) expand tax bases, and 3) improve the efficiency of tax collection or tax administration. For this study, our focus is on the third way in improving the efficiency of personal income taxes' collection by understanding more about tax compliance behavior of Thai citizens. The major problem with increasing the tax rates or expanding the tax bases is that they are not politically desirable. It is simply not wise for politicians to announce tax increases and risk losing their votes in the next elections. Furthermore, more exemptions, deductions, and allowances have been introduced to support each government's policy goals. Improving the efficiency of personal income tax collection seems to be the most desirable way to raise personal income taxes' revenues.

- ***Responsible Agencies***

In Thailand, there are four related agencies responsible for tax policy and administration under the Ministry of Finance. The Fiscal Policy Office is responsible for recommending fiscal policy to the Minister of Finance. The Tax Policy Bureau under the Fiscal Policy office is responsible for proposing tax policies and coordinating with tax collection agencies on the implementation of those policies. The Revenue Department is responsible for the administration

of income and sale taxes, which generates the largest portion of revenue for the country at 71.8 percent of gross tax revenue in fiscal year 2011. The Excise Department is responsible for the administration of excise taxes that include sin taxes and tax on luxury goods, which generates 21.3 percent of the revenue. And, the Customs Department is responsible for the administration of custom duties, which generates 4.7 percent of the revenue (Bureau of the Budget, 2011). Among the three tax collection agencies, the Revenue Department could be considered the most powerful.

In addition to the Ministry of Finance's agencies, there are the Bureau of the Budget and the National and the National Economics and Social Development Board (NESDB). The Bureau of the Budget is a central agency under office of the Prime Minister that is responsible for coordinating with all governmental agencies and preparing annual government budgets to submit to the parliament. The NESDB, also under office of the Prime Minister, is responsible for formulating a 5-year National and Economic Development Plan and recommending and advising the government on economic and social issues. These agencies typically work together on planning and forecasting revenues and expenditures.

- ***Personal Income Taxes System***

According to *A Guide to Thai Taxation* (Fiscal Policy Office, 2005, p. 2), the personal income tax is “a direct tax levied on income earned from sources within or outside Thailand during the taxable year.” Income incurring abroad from residents is subjected to tax only when those income are brought back into the country. Residents of Thailand include those who reside in Thailand for more than 180 days in any tax year (i.e. the same as calendar year). A non-resident, on the other hand, is subjected to tax only when income is generated within Thailand.

Personal income taxpayers include individuals, nonjuristic partnership or body of persons, a taxpayer who dies during the tax year, and undivided estates. According to the Revenue Code, taxpayers must file a return of the income obtained the preceding tax year on or before the last day of March every year.

There are 8 categories of assessable income: 1) income from personal service rendered to employers, 2) income by virtue of office or service rendered, 3) income from copyright, franchise or any other right, annuity, etc., 4) income in the nature of interest, dividends, gains from transfer of shares, etc., 5) income from letting out properties on hire, breach of a hire purchase contract or of a contract of installment sales, 6) income from liberal professions, 7) income from a contract of work with materials provided, 8) income from business, commerce, industry, transport, or other activities not listed above (Fiscal Policy Office, 2005). There are also some types of income that are exempted from personal income taxes e.g., actual medical expenses paid by employers, interest from tax refunds, interest from government lotteries, interest on saving deposit not exceeding 10,000 baht, income from sale of stocks registered in the Stock Exchange of Thailand, income from sale of investment units in a mutual fund, income of a mutual fund, inherited pension and inherited gratuity, inheritance excluding immovable property, etc.

Not the whole amount of income is used to calculate personal income taxes, deductible expenses and allowance are allowed. There are two types of deductible expenses: standard and actual. See Table 2.2 for details of standard expenses. Actual expenses are allowed from income in categories 5, 6, 7, 8 with the adequate proof of expenses. If the actual expense is lower than the allowed standard expenses after the actual method is chosen, only the actual expenses proved

by evidences can be deducted. Apart from deductible expenses, several types of allowance are also permitted. See Table 2.3 for the details of allowances.

Categories	Assessable Income	Standard Expense
1,2	Personal service and by virtue of office	40% but not exceeding 60,000 baht
3	Copyright	40% but not exceeding 60,000 baht
4	Letting out property on hire	
	- building and wharves	30%
	- agricultural land	20%
	- all other land	15%
	- vehicles	30%
	- any other property	10%
5	Breach of a hire-purchase contract or of a contract of installment sale	20%
6	Liberal professions	
	- medical profession	60%
	- other profession	30%
7	Contract of work	70%
8	Business, commerce and others	65-85%

Table 2.2: Standard Deductible Expenses

Source: A Guide to Thai Taxation (2005), Fiscal Policy Office, Ministry of Finance of Thailand

Types of Allowance	Amount
Personal allowance	30,000 baht
Spouse allowance	30,000 baht
Parent (and parent in law) allowance	30,000 baht
Child allowance	15,000 baht
Child's education allowance	2,000 baht
The taxpayer is an estate	30,000 baht
The taxpayer is a nonjuristic partnership or body of persons allowance	30,000 baht but not exceeding 60,000 baht in total
Life insurance premium allowance	actual amount but not exceeding 50,000 baht
Social insurance fund allowance	actual amount
Interest allowance for residential purpose	actual amount but not exceeding 50,000 baht
Provident fund or Pension Fund and Retirement Mutual Fund allowance	300,000 baht or not exceeding 15% of net income
Long Term Equity Fund	300,000 baht or not exceeding 15% of net income
Donation allowance	amount donated but not exceeding 10% of remainder of income after the deduction of all the preceding allowances

Table 2.3: Types of Allowance

Source: A Guide to Thai Taxation (2005), Fiscal Policy Office, Ministry of Finance of Thailand

The net income, after deductible expenses and allowances, is subjected to a 5-level progressive tax rate. Not surprisingly, Thailand current income tax rates have been used since the year 1992, which is almost 20 years. The only adjustment to these rates from the year 1992 was only to raise the exemption level from 100,000 to 150,000 Baht in 2008. See Table 2.4 for personal income tax rates.

Taxable Income (Baht)	Tax Rate (%)
0 - 150,000	exempted
150,001 - 500,000	10
500,001 - 1,000,000	20
1,000,001 - 4,000,000	30
Over 4,000,000	37

Table 2.4: Personal Income Tax Rates

Source: A Guide to Thai Taxation (2005), Fiscal Policy Office, Ministry of Finance of Thailand

II. Tax Compliance Studies in Thailand and the Comparative Perspectives

- *Tax Compliance Studies in Thailand*

Tax compliance studies are still in an early stage for Thailand with less than 10 studies related to tax compliance done by both Thai and international scholars.

The studies of Thai scholars are mostly from Master's dissertations for Department of Law. Among these, the most relevant study is Gallkiew's *Problems and Propositions to Improve Direct Tax Administration in Thailand: Income Tax from Personal Service* that was done since 1985. Gallkiew (1985) used questionnaires (230 people in Bangkok and metropolitan area), interviews (8 people with different levels of education), and observation including documentary analysis (the Revenue Code, statistical documents, and local news). He found four problems for personal income taxes in Thailand: 1) low standard of education of taxpayers, 2) negative attitude of taxpayers toward the government and the Revenue department, 3) ambiguity of the Revenue Code, and 4) inefficiency in tax administration of the Revenue Department. Gallkiew's

study could be considered so far the most comprehensive study in Thailand on personal income taxes.

Meanwhile, the other two studies are very legal-specific. Machamnean's study on *Anti-Avoidance Tax Measure* (1999) recommends the introduction of statutory general anti-avoidance measures instead of using interpretation from the Supreme Court's decisions. Machamnean's suggestions make sense as it is usually better to prevent than to correct problems after they happened. The remaining problems will be what should be stated in those measures. Machamnean recommended looking at taxpayers' evasion actions, which result in the shift of tax burden. He also suggested the Revenue Department to announce regulations, explanations, and discussion about anti-avoidance tax measures to the public and allow disputes from related occupational organizations. Chanarong's study on *Anti-Tax Evasion Measures Related with Establishment of an Ordinary Partnership or a Non-Juristic Body of Persons* (2009) proposed the amendment of the Revenue Code and related regulations to prevent the abuse of tax units in minimizing tax burden by filing personal income taxes as an ordinary partnership or a non-juristic body of persons instead of individuals. Although these two studies are useful in legal perspectives, it is not designed to be comprehensive and is less relevant to this study.

There are two international studies that explore tax compliance related issues in Thailand. McGee (2006) conducted a survey of Thai accounting students on opinions regarding tax evasion. There are four hypotheses: 1) the average respondent will believe that tax evasion is sometimes ethical; 2) tax evasion will be more acceptable when the statement refers to government corruption; 3) opposition to tax evasion will be strongest in cases where it appears that taxpayers are getting something in return for their money, or where there is a perception that there is a duty to other taxpayers to pay taxes, even if there may not be a duty to government;

and 4) females will be more strongly opposed to tax evasion than males. The results support all four hypotheses. The interesting finding is that the respondents think tax evasion is more acceptable in the case of governmental corruption and unfair tax system. McGee claims that results of surveys from other countries namely Guatemala, Romania, and international business professors are also similar, which lead him to believe that the attitude toward tax evasion is similar across cultural and geographical differences. However, McGee's later work in 2008⁴ on *Opinion on Tax Evasion in Asia* reports variation in oppositional level and attitudes toward tax evasion among countries but still suggest strong opposition to tax evasion across countries (McGee, 2008).

James, Svetalekth, and Wright (2006) studied the attitudes and perceptions of tax officials in which they considered having important effects on efficiency and effectiveness of tax administration. They conducted a survey of 1,175 Thai excise officials with a response rate of 47.7 percent. There were also 25 follow-up interviews with excise staff, entrepreneurs, and tax advisers. James et al. attempted to find a balanced system for measuring organizational and employee performance and incorporating employee satisfaction measures. The findings suggest regional excise tax officials tend to have more positive attitudes than central officials, which could result from internal management, participation in decision-making, working experience, and living expenses. However, the relationship between attitudes and productivity is not simple. The Bangkok region has the highest productivity but lowest satisfaction scores of excise officials. Conversely, the survey results indicate that a low productivity region has the highest satisfaction scores.

⁴ The work of McGee (2008) will be discussed in more details in the following section of this chapter.

These two international studies, however, tell only a small part of tax compliance story. McGee's study reflects only opinion on tax evasion from a small group of accounting students, which could not represent the attitudes of a larger Thai taxpayers' population. The study of James et al. focuses only at the attitudes of excise tax officials not the behavior of general citizen taxpayers.

Overall these studies of both Thai and international scholars are tax compliance-related but not exactly tax compliance studies. So far, there is no study that attempts to approach tax evasion problems from tax compliance perspectives i.e., exploring citizens' perception and finding determinants of tax compliance behaviors. Therefore, a more systematic study and analysis on taxpayer's perceptions and factors that affect Thai citizens' tax compliance behavior are needed.

- ***Comparative Perspectives on Tax Compliance***

The comparative studies on tax compliance usually expect to see variations in attitudes and behaviors among various countries. There are relatively few studies that explore tax compliance problems in developing countries because of data availability problem (Alm, 1999).

Ahmed Riahi-Belkaoui's *Bureaucracy, Corruption and Tax Compliance in Taxation and Public Finance in Transition and Developing Economies* investigates the relationships between the size of bureaucracy and tax compliance situation and the level of corruption and tax compliance (Riahi-Belkaoui, 2008). The study includes 30 developed and developing countries that have data on tax compliance, bureaucracy, and corruption. Tax compliance is measured by an assessment of the level of tax compliance from the Global Competitive Report 1996 in La Porta, Lopez-deSilvanes, Schleifer, and Vishny (1999). Bureaucracy is measured by the

percentage of government expenditures over gross domestic product for 1991 to 1995 from the World Bank sources. And, corruption is measured by a “control of corruption” score from Kaufman, Kray, and Zoido-Lobaton (2002), which measures perceptions of corruption or “the exercise of public power for private gain.” The findings show that tax compliance is positively related to the level of bureaucracy and negatively related to the level of corruption. In other words, smaller bureaucracy and lower corruption are associated with higher tax compliance. It could be implied that developing countries, which usually have bigger bureaucracy and higher corruption, has lower tax compliance.

Robert W. McGee’ study on *Opinion on Tax Evasion in Asia* is published in the same book, which he is also an editor (McGee, 2008). McGee focuses on whether tax evasion is justifiable. The literature indicates tax evasion is justifiable where government was corrupted or where the tax system was perceived as unfair. McGee employed the data from the Human Beliefs and Values Surveys, which were face to face interviews, which conducted in 13 Asian countries with the sample sizes between 780 and 2,002 during 2000-2003. The countries that were included are Bangladesh, China, India, Indonesia, Japan, South Korea, Kyrgyzstan, Pakistan, Philippines, Singapore, Taiwan, Turkey, and Vietnam. Respondents were asked to rate on a ten-point scale on the statement “cheating on taxes if you have a chance”, where one is “never justifiable” and ten is “always justifiable.” Muslim countries are most opposed to tax evasion because of their religious beliefs. The Philippines had the highest score of 3.14, which indicates that even the country that was least opposed to tax evasion compared to other countries is still strongly opposed to tax evasion. The nature of the surveys of face to face interviews might lead the respondents into saying that they are strongly opposed to tax evasion. Some demographic factors were also suggested from the surveys including sex and age. Females are

generally more firmly opposed to tax evasion than men. Besides, opposition to tax evasion increases with ages. McGee's study points out variations among countries in perceiving tax evasion as justifiable.

Tsakumis, Curatola, and Porcano's *The Relation between National Cultural Dimensions and Tax Evasion* (2007) explores the cultural effects on intentional noncompliance across countries. Tsakumis et al. employed Hofstede's cultural dimensions to explain international tax evasion diversity for 50 countries. Their hypotheses are: 1) the higher the uncertainty avoidance in a country, the higher the level of tax evasion in that country; 2) the higher individualism in a country, the lower the level of tax evasion in a country; 3) there will be a significant relation between masculinity and the level of tax evasion in a country; and 4) the higher the power distance in a country, the higher the level of tax evasion in a country. Tsakumis et al. used an economic estimate of actual unreported income within a country as a proxy for tax evasion. In other words, countries with larger shadow economy are perceived as less compliant. The results support all four hypotheses and suggest a direction of relationship for hypothesis 2 that higher masculinity is associated with lower tax evasion. Alternatively, low tax compliance countries have high uncertainty avoidance, low individualism, low masculinity, and high power distance. The implications suggested by Tsakumis et al. are that tax policy makers should consider cultural values in designing tax compliance measures. For example, social stigmatizations (punishment and disclosure of people who evade taxes) might work as effective penalty for tax evaders in the United States but might not work in the countries with less tax compliant cultural profile.

Although these studies give some ideas related to tax compliance from the comparative perspectives, there are a lot more rooms for future research on international tax compliance

especially in developing countries. Comprehensive analyses on perceptions of taxpayers and various determinants of tax compliance have not yet been explored.

III. Evolution of Tax Compliance Literature

- *The Traditional Approach: Utility Maximization Model of Taxpayers/ Compliance Lottery View/ Deterrence Model of Tax Evasion*

The classic tax compliance theory is based on an expected utility maximization model, which is a very well-known theory in the field of economics. In the expected utility maximization model, people weight possible lost and gain in their actions for a specific behavior in order to achieve the highest utility (i.e., satisfaction).

Allingham and Sandmo's *Income Tax Evasion: A Theoretical Analysis* (1972) could be considered a landmark study that first systematically studied the issue of tax evasion via the expected utility maximization model of taxpayers. According to Allingham and Sandmo, the taxpayers have two choices 1) declare actual income, or 2) declare less than actual income. People will evade if they see the benefit of evading (tax amount that is kept for personal use) is higher than the cost of being caught (the probability of being caught and the penalty for evasion). Tax evasion decision is believed to be a rational decision making under uncertainty as whether to be audited or punished is uncertain. Mikesell and Birskyte (2007) classified this approach as the compliance lottery view while Slemrod (2007) called this approach the deterrence model of tax evasion. This approach focuses on targeting intentional compliance or noncompliance categories of taxpayers. It assumes that people pay taxes primarily because of the fear of detection and

punishment (Alm, 1999, p. 743). According to James Alm (1999), this stream of literature suggests that government can raise tax compliance by increasing the audits and penalty rates.

However, Alm (1999) among others (Elffers, 1991; Gratez & Wilde, 1986; Smith & Kinsey, 1987) pointed out that government enforcement alone cannot account for this relatively high level of compliance. For example, audit rate of individual income tax returns in the United States is only one percent. The penalty on even fraudulent evasion is only 75 percent of unpaid taxes, which is infrequently imposed, and 20 percent of unpaid taxes for civil penalties on nonfraudulent evasion. With this levels of audit rate and penalties, it is expected from the expected utility theory that “most rational individuals should underreport income not subject to source withholding or overclaiming deductions not subject to independent verification because it is extremely unlikely that such cheating will be caught and penalized” (Alm, 1999, p. 744).

In reality, it is not the case as individual income tax compliance is relatively high compared to an existing level of enforcement. Direct enforcement (i.e. audit, delinquency pursuit, forced collections, etc.) only represents 1.69 percent or \$32 billion of \$1,902 billion collected by the Internal Revenue Service (IRS). This phenomenon could be explained by the prospect theory in psychology that said taxpayers “perceive” a much higher probability of being audited or punished than it actually is (Kahneman & Tversky, 1979).

In summary, the traditional approach seems to serve as a fundamental cost-benefit analysis of taxpayers in compliance decisions, which pays particular attention on enforcement among other factors that affect tax compliance decisions.

- ***The Alternative Approach: Responsible Taxpayer View/ Behavioral Model of Tax Evasion***

This alternative approach could be considered the most recent important development in tax compliance literature that could help explain what the traditional model cannot. Mikesell and Birskyte (2007) classified this approach as the responsible taxpayer view. Slemrod (2007) called this approach behavioral model of tax evasion. The theme of this approach is that tax compliance decision is not merely a monetary cost-benefit calculation as in the utility maximization model. It does not view the tax evasion only from the probability of getting caught and punished but also looks beyond economic factors that could impact tax compliance decisions.

According to Mikesell and Birskyte (2007), the alternative approach (the responsibility taxpayer view in Mikesell and Birskyte's terms) believes that people are responsible, moral, and willing to comply and pay taxes when 1) they are motivated to do so, 2) they understand clearly what their tax obligations are, and 3) payment of those obligations is made convenient (Mikesell & Birskyte, 2007, p. 1048). This approach relies more on a softer approach to encourage taxpayer compliance via education rather than enforcement actions against taxpayers. The point is to make taxpayers understand their tax duties. This alternative approach targets the problem of unintentional noncompliance assuming there are still many taxpayers who actually don't have enough knowledge about their tax duties, processes, and requirements. It is also known as a "kinder and gentler IRS" approach (Mikesell & Birskyte, 2007).

In addition to the education component, Slemrod (2007), who called this approach behavioral models of tax evasion, reviewed the importance of motivation, perceptions, and attitudes that affect tax compliance decisions including: 1) intrinsic motivation (civic virtue) 2) perceptions about the fairness of the tax system 3) perceptions about trust in government and 4) attitudes about acceptability of tax evasion.

Intrinsic motivation can affect tax compliance decision. Intrinsic motivation is the motivation that comes from within. For tax compliance decision, intrinsic motivation is known as civic virtue, which means I pay taxes because I want to be a good citizen or I want to contribute to the society not because I am forced to. However, civic virtue might be crowded out when penalties are introduced as taxpayers could feel they are forced to pay taxes (Frey, 1997). Scholz and Lubell's experiment (2001) indicated a significantly lower level of cooperation of taxpayers after higher penalties were introduced. This belief has also led to a softer approach of IRS in using rewards rather than penalties or carrots rather than sticks.

Slemrod (2007) also suggests perceptions of the fairness of the tax system play a role in tax compliance behavior. If tax system is perceived as fair, the social norms against tax evasion will be strengthened. Tax evasion, then, become more costly by incurring a higher stake of bad reputation if caught and bad conscience if not caught. In other words, tax compliance should be higher with a fairer tax system that led the society to perceive evading tax is a bad thing to do.

Trust in government plays a role in tax compliance decisions in the same way as the perceptions of fairness of the tax system. That is if taxpayers perceive government as fair and act in their interests, they will be more willing to pay taxes. Levi (1998) called these taxpayers "contingent consenters", who cooperate and pay taxes even if it is against their short-term best interests of free-riding. The survey results of Torgler (2003) and Slemrod (2003) found that tax compliance has a positive relationship with trust in government across countries. Slemrod's survey results of individuals in the United States and Germany also show a positive relationship between tax compliance and trust in government (Slemrod, 2003). In other words, higher tax compliance is associated with higher trust in government. The explanation is that trust in

government could help raise the confidence of taxpayers in knowing that their tax money will be spent fairly and usefully.

Attitudes about acceptability in tax evasion could also influence taxpayer compliance. The World Values Surveys 1999-2002 show that acceptability in tax evasion varies across countries (Slemrod, 2007). The respondents were asked whether tax evasion is justifiable from the scale of 1 (never justifiable) to 10 (always justifiable), the average of the United States and the OECD were 2.28 and 2.34 respectively. This means in the United States and the OECD people perceive tax evasion as a bad thing and mostly unacceptable. This could lead to a lower level of tax evasion in the United State and the OECD than in developing countries, where people might perceive tax evasion as more justifiable. Attitudes about acceptability in tax evasion can also vary among individuals, who have different cultural, educational, and religious background or even different personal beliefs, values, and characteristics.

This alternative approach in tax compliance adds behavioral perspectives that are not presented in the traditional utility maximization approach. Taxpayers can be responsible and willing to contribute to the society. As tax compliance decision is not only limited to the calculation of monetary costs of getting caught and benefits from evading taxes, government policy to increase taxpayer compliance could include improving tax education, encouraging civic virtue of contributing to the society via paying taxes, offering rewards to compliance taxpayers, improving procedural fairness in tax and government administration, and establishing anti-tax evasion attitudes among citizens.

IV. Tax Compliance Research Methodologies

Measuring and understanding tax compliance have never been easy tasks since people who avoid or evade taxes strongly intend to conceal their behaviors (Alm & McKee, 2006). Most studies on tax compliance focus on income taxes. Research methods on tax compliance could be classified into three major categories: historical data, surveys, and experiments (Slemrod, 1992).

A. Historical Data

Historical data on tax compliance in the United States is primarily based on the IRS data of Taxpayer Compliance Measurement Program (TCMP), which collected a stratified random sampling of 50,000 individual tax returns every three year for detailed line-by-line audits. TCMP data is used as an estimate of taxpayers' true income that could be used to compare with what taxpayers reported. TCMP data provided information on many factors that affect tax compliance namely income source, socioeconomic grouping (age, sex, location), detection probability, marginal tax rate and income level. Surprisingly, the severity of penalties is not a significant factor from TCMP data, which could be because those penalties are rarely enforced (Franzoni, 2008).

Nonetheless, using TCMP data as a measure for tax compliance has certain disadvantages. First, it could not capture all noncompliance as noncompliance that is not detected by IRS audits is excluded from TCMP data. In other words, TCMP data include only people who file taxes. For example, in 1976, it was estimated that non-filers accounted for 36 percent of all unreported income. Moreover, the IRS has only a limited capacity to detect tax evasion of informal sector, self-employed, moonlighting, and cash-only business (J. Alm, Deskins, & McKee, 2009; Franzoni, 2008). Second, TCMP data could not detect honest

misreports. Alternatively, unintentional non-compliance could not be distinguished from intentional non-compliance, which gives little information on which strategies should be used to promote more compliance. Third, TCMP data has minimal demographic information, no information about taxpayers' attitudes, and no information on other factors that might affect tax compliance (Slemrod, 1992).

State amnesty data is another historical data that could measure noncompliance. However, amnesty data faces the same disadvantages as the TCMP data that it is limited to those who participated in tax amnesty and may not represent overall population (Andreoni, et al., 1998).

B. Survey Data

Survey data is used to overcome some shortcomings of historical data by getting mostly information on attitudes that influence taxpayers' compliance decisions. Survey method is very useful in exploring perceptions and assessing the determinants of tax compliance such as sociological factors, procedural fairness, audit rates, penalties, tax rates, and peer pressure, which could not be achieved by historical data. Franzoni (2008) reviewed a lot of survey results and suggested that important determinants were: 1) perceived probability of detection, 2) severity of informal sanctions, 3) moral beliefs about tax compliance, 4) experience with other non-compliers and past experience with IRS enforcement, and 5) demographic characteristics.

There are still several problems with survey data. First, the accuracy of survey data is criticized as uncertain. Respondents might not remember correctly their reporting decisions or might not tell the truth. Individuals may want to protect their images and adhoc rationalize their own behaviors. Therefore, respondents might be reluctant to admit or report their non-

compliance behavior (Alm, 1999; Elffers, Weigel, & Hessing, 1987; Franzoni, 2008). Second, the causal direction of the relationship between determinants and noncompliance may not be determined easily (Alm, 1999; Franzoni, 2008). And third, reliability of survey results is difficult to achieve because it depends on the representativeness of the sample (Franzoni, 2008).

C. Experiments

Controlled experiment in laboratory setting is another method for studying tax compliance. This method is used to simulate as close as possible to the real situations to determine whether taxpayers will make decision to comply or not i.e. accurately report or underreport given specific audit rates, penalties, rewards, etc. In general, the results of experiments (see, for instance, Alm & McKee, 2006; Baldry, 1987; Webley, Robben, Elffers, & Hessing, 2010) suggest that audit rates play an important role in compliance decision. Also, higher income and lower tax rate are associated with higher compliance and vice versa. However, the size of fine does not really matter unless the audit rate is really high (Franzoni, 2008). Moreover, social norms and ethical attitude seem to have a significant effect on tax compliance (Baldry, 1987).

The limitation of experimental method is that it is not actual compliance data. Besides, experimental studies could not be conducted for a large sample unlike survey method. Experiments are usually done in a small group of individuals, which usually are students (Franzoni, 2008). It cannot be guaranteed that taxpayers will make the same decisions in reality.

Altogether, these three methods complement one another in tax compliance studies. Historical data provides actual and reliable information on tax compliance. Surveys give us more

insights on attitudes and perceptions that affect tax compliance decision. Experiments provide us opportunities to test for appropriate audit, punishment, and reward schemes.

V. Determinants of Tax Compliance

Many studies on tax compliance focus on exploring the determinants of tax compliance. The majority of the studies focuses on tax enforcement i.e. tax audits and penalties, which are those that matter in the traditional approach. The others investigate alternative factors such as positive incentives, tax amnesties, attitudes and perceptions toward tax systems, tax rates, actual income levels, and demographic characteristics. All of these studies attempt to understand the determinants of tax compliance in order to find ways to improve tax administration to achieve higher tax compliance. However, there is still no systematic study about these determinants in Thailand.

A. Tax Audits

Tax audits are very popular issues in tax compliance research. Audit probability, audit productivity (fraction of unreported income discovered), and prior audit notifications are those of interests to scholars. It is expected that higher audit rates will increase compliance (Alm, 1999). According to the compliance lottery view or expected utility theory, if audit probability and productivity are higher, the expected loss of being caught will be higher. As a result, taxpayers will report a larger amount of income (Allingham & Sandmo, 1972). The studies that use TCMP data such as Witte and Woodbury (1985), Dubin and Wilde (1990) and surveys such as Kinsey (1992), Shreffinn and Triest (1992) support this hypothesis reporting that compliance is higher

when audit rates increase. Experimental methods also yield the same results as reviewed by Alm (1999, p. 756) with the estimated reported income-audit rate elasticity ranging from 0.1-0.2.

Alm and McKee (2006) come up with very interesting findings. They use experimental method to examine individual compliance responses to advance information on audit probability and productivity. Productivity of audits refers to how much unreported income will be discovered via audits. The findings suggest announcement increased compliance for people who know they will be audited, but reduced compliance for those who will not be audited. The overall compliance actually falls with advance notification of audits. The results are interesting in the sense that telling taxpayers exactly what will happen to their reports might not always yield a positive outcome.

Recently, Alm, Jackson, and McKee (2009) use laboratory experiments to examine the compliance impact of types of information dissemination (formal information by the tax authority and informal communication among taxpayers) regarding audit frequency and results. Pre-announcing audit rates credibly and emphasizing the previous period audit frequency in annual reporting of enforcement effort become important tools that tax authority could pursue to achieve higher compliance. Another finding is that informal communication will only be effective with presence of official announcement of audit rates.

B. Penalties

Again, it is expected from the compliance lottery view that higher penalties will increase compliance. Alm (1999, p. 756) reports that compliance increases only slightly with an increase in penalty rate i.e. the income-fine rate elasticity of less than 0.1. The review by Kirchler,

Muehlbacher, Kastlunger, and Wahl (2007) suggests that several studies found no support for the increase of tax compliance from higher penalties.

According to Mikesell and Birskyte (2007, p. 1064), the impact on compliance of penalties is much lower than the audit rates for two major reasons. First, there are political and social constraints in imposing high penalties. Second, penalties are only effective when accompanied with higher probability of audits. Increasing fine rates means very little if tax authority does not enforce those penalties more strictly. Furthermore, from the responsible taxpayer view, higher penalties might not always yield positive outcomes and could discourage voluntary compliance. Kirchler et al. interestingly conclude that:

On the one hand, fines should be high enough to decrease the expected value of tax evasion and to assure its deterrent effect on taxpayers. On the other hand, if fines are too high, the tax system would be perceived as unjust and unfair and taxpayers would use any possibility to legally avoid their taxes. (Kirchler, et al., 2007, p. 15)

C. Positive Incentives

The perspective of tax compliance scholars have shifted toward more positive incentives for tax compliance instead of focusing only at deterrence of noncompliance through detection and punishment (Slemrod, 1992). Slemrod emphasizes the trend of using “carrot” rather than “stick” in solving tax compliance issues. Experimental studies report higher compliance with the use of positive rewards. Alm, Jackson, and McKee (1992) use laboratory experiments to investigate the compliance effects of enforcement efforts (i.e., audit rate and penalties) and positive incentives (lottery prize, fixed reward, future audit reduction, and the increase in public good). The results suggest that both enforcement efforts and positive incentives help increase

taxpayer compliance. Positive incentives, in particular, must be immediate and salient to have a significant effect on taxpayer compliance. Taxpayers are qualified for rewards only if they fully comply. Therefore, compliance rates are shifted for those taxpayers from very low rates to very high rates.

D. Tax Amnesties

Tax amnesties could be considered another measure to increase tax compliance for both intentional and unintentional noncompliant taxpayers. According to Andreoni et al. (1998), tax amnesties have been used by 33 of 50 states to give chances for noncompliant taxpayers to voluntarily pay their back taxes without criminal investigation and penalties. Tax amnesties have raised significant amount of revenues for many states such as \$401 million for New York and over \$100 million for California, Illinois, Michigan, and New Jersey (Andreoni, et al., 1998, p. 853). Conversely, tax amnesty could be perceived as increasing opportunity for tax evaders to evade more if provided too often. Alm et al. (1990) suggests two major interesting results from their experiments. First, tax amnesty could lower post-amnesty compliance because intentional compliant taxpayers expect future amnesties. Second, increase in post-amnesty enforcement effort (e.g., penalties) could reduce that reverse affect and could actually increase post-amnesty compliance better than just increasing enforcement alone.

E. Attitudes and Perceptions toward Tax Administration

Attitudes and perceptions toward the tax administration also affect tax compliance decisions (Shreffinn & Triest, 1992). There are three major types of attitude and perception that affect tax compliance decisions: 1) procedural fairness of tax systems and government administration, 2) quality of government services, 3) social norms about tax evasion.

Procedural fairness is important in tax systems and government administration because it gives taxpayers justifiable reasons for paying their share of taxes. According to Tyler (1997, p. 1), procedural fairness gave the people feelings of obligation that they should obey group rules because they are legitimate and entitled to be obeyed. In seeing that everyone is treated equally, procedurally fair, and in a respectful manner, the social norms against tax evasion and trust in government are strengthened (Hanousek & Palda, 2004; Slemrod, 2003; Torgler, 2003). Procedural fairness in tax systems and government administration lead people to believe that fair procedures will lead to fair distribution (Thibaut & Walker, 1975). Thus, procedural fairness creates positive attitudes and perceptions toward tax systems and government administration that help promote taxpayer compliance.

As well as procedural fairness, responsive service is effective for increasing compliance via positive attitudes toward tax administrators and tax systems (Smith, 1992). Hanousek and Palda (2004) found strong evidence that the quality of government services affect tax compliance decision. If taxpayers perceive that they are not receiving justifiable quality government services for their tax money, they will avoid taxes. From this perspective, taxpayers avoid tax because they believe the government is inefficient and unresponsive to their needs. Thus, citizens' willingness to comply and pay taxes depends upon the quality of government services. Providing faster and better quality services will help increase taxpayer compliance.

In addition to procedural fairness and responsive service of tax systems and government administration, social norms about tax evasion influence taxpayer compliance decisions. Particularly, social norms determine the degree to which tax evasion is perceived as acceptable behavior in the society. Negative publicity of noncompliance, for example, might increase tax evasion because of the change in social norm that noncompliance becomes acceptable behavior

in the society (Shreffinn & Triest, 1992). Seeing other people evade taxes send the signal to taxpayers that tax evasion becomes more acceptable, neglected by the government, and unfortunately is the norm (Alm, 1999).

Procedural fairness, responsive service, and social norms are attitudes and perceptions that ultimately affect trust in government. Higher trust in government is associated with higher tax compliance (Hanousek & Palda, 2004; Slemrod, 2003; Torgler, 2003). Therefore, it is very crucial for the government to be procedurally fair, be responsive and maintain social norms against tax evasion.

F. Tax Rates

According to Alm (1999, p. 753), empirical findings suggest that higher tax rates lead to less compliance with underreported income-tax rate elasticity ranging from -0.5 to -3.0. This could be interpreted that higher tax rates increase the gains from cheating from the compliance lottery view. However, it does not make much sense to lower marginal tax rates in order to reduce tax evasion. Tax rate should be designed based on efficiency and equity concerns (Sandmo, 2005).

G. Actual Income Levels

The positive relationship between actual income and tax compliance are general theoretical expectation. Alm et al. (1992) report that higher income leads to higher reported income, with an estimated reported income-income elasticity between 0 and 1 in empirical evidences and roughly $\frac{3}{4}$ in experimental results. However, Kirchler, et al., (2007) review the evidences on a direction of relationship between actual income and tax compliance and found

that the evidences are mixed. Some report a positive relationship between actual income and tax compliance (See, for example, Alm et al., 1992; Christian, 1994; Fishlow & Friedman, 1994) while others report a negative relationship (See, for instance, Baldry, 1987; Collins & Plumlee, 1991; Slemrod, 1985) or even no relationship (See Feinstein, 1991; Kirchler, et al., 2007).

H. Demographic Characteristics

The TCMP data suggests that younger, single, and self-employed people tend to have less compliance. Experimental studies also find that younger people are less compliant. And, females are more compliant than males (Alm, 1999; Andreoni, et al., 1998). Younger people might have a more limited knowledge about tax obligation, as they are just starting their careers, and lower senses of citizenship. Single people might have lower compliance because they might perceive the tax systems as less fair because they are eligible to lower deductions than those with families. The income of self-employed people cannot be easily audited hence they are more likely to be less compliant. Female is believed to be more responsible than male at the same age so they may be more compliant.

VI. Conclusion

This chapter began with the overview of Thai tax system and tax compliance studies in Thailand and the comparative perspectives, which found that Thailand relied too much on indirect taxes, had enormous amount of tax gap, and still lacked comprehensive tax compliance studies. In Thailand and other similar developing countries, where tax evasion is much more serious than in the United States, the factors that affect tax compliance should be systematically studied in order to find ways to increase taxpayer compliance.

Then, the two major views of tax compliance were discussed. One is the traditional utility maximization approach that taxpayers weight expected gains and losses from noncompliance, which assuming people pay taxes primarily because the fear of punishment therefore enforcement and penalties are needed for compliance. The other is the alternative approach of responsible taxpayer view that believes people will pay taxes if they are motivated and understand their obligations, including when it is convenient to do so. Both views are necessary to understand tax compliance decision as those decisions are not made solely on monetary basis or moral basis but on both.

In studying the determinants of tax compliance, the three major research methods are employed: historical data, surveys, and experimental studies. Each research method has different strengths and weaknesses that scholars choose to employ different methods to confirm various aspects of tax compliance issues. Important factors that affect tax compliance suggested by the literature are audit rates, penalties, positive incentives, tax amnesties, attitudes and perceptions toward tax administration, tax rates, actual income levels, and demographic characteristics. More attention was given to enforcement via audits and penalties, in which many scholars

studied the effects of the probability of audits and fines on tax compliance. Although less attention was given to incentives and softer motivational strategies such as making the tax system fair and convenient to improve tax compliance, it is on the rising trend. Nonetheless, there is no comprehensive study about these determinants in Thailand. The next chapter presents hypotheses in exploring tax compliance perceptions and determinants in Thailand and describes the research methods used to test these hypotheses.

Chapter 3

Research questions, Hypotheses, and Methodology

The previous chapter reviewed the tax compliance literature and provided a fundamental background on this subject. That chapter also described the gap in comprehensive research on tax compliance in Thailand. To attempt to close that gap, this study will present the first empirical research on tax compliance in Thailand. This chapter will discuss the research questions, the hypotheses of the study, and the research methodology.

I. The Research Questions

This study asks two major research questions:

Research Question 1:

What are general citizens' perceptions of the Thai personal income tax system, what are their tax compliance behaviors, and what strategies might help increase tax compliance in Thailand?

Research Question 2:

What are critical determinants of personal income tax compliance behavior in Thailand?

II. The Hypotheses

The first research question is exploratory in nature thus there is no hypothesis. There are five major hypotheses for the second research question as follows⁵:

Hypothesis 1 (H1): Perceptions of greater enforcement increase tax compliance behavior in Thailand.

Hypothesis 2 (H2): Perceptions of fairer tax system increase tax compliance behavior in Thailand.

Hypothesis 3 (H3): Perceptions of better government administration increase tax compliance behavior in Thailand.

Hypothesis 4 (H4): Greater tax knowledge increases tax compliance behavior in Thailand.

Hypothesis 5 (H5): Those with higher income (H5.1), those who are older (H5.2), those who are married (H5.3), those who are female (H5.4), those who are not self-employed (H5.5), and those with higher levels of education (H5.6) tend to have higher tax compliance.

⁵ The author acknowledges that there are other determinants that affect tax compliance behavior. There are a number of strategies that are not currently used but could have affected tax compliance if Thailand had adopted them e.g., announcement of who will be audited and who will not, formal dissemination of audit rates, positive incentives (lottery prize, cash back, future audit reduction, etc), and tax amnesty. These strategies are incorporated in my survey questions (question 20) by asking the respondents how likely they think that could be a good strategy to make them or people in general attempt to report income more accurately. For those non-existing strategies, the purpose is exploratory rather than testing the hypotheses.

Hypothesis 1: The perceptions of greater enforcement increase tax compliance in Thailand.

Hypothesis 1 represents a traditional approach of government in controlling tax noncompliance via enforcement. Perceptions of greater enforcement will increase tax compliance via increasing the expected costs of being caught in the compliance lottery view, which believes taxpayers compare the gains from cheating versus the costs of being caught. These enforcement perceptions include, for examples, perception of higher audit rates, perception of more serious tax law enforcement, and perception of stronger penalties. According to the prospect theory (Kahneman & Tversky, 1979), the perceptions of enforcement (either audit rates or penalties) matter more than the actual enforcement, otherwise tax evasion would be much higher given the current level of enforcement. Therefore, it is expected that perceptions of greater enforcement will result in increased tax compliance in Thailand.

Hypothesis 2: Perceptions of fairer tax system increase tax compliance in Thailand.

Hypothesis 2 represents the alternative approach of tax compliance. Behavioral models of tax evasion, in particular, pointed out that the perceptions of fairness of tax system affect tax compliance (Slemrod, 2007). Tax fairness perceptions include, for example, whether the rich pay a fair share, whether taxpayers should be taxed from their own earning, whether the tax rate is too high, and whether taxpayers think others evade taxes. If a tax system is perceived to be fair, the social norms against tax evasion will be strengthened. In other words, tax evasion would become less acceptable social behavior. Therefore, it is expected that perceptions of fairer tax system would increase tax compliance in Thailand.

Hypothesis 3: Perceptions of better government administration increase tax compliance in Thailand.

Hypothesis 3 represents an alternative view of tax compliance (both the responsible taxpayer view and the behavioral models of tax evasion). Perceptions of government administration such as the quality of tax revenue administration, control of corruption in government, and attitudes toward the current government. In this study, the perceptions of government administration reflect trust in government. People will increase tax compliance if they have higher trust in government (Hanousek & Palda, 2004; Slemrod, 2003; Torgler, 2003). Therefore, it is expected that the perceptions of better government administration will result in increased tax compliance in Thailand.

Hypothesis 4: Greater tax knowledge increases tax compliance in Thailand

Hypothesis 4 targets unintentional tax compliance according to the responsible taxpayer claim. In the responsible taxpayer view, there are many taxpayers who don't have enough knowledge about their tax duties, tax processes, and requirements, and that such knowledge would increase compliance. Since there is no tax education in the Thailand's curricula, it is reasonable to suspect that some taxpayers might not have enough tax knowledge hence it is expected that tax knowledge would increase tax compliance in Thailand.

Hypothesis 5: Those with higher income, those who are older, those who are married, those who are female, those who are not self-employed, and those with higher levels of education tend to have higher tax compliance.

Taxpayers' characteristics can affect their compliance behaviors. The hypotheses for Thailand are set according to previous literature in the United States and general theoretical expectations; people with higher income, those who are older, those who are married, those who are female, those who are not self-employed, and those with higher levels of education tend to have higher compliance. This study is, nevertheless, aware of the possibility of mixed results. For example, people with higher income can have either higher (earn more and pay more taxes) or lower compliance (earn more and find ways to evade more). Also, people with higher education can have either higher (have more knowledge so know how to pay taxes more accurately) or lower compliance (have more knowledge but unwilling to pay taxes so find ways to evade). Figure 3.1 summarizes the hypotheses of this study

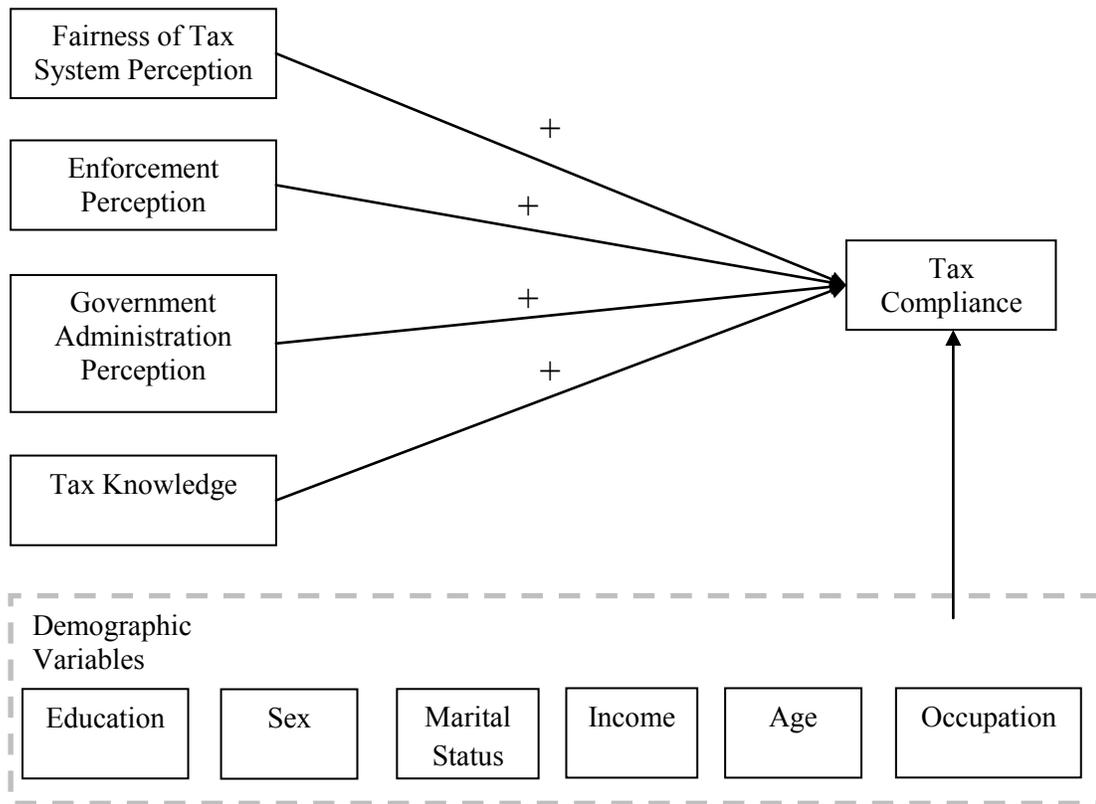


Figure 3. 1: Thailand’s Tax Compliance Behavior Determinants Hypotheses

III. Research Methodology

The primary research method of this study is a face-to-face survey of people in Bangkok, Thailand. Since there is currently no comprehensive study about income tax compliance behavior in Thailand, the survey method was chosen in order to develop the first income tax compliance database for Thailand. The survey explored perceptions and behaviors of the participants regarding tax compliance including strategies to increase tax compliance in Thailand. There were questions that used to test the five aforementioned hypotheses. In addition to the survey, in-depth interviews of tax administrators, tax policy experts, and university

professors were conducted to obtain further explanations of income tax compliance in Thailand. Thus, this study is an example of a mixed-methods research. Mixed methods research is defined as research that uses both quantitative and qualitative methods in a single study (Johnson & Onwuegbuzie, 2004). The mixed methods are used in this study to best capture what might not be explained by an individual method alone. The in-depth interviews provide insight of the experts supplementary to the survey that help the study to get a more complete picture of tax compliance in Thailand. Both the quantitative (survey) and the qualitative (in-depth interviews) designs are discussed in this chapter.

Quantitative Design

The survey of tax compliance was conducted in Bangkok during July 2011 in order to explore tax compliance perceptions of Thai citizens and gauge determinants of tax compliance behavior in Thailand. This section presents the details of quantitative method employed in this research, which include the procedures, participants, questionnaire design, measures, and data analysis plan.

- ***Data Collection Procedures***

This study focuses on exploring the behaviors of individual income taxpayers in Bangkok. Bangkok is the capital city of Thailand with the population of over 10 million people or about 2.5 million households (four people per family on average), which represents the largest proportion of taxpayers in Thailand. Samples of this study were derived from the population in

Bangkok via a multistage sampling. First, twelve districts⁶ in Bangkok were drawn from inner ring, middle ring, and outer ring areas according to a systematic sampling with probability proportional to size. Then, in each district, data were collected from individuals who live in households and work at public and private companies. Different blocks of location were randomly chosen from each district. Forty data collectors were sent out to collect the survey data at those locations together with 10 fieldwork supervisors during July 4-6, 2011.

The survey is in Thai for ease of communication. See Appendix A and Appendix B for English and Thai questionnaires. There was also an information statement attached in the front of the survey, which indicates that: 1) they are willing to participate but free to withdraw at any time, 2) they are at least age eighteen, and 3) their responses are anonymous and could not be traced back to them. And, where appropriate, the statement was described orally. Then, the data collectors asked whether the participants prefer filling out the survey by themselves or being interviewed (read out questions from the survey) by the data collectors⁷. Ninety percent of the participant chose the self-filling method and ten percent chose the interview method. After the participants answered all questions, the data collectors thanked the participants without paying any incentives.

- *Participants*

There were 1,148 participants⁸, who lived in Bangkok, Thailand. There were 43% males ($N = 488$), 57% females ($N = 650$), and 1% of those who did not report their sex ($N = 10$). The

⁶ The twelve districts are: 1. Rachathewi, 2. Sathon, 3. Thon Buri, 4. Chatuchak, 5. Saphan Soeng, 6. Bang Phlat, 7. Lat Phrao, 8. Bang Kapi, 9. Bang Khen, 10. Min Buri, 11. Bang Khun Thian, and 12. Don Mueang.

⁷ The answer was recorded in question 1 of the questionnaire.

⁸ This study did not record the number of people who did not want to participate in the survey.

average age were 34.4 years ($SD = 9.36$ years, Ranges = 18-85). There were 60% of participants who were single, 38% were married, and 1% did not report their marital status.

For levels of education, there were 2% of participants with primary school education or lower, 14% with secondary school education, 13% with two-year college's degree, 60% with bachelor's degree, 9% with master's degree, 0.4% of participants with doctoral degree or higher, and 1% not reported their education level.

For occupation, 45% of participants were employees of private organizations, 18% were businessmen and entrepreneurs, 17% were freelancers, 8% were other government employees, 7% were government officials, 5% reported other occupations, 0.4% were elected officials and politicians, and 1% did not reported their occupation.

For levels of income, there were 41% of participants with income less than 150,000 Baht per year 39%, with 150,001-500,000 Baht per year, 8% with 500,001-1,000,000 Baht per year, 2% with 1,000,001-4,000,000 Baht per year, and 1% with more than 4,000,001 Baht per year.⁹ Nine percent of participants did not report their income.

As Thai taxpayers' profile is not available, the representativeness of the sample to Thai taxpayer' population is difficult to determine. Moreover, the demographic characteristics of Bangkok population cannot be obtained because there are many taxpayers who live or work in Bangkok but not registered as Bangkok residents. Although the demographic characteristics of Bangkok taxpayers cannot be obtained,¹⁰ the multistage random sampling method used in this study was designed to best represent taxpayers in Bangkok by randomly selecting the areas throughout Bangkok for conducting the survey.

⁹ Approximately 30 Baht = 1 US Dollar

¹⁰ The survey sample is closely comparable to registered Bangkok population in term of sex (Sample: male 43% vs. female 57%, 5.6 million registered Bangkok population: male 47% vs. female 53%).

- ***Questionnaire Design and Measures***

The questionnaire was conducted with the primary purpose of exploring tax compliance perceptions and behaviors of Thai people including strategies that could help increase tax compliance in Thailand. The secondary purpose was to predict the critical determinants of income tax compliance behavior in Thailand. There were 30 big questions with small questions inside along with demographic questions at the end. The respondents were mostly asked for their opinions on a five-point Likert scale under various circumstances according to the hypotheses. There were six major categories of questions: general exploration, reasons behind not filing taxes, reasons behind not declaring tax accurately, determinants of tax compliance, tax compliance behavior, and demographic. See English and Thai questionnaires in the Appendix A and Appendix B.

1) General exploration questions

Questions in the category are *questions 2-5, 7, 9-18, 23-24, and 30*. These questions aim to explore general perceptions and attitudes of the respondents toward the Thai income tax system.

Question 2 asked the respondents about their perceptions on current income tax rates with two small questions: 1) tax rates in general and 2) taxes that the richest group of people in Thailand has been paying for half of the country's personal income tax revenues. *Question 24* asked the respondents about the personal income tax they are paying when comparing to the public services they receive. The respondents were to rate these on a 5-point Likert scale from way too low to way too high. The purpose was to know whether they think the tax rates are too high and in which aspect.

Question 3 investigated the respondents' general tax compliance related perceptions with 6 small questions about: 1) acceptability of tax evasion, 2) audit capacity of the Revenue Department, 3) procedural fairness of government administration, 4) procedural fairness of tax administration, 5) low severity of current penalties, and 6) lack of tax laws enforcement. The respondents were to rate these on a 5-point Likert scale from strongly disagree to strongly agree.

Question 4 continued to ask the respondents' opinions on tax compliance related issues with 9 small questions: 1) degree of corruption, 2) level of satisfaction with general governmental services, 3) level of satisfaction with the Revenue Department's services, 4) degree of severity of current penalties, 5) degree of tax laws enforcement, 6) level of fairness of government administration, 7) level of fairness of tax administration, 8) degree of awareness of tax evasion situation, 9) degree of awareness of tax evasion punishment. The respondents were to rate these on a 5-point Likert scale from the lowest to the highest. The purpose was to get some general ideas of tax compliance related issues perceived by the respondents.

Questions 5 and 7 asked their perceptions on the percentages of people who actually file taxes and who file their taxes accurately. There were five answers to choose from starting from 0 - 20 % none or almost none to 81 - 100% all or almost all. The purpose of these two questions was to see the severity of tax evasion problem perceived by Thai citizens. *Question 9* asked about the percentage of people who they believed currently being audited by the Revenue Department. The answer choices were the same as questions 5 and 7. The purpose was to see how the respondents perceived about the effectiveness of the Revenue Department's audits.

Questions 10 to 17 explored the respondents' knowledge about tax evasion penalties, which include the criminal penalties for intentionally not filing taxes, the surcharge penalty for not filing taxes on time, the penalty if audited by the Revenue Department and found not paying

accurate taxes, and the criminal penalties for intentional tax evasion. The respondents were asked first whether they know what the penalties are by choosing from yes, no, and not sure. Then, the four choices of answer were given for each type of penalties and the respondents were asked to choose by their knowledge or by their best guess. Finally, in *question 18*, those penalties were revealed and the respondents were to rate them on a 5-point Likert scale from way too soft to way too harsh. The purpose of these questions was to investigate the differences between perceptions and reality of tax evasion penalties.

Question 23 asked about the personal income tax rate brackets that the respondents have been paying. They were given 7 choices: legally exempted from paying tax, 10%, 20%, 30%, 37%, don't know, and prefer not to answer. This question could be crosschecked by the annual total income question in the demographic section at the end of the questionnaire, which asked the respondents' income range according to the personal income tax rate brackets. This was to check whether the respondents really know what the tax rates they are paying are.

Question 30 asked the respondents to provide further comments and suggestions they may have regarding personal income tax administration in Thailand, which can include why they believe people evade taxes, what they think could help make people be more willing to pay taxes, other rewards or penalties that should be introduced, what government should do more for citizens, etc. Adequate space was provided for the respondents to write answers.

2) Reasons behind not filing taxes questions

Question 6 asked the respondents about the reasons "why some people do not even file their personal income taxes." There were 16 small questions for the respondents to answer how

likely they think that could be a reason. The respondents were asked to answer a 5-point Likert scale from very unlikely to very likely.

Questions 6.2 to 6.4 are about enforcement perceptions (H1) including audit probability, tax law enforcement, and severity of penalties.

Questions 6.9 to 6.12 are about tax rates and fairness of the tax system perceptions (H2), which asked whether: the rich should pay instead, they should not be taxed from their own earnings, the tax rate is too high, and they think others evade taxes. *Question 6.8* asked if they don't want to be recognized in the tax system and avoid getting chased from the Revenue Department later on, which shows their intentions of not paying taxes and implies their perception against the tax system.

Questions 6.1 and 6.5 to 6.7 target unintentional noncompliance and tax knowledge (H4) by identifying lack of knowledge about tax duty, lack of information about where to get tax forms, too complicated forms, and too time consuming as the reasons.

Questions 6.13 to 6.15 are about government administration perceptions (H3) by asking if they think the government does not spend tax revenue appropriately and if there is too much corruption in government, and if they don't like the government.

In question *6.16*, the respondents were asked to identify other possible reason.

3) Reasons behind not declaring taxes accurately questions

Question 8 asked the respondents about the reasons why some people do not declare their incomes accurately (e.g., overstate deduction or expenses). There were 15 small questions for the

respondents to answer how likely they think that could be a reason. The respondents were asked to answer a 5-point Likert scale from very unlikely to very likely.

Questions 8.1 to 8.3 are about enforcement perceptions (H1) including audit probability, tax law enforcement, and severity of penalties.

Questions 8.4 to 8.8 are about tax rates and fairness of the tax system perceptions (H2), which asked whether: the rich should pay more, they are paying too much compared to the services they received, they should not be taxed from their own earnings, and the tax rate is too high, and they think others pay less tax than they obliged to (e.g., understate their incomes).

Questions 8.9 to 8.11 are about government administration perceptions (H3) by asking if they think the government does not spend tax revenue appropriately and if there is too much corruption in government, and if they don't like the government.

Questions 8.12 to 8.14 target unintentional noncompliance and tax knowledge (H4) by asking if the reasons would be that: they don't know which sources of income they must declare (e.g., besides withholding taxes), they make honest mistakes as the tax form is so complicated, and they just make calculation mistakes.

In *question 8.15*, the respondents were asked to identify other possible reason.

4) Tax compliance strategies questions

Question 20 asked the respondents about the strategies they think would help them or people in general attempt to report income more accurately. There were 19 small questions for the respondents to answer how likely they think that could be a good strategy. The respondents were asked to answer a 5-point Likert scale from very unlikely to very likely.

Questions 20.1 to 20.3 are audit strategies. The respondents were asked how likely they will attempt to report income more accurately if the chance of being audited by the Revenue Department is higher, if the Revenue Department informs them in advance that their tax returns' file will be audited, and if the Revenue Department formally announces to the people the exact portion of people that will be audited each year.

Questions 20.4 to 20.7 are penalty strategies. The respondents were asked how likely they will attempt to report income more accurately if minimum surcharge, fine penalty, criminal penalties, are double.

Question 20.7 and 20.19 are other enforcement strategies. The respondents were asked how likely they will attempt to report income more accurately if there is more enforcement on tax laws and if they see more news or more aware that people who evade taxes have been punished.

Questions 20.8 to 20.13 are incentive strategies. The respondents were asked how likely they will attempt to report income more accurately if several types of rewards are offered, which include lottery prizes, honorary citizen certificates, cash back, future audit reduction, tax amnesties, and tax amnesties with stronger post-amnesty penalties.

Questions 20.14 and 20.15 are government administration strategies related to responsiveness of government services. The respondents were asked how likely they will attempt to report income more accurately if the service quality of government organizations in general is improved and if the service quality of the Revenue Department is improved.

Questions 20.16 to 20.18 are government administration strategies related to procedural fairness of government. The respondents were asked how likely they will attempt to report income more accurately if government administration procedure is fairer without selective treatment; if tax collection administration procedure of the Revenue Department is fairer; and if there is less corruption in government.

5) Tax compliance behavior questions

Questions in the category are *questions 22 and 25-29*. These questions were to investigate tax compliance behavior of the respondents, which include both past and future tax filing behavior, willingness to pay tax, intention to declare accurately, and possibilities of understating income and overstating deduction/expenses.

Questions 22 and 27 asked about tax filing behavior of the respondents. For past behavior, in *question 22*, the respondents were asked whether they filed personal income tax within the past two years or so. For future behavior, in *question 27*, the respondents were asked whether they will file personal income tax next year. In both questions, they were to select from three choices: yes, no (please specify why), and prefer not to answer.

Questions 25.1 and 28.1 asked about the respondents' willingness to pay tax. *Question 25.1* asked whether, in the past two years or so, they were willing to pay all personal income taxes they were legally obliged to pay (regardless of whether they really filed tax). *Question 28.1* asked whether, for next year, they are willing to pay all personal income tax they legally obliged to pay. In both questions, the respondents were asked to answer a 5-point Likert scale from very unlikely to very likely and prefer not to answer.

Questions 25.2 and 28.2 asked about the respondents' intention to declare information accurately when filing income tax. *Question 25.2* asked whether, in the past two years or so, they intended to declare all information as accurately as possible when filing personal income tax. *Question 28.2* asked whether, for next year, they intend to declare all information as accurately as possible when filing personal income tax. In both questions, the respondents were asked to answer a 5-point Likert scale from very unlikely to very likely and prefer not to answer.

Questions 26 and 29 asked about the possibilities that the respondents might understate income or overstate deduction/expenses. *Question 26.1* asked, in the past two years or so, how likely it is that they might have left some reportable income off when filling personal income tax. *Question 29.1* asked, for next year, how likely it is that they might leave some reportable income off when filling personal income tax. *Question 26.2* asked, in the past two years or so, how likely it is that they might have overstated deduction or expenses when filling personal income tax. *Question 29.1* asked, for next year, how likely it is that they might overstate deduction or expenses when filling personal income tax.

6) Demographic questions

In the last page of the questionnaire, the respondents were asked to fill out their personal information. These include sex (Male or Female), age (please specify), highest level of education (primary school or lower, secondary school, two-year college's degree, Bachelor, Master, and Ph.D./Doctorate or higher), occupation (government official, other governmental employee, private organization's employee, businessman/entrepreneur, elected official/politician, freelance, and other/please specify), marital status (Single or Married), if married how do they file tax (jointly with spouse or separately), annual total income (below 150,000 Baht, 150,001-500,000

Baht, 500,000-1,000,000 Baht, 1,000,000-4,000,000 Baht, and 4,000,000 Baht and over), number of children (please specify), and number of people who are financially dependent of them (please specify number of kids under 18, number of seniors over 60, number of handicapped people, number of unemployed people).

- ***Data Analysis***

The first research question asks what general citizens' perceptions of the Thai personal income tax system are, their tax compliance behaviors, including strategies that could help include tax compliance in Thailand. The answers to this question were analyzed by descriptive statistics. Descriptive statistics that will be used include percentages, means, ranges, and standard deviations. Descriptive statistics serve best the exploration purpose of this research question by providing the overall picture and comparisons of several aspects of personal income tax compliance in Thailand. Chapter 4 will present descriptive statistics and interesting findings of six major categories of survey questions discussed earlier.

The second research question asks what the critical determinants of personal income tax compliance behavior in Thailand are. These answers were analyzed through structural equation modeling (SEM). Structural equation modeling, according to Hair, Black et al (2010), "*provides the appropriate and most efficient estimation technique for a series of separate multiple regression equations estimated simultaneously.*" In other words, SEM can estimate multiple relationships at once. Those include the relationships between factors and indicators (factor analysis or latent transition analysis) and the relationship among factors (regression analysis).

In this study, determinants of tax compliance were represented in factors, which were extracted from questionnaire items (indicators). Also, tax compliance behavior factors were extracted from questionnaire items asking about past and future tax compliance behaviors. Then, the determinants/factors (not the individual items) were used to predict tax compliance behavior. Everything could be estimated within a single analysis framework, which made SEM become the most appropriate analysis framework for this study.

The two sub-models of structural equation modeling that I used in this study are factor analysis and latent transition analysis. Further technical details for this study can be found in Appendix C.

1) Factor Analysis

Factor analysis is the technique used to separate items into subgroups of items if those items have high correlations among one another. It assumes that high correlations among items are resulted from a latent variable that makes those variables covary (i.e., changing simultaneously). The strength of factor analysis is that it can control for measurement error of each questionnaire item. In this research, factor analysis was used to extract underlying reasons of tax compliance behind item sets. For example, enforcement perception could be an underlying factor explaining why four items in the questionnaire were correlated to one another.

Factor analysis can be classified into two types: exploratory and confirmatory. Exploratory Factor Analysis (EFA) is used to extract underlying factors without a priori hypotheses about how many underlying factors among the analyzed items and which items should be grouped together. On the other hand, Confirmatory Factor Analysis (CFA) is used when researchers have those hypotheses in advance and would like to test whether the

hypothesized factor arrangement fits the obtained data (i.e., correlation among items) Although I had already set up hypotheses about the groups of items, the exact hypotheses about item arrangement onto each factor was hard to set up. Therefore, almost all new scales usually start with EFA. I realize the weakness of EFA with respect to subjectivity therefore I used a cross-validation strategy. As the cross-validation strategy, EFA was used to explore factor arrangement in calibration sample and CFA was used to validate the factor solution from EFA on the validation sample. As a result, possible tax compliance determinants (factors) were extracted for predicting tax compliance behavior in the next step. Factors were extracted from the responses of two questions: reasons behind not filing taxes (question 6) and reasons behind not declaring taxes accurately (question 8). Chapter 5 will present and discuss the two tax compliance factor results.

2) Latent Transition Analysis

Latent Transition Analysis (LTA) is the statistic involving classification of participants into subgroups based on their characteristics in multiple timepoints (Kaplan, 2008; Nylund, 2008; Nylund, Asparouhov, & Muthén, 2007). The responses of these questions were analyzed and used to classify people into different groups in both timepoints simultaneously by constraining the group meanings equal across timepoints.

LTA is very appropriate for this study because it was used to classify tax compliance behaviors in both sets of past behavior questions and future behavior (intention) questions. In each time point, there were three questions: 1) whether the participants file tax (2 categories), 2) whether they understate their income (5 ordered categories), and 3) whether they overstate deduction or expenses (5 ordered categories). For example, the resulting classes could be 1)

people who do not file tax, 2) people who accurately file tax, and 3) people who inaccurately file tax. LTA also shows how people change from their past behavior classes to their future intention classes. LTA shows, for example, among people who did not file tax in the past, what the probability that they intended to file tax accurately was.

Next, in order to determine critical determinants of tax compliance behavior, independent variables were introduced in the model (e.g., factor scores of reasons behind tax compliance). The independent variables played three roles: 1) predicting tax compliance classes in past behavior (how determinants will affect past tax compliance behavior), 2) predicting tax compliance classes in the participant's future intention controlling for the tax compliance classes in their past behavior (how determinants will affect tax compliance future intention), and 3) interacting with tax compliance classes in the past to predict the classes in their future intention (how future intention will change from past behavior based on the determinants).¹¹ All predictions were analyzed similar to a multinomial logistic regression. The latter part of chapter 5 will discuss the LTA analysis results of tax compliance determinants.

Qualitative Design

Interviews of tax policy experts, tax administrator, and university professors in Thailand were conducted in order to gain extra insight toward tax compliance issues supplementary to the survey findings. This section discusses the details of qualitative method I employed in this research.

¹¹ This study did not explore the third role because of non-convergence problem.

Qualitative data collection was conducted via in-depth interviews during July 2011. I conducted one-on-one interviews with 15 tax policy experts, tax administrators, and university professors. I selected people who worked closely or directly to tax policy and tax administration as possible and were willing to openly and honestly share their opinions regarding tax compliance issues. For tax policy experts, there were 3 executive-level public officials, 4 high-ranking public officials, and 3 medium-ranking public officials. For tax administrators, there were 1 high-ranking and 1 medium-ranking public official. For university professors, there were 2 from economics and 1 from public administration. Oral consent procedures were given and described to participants to ask their willingness to participate and their preferences regarding the disclosure of their names and identifiable information. The interviews were conducted in Thai and were audio-recorded upon the participants' approval.

The semi-structured interview technique was used where participants were asked the same set of open-ended questions as well as probing and new questions arising from the conversation. The semi-structured interview allows flexibility to explore participants' opinions regarding tax compliance issue that might not be covered by the prepared questions. I also asked participants some of the survey questions regarding the hypotheses. Full interview questions in Thai and English are available in Appendix D. The followings are four major questions that were asked to every participant:

- What is your opinion on tax evasion situation in Thailand?
- What are the weaknesses and strengths of current Thai tax administration system?
- What are the factors that affect tax compliant behavior of Thai people?

- What are the strategies you suggest could help make taxpayers become more compliant?

The interviews were analyzed and coded to identify the common themes in response to the above questions. However, different opinions among the participants were highly valued because of their uniqueness in experiences and visions, which would also benefit the study of tax compliance. The interviews' results were sought both to provide explanations and cross-check with the survey results. The interview results and analysis are discussed in chapter 6.

IV. Conclusion

This chapter began with the two research questions of this research. First, what are general citizens' perceptions of the Thai personal income tax system, what are their tax compliance behaviors, and what strategies that might help increase tax compliance in Thailand? Second, what are critical determinants of personal income tax compliance behavior in Thailand?

Then, the five hypotheses were presented. Hypothesis 1 is that the perceptions of greater enforcement increase tax compliance in Thailand. Hypothesis 2 is that the perceptions of fairer tax system increase tax compliance behavior in Thailand. Hypothesis 3 is that the perceptions of better government administration increase tax compliance behavior in Thailand. Hypothesis 4 is that tax knowledge increases tax compliance behavior in Thailand. And, hypothesis 5 is that people with higher income, are female, are older, are married, are not self-employed, and with higher levels of education are associated with higher tax compliance.

After that, the research methodology was discussed. The mixed methods research with quantitative dominant was employed in this study in order to explore tax compliance perceptions of Thai citizens and determine determinants of tax compliance behavior in Thailand. The face-to-face survey was the primary research method. There were 1,148 participants from Bangkok, which represented the largest population of taxpayers in Thailand. The questionnaires had six major categories of questions: general exploration, reasons behind not filing taxes, reasons behind not declaring tax accurately, determinants of tax compliance, tax compliance behavior, and demographic. The descriptive statistics were used to explore general citizens' perceptions on tax compliance in response to the first research question. Factor analysis and latent transition analysis, which are sub-models of structural equation modeling, were used to answer the second research question on determinants of tax compliance behavior.

The one-on-one in-depth interviews of 15 tax policy experts, tax administrators, and university professors were chosen in order to gain the insights of the experts on tax compliance issue supplementary to the survey. The semi-structured interview technique was used to allow flexibility of probing and new questions arising from the conversation. Four major interview questions were about their opinions on tax evasion situation in Thailand, the weaknesses and strengths of current tax administration system, factors that affect tax compliance behavior of Thai people, and strategies they think could help make taxpayers become more compliant. The interviews were analyzed and coded to find the common themes in their answers. Different opinions were also highly valued as each of the participants was the expert, which could contribute to the understanding of tax compliance issues.

The following chapters present results of the survey and the interviews. Chapter 4 and chapter 5 will present data analysis, findings, and discussions of the survey results. Chapter 4

will present personal income tax system and tax compliance perceptions of Thai citizens via descriptive statistics. Chapter 5 will explore reasons behind not filing taxes and not declaring tax accurately via factor analysis and present the determinants of tax compliance behaviors via latent transition analysis. After that, the interview results are presented and discussed in chapter 6. Finally, chapter 7 presents conclusion, implications, and future research.

Chapter 4

Citizens' Perceptions of the Thai Personal Income Tax System and Tax Compliance

In the previous chapter, the research questions, hypotheses, and methodology of this research were described and discussed. Using simple descriptive statistics, this chapter attempts to explore the first research question of this study: what are general citizens' perceptions of the Thai personal income tax system and tax compliance issues, what are their tax compliance behaviors, and what strategies might help increase tax compliance in Thailand? Six categories of findings are presented: tax rates perceptions, tax non-compliance reasons, perceptions of tax compliance related issues, audit and penalty knowledge and perceptions, tax compliance strategies, and tax compliance behaviors. These results are discussed at the end of the chapter.

I. Findings on Tax Rates Perceptions: What do Thai Citizens in Bangkok think about their tax rates?

The findings show that over 40% of the respondents thought they are paying personal income tax at the rate of 10% or are exempted from paying personal income tax. Almost half of the respondents thought that current personal income tax rates are about right while the other 43% thought the tax rates are too high or way too high. When comparing to the public service they receive, over 40% of the respondents thought that personal income tax they are paying is about right. Interestingly, when provided with the information that the richest group of people in Thailand has been paying for half of the country's personal income tax revenues, over 40% of

the respondents thought the richest group of people has been paying too much or way too much tax. Tables 4.1 and 4.2 show the survey results of tax rates perceptions' questions.

2. How do you feel about the following statements?					
	Way Too Low/Little	Too Low/Little	About Right	Too High/Much	Way Too High/Much
1) You think current personal income tax rates are...	22 (2%)	102 (9%)	529 (47%)	405 (36%)	78 (7%)
2) Revenue statistics has shown that the richest group of people in Thailand has been paying for half of the country's personal income tax revenues. You think they are paying...	26 (2%)	193 (17%)	437 (39%)	378 (34%)	92 (8%)

Table 4.1: Question 2 Survey Results on Tax Rate Perceptions ($N = 1148$)

	<i>N</i>	%
23. Do you know which income tax rate brackets you have been paying?		
I have been legally exempted from paying personal income tax	177	21%
10 %	217	25%
20 %	60	7%
30 %	34	4%
37 %	5	0.6%
I don't know	184	21%
Prefer not to answer	181	21%
24. Comparing to the public services you receive, personal income tax you are paying are...		
Way too low	26	3%
Too low	89	10%
About right	367	43%
Too high	225	26%
Way too high	51	6%
Prefer not to answer	93	11%

Table 4.2: Questions 23 and 24 Survey Results on Tax Rates Perceptions

II. Findings on Tax Non-Compliance Reasons: Why some Thai citizens do not file their personal income taxes or do not declare their incomes accurately?

Government corruption ($M = 3.85$, $SD = 0.99$), inappropriate tax revenue spending ($M = 3.70$, $SD = 0.95$), and seeing others evade taxes are the top three reasons why some people do not file their personal income taxes ($M = 3.53$, $SD = 0.90$). While, the three least possible reasons are unawareness of tax duty ($M = 3$, $SD = 1$), lack of tax knowledge about where to get tax form ($M = 3.01$, $SD = 0.95$), and the belief that the Revenue Department will not find out ($M = 3.16$, $SD = 0.95$). Table 4.3 shows the survey results on the reasons why some people do not file their personal income taxes.

For the reasons why some people do not declare their incomes accurately, the top three reasons are government corruption ($M = 3.71$, $SD = 0.98$), inappropriate tax revenue spending ($M = 3.59$, $SD = 0.93$), and too high taxes comparing to public services they receive ($M = 3.45$, $SD = 0.90$). The three least possible reasons are the believes that the Revenue Department will not find out ($M = 3.05$, $SD = 0.90$), that they will not be punished even if the Revenue Department find out ($M = 3.90$, $SD = 0.85$), that they just make calculations mistakes, and that they just make honest mistakes as the tax form is so complicated ($M = 3.25$, $SD = 0.84$). Table 4.4 shows the survey results on the reasons why some people do not declare their incomes accurately.

These tax compliance general perception results will be further analyzed using factor analysis in Chapter 5.

6. Do you think why some people don't even file their personal income taxes? (Very Unlikely = 1 to Very Likely = 5)	<i>M</i>	<i>SD</i>
1) They don't know that they must pay taxes	3.00	1.00
2) They think the Revenue Department will not find out if they don't file taxes	3.16	0.95
3) They think even if the Revenue Department find out that they don't file taxes, they will not be punished	3.18	0.90
4) They are not afraid of current penalties because the penalties are not strong enough	3.35	0.92
5) They don't know how to get the form to pay taxes	3.01	0.95
6) They think tax form is too complicated	3.30	0.93
7) They think it takes too much time to file taxes	3.23	0.91
8) They don't want to be recognized in the tax system of the Revenue Department and possibly get chasing later on	3.39	0.93
9) They think the rich should pay instead of them	3.37	0.97
10) They think it's not fair to be taxed from their own earnings	3.31	0.91
11) They think the tax rate is too high	3.49	0.89
12) They think others evade taxes	3.52	0.90
13) They think the government does not spend tax revenues appropriately	3.70	0.95
14) They think there is too much corruption in government operations	3.85	0.99
15) They don't like the government	3.43	0.89
16) Other (Please specify) _____	4.10	1.05

Table 4.3: Question 6 Survey Results on Tax Non-Filing Reasons ($N = 1148$)

8. Do you think why some people don't declare their incomes accurately? (Very Unlikely = 1 to Very Likely = 5)	<i>M</i>	<i>SD</i>
1) They think the Revenue Department will not find out if they declare their incomes inaccurately	3.05	0.90
2) They think even if the Revenue Department find out that they declare their incomes inaccurately, they will not be punished	3.07	0.85
3) They are not afraid of existing penalties because they are too soft	3.29	0.85
4) They think the rich should pay more	3.37	0.89
5) They think they are paying too much compared to what they receive in government services	3.45	0.90
6) They think it's not fair to be taxed from their own earnings	3.37	0.87
7) They think the tax rate is too high (regardless of the quality of government services or whether others pay more or less)	3.35	0.86
8) They think other people pay less taxes than they obliged to (e.g. understate their incomes)	3.37	0.85
9) They think the government spend their taxes inappropriately	3.59	0.93
10) They think there is too much corruption in government operations	3.71	0.98
11) They don't like the government	3.35	0.89
12) They don't know which sources of income they must declare (e.g. besides withholding taxes)	3.32	0.88
13) They attempt to file accurately but make honest mistakes in filing as the tax form is so complicated	3.25	0.84
14) They just make calculation mistakes	3.07	0.85
15) Other (Please specify) _____	3.54	1.10

Table 4.4: Question 8 Survey Results on Inaccurate Tax Declaration Reasons (N = 1148)

III. Findings on Perceptions of Tax Compliance Related Issues: What are perceptions of Thai citizens in Bangkok on tax compliance related issues?

Regarding tax evasion situation, more than half of the respondents disagreed that evading taxes is acceptable behavior in the society. However, almost 45% of the respondents agreed or was neutral with tax evasion behavior in Thai society. More than one-third of the respondents saw the news or was aware of people evading taxes at high or the highest levels. Moreover, over 40% of the respondents saw the news or were aware of people evading taxes *that had been punished* at low or the lowest levels.

Regarding tax law enforcement, around 40% of the respondents agreed that it is difficult for the Revenue Department to find out who evade taxes and that current penalties are too low to make people obey tax laws. Approximately half of the respondents thought the severity of current penalties and the degree of tax law enforcement are at the average level while one-third perceived they are at low or the lowest levels. About 50% of the respondents agreed that there is not enough enforcement in existing tax laws.

Regarding government administration, more than half of the respondents thought the degree of government/politicians corruption is high or very high. However, approximately 40% of the respondents agreed that government and tax administration procedures are fair. More than half of the respondents thought the levels of fairness of government and tax administration are at the average levels still one-third perceived them at low or the lowest levels.

Sixty percent of the respondents reported average satisfaction with the service quality of governmental organizations while one-third was not satisfied. Seventy percent of the respondents reported average satisfaction with the service quality of the Revenue Department while a quarter was not satisfied. Tables 4.5 and 4.6 show the survey results for tax compliance related issues.

3. How strongly do you agree or disagree with the following statements?					
(Strongly Disagree = 1 to Strongly Agree = 5)	1	2	3	4	5
1) Not filing taxes or filing taxes lower than actual obligation is an acceptable behavior in Thai society	221 (19%)	403 (35%)	337 (29%)	161 (14%)	21 (2%)
2) It is difficult for the Revenue Department to find out who are not filing taxes or filing taxes lower than actual obligation	64 (6%)	246 (22%)	400 (35%)	373 (33%)	58 (5%)
3) Governmental administration procedures in general have treated all people fairly whether rich or poor. Everyone is subjected to the same laws and enforcement and has an opportunity to be heard at a meaningful time and in a meaningful manner	94 (8%)	201 (18%)	375 (33%)	347 (30%)	127 (11%)
4) Tax administration procedures in general have treated all people fairly whether rich or poor. Everyone is subjected to the same tax laws and enforcement and has an opportunity to be heard at a meaningful time and in a meaningful manner	64 (6%)	199 (17%)	379 (33%)	382 (33%)	122 (11%)
5) Currents penalties are too low to make people obey tax laws	31 (3%)	125 (11%)	438 (38%)	405 (35%)	144 (13%)
6) There is not enough enforcement despite the existing tax laws	24 (2%)	92 (8%)	419 (37%)	470 (41%)	139 (12%)

Table 4.5: Question 3 Survey Results on Tax Compliance Related Issues

4. Please rate your opinion on the following issues from the lowest to the highest.					
(Lowest = 1 to Highest = 5)	1	2	3	4	5
1) What is the degree to which you believe government or politicians are corrupted (e.g. taking personal gains against taxpayers' money)?	15 (1%)	61 (5%)	243 (21%)	451 (40%)	369 (32%)
2) What is your level of satisfaction with the service quality of governmental organizations in general?	88 (8%)	319 (28%)	615 (54%)	108 (9%)	10 (1%)
3) What is your level of satisfaction with the service quality of the Revenue Department?	37 (3%)	221 (20%)	761 (67%)	105 (9%)	9 (1%)
4) What is the degree to which you believe the severity of current penalties for those who are not filing taxes or filing taxes less than actual obligation?	53 (5%)	308 (27%)	599 (53%)	152 (13%)	25 (2%)
5) What is the degree to which you believe the tax laws have been enforced on those who are not filing taxes or filing taxes less than actual obligation?	53 (5%)	288 (25%)	619 (54%)	152 (13%)	24 (2%)
6) What is the level of fairness of government administration without selective treatment?	99 (9%)	296 (26%)	611 (54%)	109 (10%)	20 (2%)
7) What is the level of fairness of tax administration collection of the Revenue Department without selective treatment?	50 (4%)	284 (25%)	653 (57%)	132 (21%)	17 (1%)
8) What is the degree to which you see the news or aware of people evade their taxes	38 (3%)	193 (17%)	544 (48%)	298 (26%)	54 (5%)
9) What is the degree to which you see the news or aware of people evade their taxes that have been punished	129 (11%)	374 (33%)	519 (48%)	93 (26%)	19 (5%)

Table 4.6: Question 4 Survey Results on Tax Compliance Related Issues

IV. Findings on Audit and Penalty Knowledge and Perceptions: What are Thai citizens' audit and penalty knowledge and perceptions?

Sixty-six percent of the respondents believed the probability that they will be audited by the Revenue Department is between 21 to 60%. A majority of the respondents (63 to 71%) answered that they do *not* know what those penalties are. However, 30 to 49% of the respondents answered correctly. In case of *criminal penalties for intentional tax evasion*, almost half of the respondents thought the penalties are softer than actual penalty. Table 4.7 summarized the survey findings on penalty knowledge and perceptions. Table 4.8 shows the survey findings on audit and penalty knowledge and perceptions.

When the current levels of penalties were revealed to the respondents, approximately half of the respondents thought the current levels of penalties are appropriate (not too soft nor too harsh). When it comes to *fine penalty if audited and found guilty by the Revenue Department*, 40% of the respondents thought the penalties are too harsh or way too harsh. Also for criminal penalties for intentional tax evasion, almost one-third thought current penalties are too harsh or way too harsh. Conversely, *for criminal penalties for intentionally not filing taxes and surcharge penalty for not paying on time*, 25-31% of the respondents thought current penalties are too soft or way too soft. Table 4.9 shows the survey results on how the respondents feel about current penalties.

Types of Penalty	People claimed they do <i>not</i> know about the penalty	People answered correctly	People satisfied with current penalty
1) Criminal penalties for intentionally not filing taxes	63%	38%	49%
2) Surcharge penalty for not paying on time	66%	44%	51%
3) Fine penalty if audited and found guilty by the Revenue Department	71%	49%	50%
4) Criminal penalties for intentional tax evasion	70%	30%	52%

Table 4.7: Summary Findings on Penalty Knowledge and Perceptions ($N = 1148$)

	<i>N</i>	<i>%</i>
9. How many percentages of people you believe are audited by the Revenue Department?		
0-20% None or Almost None	143	13%
21-40% Less than Half	344	30%
41-60% About Half	417	37%
61-80% More than Half	177	16%
81-100% All or Almost All	49	4%
10. Do you know about criminal penalties for intentionally not filing taxes?		
Yes	167	15%
No	717	63%
Not sure	252	22%
11. What do you think current criminal penalties for intentionally not filing taxes according to the Revenue Code 2008 are (if you don't know, please use your best guess)?		
Maximum fine 2,000 Baht or maximum imprisonment 3 months or both	356	32%
Maximum fine 5,000 Baht or maximum imprisonment 6 months or both	453	39%
Maximum fine 10,000 Baht or maximum imprisonment 1 year or both	209	19%
Maximum fine 20,000 Baht or maximum imprisonment 2 year or both	120	11%
12. Do know the surcharge penalty for not paying personal income tax on time?		
Yes	125	11%
No	751	66%
Not sure	255	23%
13. What do you think current surcharge penalty for not paying personal income tax on time according to the Revenue Code 2008 is (if you don't know, please use your best guess)		
0.5 % per month of that tax obligation	404	36%
1.5 % per month of that tax obligation	503	45%
5 % per month of that tax obligation	155	14%
10 % per month of that tax obligation	57	5%
14. Do you know about the fine penalty if audited by the Revenue Department and found paying inaccurate taxes?		
Yes	103	9%
No	811	72%
Not sure	216	19%
15. What do you think current fine penalty if audited by the Revenue Department and found not paying accurate taxes according to the Revenue Code 2008 is (if you don't know, please use your best guess)?		
0.5 to 1 time of that tax obligation	398	36%
1 to 2 times of that tax obligation	559	50%
3 to 4 times of that tax obligation	117	10%
4 to 5 times of that tax obligation	44	4%
16. Do you know about criminal penalties for intentional tax evasion?		
Yes	124	11%
No	794	71%
Not sure	208	18%
17. What do you think the criminal penalties for intentional tax evasion according to the Revenue Code 2008 are? (if you don't know, please use your best guess)?		
Imprisonment 3 months - 5 years and fine 1,000 – 100,000 Baht	539	48%
Imprisonment 3 months - 7 years and fine 2,000 – 200,000 Baht	342	31%
Imprisonment 6 months - 7 years and fine 5,000 – 200,000 Baht	148	13%
Imprisonment 6 months - 10 years and fine 5,000 – 500,000 Baht	83	7%

Table 4.8: Questions 9 to 17 Survey Results on Audit and Penalty Knowledge and Perceptions

18. The following statements are penalties according to the Revenue Code 2008. How do you feel about each penalty?					
	Way Too Soft	Too Soft	Not Too Soft nor Too Harsh	Too Harsh	Way Too Harsh
1) The criminal penalties for intentionally not filing taxes are to pay maximum fine 5,000 Baht or maximum imprisonment 6 months or both. How do you feel about that?	69 (6%)	282 (25%)	566 (50%)	163 (14%)	50 (4%)
2) The surcharge penalty for not filing taxes on time is to pay 1.5 percent per month of that tax amount. That is if your tax obligation is 10,000 Baht, you must pay at least 150 Baht each month. How do you feel about that?	39 (3%)	248 (22%)	587 (52%)	195 (17%)	58 (5%)
3) If audited by the Revenue Department and found not paying accurate taxes , there will be fine of one or two times of that tax obligation in addition to the 1.5% surcharge. That is if your tax obligation is 10,000 Baht, you will have to pay extra 20,000 or 30,000 Baht plus 150 Baht per month. How do you feel about that?	20 (2%)	178 (16%)	579 (52%)	268 (24%)	79 (7%)
4) The criminal penalties for intentional tax evasion are to imprison from three months to seven years and pay fines from 2,000 to 200,000 Baht. How do you feel about that?	43 (4%)	180 (16%)	593 (53%)	236 (21%)	70 (6%)

Table 4.9: Question 18 Survey Results on Current Penalty Perceptions

V. Findings on Tax Compliance Strategies Perceptions: Which strategies might help increase tax compliance in Thailand?

The top three tax compliance strategies that would make people attempt to report income more accurately are cash back to compliant taxpayers ($M = 3.47$, $SD = 0.97$), more enforcement on tax laws ($M = 3.44$, $SD = 0.95$), improved service quality of government organizations ($M = 3.40$, $SD = 0.84$), and more news/awareness that people who evaded taxes have been punished ($M = 3.40$, $SD = 0.89$).

The least effective strategies from the respondents' perspectives are honorary citizen certificates for compliant taxpayers ($M = 3.18$, $SD = 0.93$), tax amnesty ($M = 3.21$, $SD = 0.83$), and doubled fine penalty ($M = 3.22$, $SD = 0.90$). Table 4.10 shows the survey results for tax compliance strategies.

20. How likely is that you or people in general will attempt to report income <i>more accurately</i> in the following situations?		
(Very Unlikely = 1 to Very Likely = 5)	<i>M</i>	<i>SD</i>
20.1) If the chance of being audited by the Revenue Department is higher	3.26	0.87
20.2) If the Revenue Department informs you in advance (before filing tax returns) that your tax returns' file will be audited	3.38	0.84
20.3) If the Revenue Department formally announces to the people the exact portion of people that will be audited each year	3.34	0.88
20.4) If minimum surcharge of 1.5 percent per month is doubled to 3 percent	3.26	0.88
20.5) If fine penalty of 1-2 times of tax obligation is doubled to 3-4 times	3.22	0.90
20.6) If criminal penalties for intentional tax cheating are to imprison from 3 months to 7 years and pay fines from 2,000 to 200,000 Baht are doubled to imprison from 6 months to 14 years and pay fines from 4,000 to 400,000 Baht	3.27	0.92
20.7) If there is more enforcement on tax laws	3.44	0.95
20.8) If lottery prizes are offered as rewards to compliant taxpayers who file taxes accurately	3.26	0.95
20.9) If honorary citizen certificates are offered as rewards to compliant taxpayers who file taxes accurately	3.18	0.93
20.10) If cash back is offered as rewards to compliant taxpayers who file taxes accurately	3.47	0.97
20.11) If future audit reduction is offered as rewards to compliant taxpayers who file taxes accurately	3.38	0.88
20.12) If one time opportunity is offered to noncompliant taxpayers to voluntarily pay back taxes without criminal investigation and penalties	3.21	0.83
20.13) If the Revenue Department announces that penalties for tax evasion will be stronger after that one time opportunity to pay back taxes has been offered	3.28	0.80
20.14) If the service quality of government organizations in general is improved	3.40	0.84
20.15) If the service quality of the Revenue Department is improved	3.39	0.84
20.16) If government administration procedure is fairer without selective treatment	3.25	0.96

20. How likely is that you or people in general will attempt to report income <i>more accurately</i> in the following situations? (Very Unlikely = 1 to Very Likely = 5)	<i>M</i>	<i>SD</i>
20.17) If tax collection administration procedure of the Revenue Department is fairer without selective treatment	3.34	0.92
20.18) If there is less corruption in government	3.37	1.05
20.19) If you see more news or more aware that people who evade their taxes have been punished	3.40	0.89

Table 4.10: Question 20 Survey Results on Tax Compliance Strategies (N = 1148)

VI. Findings on Tax Compliance Behaviors: What are Thai citizens' tax compliance behaviors?

More than half of the respondents claimed that they filed personal income tax within the past two years and will file personal income tax next year. Interestingly, 21-30% preferred not to answer about their tax filing behaviors. If we assume that those who said they prefer not to answer did not file or will not file personal income tax, it means there are about 40% who did not file or will not file personal income tax.

For both willingness to pay tax and intention to declare all information accurately in the past, approximately one-third of the respondents agreed or strongly agreed that they were willing to pay personal income tax and intended to declare as accurately as possible within the past two years.

For future intention on willingness to pay tax and intention to declare all information accurately, over 40% agreed or strongly agreed that they are willing to pay tax and intend to declare as accurately as possible next year, which are higher than what they claimed for the past.

For possibilities of understating income and overstating deduction/expenses, only 17% believed it is likely or very likely that they might have understated income or overstated deduction/expenses within the past two years. While for next year, about 20% said that it is likely or very likely that they might understate income or overstate deduction/expenses, which has slightly increased from what they claimed for the past.

Table 4.11 presents survey findings on various perspectives of Thai citizens' tax compliance behaviors including willingness to pay tax, intention to declare accurately, and possibilities of understating income and overstating deduction/expenses. Chapter 6 will present and discuss further how people change their behaviors from one group in the past to another group in the future (or remain in the same group) via latent transition analysis.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Prefer Not to Answer
1) Willingness to pay tax						
- Past	13 (1%)	47 (4%)	357 (28%)	265 (23%)	66 (6%)	101 (9%)
- Future	24 (2%)	37 (3%)	418 (36%)	381 (33%)	95 (8%)	126 (11%)
2) Intention to declare accurately						
- Past	7 (1%)	25 (2%)	329 (29%)	296 (24%)	83 (7%)	107 (9%)
- Future	13 (1%)	44 (4%)	390 (34%)	394 (34%)	118 (10%)	135 (12%)
	Very Unlikely	Unlikely	Neither Likely nor Unlikely	Likely	Very Likely	Prefer Not to Answer
3) Possibility of understating Income						
- Past	47 (4%)	181 (16%)	321 (28%)	183 (16%)	14 (1%)	106 (9%)
- Future	67 (6%)	239 (21%)	448 (39%)	199 (17%)	19 (2%)	126 (11%)
4) Possibility of overstating deduction/expenses						
- Past	39 (3%)	185 (16%)	321 (28%)	178 (15%)	18 (2%)	108 (9%)
- Future	65 (6%)	246 (21%)	429 (37%)	206 (18%)	18 (2%)	127 (11%)

Table 4.11: Survey Results of Thai citizens' Tax Compliance Behaviors

VII. Discussion of Results

The results presented earlier in this chapter have answered the first research question of this study: what are general citizens' perceptions of Thai personal income tax system, what are their tax compliance behaviors, and what strategies might help increase tax compliance in Thailand? Those results are further discussed here by categories of findings.

First, on *tax rates perceptions' findings*, as expected, 43% of the respondents thought the tax rates are too high. When discussing in public, it is not surprising among Thai people to hear how much they hate paying taxes and how they think the government is unable to deliver good public services. However, the fact that half of the respondents thought current personal income tax rates are about right is very interesting. When the respondents were asked to compare income tax they are paying with the public service they receive, 40% still think what they are paying is about right.

All these could be because almost half of the respondents believed that they are paying personal income tax at the lowest rate at 10% or even got exemption from paying personal income tax. This is not included the other 21% that said they have no idea about the tax rate they are paying. The fact (when matching their reported income in demographic questions with tax rate brackets) is 80% of the respondents are paying personal income tax at the lowest rate at 10% or even got exemption. The sensible explanation is that these citizens may expect only a reasonable quality of public service in return for what they paid for. One might expect that people will almost always hate to pay taxes no matter what amount but that is not the case. There are still a lot of Thai citizens are able to perceive personal income tax rates as about right mostly when they have to pay only little amount of tax.

And, when the respondents were informed that the richest group of people has been paying for half of the personal income tax revenues, 40% of the respondents thought those people are paying too much or way too much tax. The issue here might be that the citizens do not have enough exposure to tax revenues' information. As when they really have that information, they realize that there are other people who paying much more personal income taxes than themselves. Again, 80% of the respondents indicated their salary at less than 500,000 Baht per year, which is in the two lowest brackets of Thailand's personal income tax rates. Thus, it is reasonable to believe that those who are in lower tax rate brackets perceived that the richest group of people has been paying too much.

Second, on *findings of tax non-compliance reasons*, the top three reasons why people do not file their personal income taxes are directly related to government administration, namely government corruption, inappropriate tax revenue spending, and seeing others evade taxes. Similarly, the top three reasons why people do not declare their incomes accurately are government corruption, inappropriate tax revenue spending, and too high taxes comparing to the public service they receive. These results confirm the behavioral model of tax evasion, which is the alternative approach in tax compliance, that suggests perceptions about fairness of tax system and trust in government and attitudes about acceptability of tax evasion affect tax compliance decisions (Slemrod, 2007). This is very interesting results for Thailand and other developing countries where corruptions are still prevalent and government administrations have a lot of rooms for improvement.

Third, on *perceptions of other tax compliance related issues findings regarding tax evasion situation*, more than half of the respondents confirm the moral belief that evading taxes is not an acceptable behavior even in Thai society. However, if we look at the results from

another perspective, there are almost 45% of the respondents who agreed or were neutral with tax evasion behavior in Thai society. Moreover, there are more than one-third of the respondents that saw news or was aware of people evading tax at high or the highest levels. This result is intimidating and suggests that Thailand might have a serious problem with social norms regarding tax evasion.

On *perceptions of other tax compliance regarding tax law enforcement*, not enough enforcement in existing tax laws, difficulty for the Revenue Department in detecting tax evasion, and too low current levels of penalties seem to be the problems reported by 40-50% of the respondents. These results suggest Thailand's enforcement problems regarding tax evasion, which require more attention from the government and all related agencies.

On *perceptions of other tax compliance regarding government administration*, as expected, more than half of the respondents perceived Thai government/politicians corruption as high or very high. When asked more specifically about government and tax administration, only 40% perceived that government and tax administration procedures are fair. People, however, seem to be more satisfied with service quality and fairness of the Revenue Department than with government administration in general. Nevertheless, there is one-third (for most) to one-quarter (for service quality of the Revenue Department) who rated government and tax administration issues at low or the lowest levels, which signal that there are still many people who are not satisfied. These, again, are valuable information for Thai government in addressing issues related to tax compliance.

Forth, on *audit and penalty knowledge and perceptions* findings, 66% of the respondents believed that their chance of being audited by Thailand's Revenue Department is between 21%

and 60%. Although the Revenue Department has never disclosed its audit rate, it surely has a limited audit capacity considering approximately 9 million people file tax each year given its 5,000 audit personnel. This result emphasizes the importance of perception according to the prospect theory that people could perceive higher audit rate than they actually are (Kahneman & Tversky, 1979).

For penalty knowledge and perceptions, the majority of the respondents (63%-71%) claimed having no idea about the penalties but 30-50% of the respondents could answer correctly what those penalties are. This means although people do not know exactly about actual penalties, a lot of them can somehow “guesstimate” correctly. This implies that Thai people have fairly accurate perceptions on the levels of penalties. When it comes to satisfaction with those levels of penalties, around half the respondents are satisfied. However, for fine penalty if audited and found guilty by the Revenue Department and criminal penalties for intentional tax evasion, there are 40% and 27% respectively who thought the penalties are too harsh or way too harsh. On the contrary, for criminal penalties for intentionally not filing taxes and surcharges penalty for not paying on time, 31% and 25% thought current penalties are too soft or way too soft. These findings could be very helpful for government in revising tax evasion penalties as there are still penalties that are too soft in the citizens’ eyes.

Fifth, on *tax compliance strategies findings*, the results suggest that cash back to compliant taxpayers, more enforcement on tax laws, improved service quality of government organizations, and more news/awareness that people who evaded taxes have been punished will make people attempt to report income more accurately. These results support both the traditional (tax evasion deterrence through enforcement of audits and penalties) and the alternative approaches of tax compliance (responsible taxpayers that can be motivated via rewards, senses of

civic duties, education, etc) (Mikesell & Birskyte, 2007). The results, therefore, convey a very interesting meaning that both the traditional and the alternative approaches of tax compliance should be employed as joint strategies to promote tax compliance.

Lastly, on *tax compliance behaviors findings*, the results show us that more than half of the respondents filed personal income tax within the past two years and will file personal income tax next year. Still, there are about 40% who did not file or will not file personal income tax assuming those who said preferred not to answer did not file or will not file personal income tax. Moreover, there are only 40% of the respondents who agreed or strongly agreed that they are willing to pay tax and intend to declare accurately next year, which are just slightly higher than what they claimed for the past (around one-third). Also 17% of the respondents said that it is likely or very likely that they might have understated income or overstated deduction/expenses within the past two years and 20% said they might be in the next year. These findings draw attention to existing tax compliance problems in Thailand regarding citizens' tax filing behaviors, willingness to pay tax, intention to pay tax, and possibilities of understating income or overstating deduction/expenses, which should be addressed more seriously by the government.

VIII. Conclusion

The findings presented in this chapter provide the answers to the first research question of this study by exploring tax rates perceptions, tax non-compliance reasons, perceptions of tax compliance related issues, audit and penalty knowledge and perceptions, tax compliance strategies, and tax compliance behaviors.

Only approximately half of the respondents said they filed personal income tax within the past two years and will file personal income tax next year. The top reasons for not filing personal income tax and not declaring their incomes accurately are all related to government administration and fairness of the tax system namely government corruption, inappropriate tax revenue spending, social norms about tax evasion, and too high taxes comparing to the public service they received. Obviously, there is room for the Thai government to enhance tax compliance of Thai citizens. The strategies for promoting tax compliance that the respondents said would work best are cash back to compliant taxpayers, more enforcement on tax laws, improved service quality of government organizations, and more news or more aware that people who evaded taxes have been punished. These results tell us that the government needs not only enforcement e.g. audits and penalties according to the traditional tax evasion approach but also rewards and motivation from improving fairness and service quality of government and tax administration according to alternative approaches of tax compliance. These results serve as the first database on Thai personal income tax compliance for Thailand that researchers and the Thai government can build up on.

In the next chapter (Chapter 5), the data will be analyzed further using factor analysis and latent transition analysis to answer the second research question on critical determinants of personal income tax compliance behavior in Thailand.

Chapter 5

Critical Determinants of Thai Citizens' Tax Compliance

The previous chapter presented the overall survey results on Thai citizens' perceptions of personal income tax system and tax compliance and answered Research Question 1: What are general citizens' perceptions of the Thai personal income tax system, their tax compliance behaviors, and strategies for increasing tax compliance in Thailand? This chapter analyzes the survey results further to find the groups of tax non-compliance reasons of Thai citizens who live in Bangkok. The aim of this chapter and the next is to answer Research Question 2: What are critical determinants of personal income tax compliance behavior in Thailand? The five hypotheses of this study will also be answered in this chapter.

The quantitative methods employed in this chapter are factor analysis and latent transition analysis. As mentioned earlier in chapter 3, technical details of these methods could be found in Appendix C. Factor analysis is a sub-model of structural equation modeling that is used to separate items into subgroups of items that have high correlations among one another. Here, the reasons for tax non-filing and inaccurate tax declaration (Questions 6 and 8 in the survey) were grouped and analyzed by factor analysis to see possible tax compliance determinants (factors). Latent transition analysis was used to find subgroups (classes) of tax compliance behaviors. After that, tax compliance factors from factor analysis were used to predict those tax compliance behavior classes. In this way, the critical determinants of tax compliance were identified.

This chapter presents: 1) factor analysis results of tax non-filing reasons, 2) factor analysis results of inaccurate tax declaration, 3) latent transition analysis results of tax

compliance behavior subgroups, 4) latent transition analysis results of tax compliance determinants, and 5) discussion of results. There are finding highlights at the end of each section.

I. Factor Analysis Results of Tax Non-Filing: Why some Thai citizens do not file their personal income taxes?

In question 6, there were 15 items (reasons) why some Thai citizens do not file their personal income taxes. In deriving tax non-filing factors, I analyzed Exploratory Factor Analysis (EFA) from one to ten underlying factors of the calibration sample but the result of the ten-factor solution did not converge. Table 5.1 shows the model fit statistics of the results from one to nine factors. The factor solution with 4 factors or more had adequate fit such that RMSEA < .10, CFI > .90, TLI > .90, and SRMR < .08. However, when the four-factor was increased to five-factor solution, the fifth factor did not have high loading on any indicators. Therefore, the four-factor solution was selected.

Number of Factor	χ^2	<i>df</i>	<i>p</i>	RMSEA	CFI	TLI	SRMR
1	1791.581	90	< .001	.182	.759	.719	.114
2	1048.287	76	< .001	.150	.862	.810	.079
3	549.24	63	< .001	.116	.931	.885	.050
4	301.818	51	< .001	.093	.965	.927	.033
5	159.033	40	< .001	.072	.983	.956	.022
6	81.115	30	< .001	.055	.993	.975	.015
7	44.424	21	.002	.044	.997	.983	.010
8	14.21	13	.359	.013	1.000	.999	.005
9	3.853	6	.697	.000	1.000	1.005	.003

Note. RMSEA = Root mean square error of approximation, CFI = comparative fit index, TLI = Tucker-Lewis Index, SRMR = standardized root mean squared residuals.

Table 5.1: Model Fit Statistics of Different Factor Results of Tax Non-Filing Question

The four factors can be interpreted as 1) perception of low enforcement (items 6.2, 6.3, and 6.4)¹², 2) lack of tax knowledge of the tax filing requirements (items 6.5, 6.6, and 6.7)¹³, 3) perception of unfairness of tax system (items 6.9, 6.10, 6.11, and 6.12)¹⁴, and 4) perception of poor government administration (items 6.13, 6.14, and 6.15)¹⁵. These four factors fit into the four major hypotheses of this study: H1, H4, H2, and H3 respectively.

Here I used factor loadings more than .4 (or less than -.4) to indicate high loadings and items 6.1 and 6.8 were not highly loaded to any factor. Therefore, both items were dropped from the analysis. Then, the four-factor solution was re-analyzed. The model fit was still adequate, $\chi^2(32, N= 571) = 153.73, p < .001$, RMSEA = .082, CFI = .982, and TLI = .955. The four-factor solution was retained with the same interpretation as earlier. The factor loadings and factor correlations of this EFA are shown in the left panel of Table 5.2.

In the validation sample, the four-factor Confirmatory Factor Analysis (CFA) solution adequately fit the data, $\chi^2(59, N= 571) = 330.85, p < .001$, RMSEA = .09, CFI = .959, and TLI = .946. The non-zero factor loadings from CFA were not greatly different from the loadings from EFA. Thus, the four-factor solution was suggested with the same interpretation namely perception of low enforcement, lack of tax knowledge, perception of unfairness of tax system, and perception of poor government administration. The factor loadings and factor correlations of

¹² Item 6.2, they think the Revenue Department will not find out if they don't file taxes. Item 6.3, they think even if the Revenue Department finds out that they don't file taxes, they will not be punished. Item 6.4, they are not afraid of current penalties because the penalties are not strong enough.

¹³ Item 6.5, they don't know how to get the form to pay taxes. Item 6.6, they think tax form is too complicated. Item 6.7, they think it takes too much time to file taxes.

¹⁴ Item 6.9, they think it takes too much time to file taxes. Item 6.10, they think it's not fair to be taxed from their own earnings. Item 6.11, they think the tax rate is too high. Item 6.12, they think others evade taxes.

¹⁵ Item 6.13, they think the government does not spend tax revenues appropriately. Item 6.14, they think there is too much corruption in government operations. Item 6.1, they don't like the government.

this CFA are shown in right panel of Table 5.2. The relationships between demographic variables and the resulting factors of tax non-filing are shown in Table 5.3.

	EFA (<i>N</i> = 571)				CFA (<i>N</i> = 571)			
	ENF	KNOW	FAIR	GOV	ENF	KNOW	FAIR	GOV
Item 2	.596	.087	.121	-.096	.682	.000	.000	.000
Item 3	.791	.052	-.093	-.007	.687	.000	.000	.000
Item 4	.646	-.062	.049	.073	.695	.000	.000	.000
Item 5	.046	.645	.080	-.147	.000	.585	.000	.000
Item 6	.002	.847	-.025	.123	.000	.856	.000	.000
Item 7	.083	.574	.116	.029	.000	.734	.000	.000
Item 9	-.016	.158	.678	-.098	.000	.000	.651	.000
Item 10	-.060	.082	.760	-.004	.000	.000	.743	.000
Item 11	.002	-.016	.749	.117	.000	.000	.806	.000
Item 12	.220	-.113	.601	.219	.000	.000	.800	.000
Item 13	.041	.001	.173	.734	.000	.000	.000	.910
Item 14	-.001	.047	-.048	.994	.000	.000	.000	.901
Item 15	-.057	.026	.213	.515	.000	.000	.000	.682
FORM	.284				.156			
RATE	.262	.421			.169	.204		
GOV	.269	.270	.599		.193	.212	0.446	

Note. EFA = Exploratory factor analysis. CFA = Confirmatory factor analysis. ENF = Low enforcement perception. KNOW = Lack of Tax Knowledge. FAIR = Unfairness of tax system perception. GOV = Perception of poor government administration.

Table 5.2: Factor Loadings (upper layer) and Factor Correlations (lower layer) of Tax Non-Filing using Four-factor Solution from EFA and CFA on Calibration and Validation Groups respectively

		N	ENF		KNOW		FAIR		GOV	
			M	SD	M	SD	M	SD	M	SD
Sex	Male	488	-0.021	0.589	-0.010	0.499	-0.051	0.584	-0.075	0.836
	Female	650	0.012	0.644	0.003	0.547	0.030	0.581	0.032	0.832
Education	Primary	25	0.074	0.441	-0.148	0.415	0.012	0.601	-0.047	0.932
	Secondary	63	-0.041	0.626	-0.039	0.467	-0.079	0.529	-0.093	0.784
	College	151	-0.086	0.674	-0.029	0.571	-0.057	0.598	-0.091	0.877
	Bachelor	688	0.010	0.610	0.013	0.526	0.012	0.590	0.005	0.830
	Master	100	0.063	0.645	0.022	0.594	0.049	0.617	0.076	0.874
	Doctorate	5	0.523	0.650	0.107	0.323	0.351	0.209	0.718	0.544
Marital Status	Single	693	0.044	0.622	0.038	0.526	0.050	0.586	0.042	0.844
	Married	440	-0.072	0.610	-0.063	0.521	-0.091	0.567	-0.104	0.817
Income (thousand Baht)	< 150	473	-0.021	0.658	-0.003	0.553	0.015	0.605	0.012	0.844
	150-500	453	0.018	0.574	0.038	0.492	0.007	0.548	0.010	0.790
	500-1000	93	-0.065	0.618	-0.134	0.537	-0.177	0.590	-0.294	0.836
	1000-4000	21	-0.021	0.665	-0.030	0.485	-0.300	0.594	-0.508	1.019
	> 4000	7	0.192	0.607	-0.387	0.583	-0.082	0.528	0.364	0.817
Age	18-30	482	0.023	0.630	0.044	0.528	0.045	0.600	0.040	0.836
	31-40	383	0.004	0.611	-0.006	0.506	-0.012	0.577	-0.031	0.839
	41-50	183	-0.053	0.573	-0.066	0.519	-0.100	0.528	-0.072	0.786
	51-60	62	-0.210	0.712	-0.180	0.608	-0.118	0.668	-0.165	0.956
	> 61	8	0.413	0.853	0.235	0.585	0.108	0.621	-0.031	1.085
Occupation	Non-self	674	-0.004	0.613	-0.011	0.510	-0.009	0.571	-0.030	0.815
	Self	389	-0.010	0.653	-0.001	0.565	-0.026	0.617	-0.020	0.891
	Others	57	0.052	0.530	0.114	0.479	0.189	0.524	0.234	0.699

Note. EFA = Exploratory factor analysis. CFA = Confirmatory factor analysis. ENF = Low enforcement perception. KNOW = Lack of Tax Knowledge. FAIR = Unfairness of tax system perception. GOV = Perception of poor government administration.

Table 5.3: Demographic Variables and the Resulting Factors of Tax Non-Filing

Finding Highlights:

The factor analysis results classify 15 questionnaire items into 4 factors that account for tax non-filing behavior: 1) perception of low enforcement, 2) lack of tax knowledge of the tax filing requirements, 3) perception of unfairness of the tax system, and 4) perception of poor government administration. These four factors fit the four major hypotheses set in this study and will be tested later in this chapter by latent transition analysis.

II. Factor Analysis Results of Inaccurate Tax Declaration: Why some Thai citizens do not declare their income accurately?

In question 8, there were 15 items (reasons) why some Thai citizens do not declare their income inaccurately. Again, the responses from calibration sample were used for EFA. Since the reasons of question 8 and 6 are closely related, I expected four-factor solution in EFA for the inaccurate tax declaration as well. Thus, I ran EFA of four-factor solution. As expected, the model fit was adequate, $\chi^2(41, N= 571) = 253.148, p < .001, RMSEA = .095, CFI = .974, TLI = .943,$ and SRMR = .025.

The four factors can also be interpreted as: 1) perception of low enforcement (items 8.1 and 8.2)¹⁶, 2) lack of tax knowledge of the tax filing requirements (items 8.12, 8.13, and 8.14)¹⁷,

¹⁶ Item 8.1, they think the Revenue Department will not find out if they declare their incomes inaccurately. Item 8.2, they think even if the Revenue Department finds out that they declare their incomes inaccurately, they will not be punished.

¹⁷ Item 8.12, they don't know which sources of income they must declare. Item 8.13, they attempt to file accurately but make honest mistakes in filing as the tax form is so complicated. Item 8.14, they just make calculation mistakes.

3) perception of unfairness of tax system (items 8.4, 8.5, 8.6 and, 8.7)¹⁸, and 4) perception of poor government administration (items 8.9 and 8.10)¹⁹. Again, these four factors fit into the four major hypotheses of this study: H1, H4, H2, and H3 respectively.

Items 8.3, 8.8, and 8.11 were not highly loaded to any factors or had their two highest loadings differences not over .10 (i.e., dual loading). Therefore, these three items were excluded from the analysis and the four-factor solution was analyzed again. The model fit was still adequate, $\chi^2(17, N= 571) = 121.61, p < .001$, RMSEA = .104, CFI = .987, and TLI = .956. Even though RMSEA did not indicate good fit (greater than .10), CFI and TLI were very high (close to 1). The meanings of factors were not changed after dropping those items. I also ran EFA with five factors. The factor solution was not interpretable. Thus, the four-factor solution was retained. The factor loadings and factor correlations of this EFA are shown in the left panel of Table 5.4.

Then, the four-factor solution was used as the hypothesis in CFA on validation sample. The four-factor solution adequately fitted the data, $\chi^2(59, N= 571) = 330.85, p < .001$, RMSEA = .113, CFI = .961, and TLI = .943. Again, the non-zero factor loadings from CFA were not largely different from the loadings from EFA. Therefore, four factors were also suggested for inaccurate tax declaration: low enforcement perception, lack of tax knowledge, perception of unfairness of the tax system, and perception of poor government administration. The factor loadings and factor correlations of this CFA are shown in the right panel of Table 5.4. The

¹⁸ Item 8.4, they think the rich should pay more. Item 8.5, they think they are paying too much compared to what they receive in government services. Item 8.6, they think it's not fair to be taxed from their own earnings. Item 8.7, they think the tax rate is too high.

¹⁹ Item 8.9, they think the government spends their tax revenues inappropriately. Item 8.10, They think there is too much corruption in government operations.

relationships between demographic variables and the resulting factors of inaccurate tax declaration are shown in Table 5.5.

	EFA (<i>N</i> = 571)				CFA (<i>N</i> = 571)			
	ENF	KNOW	FAIR	GOV	ENF	KNOW	FAIR	GOV
Item 1	.628	.022	.099	.072	.838	.000	.000	.000
Item 2	1.000	.000	-.026	-.027	.794	.000	.000	.000
Item 4	.211	.029	.504	.112	.000	.000	.772	.000
Item 5	.093	.088	.608	.142	.000	.000	.878	.000
Item 6	-.055	-.010	.968	-.046	.000	.000	.793	.000
Item 7	.104	.074	.534	.141	.000	.000	.767	.000
Item 9	.017	-.022	.059	.868	.000	.000	.000	.920
Item 10	-.024	.021	-.039	.951	.000	.000	.000	.913
Item 12	.121	.474	.173	.080	.000	.803	.000	.000
Item 13	-.022	.988	-.004	.019	.000	.850	.000	.000
Item 14	.024	.711	-.022	-.077	.000	.577	.000	.000
FORM	.459				.416			
RATE	.437	.470			.614	.537		
GOV	.340	.547	.667		.414	.589	.710	

Note. EFA = Exploratory factor analysis. CFA = Confirmatory factor analysis. ENF = Low enforcement perception. KNOW = Lack of Tax Knowledge. FAIR = Unfairness of tax system perception. GOV = Perception of poor government administration.

Table 5.4: Factor Loadings and Factor Correlations of Inaccurate Tax Declaration using Four-Factor Solution from EFA and CFA

		N	ENF		KNOW		FAIR		GOV	
			M	SD	M	SD	M	SD	M	SD
Sex	Male	488	-0.021	1.327	-0.059	1.130	-0.071	1.049	-0.100	2.288
	Female	650	0.016	1.319	0.037	1.188	0.046	1.063	0.023	2.230
Education	Primary	25	0.186	1.207	-0.162	0.883	0.156	0.985	0.017	1.788
	Secondary	63	-0.137	1.233	-0.109	1.094	-0.183	0.956	-0.372	2.061
	College	151	-0.110	1.385	-0.126	1.197	-0.151	1.102	-0.554	2.435
	Bachelor	688	0.047	1.322	0.052	1.153	0.065	1.043	0.158	2.228
	Master	100	0.022	1.364	0.015	1.362	0.001	1.243	0.030	2.477
	Doctorate	5	0.648	1.982	0.548	0.761	0.405	0.665	0.988	0.704
Marital Status	Single	693	0.028	1.329	0.069	1.165	0.047	1.068	0.071	2.261
	Married	440	-0.033	1.310	-0.113	1.156	-0.079	1.041	-0.175	2.241
Income (thousand Baht)	< 150	473	0.006	1.384	0.029	1.201	0.011	1.043	-0.064	2.291
	150-500	453	0.061	1.273	0.015	1.116	0.031	1.082	0.011	2.263
	500-1000	93	-0.298	1.234	-0.281	1.156	-0.285	0.969	-0.394	1.999
	1000-4000	21	-0.052	1.429	-0.392	1.376	-0.567	0.835	-0.788	2.288
	> 4000	7	-0.265	1.267	0.042	1.617	0.183	1.372	1.512	1.836
Age	18-30	482	0.010	1.327	0.055	1.168	0.043	1.047	0.011	2.225
	31-40	383	0.079	1.299	0.045	1.123	0.075	1.061	0.049	2.315
	41-50	183	-0.150	1.336	-0.172	1.177	-0.221	1.085	-0.271	2.324
	51-60	62	-0.158	1.343	-0.305	1.364	-0.208	1.031	-0.049	2.010
	> 61	8	0.494	1.839	-0.064	1.253	0.106	1.150	0.273	2.085
Occupation	Non-self	674	0.006	1.260	0.029	1.124	0.011	1.012	-0.017	2.193
	Self	389	-0.007	1.417	-0.082	1.228	-0.038	1.130	-0.063	2.359
	Others	57	-0.019	1.357	0.219	1.166	0.134	1.135	0.201	2.374

Note. EFA = Exploratory factor analysis. CFA = Confirmatory factor analysis. ENF = Low enforcement perception. KNOW = Lack of Tax Knowledge. FAIR = Unfairness of tax system perception. GOV = Perception of poor government administration.

Table 5.5: Demographic Variables and the Resulting Factors of Inaccurate Tax Declaration

Finding Highlights:

The factor analysis results also classify 15 questionnaire items into 4 factors that account for inaccurate tax declaration behavior: 1) perception of low enforcement, 2) lack of tax knowledge of the tax filing requirements, 3) perception of unfairness of the tax system, and 4) perception of poor government administration. These four factors fit into the four major hypotheses set in this study and will be tested later in this chapter via latent transition analysis.

III. Latent Transition Analysis Results of Tax Compliance Behavior Subgroups: What are types of tax compliance behavior in Thailand?

I analyzed LTA with 2 to 8 classes for 6 tax compliance behavior questions that include two time points (past behaviors and future intention).²⁰ The solution with five classes provided the lowest Bayesian Information Criterion (BIC) and the clearest interpretation.²¹ Table 5.6 provides model fit statistics of each solution. Table 5.7 shows the probability of responses of the five tax compliance classes for each tax compliance behavior question. From Table 5.6, the five tax compliance behavior subgroups were:

1. People who file tax and declare very accurately (FILE/VA)
2. People who file tax and declare accurately (FILE/A)
3. People who file tax but did not provide information regarding declaration accuracy i.e. those who answer in neither agree nor disagree category (FILE/NK)
4. People who file tax but declare inaccurately (FILE/I)
5. People who do not file tax (NOFILE)

Number of Classes	AIC	BIC	SSBIC	Entropy
2	9531.76	9636.32	9569.62	.808
3	8909.84	9084.11	8972.93	.746
4	8630.14	8884.07	8722.09	.814
5	8558.42	8752.61	8628.74	.852
6	8347.33	8796.09	8507.06	.841
7		Not Convergent		
8		Not Convergent		

Note. AIC = Akaike Information Criterion, BIC = Bayesian Information Criterion, SSBIC = Sample-Size Adjusted Information Criterion.

Table 5.6: Model Fit Statistics of Latent Transition Analysis Solution with 2-8 Classes on Tax Compliance Behavior

²⁰ Questions for past behavior are 22, 26.1, and 26.2 and questions for future intention are 27, 29.1, and 29.2.

²¹ The solution with six classes provided the best fit from AIC and SSBIC however the interpretation from five classes is clearer. The results from 7 and 8 classes did not converge. Therefore, the five class solution is used.

Items	FILE/VA	FILE/A	FILE/NK	FILE/I	NOFILE
File personal income tax?					
Yes	100%	100%	97%	100%	0%
No	0%	0%	3%	0%	100%
Understate Income?					
Very Unlikely	72%	0%	0%	0%	5%
Unlikely	16%	88%	0%	5%	12%
Neither	3%	12%	100%	9%	56%
Likely	4%	0%	0%	82%	22%
Very Likely	5%	0%	0%	5%	5%
Overstate Deductions?					
Very Unlikely	77%	0%	0%	0%	6%
Unlikely	23%	82%	5%	5%	12%
Neither	0%	13%	91%	16%	59%
Likely	0%	5%	5%	72%	24%
Very Likely	0%	0%	0%	8%	0%

Note. FILE/VA = People who file tax and declare tax very accurately. FILE/A = People who file tax and declare tax accurately. FILE/NK = People who file tax and provide no information whether they declare tax accurately or not. FILE/I = People who file tax and declare tax inaccurately. NOFILE = people who do not file tax. The bold numbers mean the categories with the highest proportion.

Table 5.7: The Probability of Each Tax Compliance Behavior Category

The expected proportions of each class for past behavior and future intention, as well as transition probability, are shown in Table 5.8. The regression coefficients from multinomial logistic regression are provided in Table 5.9. For past behavior, there were approximately 25% of people who filed tax and declared accurately or very accurately (17% and 6% respectively). The proportions of people who filed tax but declared inaccurately, people who did not file tax, and people who filed tax but did not provide information regarding declaration accuracy were approximately 25% each (23%, 27%, and 27% respectively).

For future intention (regardless of past behaviors), approximately 30% of people intended to file tax and declared accurately or very accurately in the next year. Another 30% intended to

file tax but did not report their intention whether they will declare accurately or not. About 20% of people intended not to file tax. The other 20% intended to file tax inaccurately.

For transition in their tax compliance behaviors, the majority of people intended to remain in the same groups as their past behaviors. Sixty percent of people who filed tax very accurately in the past intended to file tax very accurately next year. Seventy percent of people who filed tax accurately in the past intended to find tax accurately next year. Seventy percent of people who filed tax but did not provide information regarding declaration accuracy in the past intended to remain in the same group for next year. Sixty-six percent of people who did not file tax in the past intended not to file tax next year. Fifty-seven percent of people who filed tax inaccurately in the past intended to still file tax inaccurately however 25% of them intended not to report their intention whether they will declare accurately or not.

Past Behavior \ Intention	FILE/VA	FILE/A	FILE/NK	FILE/I	NOFILE	Percent
FILE/VA	.623	.303	.000	.033	.041	6%
FILE/A	.092	.710	.122	.062	.015	17%
FILE/NK	.018	.112	.717	.138	.016	27%
FILE/I	.014	.139	.257	.570	.019	23%
NOFILE	.034	.067	.144	.088	.667	27%
Percent	7%	22%	31%	20%	19%	

Note. FILE/VA = People who file tax and declare tax very accurately. FILE/A = People who file tax and declare tax accurately. FILE/NK = People who file tax and provide no information whether they declare tax accurately or not. FILE/I = People who file tax and declare tax inaccurately. NOFILE = people who do not file tax. Percent is the model-based percentage of participants being in each class.

Table 5.8: The Expected Proportions of Each Tax Compliance Behavior Class and Latent Transition Probability predicted by LTA analysis

Effect	FILE/VA	FILE/A	FILE/NK	FILE/I
Intercept	-2.988***	-2.292***	-1.536***	-2.028
FILE/VA	5.714***	4.297***	-23.015 ^F	1.823
FILE/A	4.792***	6.144***	3.625***	3.441**
FILE/NK	3.099*	4.260***	5.360***	4.200***
FILE/I	2.667**	4.280***	4.140***	5.427***

Note. * $p < .05$, ** $p < .01$, *** $p < .001$, ^FThe parameter is fixed to be a constant by model in order to make other parameters' standard errors able to be estimated.

The class of people not file tax is used as reference group for both timepoints. The intercept and slope of this class are fixed to 0.

FILE/VA = People who file tax and declare tax very accurately. FILE/A = People who file tax and declare tax accurately. FILE/NK = People who file tax and provide no information whether they declare tax accurately or not. FILE/I = People who file tax and declare tax inaccurately. NOFILE = people who do not file tax. Percent is the model-based percentage of participants being in each class.

Table 5.9: Regression Coefficients of Multinomial Logistic Regression Predicting Intended Tax Compliance Groups from Past Tax Compliance Groups

Finding Highlights:

There were five tax compliance behavior subgroups from LTA: 1) people who file tax and declare very accurately (FILE/VA), 2) people who file tax and declare accurately (FILE/A), 3) people who file tax and do not report whether they declare accurately or not (FILE/NK), 4) people who file tax and declare inaccurately (FILE/I), and 5) people who do not file tax (NOFILE). These classes will be used in the subsequent analyses.

There were at least 23% of people who declared tax inaccurately and 27% who did not file tax in the past. For future intention, at least 20% intended to file tax inaccurately and about 20% of people intended not to file tax. The majority of people intended to stay in the same groups as their past behaviors. However, 25% of people who filed tax inaccurately in the past intended not to report their intention whether they will declare accurately or not.

IV. Latent Transition Analysis Results of Tax Non-Compliance: What are critical determinants of tax compliance behavior in Thailand?

Here, the factor analysis results of tax noncompliance reasons and demographic variables were used to predict tax compliance behavior subgroups from previous LTA results in order to find critical determinants of tax compliance behavior in Thailand.

- **Demographic Characteristics and Tax Compliance Behavior in Thailand**

I will discuss first the effect of demographic variables, which include occupation, sex, education, marital status, income, and age. Table 5.10 shows Akaike Information Criterion (AIC) comparison results of constrained and free regression coefficients from demographic variables onto tax compliance (past behavior and future intention). The results of multinomial logistic regression coefficients are shown in Table 5.11.

Effect	AIC (Free)	AIC (Fixed)	Result
Past Behavior of Tax Compliance			
Occupation (Group 1)	3701.383	3696.344	Fixed
Occupation (Group 2)	3701.383	3694.929	Fixed
Sex	3701.383	3706.221	Free
Education	3701.383	3706.303	Free
Marital Status	3701.383	3702.275	Free
Income	3701.383	3735.320	Free
Age	3701.383	3699.933	Fixed
Intention of Tax Compliance			
Occupation (Group 1)	3701.383	3696.994	Fixed
Occupation (Group 2)	3701.383	3694.027	Fixed
Sex	3701.383	3695.509	Fixed
Education	3701.383	3694.507	Fixed
Marital Status	3701.383	3699.249	Fixed
Income	3701.383	3705.398	Free
Age	3701.383	3702.182	Free

Note. In the result column, free is similar to the effect of that independent variable is significant. Fixed is similar to the effect of that independent variable is not significant.

Table 5.10: The AIC Comparison Results of Constrained and Free Regression Coefficients from Demographic Variables onto Tax Compliance (past behavior and future intention)

Effect	<i>FILE/VA</i>	<i>FILE/A</i>	<i>FILE/NK</i>	<i>FILE/I</i>
Past Behavior				
Intercept	-5.916**	-7.775***	-2.89	-3.183*
Occupation (Group 1)	-0.247	0.024	-0.174	-0.22
Occupation (Group 2)	-0.182	0.105	0.102	0.099
Sex	0.77	0.278	-0.614	-0.071
Education	0.235*	0.268**	0.178	0.157*
Marital Status	-0.799	0.062	-0.835*	0.066
Income	4.777***	4.394***	4.747***	2.94**
Age	0.033	0.047	-0.002	0.016
Intention				
Intercept	-8.864**	-6.763*	-1.275	-0.74
Occupation (Group 1)	0.632	0.312	0.166	0.008
Occupation (Group 2)	0.047	0.005	-0.153	-0.129
Sex	0.462	0.701	0.453	0.174
Education	0.148	0.091	0.033	0.029
Marital Status	-0.763	-1.261	-0.367	-0.183
Income	-1.004	-0.889	-1.105*	-2.488*
Age	0.047	0.036	-0.029	-0.035
FILE/VA (Past)	22.224***	21.143***	16.096*	18.798 ^F
FILE/A (Past)	16.584***	19.698***	16.853***	16.961 ^F
FILE/NK (Past)	3.508*	5.631***	5.974***	5.108***
FILE/I (Past)	2.078	4.821***	4.329***	5.492***

Note. * $p < .05$, ** $p < .01$, *** $p < .001$, ^FThe parameter is fixed to be a constant by model in order to make other parameters' standard errors able to be estimated.

The class of people who do not file tax is used as a reference group for both timepoints. The intercept and slope of this class are fixed to 0.

FILE/VA = People who file tax and declare tax very accurately. FILE/A = People who file tax and declare tax accurately. FILE/NK = People who file tax and provide no information whether they declare tax accurately or not. FILE/I = People who file tax and declare tax inaccurately. NOFILE = people who do not file tax.

Table 5.11: The Multinomial Logistic Regression Coefficients of Predicting Past and Intended Classes (Demographic Variables)

For past tax compliance behavior, there were 4 significant demographic variables as shown in Table 5.10: sex, education, marital status, and income.

1) Sex and Past Tax Compliance Behavior

Sex had a significant effect on past tax compliance behavior. Table 5.12 presents the proportions of male and female in each tax compliance class. The results show that females were more in FILE/VA and FILE/A classes and less in FILE/NK and FILE/I than males, which means females tend to have higher tax compliance than males.

	FILE/VA	File/A	File/NK	File/I	NOFILE
Male	.125	.083	.368	.279	.145
Female	.275	.112	.202	.264	.147

Table 5.12: Sex and Past Tax Compliance Behavior Classes

2) Marital Status and Past Tax Compliance Behavior

Marital status had a significant effect on past tax compliance behavior. Table 5.13 shows the proportions of people who were single and married in each tax compliance class. The results show that people who were single were more in FILE/VA and FILE/NK and less in FILE/I and NOFILE, which means people who are single tend to have higher tax compliance.

	FILE/VA	FILE/A	FILE/NK	FILE/I	NOTFILE
Single	.236	.085	.318	.232	.129
Married	.149	.127	.194	.349	.181

Table 5.13 Marital Status and Past Tax Behavior Classes

3) Education and Past Tax Compliance Behavior

Education had a significant effect on past tax compliance behavior. Figure 5.1 presents the proportions of people for each level of education in each tax compliance class. The results show that people with higher education were more in FILE/VA and FILE/A classes and less in NOFILE class. Moving along from the left to the right side of the graph, the probabilities of being in FILE/VA and FILE/A classes increased by approximately 20% for each class or 40% altogether when years of education increased. The probability of being in NOFILE class also decreased by almost 50% when years of education increased. In other words, people with higher levels of education tend to have higher tax compliance.

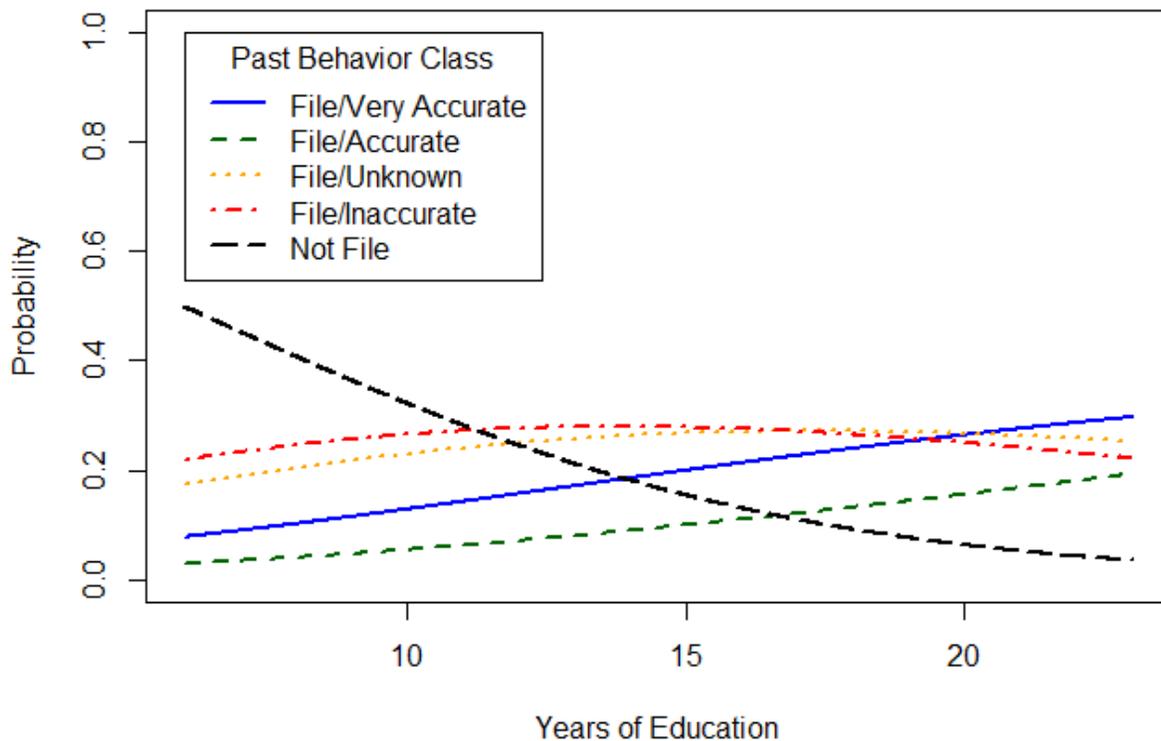


Figure 5.1: Education and Past Tax Compliance Behavior Classes

4) Income and Past Tax Compliance Behavior

Income had a positively significant effect on past tax compliance behavior. Figure 5.2 shows the proportions of people for each level of income in each tax compliance class. The results show that people who had higher income tended to be more in FILE/VA and FILE/NK classes and less in NOFILE class. The probabilities of being in FILE/VA and FILE/NK classes increased by approximately 30% for each when level of income increased from 0 to 5 million Baht. The probability of being in NOFILE class also decreased by almost 35% when level of income increased. And, the proportion of FILE/I class decreased by almost 30% when the level of income increased from 0 to 5 million Baht. Hence, people with higher income tend to have higher tax compliance.

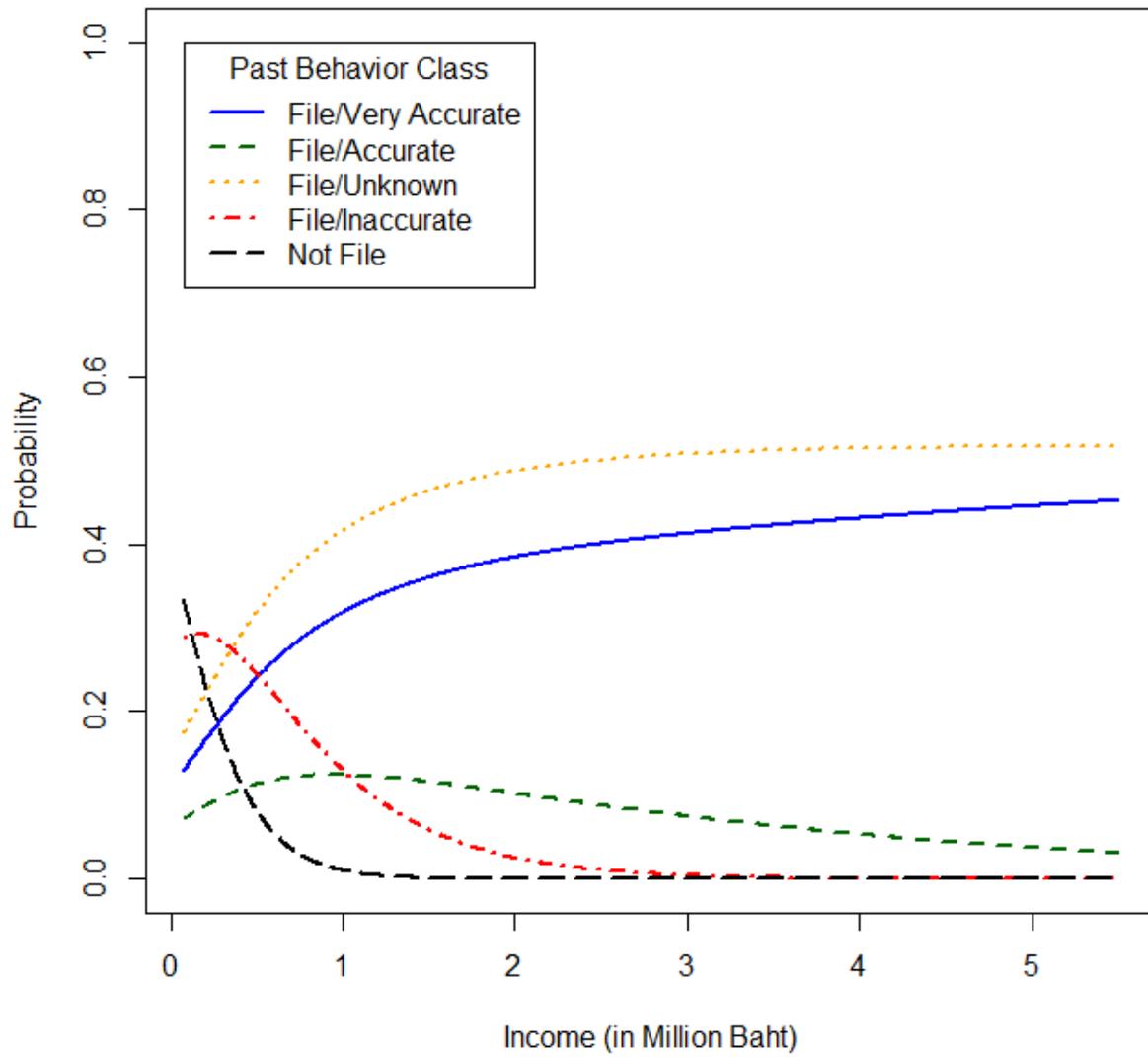


Figure 5.2: Income and past tax compliance behavior classes

For future intention of tax compliance, controlling for past behavior, there were two significant demographic variables as shown in Table 5.10: income and age.

1) **Income and Future Tax Compliance Behavior**

Income had a significant effect on future tax compliance behavior but the results were mixed. Figure 5.3 shows the probability plots of intended tax compliance classes as a result of different levels of income, given past behavior class membership. The dashed lines show the range of the income in each past behavior class that was greater than 10%.²²

From the figure, people who had higher income intended to:

- Keep filing tax and declaring very accurately or accurately
 - The proportion of people who intended to be in FILE/VA or FILE/A class increased by 20% when income increased from 0 to 5 million Baht, given FILE/VA as their past behavior (as shown in graph 1)
 - The proportion of people who intended to be in FILE/A class increased by 30% when income increased from 250,000 Baht to 2 million Baht, given FILE/A as their past behavior (as shown in graph 2)
- Change to/remain in not file tax class
 - The proportion of people who intended to be in NOFILE class increased by 80% when income increased from 0 to 5 million Baht, given FILE/NK as their past behavior (as shown in graph 3)

²² The lines outside this bound in Figure 5.3 were estimated based on small samples; therefore, the results outside the bound are not reliable and will not be used for interpretation.

- The proportion of people who intended to be in NOFILE class increased by 10% when income increased from 0 to 500,000 Baht, given NOFILE as their past behavior (as shown in graph 5)
- File tax less inaccurately
 - The proportion of people who intended to be in FILE/I class decreased by 40% when income increased from 0 to 1 million Baht, given FILE/I as their past behavior (as shown in graph 4).

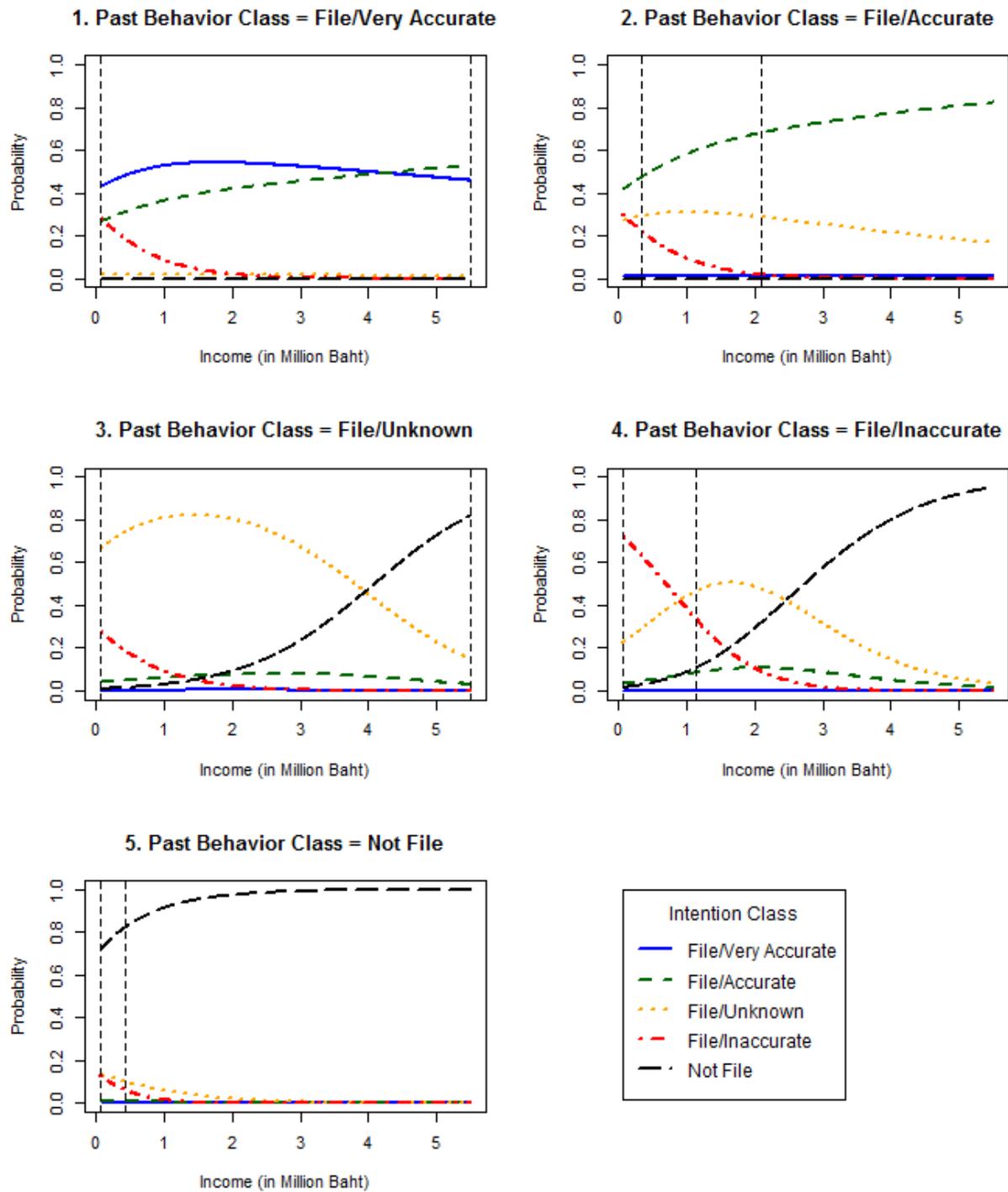


Figure 5.3: Income and Future Tax Compliance Behavior Classes when Controlling for Past Behaviors

2) Age and Future Tax Compliance Behavior

Age had a significant effect on future tax compliance behavior i.e. people who are older tend to have higher tax compliance. Figure 5.4 shows the probability plots of intended tax compliance classes as a result of different levels of age, given past behavior class membership. The dashed lines show the range of the age in each past behavior class that was greater than 10%.

From the figure, people who were older intended to:

- Keep filing tax and declaring very accurately or accurately
 - The proportion of people who intended to be in FILE/VA class increased by 40% when age increased from 18 to 85, given FILE/VA as their past behavior (as shown in graph 1).
 - The proportion of people who intended to be in FILE/A class increased by 50% when age increased from 35 to 85, given FILE/A as their past behavior (as shown in graph 2).
- Change to file tax accurately class
 - The proportion of people who intended to be in FILE/A class increased by 40% when age increased from 18 to 75, given FILE/NK as their past behavior (as shown in graph 3).

- The proportion of people who intended to be in FILE/A class increased by 55% when age increased from 18 to 75, given FILE/I as their past behavior (as shown in graph 4).
- Be less in filing inaccurately or unknown classes
 - The proportions of people who intended to be in FILE/I class decreased by:
 - 50% when age increased from 18 to 85 given FILE/VA as their past behavior (as shown in graph 1),
 - 35% when age increased from 35 to 85 given FILE/A as their past behavior (as shown in graph 2),
 - 10% when age increased from 18 to 75 given FILE/NK as their past behavior (as shown in graph 3),
 - 50% when age increased from 18 to 75 given FILE/I as their past behavior (as shown in graph 4),
 - 10% when aged increased from 18 to 58 given NOFILE as their past behavior (as shown in graph 5).
 - The proportions of people who intended to be in FILE/NK class decreased by:
 - 30% when age increased from 35 to 85 given FILE/A as their past behavior (as shown in graph 2),
 - 30% when age increased from 18 to 75 given FILE/NK as their past behavior (as shown in graph 3),
 - 20% when age increased from 18 to 75 given FILE/I as their past behavior (as shown in graph 4),

- 15% when aged increased from 18 to 58 given NOFILE as their past behavior (as shown in graph 5).

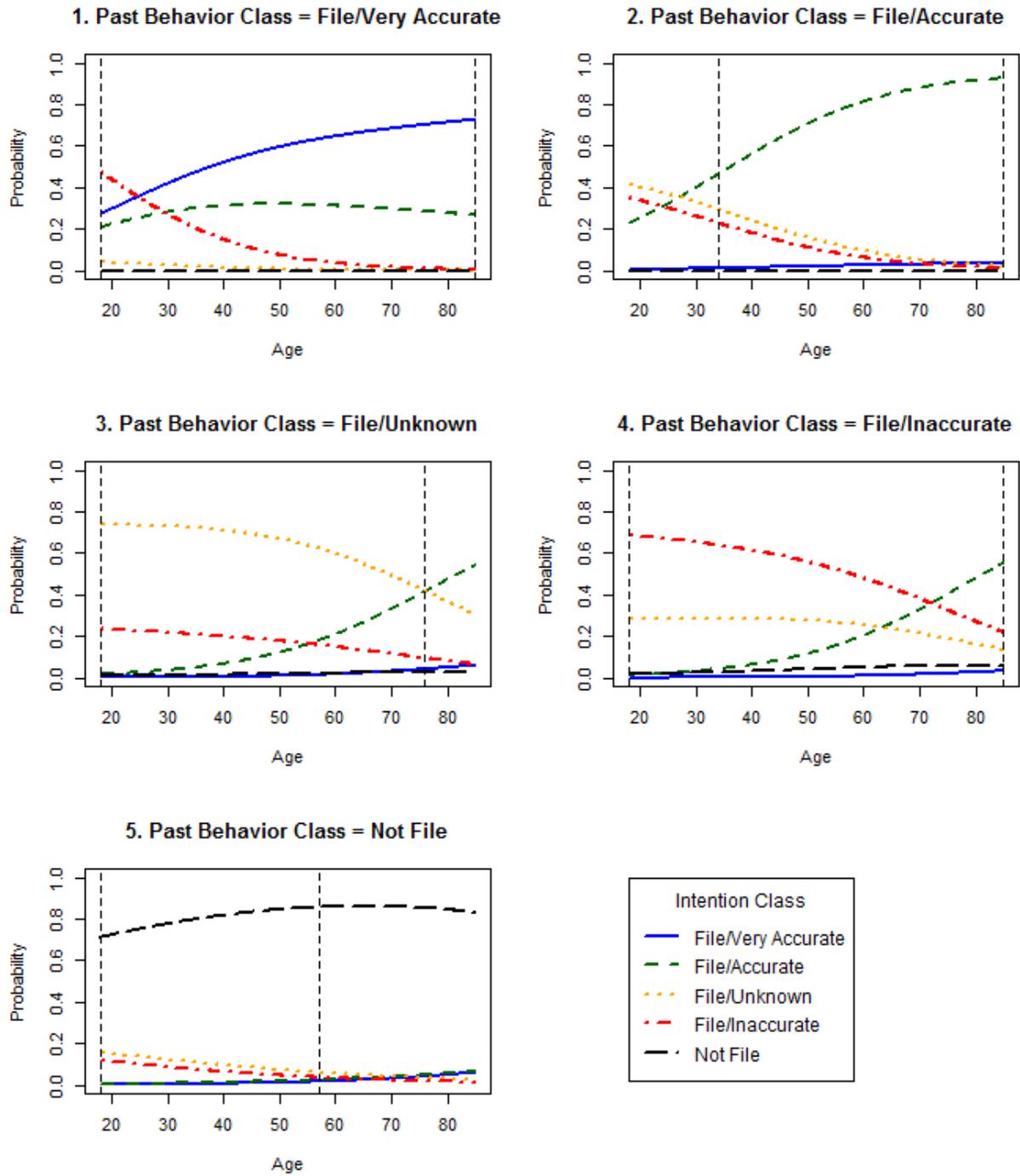


Figure 5.4: Age and Future Tax Compliance Behavior Classes when Controlling for Past Behaviors

- **Critical Determinants of Tax Compliance Behavior in Thailand**

There were eight independent variables from four factors of tax non-compliance (low enforcement perception, lack of tax knowledge, unfairness of tax system perception, and lack of trust in government administration) and 2 types of tax non-compliance (tax non-filing and inaccurate tax declaration from Questions 6 and 8). I used Akaike Information Criterion (AIC) to see whether the effect of independent variables onto tax compliance behavior subgroups exists (i.e., the determinant is significant). Income was used as the only covariate in this analysis because the effect of income on the past and intention classes was the largest compared to other demographic variables (see in Table 5.10 that the AIC difference for income variable was the largest and much larger than the second largest AIC difference). Moreover, the analysis that included all significant demographic variables did not converge and the analysis without any covariates provided untrustworthy parameter estimates (e.g., some logistic regression coefficients had values greater than 100). Table 5.14 shows AIC comparison results of constrained and free regression coefficients from independent variables onto tax compliance (past behavior and future intention). The results of multinomial logistic regression are shown in Table 5.15.

Effect	AIC (Free)	AIC (Fixed)	Result
Past Behavior of Tax Compliance			
ENF (Not File Tax)	30355.92	30357.81	Free
KNOW (Not File Tax)	30355.92	30351.98	Fixed
FAIR (Not File Tax)	30355.92	30350.4	Fixed
GOV (Not File Tax)	30355.92	30352.63	Fixed
ENF (Inaccurate Declaration)	30355.92	30352.73	Fixed
KNOW (Inaccurate Declaration)	30355.92	30358.84	Free
FAIR (Inaccurate Declaration)	30355.92	30354.24	Fixed
GOV (Inaccurate Declaration)	30355.92	30350.4	Fixed
Income	30355.92	30411.15	Free
Intention of Tax Compliance			
ENF (Not File Tax)	30355.92	30349.48	Fixed
KNOW (Not File Tax)	30355.92	30351.77	Fixed
FAIR (Not File Tax)	30355.92	30352.08	Fixed
GOV (Not File Tax)	30355.92	30351.83	Fixed
ENF (Inaccurate Declaration)	30355.92	30349.21	Fixed
KNOW (Inaccurate Declaration)	30355.92	30354.01	Fixed
FAIR (Inaccurate Declaration)	30355.92	30356.34	Free
GOV (Inaccurate Declaration)	30355.92	30355.16	Fixed
Income	30355.92	30363.22	Free

Note. In the result column, free is similar to the effect of that independent variable is significant. Fixed is similar to the effect of that independent variable is not significant.

FILE/VA = People who file tax and declare tax very accurately. FILE/A = People who file tax and declare tax accurately. FILE/NK = People who file tax and provide no information whether they declare tax accurately or not. FILE/I = People who file tax and declare tax inaccurately. NOFILE = people who do not file tax. Percent is the model-based percentage of participants being in each class. ENF = Low enforcement perception. KNOW = Lack of Tax Knowledge. FAIR = Unfairness of tax system perception. GOV = Perception of poor government administration.

Table 5.14: AIC Comparison Results of Constrained and Free Regression Coefficients from Independent Variables onto Tax Compliance (past behavior vs. intention)

Effect	<i>FILE/VA</i>	<i>FILE/A</i>	<i>FILE/NK</i>	<i>FILE/I</i>
Past Behavior				
Intercept	-2.796	-1.377	-0.949	-0.870
ENF (Not File Tax)	-0.691	-0.411	-0.134	0.202
KNOW (Not File Tax)	0.670	-0.093	0.172	-0.240
FAIR (Not File Tax)	0.904	-0.190	-0.122	0.016
GOV (Not File Tax)	-0.604	0.307	-0.009	-0.123
ENF (Inaccurate Declaration)	-0.419	-0.184	-0.134	-0.073
KNOW (Inaccurate Declaration)	0.379	-0.057	-0.037	0.320*
FAIR (Inaccurate Declaration)	-0.131	0.556*	0.166	0.007
GOV (Inaccurate Declaration)	0.178	-0.032	-0.031	-0.030
Income	4.736***	4.575***	4.596***	3.822***
Intention				
Intercept	-2.896***	-2.104***	-1.318***	-1.946***
ENF (Not File Tax)	-0.092	0.029	-0.298	-0.171
KNOW (Not File Tax)	-0.361	0.035	-0.357	-0.661
FAIR (Not File Tax)	-0.215	0.213	0.126	0.976
GOV (Not File Tax)	0.853	0.360	0.290	0.006
ENF (Inaccurate Declaration)	0.188	0.009	0.032	0.113
KNOW (Inaccurate Declaration)	-0.244	0.147	0.088	0.309
FAIR (Inaccurate Declaration)	-0.222	-1.022	-0.467	-0.691
GOV (Inaccurate Declaration)	0.127	0.377	0.189	0.209
Income	-0.605**	-0.679***	-1.050***	-0.836
FILE/VA (Past)	5.918***	4.081***	-6.753***	1.688
FILE/A (Past)	5.449***	6.850***	4.380***	4.262***
FILE/NK (Past)	3.354***	4.306***	5.661***	4.599***
FILE/I (Past)	3.271**	4.598***	4.582***	5.876***

Note. * $p < .05$, ** $p < .01$, *** $p < .001$,

The class of people who do not file tax is used as a reference group for both timepoints. The intercept and slope of this class are fixed to 0.

FILE/VA = People who file tax and declare tax very accurately. FILE/A = People who file tax and declare tax accurately. FILE/NK = People who file tax and provide no information whether they declare tax accurately or not. FILE/I = People who file tax and declare tax inaccurately. NOFILE = people who do not file tax. Percent is the model-based percentage of participants being in each class. ENF = Low enforcement perception. KNOW = Lack of Tax Knowledge. FAIR = Unfairness of tax system perception. GOV = Perception of poor government administration.

Table 5.15: The Multinomial Logistic Regression Coefficients of Predicting Past and Intended Classes (Tax Compliance Determinants)

From the analysis, there were three critical determinants of tax compliance behavior in Thailand: enforcement perception, tax knowledge, and fairness of the tax system. Enforcement perception and tax knowledge have significant effects on past tax compliance behavior. And, fairness of tax system perception has a significant effect on tax compliance intention in the future.

1) Enforcement Perception as A Critical Determinant of Past Tax Compliance Behavior

Enforcement perception significantly affects past tax compliance behavior i.e., people who perceive greater enforcement tend to have higher tax compliance. Figure 5.5 shows the probabilities of each tax compliance behavior class in each level of enforcement perception as a determinant for tax filing/non-filing behavior. The results show that, when people perceived lower enforcement, they tended to be more in the inaccurate declaration class. Alternatively, when people perceived greater enforcement, they tended to be less in the inaccurate declaration class. From the graph, the probability of being in class FILE/I decreased by approximately 45% when enforcement perception increased from -2 (extremely low) to 2 (extremely high) in standard deviations. Also, people tended to be more in accurate and very accurate declaration classes when they perceived greater enforcement. The probability of being in class FILE/A increased by approximately 25% when enforcement perception increased from -2 to 2 in standard deviations. The probability of being in class FILE/VA increased by approximately 15% when enforcement perception increased from -2 to 2 in standard deviations.

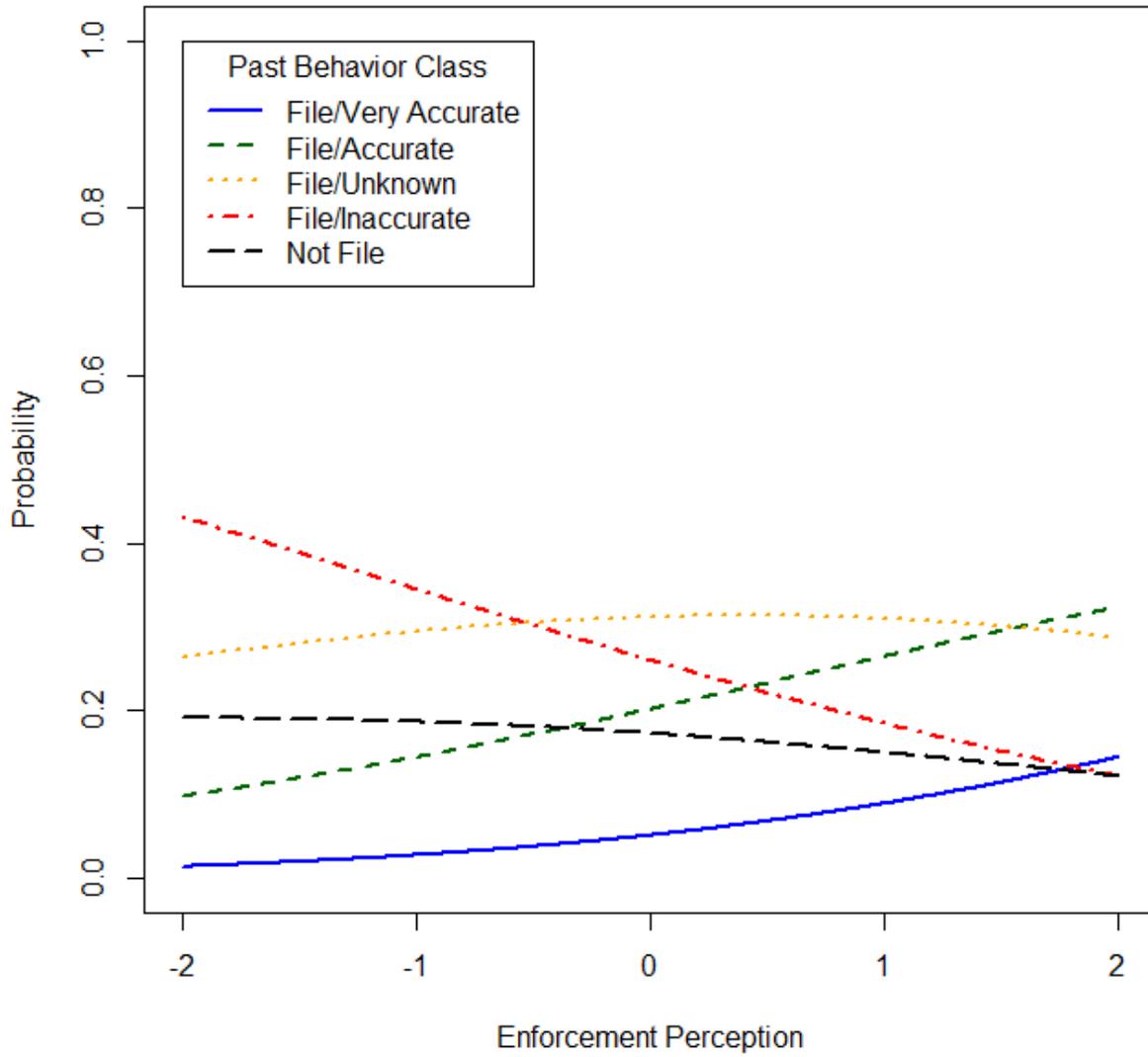


Figure 5.5: Enforcement Perceptions and Past Tax Compliance Behavior Classes

2) Tax Knowledge as a Critical Determinant of Past Tax Compliance Behavior

Tax knowledge significantly affects past inaccurate tax declaration but with mixed results. Figure 5.6 shows the probabilities of each tax compliance behavior class in each level of tax knowledge as a determinant of accurate/inaccurate tax declaration. People with more tax knowledge tended to be less in filing tax inaccurately class. From the graph, the proportion of FILE/I class was the highest among all classes when tax knowledge was extremely low (-2 in standard deviation). When tax knowledge was extremely high (2 in standard deviation), the proportion of FILE/I class became the fourth position. The probability of being in class FILE/I decreased by approximately 25% when enforcement perception increased from -2 to 2 in standard deviations. However, about 15% of the decrease in FILE/I class was replaced by an increase in FILE/NK class. Note that the probability of being in FILE/VA class dropped about 10%, which might be compensated by the increase in the FILE/A class. As the behaviors of FILE/NK group could turn into either FILE/VA, FILE/A, or FILE/I, it is not that clear whether the reduction of FILE/I class will mean higher tax compliance.

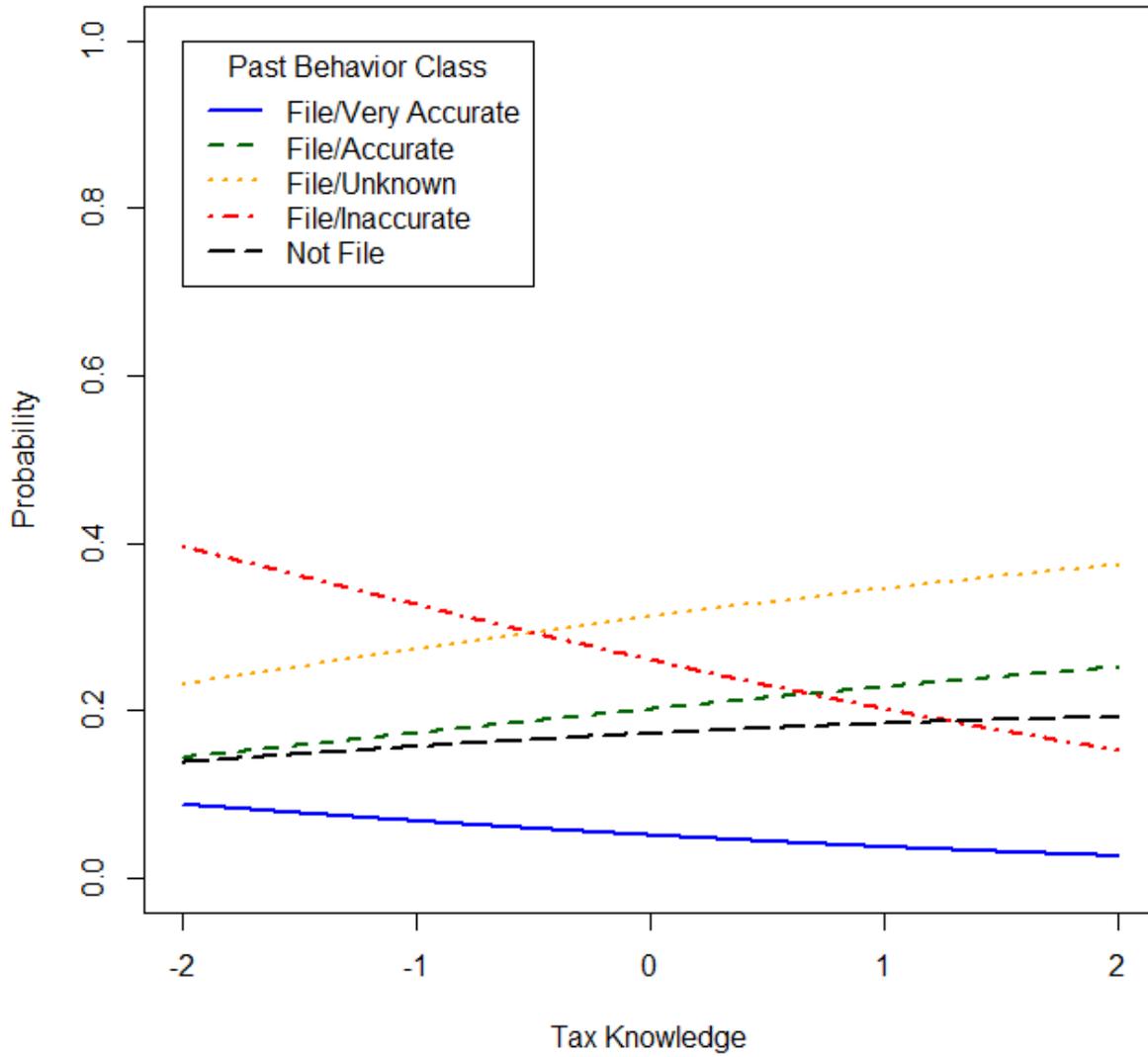


Figure 5.6: Tax Knowledge and Past Accurate Declaration Behavior

3) Fairness of Tax System Perception as a Critical Determinant of Accuracy of Tax Declaration in Future Intention

For future intention prediction, fairness of the tax system perception is the only significant variable. Fairness of the tax system perception positively affects accuracy of tax declaration in future intention. Figure 5.7 shows the probability plots of intended tax compliance classes as a result of different levels of fairness of tax system perception, given past behavior class membership. The dashed lines show the range of the income in each past behavior class that was greater than 10%.²³

From the figure, if people perceived more fairness in tax system, they intended to:

- File tax more
 - The proportion of people who retained in NOFILE class decreased by 50% when fairness perception increased from -2 (extremely unfair) to 2 (extremely fair), as shown in graph 5.
- Keep filing tax and declaring accurately
 - The proportion of people who retained in FILE/A class increased by 50% when fairness perception increased from -2 to 1.5 (as shown in graph 2).

²³ The proportion of FILE/VA class in past behavior (graph 1 in Figure 5.7) is lower than 10% of the total sample therefore there was no dashed line for this graph. This means the results of this group are not reliable and will not be used for interpretation.

- Change to file tax accurately class
 - The proportion of people who changed from FILE/I to FILE/A class increased by 20% when fairness perception increased from -2 to 2 (as shown in graph 4).
 - The proportion of people who changed from FILE/NK to FILE/A class increased by 20% when fairness perception increased from -2 to 2 (as shown in graph 3).

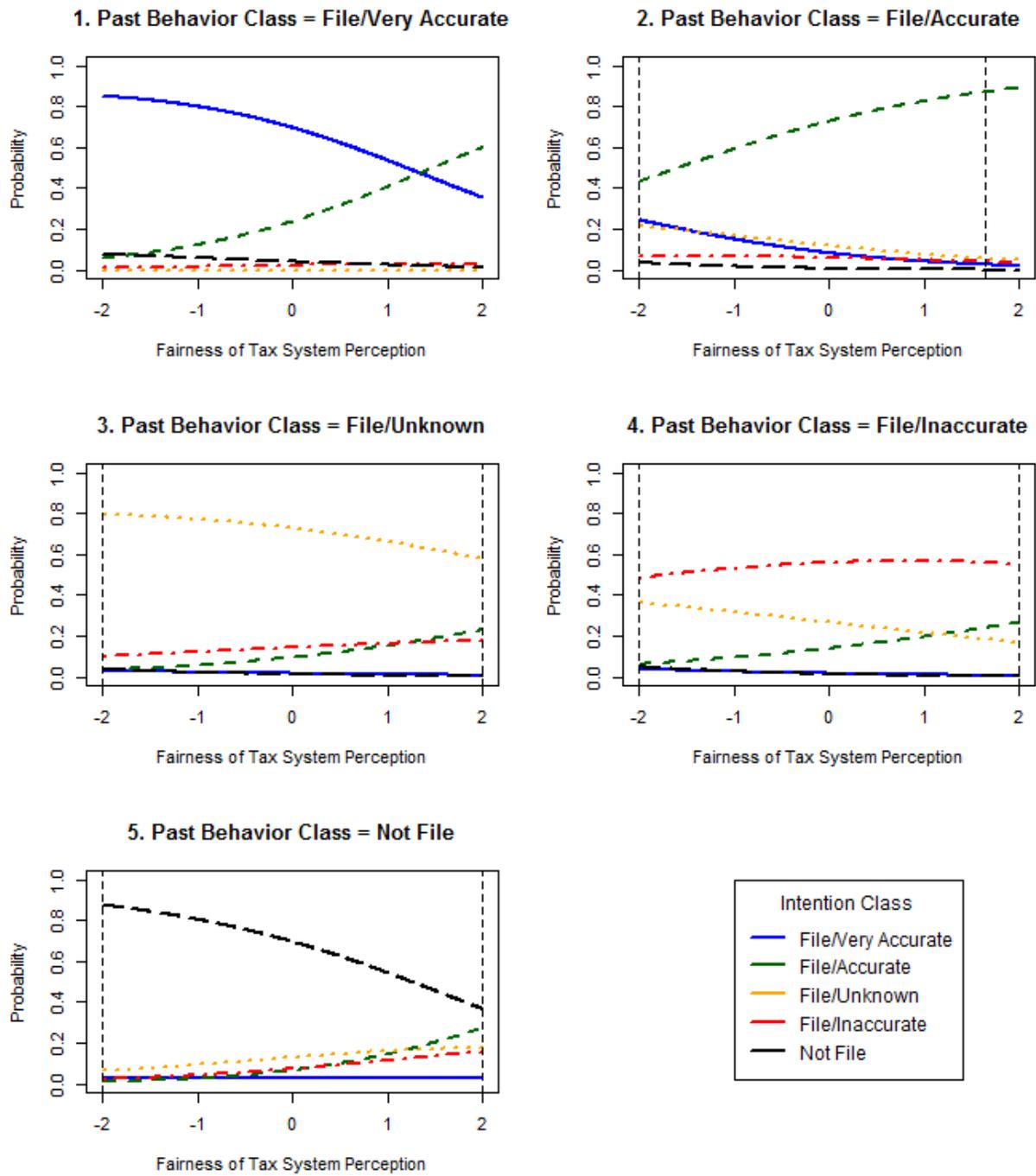


Figure 5.7: Fairness of Tax System Perception and Accuracy of Tax Declaration in Future Intention

Finding Highlights:

The four significant demographic variables that affected past tax compliance behavior were sex, education, marital status, and income. Those who are female, are single, have higher levels of education, and have higher income tend to have higher tax compliance.

When controlling for past behavior, the two significant demographic variables that affected future intention of tax compliance behavior were age and income. People who are older tend to have higher tax compliance. However, the effects of income on future tax compliance behavior were mixed (increase tax compliance in terms of tax declaration accuracy but decrease tax compliance in terms of tax filing).

The three critical determinants of tax compliance behavior were enforcement perception, tax knowledge, and fairness of the tax system. For past tax compliance behavior, people who perceived greater enforcement tended to have higher tax compliance. However, it was not clear whether people who had higher tax knowledge would have higher tax compliance as the reduction in inaccurate tax declaration was also accompanied with the increase in filing tax with unknown accuracy. For future tax compliance behavior (intention), people who perceived more fairness in tax system intended to be more compliant.

V. Discussion of Results

The results presented in this chapter answered the second research question: What are critical determinants of personal income tax compliance behavior in Thailand? The results show that enforcement perception, tax knowledge, and fairness of tax system were critical determinants of tax compliance. Sex, education, marital status, income, and age were also significant demographic variables that affect tax compliance. Figure 5.8 presents the 5 hypotheses of this study along with the results.

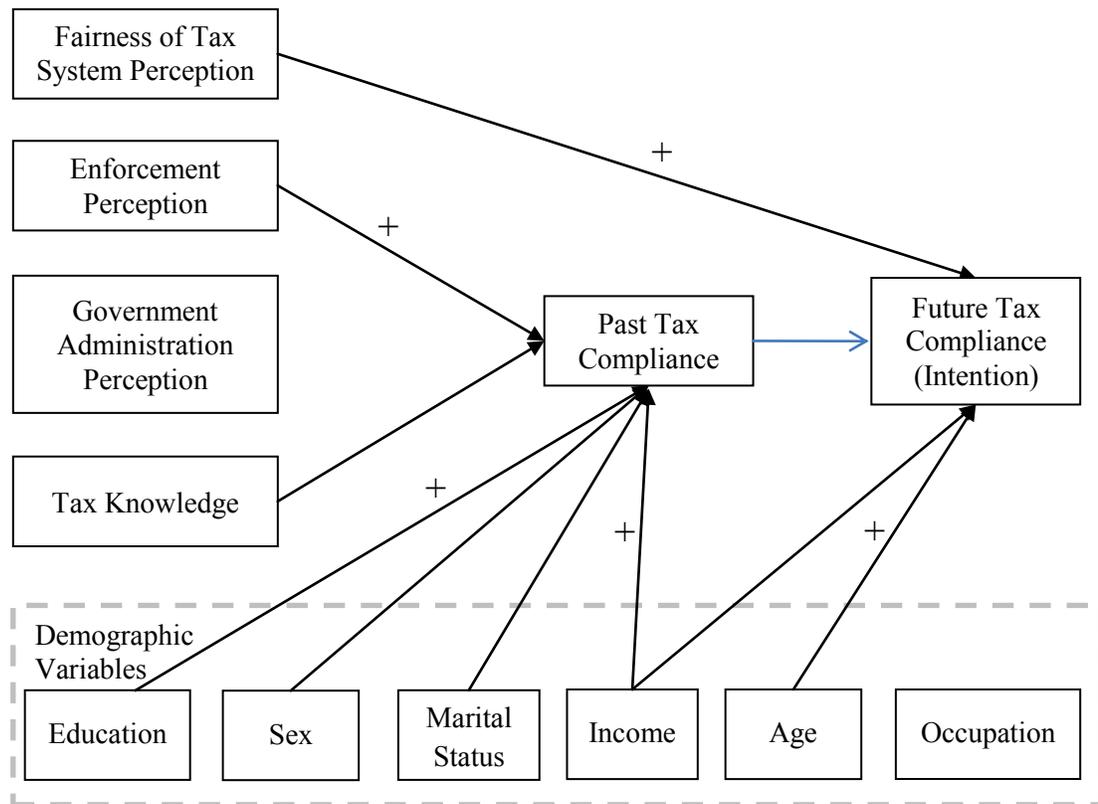


Figure 5.8: Critical Determinants of Tax Compliance Behavior in Thailand: Hypotheses and Results

Hypothesis 1, perception of greater enforcement increase tax compliance behavior in Thailand, is supported. Enforcement perception positively affected past tax compliance behavior. The results confirm the universal importance of the traditional approach (utility maximization model of taxpayers/ tax compliance lottery view/ deterrence model of tax evasion) that focus on the enforcement of audits and penalties (Alm, 1999). In order to increase tax compliance, the government and the Revenue department should increase the severity of some penalties that are too soft²⁴ and make sure that Thai citizens know that tax laws are seriously enforced.

Hypothesis 2, perception of fairer tax system increase tax compliance behavior in Thailand, is supported. Fairness of tax system positively affected future tax compliance behavior. The results support the alternative approach of tax compliance (responsible taxpayer view/ behavioral model of tax evasion) that people are responsible, moral, and willing to comply when they are motivated to do so (Mikesell & Birskyte, 2007). And, people could be motivated when they see the tax system as fair e.g., everybody pays their fair share. It is very important that Thai citizens perceive the tax system as fair to increase tax compliance in Thailand.

Hypothesis 3, perception of better government administration increase tax compliance behavior in Thailand, is not supported. When controlling for other independent variables, government administration was not a significant determinant of tax compliance behavior for both past and future intention. It is possible that the perceptions of government administration were similar among tax compliance subgroups. It is also possible that the differences in perceptions of government administration were highly correlated with other significant determinants e.g. enforcement or fairness of the tax system.

²⁴ For example, criminal penalties for not filing tax according to the survey results presented in Chapter 4.

Hypothesis 4, greater tax knowledge increases tax compliance behavior in Thailand, is partially supported. Tax knowledge significantly affected past tax compliance behavior. People who had more tax knowledge tended to be less in file tax inaccurately group. However, the reduction in inaccurate tax declaration group was accompanied with the increase in filing tax with unknown accuracy group, which could mean very accurate, accurate, or inaccurate tax declaration groups. The results suggest that educating taxpayers with tax knowledge and improving tax facilitation could at least help people file tax less accurately according to responsible taxpayer view (Mikesell & Birskyte, 2007).

Hypothesis 5.1, those with higher income tend to have higher tax compliance, is partially supported. Income positively affected past tax compliance behavior i.e., people who had higher income tend to be more compliant. This part of the results confirms general theoretical explanation of the positive relationship between actual income and tax compliance (Alm et al., 1992). However, for future intention, when controlling for past behavior, the effects of income on future tax compliance behavior were mixed as it increased tax compliance intention in terms of tax declaration accuracy but decrease tax compliance in terms of tax filing. A possible explanation would be that people who had more income also find ways to evade more.

Hypothesis 5.2, those who are older tend to have higher tax compliance, is supported. Age had a positively significant effect on future tax compliance behavior. This result is the same as suggested by the U.S. literature from both the TCMP data and experimental studies (Alm, 1999; Andreon, et al., 1998). As people grow older, they realize more that paying tax is one of the duties of a good citizen. They have higher sense of responsibility to the society i.e. sense of citizenship. Younger people, on the other hand, are just starting their careers and may have lower sense of citizenship.

Hypothesis 5.3, those who are married tend to have higher tax compliance, is rejected. The results show that for Thailand single people were more compliant than married people, which is against the TCMP data of the U.S. (Alm, 1999; Andreoni, et al., 1998). The belief was that married people will have higher tax compliance as they are more responsible but it is not the case for this study. One explanation could be that as married couples, they were allowed to have more deductions/expenses when filing taxes. That means married people could have more rooms for inaccurate declaration.

Hypothesis 5.4, those who are female tend to have higher tax compliance, is supported. Sex had a significant effect on past tax compliance behavior. This result supports the findings in the U.S. that females are more compliant than males (Alm, 1999; Andreoni, et al., 1998). It is possible that females follow rules more, less willing to take risk, or have higher sense of citizenship.

Hypothesis 5.5, those who are not self-employed tend to have higher tax compliance, is not supported. Occupation (self-employed vs. others) was not a significant determinant of tax compliance behavior in this study. The effects of occupation on tax compliance were less than other significant demographic variables e.g. income and age.

Hypothesis 5.6, those who are with higher levels of education tend to have higher tax compliance, is supported. Education had a positively significant effect on past tax compliance behavior. People with higher education are equipped with more knowledge and skills to file tax more accurately. They are also more educated that paying tax is a duty of citizen.

VI. Conclusion

This chapter presented the answer to the second research question of this study about the determinants of tax compliance behavior in Thailand. The determinants of tax compliance behavior in Thailand are enforcement perception, tax knowledge, and fairness of tax system perception. The significant demographic variables are income, sex, education, marital status, and age. These results provide the first data base and analytical framework for tax compliance study in Thailand that could help tax Thai government and tax scholars develop effective tax compliance strategies.

The next chapter (chapter 6) will present the interview results of the experts that will help to get more understanding about tax compliance issues in Thailand and help explain further the quantitative results of this study.

Chapter 6

Opinions from Tax Experts

This chapter presents the results from the interviews of 15 Thai tax experts including 10 tax policy experts (3 executive-level, 4 high-ranking, and 3 medium-ranking public officials), 2 tax administrators (1 high-ranking and 1 medium-ranking public officials), and 3 university professors in Thailand (2 economics and 1 public administration professors). See Appendix E for a brief profile of each interview participant. The primary purpose of the interview was to get the insight information and explanation on tax compliance issues from experts so as to add to the survey results. The experts' answers on four major questions about tax compliance in Thailand – reasons for tax non-compliance and tax evasion situation in Thailand, weaknesses and strengths of current tax administration system, factors that affect tax compliance behavior, and strategies that could help increase tax compliance – are discussed in this chapter.

I. Reasons for Tax Non-Compliance and Tax Evasion Situation in Thailand

- **Why some people do not file their personal income taxes?**

It turns out that tax knowledge is the most important determinants in the eyes of every expert interviewed. All 15 experts believed that lack of tax knowledge is the most important reason why people do not file personal income tax. The experts agreed that Thailand has a lot of low income people whose annual incomes do not reach the minimum 150,000 Baht level for paying tax so they just assume they do not have to file. There are also many people that misunderstand that they do not have to file tax because they have already paid withholding tax.

However, according to the laws, those people must still file tax returns. Currently, out of 60 million people, 30 million people are in the labor force, 10 million people file tax, and only 2 million people actually pay taxes. Besides those who misunderstand that they do not have to pay tax, there are also people who really do not know that they must file tax. Moreover, there is no tax education in Thai general schools or universities. Therefore, a majority of Thai citizens are not educated about their tax duties.

For those who know but intend not to file tax returns, some experts thought that they see more gain from evading tax. These people also do not see the benefits from filing tax. And, if they are outside of the system, they do not want to start to be in the system and allow the Revenue Department to be able to trace their incomes.

On the enforcement side, a few experts believed that the Revenue Department does not think it is worthwhile in terms of administrative costs and revenue gains to chase those low-income people to file tax returns. Thus, there is not enough penalty enforcement on those who do not file personal income tax and the penalties are not severe enough to make people afraid. There are also difficulties in catching people who work in the informal sector such as freelancers, entrepreneurs, and those in E-commerce business.

- **Why some people do not declare their incomes accurately?**

There are two types of action regarding inaccurate declaration of income: unintentional and intentional. For unintentional inaccurate declaration of income, 7 experts pointed to complication of tax laws and tax forms with too many deductions and allowance as the problem. Since tax laws and tax forms are very complicated, it is difficult for ordinary citizens to understand and fill out the forms by themselves. These experts, thus, accepted that unintentional mistakes do happen because of the complication of tax laws and tax forms.

However, most experts believe that when it comes to inaccurate declaration of income, there are those people who actually intend to evade tax particularly those who have different sources of income and those who are in the informal sector of the economy. Lack of penalty enforcement, arbitrary tax law enforcement, limited Revenue Department's audit capacity, seeing others who evade, too high tax rates, getting no benefit from paying tax, and corrupted politicians were mentioned as the reasons for intentional tax evasion.

- **Do Thai people perceive tax evasion as acceptable behavior? Is the situation getting better or worse than the past?**

The majority of experts stated clearly that tax evasion is unacceptable behavior because it is against the laws. My understanding is that these experts are very well-educated and have very strong opinions against tax evasion. Therefore, they did not have any second thought in saying tax evasion is unacceptable in the society regardless of current tax evasion situation. However, there are a few experts that said tax evasion is acceptable in Thai society. People who can evade

taxes are perceived as smart and people who pay in full amount are perceived as dumb. Usually, they evade because they see others evade. Personally, I believe this is the case; that tax evasion really happens in Thai society but it might be too difficult for many people to admit.

The experts' opinions on whether tax evasion is getting better or worse than in the past were mixed. Many experts said they do not know or did not answer this question, 3 experts said the situation is similar to the past, 1 expert said the situation is worse than the past, and 3 experts said the situation is better than the past. Those experts who said the situation is better than the past believed that the Revenue Department is getting stronger. The Revenue Department has changed and treated taxpayers as customers, which is better than the past. Tax administration is also improved with technological advancement. The one expert who said the situation is worse than the past thought so because most people who evade tax these days are high income people.

II. Weaknesses and Strengths of Current Thai Tax Administration System

The Thai tax administration system has four major weaknesses according to the experts' opinions: Revenue Department's limited audit capacity, too many deductions and allowances, the limited tax base, and no penalty for Revenue Department's personnel.

First, many experts agreed that the Revenue Department has a limited auditing capacity. With only a very limited number of audit personnel, the Revenue Department uses randomized post-audit system and self-assessment of taxpayers. The Revenue Department relies solely on withdrawing cases from the tax database. There is no database linkage between the Revenue

Department and other revenue departments, financial institutions, and the Social Security Office in order to crosscheck financial activities and sources of income.

Second, tax laws are very complicated with too many deductions and allowances. Politicians often use tax measures by offering special tax deductions and allowances as political campaigns. This not only makes it difficult for the citizens to understand but also cause discrepancy problems among citizens. The tax system favors higher income people. According to tax expert no.5 (university professor from Thammasat University, personal communication, July 7, 2011), “Tax structure has been distorted and less fair. Higher income people can buy a retirement mutual fund, long term equity fund, or insurances and pay tax equal or less than lower income people.”

Third, from an opposite standpoint, some experts suggested that there is only one group of people who pay taxes because of a limited tax base. Tax expert no. 6 (executive-level public official from Ministry of Finance, personal communication July 11, 2011) said, “The government has never tried to increase tax base. Whatever the government wants to do, either increase or decrease tax rates, it affects only this group of people. It turns out that good people are penalized for paying tax. Our tax base is not growing.” People who are in the tax system are in it forever and get audited by the Revenue Department. The Revenue Department pays less attention in chasing people who are outside the system.

Fourth, a few experts mentioned that there is no penalty for the Revenue Department’s personnel if they assess tax obligation incorrectly. Tax officials assess tax obligation differently and interpret the laws differently, which results in inconsistent and arbitrary tax law enforcement. Taxpayers also face difficulties in getting accurate and consistent advice.

Moreover, the citizens are not happy that there are tax officials and politicians that are corrupt but do not get punished.

The strengths of current tax administration system upon which most experts agree are the technological advancement of the Revenue Department e.g. internet tax filing and the friendlier approach of the Revenue Department. Internet filing²⁵ makes filing tax much faster and more convenient. This reduces the marginal cost of both the government and taxpayers. However, supported documents still needed to be submitted via postal mail. The Revenue Department also attempts to be friendlier in giving advices to citizens and develop customer-oriented strategies in order to promote citizens' willingness to pay tax, which the experts believe is a good thing.

III. Factors that Affect Tax Compliance Behavior of Thai People

For this question, I asked the experts what factors affect tax compliance behavior of Thai people. I provided some examples for them to think about: enforcement perception (e.g. audit rate, penalties), monetary incentive perception (e.g. rewards, tax amnesty), tax/governmental administration perception (e.g. fairness, responsiveness). Some experts thought that all of these factors are important but some factors are more important than others. The followings are the factors that experts agreed upon.

Most of the experts agreed that enforcement perception is among the most important factors. The experts raised many points regarding penalties. First, the penalties must be seriously enforced. Tax expert no.15 (high-ranking public official from Ministry of Finance, personal

²⁵ In 2011, there were 7 million people who filed tax returns via internet out of 9 million people who filed tax returns.

communication, July 1, 2011) said, “People must know that if they evade tax they will get penalized.” Second, there must be no exception if audited and found guilty by the Revenue Department. Third, however, if the taxpayers come forward and ask for advice from the Revenue Department, Revenue Department should make them pay only fines but not surcharges. And, fourth the penalties must be more severe.

Almost all of the experts also perceived tax knowledge as a very important factor. First, the Revenue Department should educate taxpayers more about tax laws and citizens duties. Tax expert no.7 (medium-ranking public official/tax policy expert from Ministry of Finance, personal communication, July 11, 2011) said, “The government should educate people about tax laws and changes in tax laws that affect taxpayers including benefits such as deductions and allowances.” Tax expert no.13 (university professor from Thai University Research Association, personal communication, July 19, 2011) said, “I think socialization and education to citizens about tax knowledge and citizen duty are very important.” Tax expert no.9 (executive-level public official/tax policy expert from Ministry of Finance, personal communication, July 11, 2011) suggested that, “Revenue Department should promote more about where the tax revenues go in or order to increase citizens’ willingness to pay tax.” The Revenue Department should also reach out to educate specific groups of taxpayers such as small entrepreneurs, actors/actresses. Second, tax officials should also be educated so they have correct understanding about tax laws and be able to give standardize rulings to taxpayers. The rulings should also be accessible to the public. Third, tax laws must be simple and easy.

Many experts pointed to the fairness of the tax system as another important factor. According to tax expert no.9 (executive-level public official/tax policy expert from Ministry of Finance, personal communication, July 11, 2011), “Tax structure should be fair. Tax rate must

not be too high. Instead, tax base should be expanded to include more people.” Tax expert no.3 (high-ranking public official/tax policy expert from Ministry of Finance, personal communication, July 1, 2011) emphasized that, “There should be no special treatment to anyone. Currently, there are a lot of deductions and allowances that favor rich people.” Tax expert no. 6 (executive-level public official from Ministry of Finance, personal communication July 11, 2011) said, “If one person sees others can evade tax, they will want to evade tax too.”

Regarding incentives, a few experts suggested that filing tax should be linked with the social welfare the people will receive. Tax expert no.10 (university professor from Durakij Pundit University, personal communication, July 13, 2011) said, “Benefits must incur directly to me, not to others.” Tax expert no.5 (university professor from Thammasat University, personal communication, July 7, 2011) suggested, “Incentives associated with social welfare are interesting such as free health check-up to compliant taxpayers or increase retirement money for compliant taxpayers after they reach 60 years old.”

Some experts have strong opinions against particular aspects of tax compliance behavior. A few experts believed that rewards and incentives are not necessary. For examples, tax expert no. 6 (executive-level public official from Ministry of Finance, personal communication July 11, 2011) said, “I don’t think incentives affect tax compliance at all. For corporate income tax, maybe but for personal income tax, no way!” Tax expert no.4 said (high-ranking public official/tax policy expert from Ministry of Finance, personal communication, July 1, 2011), “The Revenue Department is using incentives such as good taxpayer award for corporate income tax still never uses it for personal income tax.” Tax expert no. 7 (medium-ranking public official/tax policy expert from Ministry of Finance, personal communication, July 11, 2011) said,

“Incentives should be used to persuade people who are outside the system to file tax but for people who are already in the system penalties must be seriously enforced.”

A few experts pointed out that government administration perception, although seemingly important, may not affect much on tax compliance behavior. These experts believed that it is tax administration not general government administration that matters for tax compliance. According to Tax expert no.10 (university professor from Durakij Pundit University, personal communication, July 13, 2011), “Government efficiency directly benefits taxpayers but maybe difficult to link. There are time distortion and linkage stopper. Thai people are forgetful.” Tax expert no.5 (university professor from Thammasat University, personal communication, July 7, 2011) said, “I think government administration perception is not related. People don’t care. The question is whether Revenue Department is better. Public relations of what Revenue Department is doing are very important.” Tax expert no.2 (medium-ranking public official/tax policy expert from Ministry of Finance, personal communication, July 1, 2011) said, “I believe it could help if Revenue Department develops a friendly approach to reach taxpayers.

IV. Strategies for Increasing Tax Compliance in Thailand

The experts suggested various strategies for increasing tax compliance in Thailand. These strategies could be grouped into four major categories: enforcement strategy, tax knowledge strategies, fairness of tax system strategies, and government administration strategies. Table 6.1 presents the strategies recommended by the experts.

Types of Strategy	Strategies	Quotations from Experts
1. Enforcement	- Seriously enforce penalties	<p>“People should see Revenue Department seriously enforce penalties. It should not take long to penalize people who evade tax. Even when get caught, penalties are still negotiable so people not afraid.” – Tax expert no.5 (university professor from Thammasat University, personal communication, July 7, 2011)</p> <p>“Actively enforce penalties” – Tax expert no.1 (high-ranking public official/tax administrator from Ministry of Finance, personal communication, June 23, 2011)</p> <p>“Those who evade tax must be penalized. Improve enforcement of tax laws” – Tax expert no. 13 (university professor from Thai University Research Association, personal communication, July 19, 2011)</p>
2. Tax knowledge and tax facilitation	- Use public relations and educate citizens about tax duties and sense of citizenship	<p>“Children have never learned about citizens’ duties in school. They know about their rights but not duties. The government should promote awareness of citizens that each should help the country.” – Tax expert no.5 (university professor from Thammasat University, personal communication, July 7, 2011)</p> <p>“Citizens duties must be emphasized. People must respect others’ right and accept their own duties in democratic society.” – Tax expert no.10 (university professor from Durakij Pundit University, personal communication, July 13, 2011)</p> <p>“Use a lot of public relations.” – Tax expert no. 9 (executive-level public official /tax policy expert from Ministry of Finance, personal communication, July 11, 2011)</p> <p>“Tax education campaign, create culture and educate taxpayers in every community/province/public and private sectors.” – Tax expert no. 13 (university professor from Thai University Research Association, personal communication, July 19, 2011)</p> <p>“Educate taxpayers, give advice to taxpayers, issue warnings, PR, and develop sense of citizenship and</p>

Types of Strategy	Strategies	Quotations from Experts
		<p>sense of tax duty.” – Tax expert no.1 (high-ranking public official/tax administrator from Ministry of Finance, personal communication, June 23, 2011)</p> <p>“Social norms against tax evasion must be promoted. People should not think that whoever evades tax is smart.” – Tax expert no.3 (high-ranking public official/tax policy expert from Ministry of Finance, personal communication, July 1, 2011)</p> <p>“The Revenue Department should be more active and try to educate taxpayers to gradually change behaviors” – Tax expert no.2 (medium-ranking public official/tax policy expert from Ministry of Finance, personal communication, July 1, 2011)</p> <p>“Educate taxpayers to have more understanding about tax laws.” – Tax expert no.14 (executive-level public official from Bureau of the Budget, personal communication, July 19, 2011)</p> <p>“Develop training programs for educating taxpayers to have knowledge and social responsibility and to let them know where tax revenues go.” – Tax expert no. 9 (executive-level public official/tax policy expert from Ministry of Finance, personal communication, July 11, 2011)</p>
	<p>- Make paying tax easier</p>	<p>“Tax forms must be easy.” – Mayoorn Boonyarat, tax policy expert from Fiscal Policy Office – Tax expert no.8 (medium-ranking public official/tax policy expert from Ministry of Finance, personal communication, July 11, 2011)</p> <p>“Tax laws must be easy. Revenue Department should find easier way for collecting tax.” – Tax expert no. 9 (executive-level public official/tax policy expert from Ministry of Finance, personal communication, July 11, 2011)</p> <p>“Tax rates must be simple.” – Tax expert no. 15 (high-ranking public official/tax policy expert from Ministry of Finance, personal communication, July 1, 2011)</p>

Types of Strategy	Strategies	Quotations from Experts
		<p>“Paying tax must be convenient.” – Tax expert no. 6 (executive-level public official/tax policy expert from Ministry of Finance, personal communication July 11, 2011)</p> <p>“Make regulations less complicated. So many allowances and deductions, these things should be reduced” Tax expert no.1 (high-ranking public official/tax administrator from Ministry of Finance, personal communication, June 23, 2011)</p> <p>“Revenue Department should facilitate taxpayers more. Make it convenient.” – Tax expert no. 15 (high-ranking public official/tax policy expert from Ministry of Finance, personal communication, July 1, 2011)</p>
	<ul style="list-style-type: none"> - Educate tax personnel 	<p>“Educate Revenue Department personnel. Revenue Department personnel don’t have enough knowledge about new occupations such as bloggers, internet/E-commerce.” – Tax expert no.14 (executive-level public official from Bureau of the Budget, personal communication, July 19, 2011)</p> <p>“Set standards for Revenue Department personnel in answering questions from taxpayers.” – Tax expert no.14 (executive-level public official from Bureau of the Budget, personal communication, July 19, 2011)</p> <p>“Educate tax personnel to have the right mindset about serving the taxpayers. And any personnel that are corrupted must be punished.” – Tax expert no. 9 (executive-level public official/tax policy expert from Ministry of Finance, personal communication, July 11, 2011)</p>
<p>3. Fairness of the Tax System</p>	<ul style="list-style-type: none"> - Reduce personal income tax rates 	<p>“I think personal income tax should be reduced and increase VAT instead as VAT affects everyone not penalizes only people in the system. If high income tax, people expect higher welfare just like in European countries. If the rate is lower, people might be more willing to pay tax as the benefit of evading might not worth it” – Tax expert no. 6 (executive-level public official/tax policy expert from Ministry of Finance, personal communication</p>

Types of Strategy	Strategies	Quotations from Experts
		<p>July 11, 2011)</p> <p>“Collect tax at a lower rate but from more taxpayers.” – Tax expert no. 9 (executive-level public official/tax policy expert from Ministry of Finance, personal communication, July 11, 2011)</p>
	<ul style="list-style-type: none"> - Link welfare benefits to tax filing 	<p>“There must be incentives. For example if they pay tax, they should get more benefits linked to it such as social welfare.” – Tax expert no.8 (medium-ranking public official /tax policy expert from Ministry of Finance, personal communication, July 11, 2011)</p> <p>“Government needs to tell taxpayers about benefits of paying tax. Thailand doesn’t have good local tax systems. People can’t see the benefits of the tax they pay to the central government because it is too far away from their lives.” – Tax expert no.3 (high-ranking public official/tax policy expert from Ministry of Finance, personal communication, July 1, 2011)</p> <p>“The government needs to build a welfare system to make citizens see the benefits of paying tax.” – Tax expert no.3 (high-ranking public official/tax policy expert from Ministry of Finance, personal communication, July 1, 2011)</p> <p>“The government should use the welfare as a strategy. For example, pay more money during unemployment to people who pay higher tax or pay tax longer.” – Tax expert no. 11 (high-ranking public official /tax policy expert from Ministry of Finance, personal communication, July 1, 2011)</p> <p>“People should know what government gives to citizens and make them see the linkage between the benefits they get and the tax they pay. Although those government policies may not affect them directly, they can help the society.” – Tax expert no. 13 (university professor from Thai University Research Association, personal communication, July</p>

Types of Strategy	Strategies	Quotations from Experts
		<p>19, 2011)</p> <p>“Make everybody get tax ID when making citizen ID. And whatever activities with government and private sector need to require tax ID. Stop them from doing any activities without the government and private sector.” – Tax expert no.5 (university professor from Thammasat University, personal communication, July 7, 2011)</p>
	<ul style="list-style-type: none"> - Make tax structures fairer 	<p>“Those deductions and allowances should be improved to be fairer for all citizens. Some currently exempted interests and capital gains in investment market should also be included.” – Tax expert no. 9, (executive-level public official/tax policy expert from Ministry of Finance, personal communication, July 11, 2011)</p> <p>“Tax laws must be reformed. Cancel the unnecessary deductions. Tax structure should be fair” – Tax expert no. 9 (executive-level public official/tax policy expert from Ministry of Finance, personal communication, July 11, 2011)</p>
<p>4. Government Administration</p>	<ul style="list-style-type: none"> - Improve services of the Revenue Department to be friendlier and faster 	<p>“Nobody likes Revenue Department as no one likes paying tax. So Revenue Department should be friendlier and helpful not threatening all the time.” – Tax expert no.5 (university professor from Thammasat University, personal communication, July 7, 2011)</p> <p>“Today even RD has call center for people who have tax filing problems, it still take so long before someone pick up the phone. Sometimes there is no one pick up. Sometime, the line can’t be connected. The service is too slow.” – Tax expert no. 9 (executive-level public official/tax policy expert) from Ministry of Finance, personal communication, July 11, 2011)</p> <p>“Revenue Department should service more like a commercial bank service and promote both tax obligations and tax deductions/allowances. What happen how is that only the rich has access to tax consultants and know all about tax planning.” – Tax expert no.4 (high-ranking public official/tax policy</p>

Types of Strategy	Strategies	Quotations from Experts
		<p>expert from Ministry of Finance, personal communication, July 1, 2011)</p> <p>“Revenue Department should use turbo tax. When filing online, taxpayers should not be required to send in documents again. It should be paperless and all information must be in the database and linked. Withholding tax must be a requirement rather than an option.” – Tax expert no. 7 (medium-ranking public official/tax policy expert from Ministry of Finance, personal communication, July 11, 2011)</p> <p>“Revenue Department must improve IT and increase staffs” – Tax expert no.1 (high-ranking public official/tax administrator from Ministry of Finance, personal communication, June 23, 2011)</p>
	<ul style="list-style-type: none"> - Improve government administration 	<p>“For long-term, use public administration theories in improving public administration such as NPA (New Public Administration), good governance, and IT.” – Tax expert no. 13 (university professor from Thai University Research Association, personal communication, July 19, 2011)</p> <p>“People who commit corruptions must get criminal penalties.” – Tax expert no. 9 (executive-level public official/tax policy expert from Ministry of Finance, personal communication, July 11, 2011)</p>
	<ul style="list-style-type: none"> - Improve tax revenue administration 	<p>“For long-term, national development plan should include tax revenue administration plan too.” – Tax expert no. 13 (university professor from Thai University Research Association, personal communication, July 19, 2011)</p> <p>“Tax revenue administration must be good and for the development of the country.” – Tax expert no. 6 (executive-level public official/tax policy expert from Ministry of Finance, personal communication July 11, 2011)</p>

Table 6.1: Tax Compliance Strategies Recommended by Thai experts

V. Discussion of Results

In the previous chapter, the survey results suggest enforcement perception, fairness of the tax system perception, and tax knowledge as critical determinants of tax compliance behavior in Thailand. Interestingly, in this chapter, opinions from tax experts provided explanations that confirm the survey results.

Regarding enforcement perception, there are many supportive explanations from the experts why Hypothesis 1, perception of greater enforcement increase tax compliance behavior in Thailand, is supported by the survey results. *First*, the experts believed there is not enough enforcement on those who do not file personal income tax. This is mainly because Thai people have low income and chasing those people to file tax forms may not be worth for the Revenue Department. Moreover, the penalties were so soft that people are not afraid. Also, the Revenue Department faces difficulties in catching people in the informal sector of the economy. *Second*, for the case of intentional inaccurate tax declaration, the experts believed lack of penalty enforcement, arbitrary tax law enforcement, and limited Revenue Department's audit capacity are the reasons. *Third*, the experts believed that Revenue Department's audit capacity and no penalty for Revenue Department's personnel are among the major weaknesses of current tax administration system. *Forth*, most experts agreed that enforcement perception is among the most important factors that affect tax compliance behavior in Thailand. *Finally*, many experts suggested serious enforcement of penalties as a strategy for increasing tax compliance in Thailand. **These opinions from the experts confirm enforcement perception as an important determinant of tax compliance in Thailand.**

Regarding fairness of the tax system perception, the experts' opinions also explains why Hypothesis 2, perception of fairer tax system increases tax compliance behavior in Thailand, is supported by the survey results. *First*, many experts believed that personal income tax rates are too high and they see others evade tax so that some people do not declare their incomes accurately. *Second*, too many deductions and allowances and a limited tax base, which make tax structure less fair to all citizens, are among the major weaknesses of current tax administration system in the eyes of the experts. *Third*, many experts pointed to the unfairness of the tax system as an important factor that affect tax compliance behavior of Thai people. *Finally*, reducing personal income tax rates, linking welfare benefits to tax filing, and making tax structures fairer were suggested by the experts as strategies for increasing tax compliance in Thailand. **These opinions from the experts confirm fairness of the tax system perception as another important determinant of tax compliance in Thailand.**

Regarding tax knowledge, experts' opinions support the survey results of Hypothesis 4, greater tax knowledge increases tax compliance behavior in Thailand. *First*, all of the experts believed that lack of tax knowledge is the most important reasons why some people do not file personal income taxes. *Second*, tax laws and tax forms are very complicated and ordinary citizens cannot understand are the major reasons for unintentional inaccurate tax declaration in the eyes of the experts. *Third*, almost all of the experts perceived tax knowledge as a very important factor that affects tax compliance behavior of Thai people. *Finally*, using public relations and educating citizens about tax duties and sense of citizenship, making paying tax easy, and educating tax personnel were suggested by the experts as strategies for increasing tax compliance in Thailand. **These opinions from the experts confirm tax knowledge as one of the critical determinants of tax compliance in Thailand.**

On the other hand, the experts provided interesting explanations why Hypothesis 3, perceptions of better government administration increases tax compliance behavior in Thailand, is not supported by the survey results. *First*, although many people complain about poor government service and corruption that wastes their tax money, they cannot easily link to their tax compliance decisions. People are more interested in whether paying tax is made easy and convenient for them at the time they have to file tax returns. *Second*, better government administration benefits society as a whole but people also want benefits for themselves such as their own welfare benefits from paying tax. Those who pay tax want something tangible that differentiate them from other people who are not paying tax. *Finally*, it may not be realistic for people to believe that government administration be easily to get better. The experts suggested improving government administration and revenue administration as long-term strategies for increasing tax compliance in Thailand. Citizens' willingness to pay tax should increase in a long-term rather than a short-term if government administration gets better. **These experts' opinions help explain why government administration is not one of the critical determinants of tax compliance in Thailand from the survey results.**

VI. Conclusion

This chapter discussed tax experts' opinions about tax compliance in Thailand from four major questions: reasons for tax non-compliance and tax evasion situation in Thailand, weaknesses and strengths of current tax administration system, factors that affect tax compliance behavior, and strategies for increasing tax compliance.

About reasons for tax non-compliance and tax evasion situation in Thailand, all of the experts believed lack of tax knowledge as the most important reason why some people do not file their personal income taxes. However, the experts believed that inaccurate declaration of income is mostly intentional from people who have different sources of income or in the informal sector of the economy. These, however, are different from the citizens' opinions from the survey results presented earlier in Chapter 4 that address government administration and fairness of the tax system as the top reasons for tax non-filing and inaccurate declaration of income.

On tax evasion situation, a majority of experts said tax evasion is an unacceptable behavior as it is against the laws. However, only approximately half of the citizens responded that tax evasion is unacceptable in the survey. These experts, nevertheless, thought differently on whether tax evasion situation is getting better or worse than in the past.

On weaknesses and strengths of current Thai tax administration system, the experts thought four major weaknesses are Revenue Department's limited audit capacity, too many deductions and allowances, limited tax base, and no penalty for Revenue Department's personnel. On the other hand, the experts believed that technological advancement and friendlier approach of the Revenue Department are major strengths of current tax administration system.

For factors that affect tax compliance behavior, the experts believed enforcement perception, tax knowledge, and fairness of tax system perception are the most important factors. While, some experts suggested that government administration perception may not be important as people cannot see immediate linkages when they are making tax compliance decision. Citizens' willingness to pay tax should increase in a long-term rather than a short-term if government administration gets better. These experts' opinions provided supportive explanations to the survey results from Chapter 5 that suggest enforcement perception, tax knowledge, and fairness of tax system perception as critical determinants of tax compliance.

Four types of strategies were recommended by the experts: enforcement strategy (i.e., seriously enforce penalties), tax knowledge strategies (i.e., use public relations and educate citizens about tax duties and sense of citizenship, make paying easy, and educate tax personnel), fairness of tax system strategies (i.e., reduce personal income tax rates, link welfare benefits with tax filing, and make tax structures fairer), and government administration strategies (e.g. improve Revenue Department's services, improve government administration, and improve tax revenue spending). These experts' suggestions could be used in combination with citizens' recommended strategies presented earlier in Chapter 4, which include cash back to compliant taxpayers, more enforcement on tax laws, improved service quality of government organizations, and more news that people who evade have been punished.

The last chapter (Chapter 7) will present conclusion, implications and recommendations, contributions, limitations, and future research directions from this study.

Chapter 7

Conclusion

In democratic government, understanding citizens is a key to effective public management because government's actions always involve citizens. Tax administration, in particular, deals with citizens i.e., taxpayers, and this makes understanding taxpayers a key to successful tax administration. Tax compliance has long been a prevalent issue in many countries including Thailand. Thailand is among the three least tax compliant countries (Tsakumis, et al., 2007) with only 9 million people who filed tax in 2009 out of 30 million people who were in the labor force (Ministry of Finance of Thailand, 2011a). It is reasonable to expect a very large personal income tax gap of at least 200 billion Baht or 6.7 billion US dollars, which would equal to 10% of total revenues for Thailand. Nevertheless, personal income tax compliance issues have not been given enough attention. There are only a very limited number of studies related to tax compliance. In particular, there is no comprehensive tax compliance study of the personal income tax in Thailand either from the perspective of tax administration or from the citizens' point of view. The two major research purposes of this study are 1) to explore citizens' perceptions of the Thai personal income tax system and the matter of tax compliance and 2) to identify important determinants of tax compliance behavior in Thailand. This study used two research methods: a face-to-face survey of 1,148 citizens in Bangkok and interviews with 15 Thai tax experts.

There are two major approaches of tax compliance literature in the United States: a traditional utility maximization approach and an alternative approach. The traditional utility maximization approach holds that taxpayers weigh expected gains and losses from tax non-

compliance and assumes people pay taxes primarily because the fear of punishment. Therefore, if following the utility maximization approach, enforcement and penalties are essential for taxpayer compliance. The alternative approach holds that people will pay taxes if they are motivated, educated, and if paying tax is made convenient (responsible taxpayer view) and if people have good attitudes and perceptions towards tax system and towards government administration (behavioral models of tax evasion). This study argues that both views are necessary to the understanding of tax compliance behavior because tax compliance decisions are not made solely on a monetary or on a moral basis but on both. The primary hypotheses of this study are designed to cover both the traditional and the alternative approaches by studying whether enforcement perception (H1), fairness of tax system perception (H2), government administration perception (H3), tax knowledge (H4), and other demographic characteristics (H5) are important determinants of tax compliance behavior in Thailand.

The first research question of this study on Thai citizens' tax compliance perceptions has three sub-questions – (1) what are general citizens' perceptions of the Thai personal income tax system and tax compliance issues, (2) what are tax compliance behaviors of Thai citizens, and (3) which strategies might help increase tax compliance in Thailand? – This study answers these questions as follows:

Simple descriptive statistics of the survey results from Chapter 4 show that the top reasons for tax non-filing and inaccurate tax declaration are related to government administration and fairness of the tax system namely government corruption, inappropriate revenue spending, knowledge or belief that others evade taxes, and taxes which are too high taxes compared to public service received by the payers. However, experts' opinions as shown in Chapter 6 differ. Tax experts believed that lack of tax knowledge is the most important reason why some people

do not file their personal income taxes. Although the experts mentioned seeing others evade taxes, tax rates that are too high, and government corruption as reasons for inaccurate declaration of income, enforcement-related reasons including lack of penalty enforcement, arbitrary tax laws enforcement, and limited Revenue Department's audit capacity were perceived by experts to be more important than tax fairness and government administration – the primary reasons Thai citizens justify tax non-compliance.

Regarding tax compliance behavior of Thai citizens, only half of the respondents said they file personal income tax within the past two years and will file personal income tax next year. According to the results from latent transition analysis in Chapter 5, there were 27% who did not file tax in the past and at least 23% of people who declared tax inaccurately. For future intention, at least 20% intended to file tax inaccurately and about 20% of people intended not to file tax. Tax compliance behaviors were classified by the analysis into 5 groups: File/Very Accurate, File/Accurate, File/Unknown accuracy, File/Inaccurate, and No File. The majority of people intended to stay in the same groups as their past behaviors. However, 25% of people who filed tax inaccurately in the past intended not to report their intention whether they will declare accurately or not.

The strategies for promoting tax compliance that Thai citizens believe would work best are: (1) cash back to compliant taxpayers; (2) more enforcement on tax laws; (3) improved governmental service quality; and (4) more news that people who evade taxes have been punished. Various strategies were also recommended by tax experts in Chapter 6 including enforcement strategies, tax knowledge strategies, fairness of tax system strategies, and government administration strategies.

For enforcement strategies, tax experts emphasize more serious enforcement of penalties so that there are no exceptions if audited and found guilty by the Revenue Department. About 50% of the citizens agreed that there is not enough enforcement in existing tax laws, which support tax experts' recommendations.

For tax knowledge strategies, the Revenue Department should educate taxpayers more about tax laws and citizen duties, tax officials should also be educated, tax laws must be simple and easy, and tax filing must be facilitated. These are supported by citizens' opinions. The survey results show that 21% of citizens do not know about tax rates and a majority of citizens do not know about tax penalties. Almost 45% of the citizens agreed or was neutral with the statement that tax evasion is acceptable behavior in Thai society.

For fairness of the tax system, experts pointed out that: tax structures should be fairer (i.e., not favor the rich), tax rate should be lower, there should be no special treatment to anyone if found evading tax, and welfare benefits should be linked to tax filing. These are supported by citizens' viewpoints from the survey. Forty-three percent thought that current personal income tax rates are too high or way too high. However, over 40% of the respondents thought the richest group of people has been paying too much or way too much tax.

And for government administration strategies, improvement in government administration and tax revenue administration were recommended by the experts as long-term strategies. The citizens' opinions back these recommendations. More than half of citizens thought the degree of government/politicians corruption is high or very high. Only 40% of the respondents thought that government and tax administration procedures are fair. Currently, 60% of citizens reported average satisfaction with the service quality of governmental organizations

while one-third was not satisfied. Specifically for the Revenue Department, the experts suggested the Revenue Department to provide faster and friendlier services. Currently, 70% of citizens reported average satisfaction with the service quality of governmental organizations while a quarter was not satisfied.

The second research question - what are critical determinants of personal income tax compliance behavior in Thailand? - is answered as follows:

The survey results from factor analysis and latent transition analysis in Chapter 5 suggest that significant determinants of tax compliance behavior in Thailand were perceptions of enforcement, perceptions of fairness of the tax system, tax knowledge, and demographic characteristics. For past tax compliance behavior, people who perceived greater enforcement tended to have higher tax compliance (H1 is supported). However, it was not clear whether people who had higher tax knowledge would have higher tax compliance as the reduction in inaccurate tax declaration was also accompanied with the increase in filing tax with unknown accuracy (H4 is partially supported). For future tax compliance behavior, people who perceived more fairness in tax system intended to be more compliant (H2 is supported). These results confirm that both the traditional utility maximization approach (that focuses on enforcement of tax laws) and the alternative approach (that focuses on tax knowledge education and motivation via better attitude of citizens toward tax system) in tax compliance literature are necessary to understanding tax compliance behavior in Thailand. Opinions from tax experts in chapter 6 provide the same results as the survey results from chapter 5 that enforcement perception, tax knowledge, and fairness of tax system perception are the most important determinants of tax compliance behavior in Thailand.

It is interesting to note that government administration perception was not among the significant determinants from the survey findings (H3 is rejected). This is also supported by the experts' opinions in Chapter 6 that: 1) people cannot see immediate linkages when they are making tax compliance decision, 2) people want direct benefits to themselves not just to society as a whole, and 3) people may not believe that government administration can get better easily. However, experts recommend that government administration be improved to increase willingness to pay tax of Thai citizens in the long run.

Demographic characteristics also affect tax compliance behavior in Thailand (H5 is supported). The four demographic variables that significantly affected past tax compliance behavior were sex, education, marital status, and income. Those who are female, are single, have higher levels of education, and have higher income tend to have higher tax compliance. When controlling for past behavior, the two significant demographic variables that affected future intention of tax compliance behavior were age and income. People who are older tend to have higher tax compliance. However, the effects of income on future tax compliance behavior were mixed (increase tax compliance in terms of tax declaration accuracy but decrease tax compliance in terms of tax filing).

Implications and Recommendations

From the findings of this study, I suggest that tax compliance strategies should be developed as a comprehensive package that includes enforcement strategies, tax knowledge strategies, tax system fairness strategies, as well as long term government administration strategies.

First, the Revenue Department should employ serious enforcement of audits and penalties, which involves developing the technological and staff capacity of the Revenue Department and actively enforcing penalties with no exceptions. By publicizing more news of people who evade tax that have been punished, a serious message would be sent from the government and the Revenue Department that tax evasion will not be tolerated

Second, Thai government should focus on educating citizens about tax knowledge and sense of citizenship from an early age. It is unfortunate that many Thai people have not been educated about their tax duties and sense of citizenship. Educating citizens should not be the jobs of only the Revenue Department but also the Ministry of Education, Department of Public Relations, Ministry of Labor, the media, the general public, and all other related public and private organizations. Social norms against tax evasion must be established. Citizens should be informed about their tax obligations as well as all deductions and allowances. Changes in tax laws must be publicized. In addition, tax revenue information should be publicized more. For example, the tax revenue data from each tax bracket so that the citizens have an idea about who are paying taxes for the country.

Third, paying tax must be more convenient. Tax forms must be made easier. Tax laws should be less complicated. Unnecessary deductions and allowances should be abolished. The Revenue Department should offer friendly advices and reach out to educate and facilitate taxpayers in various occupations. Tax-filing via internet should no longer require mail-in documents. Rulings on tax cases must be made available for the public and must be easy to access. Tax personnel should be trained to give correct standardized advice to taxpayers.

Fourth, tax structure should be made more fair. Tax rates should be reduced and more citizens should be included in the tax base. Currently, there are only 2 million citizens who actually pay taxes, only 9 million citizens who file taxes, of 30 million citizens who are in the labor force. It seems very unfair that those 2 million citizens need to bear the cost of 70 million Thai citizens. People should not feel that they are the only one group who has to pay taxes, which usually means medium to high income people. Every citizen should be included in the tax system from the day they start working. Every Thai citizen must be aware of their tax duties. A very low tax rate of 100 Baht a month or 1,200 Baht a year from 30 million citizens would generate a lot of extra tax revenues of approximately 3.6 billion Baht per year rather than exempted all those people. In this way, everyone can contribute at least something to the country and people who have always been paying tax will feel that tax system is fairer. In addition, deductions and allowances should be reduced. With many deductions and allowances that allow high income people to do a lot of tax planning, medium income people often end up paying the same rate as higher income people, and often pay more.

Fifth, the government should offer benefits directly linked to tax-filing. Citizens have legitimate rights in expecting the government to provide them something in return from their tax money. However, it is harder for many citizens to realize the benefits that incur to society than the benefits that incur to themselves. Survey results show that citizens thought cash-back to compliant taxpayers is the best strategy for increasing taxpayer compliance, which means they want some benefits for themselves. Government can use cash-back as a temporary strategy but to make people really see the benefits, those benefits should be linked to their welfare benefits. People should get different welfare benefits based on the different levels of tax they are paying. People who pay more taxes should get more benefits such as higher unemployment

compensation, more healthcare benefits, and higher pensions. This could start with something very simple such as free basic or premium health checkup for people who file tax returns to persuade all citizens to get into the tax system.

Lastly, government administration should be improved so that people will see the benefits of their tax money and be more willing to pay tax. According to the survey results in chapter 4, government corruption and inappropriate revenue spending are among the top reasons for tax non-filing and inaccurate declaration of income in the opinions of Thai citizens. Government administration must be better and more fair. Politicians and public officials including tax officials who are corrupted must be severely penalized.

Contributions

This study offers three major contributions to academics and practitioners as follows.

First, this study theoretically benefits the fields of public administration and public finance by integrating both the traditional utility maximization and the alternative behavioral approaches of tax compliance literature to determine what critical determinants of tax compliance are. The results suggest that understanding tax compliance issues needs both traditional and alternative approaches, which include enforcement perception, tax knowledge, and fairness of tax system perception. Although the traditional approach has long been developed, it is still significant at present especially in combination with educational and motivational strategies proposed by the alternative approach.

Second, this study offers the Thai government and tax policy makers information on citizens' perceptions and tax experts' opinions related to current tax administration system and personal income tax compliance including their tax compliance behaviors, determinants of tax compliance behavior, and strategies that could help increase tax compliance in Thailand. This valuable information should help Thai government and tax policy makers understand Thai taxpayers better and able to develop effective strategies to increase taxpayer compliance to achieve tax revenue goals. The results also benefit tax authorities of similar developing countries seeking to understand the determinants of tax compliance in those countries.

Lastly and most importantly, this study provides the first comprehensive database of personal income tax compliance in Thailand that includes both citizens' perceptions and tax experts' opinions. This contributes to Thai and international tax compliance literature as an addition to existing tax compliance literature in the United States and other developing countries. Researchers can also use the results of this study to develop further in their topics of interest related to tax compliance and tax administration, which will be suggested in the last section.

Limitations of the Study

There are some limitations in this study. First, the samples of this study include only citizens in Bangkok. Although Bangkok represents the largest proportion of taxpayers in Thailand, future research could collect the data from all provinces to reflect tax compliance perceptions of Thai citizens as whole. Second, as with other survey data, this study faces limitations from self-reporting data. The respondents may or may not tell the truth regarding their tax compliance behaviors and opinions. The respondents may also have selective memory,

exaggerate their feelings, or remember incorrectly about the events, which all could affect the reliability of the survey. The respondents, however, may or may not tell the truth regarding their tax compliance behaviors or their opinions.

Future Research Directions

Although various perspectives of tax compliance are covered in this study, there are many things that can be studied further. In order to improve the body of knowledge on tax compliance, future research should be conducted more on 1) comparative studies, 2) time-series analyses, and 3) comprehensive perspectives.

Comparative studies are needed to see how tax compliance differs across cultural and geographical differences, which will help develop tax compliance strategies that could work in similar and different settings. Currently, the challenge of comparative tax compliance research is that there is a very limited tax compliance data available in developing countries. More tax compliance research should be done in developing countries so that tax compliance situation could be realistically assessed and comparative tax compliance strategies could be developed.

Time-series analyses should be done in both developed and developing countries to see the patterns of tax compliance behavior and what factors make compliance situations better or worse over time. Collecting and analyzing tax compliance data take time and money but could benefit countries over the long run. Correcting tax compliance problems from their sources by understanding taxpayers more should improve the tax compliance situation in any country.

Comprehensive studies that analyze tax compliance from a larger scope are also needed. There should be tax compliance studies of different types of taxes i.e. personal income taxes, corporate income taxes, VAT, excise taxes, and customs all together in order to explore which types of taxes people are more willing to pay, which could help improve tax administration systems as a whole.

This study proposes that understanding citizens is a key to effective public management and understanding taxpayers is a key to successful tax administration. The results of this study explore Thai citizens' perceptions and tax experts' opinions on various perspectives of tax compliance including reasons for tax non-compliance, Thai citizens' tax compliance behavior, and strategies for increasing tax compliance. The study found that enforcement perception, fairness of tax system perception, tax knowledge, and demographic characteristics are significant determinants of tax compliance behavior in Thailand, which confirm that both the tradition utility maximization and the alternative behavioral approaches are necessary for understanding tax compliance issues. This study recommends a comprehensive package of strategies for increasing tax compliance in Thailand which includes making tax structure more fair (by lowering tax rates, broadening tax base, and eliminating unnecessary allowances and deductions), linking welfare benefits to tax filing, enforcing penalties more seriously, educating citizens about tax duties and the sense of citizenship, and improving government administration and revenue spending over the long run. This study contributes to both academic and practitioners by serving as the first comprehensive tax compliance database in Thailand.

References

- Allingham, M., & Sandmo, A. (1972). Income tax evasion: A theoretical analysis. *Journal of Public Economics*, 1, 323-338.
- Alm, J. (1990). Tax structure and tax compliance. *Review of Economics and Statistics*, 46, 53-60.
- Alm, J. (1999). Tax compliance and administration. In W. B. Hildreth & J. A. Richardson (Eds.), *Handbook on taxation* (Public administration and public policy Vol. 72, pp. xiii, 998 p.). New York: Marcel Dekker.
- Alm, J., Deskins, J., & McKee, M. (2009). Do individuals comply on income not reported by their employer? *Public Finance Review*, 37(2), 120-141.
- Alm, J., Jackson, B., & McKee, M. (1992). Deterrence and beyond: Toward a kinder, gentler IRS. In J. Slemrod (Ed.), *Why people pay taxes: Tax compliance and enforcement* (pp. 311).
- Alm, J., Jackson, B. R., & McKee, M. (2009). Getting the word out: Enforcement information dissemination and compliance behavior. *Journal of Public Economics*, 93, 392-402.
- Alm, J., & McKee, M. (2006). Audit certainty, audit productivity, and taxpayer compliance. *National Tax Journal*, LIX(4).
- Andreoni, J., Erard, B., & Feinstein, J. (1998). Tax compliance. *Journal of Economic Literature*, 36(2), 818-860.
- Baldry, J. C. (1987). Income tax evasion and the tax schedule: Some experimental results. *Public Finance*, 42(3), 347-383.
- Becker, G. S. (1968). Crime and punishment: An economic approach. *Journal of Political Economy*, 76, 169-217.
- Bureau of the Budget. (2011). *Thailand's budget in brief fiscal year 2011*. Bangkok, Thailand.
- Channarong, S. (2009). *Anti-tax evasion measures related with establishment of an ordinary partnership or a non-juristic body of persons*. Master of Laws, Chulalongkorn University, Bangkok, Thailand.
- Christian, C. W. (1994). *Voluntary compliance with the individual income tax: Results from the 1988 TCMP study*. Washington, DC.
- Collins, J. H., & Plumlee, R. D. (1991). The taxpayers labor and reporting decision: The effect of audit schemes. *Accounting Review*, 66(3), 559-576.
- Dubin, J. A., & Wilde, L. L. (1990). The effect of audit rates on the federal individual income tax, 1977-1986. *National Tax Journal*, 43.
- Elffers, H. (1991). *Income tax evasion: Theory and measurement*. Kluwer, Deventer.
- Elffers, H., Weigel, R. H., & Hessing, D. J. (1987). The consequences of different strategies for measuring tax evasion behavior. *Journal of Economic Psychology*, 8(3), 311-337.
- Feinstein, J. (1991). An econometric analysis of income tax evasion and its detection. *RAND Journal of Economics*, 22(1), 14-35.
- Fiscal Policy Office. (2005). *A guide to Thai taxation*. Bangkok, Thailand,.
- Fishlow, A., & Friedman, J. (1994). Tax evasion, inflation and stabilization. *Journal of Development Economics*, 43(1), 105-123.
- Franzoni, L. A. (2008). Tax evasion and tax compliance. In B. Bouckaert & G. d. Geest (Eds.), *Encyclopedia of Law and Economics*. Cheltenham, UK ; Northampton, MA: Edward Elgar.
- Frederickson, H. G. (1971). Toward a new public administration. In J. M. Shafritz & A. C. Hyde (Eds.), *Classics of Public Administration* (4th ed., pp. xi, 596 p.). Fort Worth: Harcourt Brace College Publishers.
- Frederickson, H. G. (1980). *New public administration*. University, Ala.: University of Alabama Press.
- Frederickson, H. G., & Smith, K. B. (2003). *The public administration theory primer*. Boulder, Colo.: Westview Press.

- Frey, B. (1997). A constitution for knaves crowds out civic virtues. *The Economic Journal*, 107(443), 1043-1053.
- Gallkiew, P. (1985). *Problems and propositions to improve direct tax administration in Thailand: Income tax from personal service*. Master of Laws, Chulalongkorn University, Bangkok, Thailand.
- Garvey, G. (1997). *Public administration: The profession and the practice: A case study approach*. St. Martin's Press.
- Gratez, M. J., & Wilde, L. L. (1986). The economics of tax compliance: Fact and fantasy. *National Tax Journal*, 38, 355-363.
- Hair, J., Black, W. C., Babin, B. B., & Anderson, R. E. (2010). *Multivariate data analysis* (7th ed.). New York: Prentice Hall.
- Hanousek, J., & Palda, F. (2004). Quality of government services and the civic duty to pay taxes in the Czech and Slovak Republics, and other transition countries. *Kyklos*, 57(2), 237-252.
- James, S., Svetalekh, T., & Wright, B. (2006). Tax officials' attitudes and perceptions, performance indicators and the efficiency of tax collection. *University of Exeter Discussion Papers in Management*, 06/01.
- Johnson, R. B., & Onwuegbuzie, A. J. (2004). Mixed methods research: A research paradigm whose time has come. *Educational researcher*, 33(7), 14.
- Kahneman, D., & Tversky, A. (1979). Prospect theory: An analysis of decision under risk. *Econometrica*, 47, 263-291.
- Kaplan, D. (2008). An overview of Markov chain methods for the study of stage-sequential developmental processes. *Developmental Psychology*, 44(2), 457.
- Kaufman, D., Kray, A., & Zoido-Lobaton, P. (2002). Aggregating governance indicators: The World Bank.
- Kettl, D. F. (2000). *The global public management revolution: A report on the transformation of governance*. Brookings Inst Pr.
- Kinsey, K. A. (1992). Deterrence and alienation effects of IRS enforcement: An analysis of survey data. In J. Slemrod (Ed.), *Why people pay taxes: Tax compliance and enforcement*.
- Kirchler, E., Muehlbacher, S., Kastlunger, B., & Wahl, I. (2007). Why pay taxes?: A review of tax compliance decisions *International Studies Programs: Andrew Young School of Policy Studies*.
- La Porta, R., Lopez-de-Silvanes, F., Schleifer, A., & Vishny, R. W. (1999). The quality of government. *Journal of Economics, Law, and Organizations*, 15, 222-279.
- Levi, M. (1998). A state of trust. In V. Braithwaite & M. Levi (Eds.), *Trust and Governance* (pp. 77-101). New York: Russell Sage Foundation.
- Machamnean, K. (1999). *Anti-avoidance tax measure*. Master of Laws, Chulalongkorn University, Bangkok, Thailand.
- McGee, R. W. (2006). The ethics of tax evasion: A case study of opinion in Thailand. *Andreas School of Business Working Paper Series, September*.
- McGee, R. W. (2008). Opinions on tax evasion in Asia. *Taxation and Public Finance in Transition and Developing Economies*, 309.
- Mikesell, J., & Birskyte, L. (2007). The tax compliance puzzle: Evidence from theory and practice. *International Journal of Public Administration*, 30(10), 1045-1081.
- Ministry of Finance of Thailand. (2011a). *Meeting document on personal income taxes*. Bangkok, Thailand.
- Ministry of Finance of Thailand. (2011b). *Meeting document on Revenue Department's structure*. Bangkok, Thailand.
- Nylund, K. L. (2008). *Latent transition analysis: Modeling extensions and an application to peer victimization*. University of California, Los Angeles.
- Nylund, K. L., Asparouhov, T., & Muthén, B. O. (2007). Deciding on the number of classes in latent class analysis and growth mixture modeling: A Monte Carlo simulation study. *Structural Equation Modeling*, 14(4), 535-569.

- Peters, B. G., & Pierre, J. (1998). Governance without government? Rethinking public administration. *Journal of Public Administration Research and Theory*, 8(2), 223.
- Riahi-Belkaoui, A. (2008). Bureaucracy, corruption and tax Compliance. *Taxation and public finance in transition and developing economies*, 1.
- Salamon, L. M., & Lund, M. S. (1989). *Beyond privatization: The tools of government action*: Urban Inst Pr.
- Sandmo, A. (2005). The theory of tax evasion: A retrospective view. *National Tax Journal*, 58(4), 643.
- Scholz, J. T., & Lubell, M. (2001). Cooperation, reciprocity, and the collective action heuristic. *American Journal of Political Science*, 45(1), 160-178.
- Shreffinn, S. M., & Triest, R. K. (1992). Can brute deterrence backfire?: Perceptions and attitudes in taxpayer compliance. In J. Slemrod (Ed.), *Why people pay taxes: Tax compliance and enforcement*.
- Slemrod, J. (1985). An empirical test for tax evasion. *Review of Economics and Statistics*, 67(2), 232-238.
- Slemrod, J. (1992). *Why people pay taxes: Tax compliance and enforcement*. Ann Arbor: University of Michigan Press.
- Slemrod, J. (2003). Trust in public finance. In S. Cnossen & H.-W. Sinn (Eds.), *Public Finance and Public Policy in the New Century* (pp. 49-88). Cambridge, MA: MIT Press.
- Slemrod, J. (2007). Cheating ourselves: The economics of tax evasion. *Journal of Economic Perspectives*, 21(1), 25-48.
- Smith, K. W. (1992). Reciprocity and fairness: Positive incentives for tax compliance. In J. Slemrod (Ed.), *Why People Pay Taxes: Tax Compliance and Enforcement*.
- Smith, K. W., & Kinsey, K. A. (1987). Understanding taxpayer behavior: A conceptual framework with implications for research. *Law and Society Review*, 21, 639-663.
- Sorg, J. D. (1983). A typology of implementation behaviors of street-level bureaucrats. *Policy Studies Review*, 2(3), 391-406.
- Thibaut, J., & Walker, L. (1975). *Procedural justice: A psychological analysis*: L. Erlbaum Associates.
- Togler, B. (2003). Tax morale, rule-governed behaviour, and trust. *Constitutional Political Economy*, 14(2), 119-140.
- Tsakumis, G. T., Curatola, A. P., & Porcano, T. M. (2007). The relation between national cultural dimensions and tax evasion. *Journal of International Accounting, Auditing and Taxation*(16), 131-147.
- Tyler, T. R. (1997). The psychology of legitimacy: A relational perspective on voluntary deference to authorities. *Personality and Social Psychology Review*, 1(4), 323.
- Webley, P., Robben, H., Elffers, H., & Helsing, D. (2010). *Tax evasion: An experimental approach*: Cambridge Univ Pr.
- Witte, A. D., & Woodbury, D. F. (1985). The effect of tax laws and tax administration on tax compliance. *National Tax Journal*, 38, 1-13.

Appendix A

English Questionnaire

ID
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**Personal Income Tax Administration
Perception Survey**

July 2011

Personal Income Tax Administration Perception Survey

I am a doctoral student at the University of Kansas and conducting my dissertation on the perceptions of Thai tax administration. The objective is to propose ways of improving our tax administration. As a citizen, we all want to see our country performing better. I would really appreciate you taking the time to complete the following survey which will ultimately contribute to both our society and academic knowledge.

The Department of Public Administration at the University of Kansas supports the practice of protection for human subjects participating in research. The following information is provided for you to decide whether you wish to participate in the present study. You should be aware that even if you agree to participate, you are free to withdraw at any time without penalty. This questionnaire is expected to take approximately 20 minutes of your time.

The content of the questionnaires should cause no more discomfort than you would experience in your everyday life. Although participation may not benefit you directly, we believe that the information obtained from this study will help us gain a better understanding of problems of Thai tax administration and be able to propose ways to improve efficiency and fairness of the income tax system. Your participation is solicited, although strictly voluntary.

Please do not put your name or other identifiable information anywhere in this survey. Your response will be anonymous. All responses will be compiled together and analyzed as a group. The responses will be used only for academic and public interests and will never be used against the respondents in any circumstances.

If you would like additional information concerning this study before or after it is completed, please feel free to contact us by phone or email. Completion of the survey indicates your willingness to participate in this project and that you are over the age of eighteen. If you have any additional questions about your rights as a research participant, you may call (785) 864-7429 or (785) 864-7385 or write the Human Subjects Committee Lawrence Campus (HSCL), University of Kansas, 2385 Irving Hill Road, Lawrence, Kansas 66045-7563, email mdenning@ku.edu.

Thank you very much again for sacrificing your valuable time.

Miss Maneekwan Chandarasorn, Ph.D. Candidate, Principal Investigator 4048 Wescoe Hall, University of Kansas, Lawrence, KS 66045 USA. Phone: +1 (785) 393-8636 (USA), 081-443-4222 (Thailand), Email: manee@ku.edu

Professor H. George Frederickson, Edwin O. Stene Distinguished Professor of Public Administration, Ph.D. Faculty Supervisor 4060D Wescoe Hall, University of Kansas, Lawrence, KS 66045 USA
Phone: +1 (785) 864-9095 (USA), Email: gfred@ku.edu

Personal Income Tax Administration Perception Survey

1. This questionnaire is from	
<input type="radio"/>	Interview
<input type="radio"/>	Self-filing

2. How do you feel about the following statements? Please tick ✓ in the box that matches your opinion the best.

	Way Too Low/Little	Too Low/Little	About Right	Too High/Much	Way Too High/Much
1) You think current personal income tax rates are...					
2) Revenue statistics has shown that the richest group of people in Thailand has been paying for half of the country's personal income tax revenues. You think they are paying...					

3. How strongly do you agree or disagree with the following statements? Please tick ✓ in the box that matches your opinion the best.

	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
1) Not filing taxes or filing taxes lower than actual obligation is an acceptable behavior in Thai society					
2) It is difficult for the Revenue Department to find out who are not filing taxes or filing taxes lower than actual obligation					
3) Governmental administration procedures in general have treated all people fairly whether rich or poor. Everyone is subjected to the same laws and enforcement and has an opportunity to be heard at a meaningful time and in a meaningful manner					
4) Tax administration procedures in general have					

	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
treated all people fairly whether rich or poor. Everyone is subjected to the same tax laws and enforcement and has an opportunity to be heard at a meaningful time and in a meaningful manner					
5) Current penalties are too low to make people obey tax laws					
6) There is not enough enforcement despite the existing tax laws					

4. Please rate your opinion on the following issues from the lowest to the highest. Please tick ✓ in the box that matches your opinion the best.

	Lowest	Low	Average	High	Highest
1) What is the degree to which you believe government or politicians are corrupted (e.g. taking personal gains against taxpayers' money)?					
2) What is your level of satisfaction with the service quality of governmental organizations in general?					
3) What is your level of satisfaction with the service quality of the Revenue Department?					
4) What is the degree to which you believe the severity of current penalties for those who are not filing taxes or filing taxes less than actual obligation?					
5) What is the degree to which you believe the tax laws have been enforced on those who are not filing taxes or filing taxes less than actual obligation?					
6) What is the level of fairness of government administration without selective treatment?					
7) What is the level of fairness of tax administration					

	Lowest	Low	Average	High	Highest
collection of the Revenue Department without selective treatment?					
8) What is the degree to which you see the news or aware of people evade their taxes					
9) What is the degree to which you see the news or aware of people evade their taxes that have been punished					

5. Do you think how many percentages of people who are obliged to pay personal income taxes **actually file** their taxes?

<input type="radio"/>	0-20%	None or Almost None
<input type="radio"/>	20-40%	Less than Half
<input type="radio"/>	40-60%	About Half
<input type="radio"/>	60-80%	More than Half
<input type="radio"/>	80-100%	All or Almost All

6. Do you think why some people **don't even file** their personal income taxes? Please tick ✓ in the box that matches your opinion the best.

	Very Unlikely	Unlikely	Neither Likely nor Unlikely	Likely	Very Likely
1) They don't know that they must pay taxes					
2) They think the Revenue Department will not find out if they don't file taxes					
3) They think even if the Revenue Department find out that they don't file taxes, they will not be punished					
4) They are not afraid of current penalties because the penalties are not strong enough					
5) They don't know how to get the form to pay taxes					
6) They think tax form is too complicated					
7) They think it takes too much time to file taxes					
8) They don't want to be recognized in the tax system of the Revenue Department and possibly get chasing later on					
9) They think the rich should pay instead of them					
10) They think it's not fair to be taxed from their own earnings					
11) They think the tax rate is too high					
12) They think others evade taxes					
13) They think the government does not spend tax revenues appropriately					
14) They think there is too much corruption in government operations					
15) They don't like the government					
16) Other (Please specify) _____					

7. Do you think how many percentages of people who file personal income taxes actually **file their taxes accurately**?

- 0-20% None or Almost None
 21-40% Less than Half
 41-60% About Half
 61-80% More than Half
 81-100% All or Almost All

8. Do you think why some people **don't declare their incomes accurately** (e.g. overstate deduction or expenses) when filing personal income tax? Please tick in the box that matches your opinion the best.

	Very Unlikely	Unlikely	Neither Likely nor Unlikely	Likely	Very Likely
1) They think the Revenue Department will not find out if they declare their incomes inaccurately					
2) They think even if the Revenue Department find out that they declare their incomes inaccurately, they will not be punished					
3) They are not afraid of existing penalties because they are too soft					
4) They think the rich should pay more					
5) They think they are paying too much compared to what they receive in government services					
6) They think it's not fair to be taxed from their own earnings					
7) They think the tax rate is too high (regardless of the quality of government services or whether others pay more or less)					
8) They think other people pay less taxes than they obliged to (e.g. understate their incomes)					
9) They think the government spend their taxes					

	Very Unlikely	Unlikely	Neither Likely nor Unlikely	Likely	Very Likely
inappropriately					
10) They think there is too much corruption in government operations					
11) They don't like the government					
12) They don't know which sources of income they must declare (e.g. besides withholding taxes)					
13) They attempt to file accurately but make honest mistakes in filing as the tax form is so complicated					
14) They just make calculation mistakes					
15) Other (Please specify) _____					

9. How many percentages of people you believe **are audited** by the Revenue Department?

- 0-20% None or Almost None
- 21-40% Less than Half
- 41-60% About Half
- 61-80% More than Half
- 81-100% All or Almost All

10. Do you know about criminal penalties for intentionally not filing taxes?

- Yes
- No
- Not sure

11. What do you think current criminal penalties for intentionally not filing taxes according to the Revenue Code 2008 are (if you don't know, please use your best guess)?

- Maximum fine 2,000 Baht or maximum imprisonment 3 months or both
- Maximum fine 5,000 Baht or maximum imprisonment 6 months or both

- Maximum fine 10,000 Baht or maximum imprisonment 1 year or both
- Maximum fine 20,000 Baht or maximum imprisonment 2 year or both

12. Do you know the surcharge penalty for not paying personal income tax on time?

- Yes
- No
- Not sure

13. What do you think current surcharge penalty for not paying personal income tax on time according to the Revenue Code 2008 is (if you don't know, please use your best guess)

- 0.5 % per month of that tax obligation
- 1.5 % per month of that tax obligation
- 5 % per month of that tax obligation
- 10 % per month of that tax obligation

14. Do you know about the fine penalty if audited by the Revenue Department and found paying inaccurate taxes?

- Yes
- No
- Not sure

15. What do you think current fine penalty if audited by the Revenue Department and found not paying accurate taxes according to the Revenue Code 2008 is (if you don't know, please use your best guess)?

- 0.5 to 1 time of that tax obligation
- 1 to 2 times of that tax obligation
- 3 to 4 times of that tax obligation
- 4 to 5 times of that tax obligation

16. Do you know about criminal penalties for intentional tax evasion?

- Yes
- No
- Not sure

17. What do you think the criminal penalties for intentional tax evasion according to the Revenue Code 2008 are? (if you don't know, please use your best guess)?

- Imprisonment 3 months - 5 years and fine 1,000 – 100,000 Baht
- Imprisonment 3 months - 7 years and fine 2,000 – 200,000 Baht
- Imprisonment 6 months - 7 years and fine 5,000 – 200,000 Baht
- Imprisonment 6 months - 10 years and fine 5,000 – 500,000 Baht

18. The following statements are penalties according to the Revenue Code 2008. How do you feel about each penalty? Please tick ✓ in the box that matches your opinion the best.

	Way Too Soft	Too Soft	Not Too Soft nor Too Harsh	Too Harsh	Way Too Harsh
1) The criminal penalties for intentionally not filing taxes are to pay maximum fine 5,000 Baht or maximum imprisonment 6 months or both. How do you feel about that?					
2) The surcharge penalty for not filing taxes on time is to pay 1.5 percent per month of that tax amount. That is if your tax obligation is 10,000 Baht, you must pay at least 150 Baht each month. How do you feel about that?					
3) If audited by the Revenue Department and found not paying accurate taxes, there will be fine of one or two times of that tax obligation in addition to the 1.5% surcharge. That is if your tax obligation is 10,000 Baht, you will have to pay extra 20,000 or 30,000 Baht plus 150 Baht per month. How do you feel about that?					
4) The criminal penalties for intentional tax evasion are to imprison from three months to seven years and pay fines from 2,000 to 200,000 Baht. How do you feel					

about that?					
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19. How likely is that people who intentionally not filing taxes will **start filing taxes** if the **criminal penalties are doubled**? That is from maximum fine 5,000 Baht or maximum imprisonment 6 months or both to maximum fine 10,000 Baht or maximum imprisonment 1 year or both

Very Unlikely
 Unlikely
 Neither Likely nor Unlikely
 Likely
 Very Likely

20. How likely is that you or people in general will **attempt to report income more accurately** (e.g. report more accurately incomes, deduction, and expenses) in the following situations? Please tick ✓ in the box that matches your opinion the best.

	Very Unlikely	Unlikely	Neither Likely nor Unlikely	Likely	Very Likely
1) If the chance of being audited by the Revenue Department is higher					
2) If the Revenue Department informs you in advance (before filing tax returns) that your tax returns' file will be audited					
3) If the Revenue Department formally announces to the people the exact portion of people that will be audited each year					
4) If minimum surcharge of 1.5 percent per month is doubled to 3 percent					
5) If fine penalty of 1-2 times of tax obligation is doubled to 3-4 times					
6) If criminal penalties for intentional tax cheating are to imprison from 3 months to 7 years and pay fines from					

	Very Unlikely	Unlikely	Neither Likely nor Unlikely	Likely	Very Likely
2,000 to 200,000 Baht are doubled to imprison from 6 months to 14 years and pay fines from 4,000 to 400,000 Baht					
7) If there is more enforcement on tax laws					
8) If lottery prizes are offered as rewards to compliant taxpayers who file taxes accurately					
9) If honorary citizen certificates are offered as rewards to compliant taxpayers who file taxes accurately					
10) If cash back is offered as rewards to compliant taxpayers who file taxes accurately					
11) If future audit reduction is offered as rewards to compliant taxpayers who file taxes accurately					
12) If one time opportunity is offered to noncompliant taxpayers to voluntarily pay back taxes without criminal investigation and penalties					
13) If the Revenue Department announces that penalties for tax evasion will be stronger after that one time opportunity to pay back taxes has been offered					
14) If the service quality of government organizations in general is improved					
15) If the service quality of the Revenue Department is improved					
16) If government administration procedure is fairer without selective treatment					
17) If tax collection administration procedure of the Revenue Department is fairer without selective treatment					
18) If there is less corruption in government					

	Very Unlikely	Unlikely	Neither Likely nor Unlikely	Likely	Very Likely
19) If you see more news or more aware that people who evade their taxes have been punished					

21. How likely is that you or people in general will **attempt to report income LESS accurately** (e.g. understate some incomes) in the following situations? Please tick ✓ in the box that matches your opinion the best.

	Very Unlikely	Unlikely	Neither Likely nor Unlikely	Likely	Very Likely
1) If the Revenue Department informs you in advance (before filing tax returns) that your tax returns' file will NOT be audited					
2) If you see more news or more aware that people evade their taxes or filing taxes less than actual obligation					

For the following questions, if you are not comfortable to answer any question or the question is not applicable to you, you can skip that question. However, your response will be anonymous. All responses will be compiled together and analyzed as a group.

22. Within the past two years or so, did you file personal income tax?	
<input type="radio"/>	Yes
<input type="radio"/>	No – Why? (Please specify) _____
<input type="radio"/>	Prefer not to answer

If you did not file personal income tax within the past two year or so, please skip to Question 27.

23. Do you know which income tax rate brackets you have been paying?

- I have been legally exempted from paying personal income tax
- 10 %
- 20 %
- 30 %
- 37 %
- I don't know
- Prefer not to answer

24. Comparing to the public services you receive, personal income tax you are paying are...

- Way Too Low
- Too Low
- About Right
- Too High
- Way Too High
- Prefer not to answer

25. How strongly do you agree or disagree with the followings? Please tick ✓ in the box that matches your opinion the best.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Prefer Not to Answer
1) Within the past two years or so, you were willing to pay all personal income taxes you were legally obliged to pay? (Regardless of whether you really filed tax)						
2) Within the past two years or so, you intended to declare all information as accurately as possible when filing personal income tax?						

26. Please tick ✓ in the box that matches your opinion the best.

	Very Unlikely	Unlikely	Neither Likely nor Unlikely	Likely	Very Likely	Prefer Not to Answer
1) Within the past two years or so, how likely is it that you might have left some reportable income off when filing your personal income tax?						
2) Within the past two years or so, how likely is it that you might have overstated any deduction or expenses when filing your personal income tax?						

27. Will you file personal income tax next year?

Yes

No – Why? (Please Specify) _____

Prefer not to answer

28. How strongly do you agree or disagree with the followings? Please tick ✓ in the box that matches your opinion the best.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Prefer Not to Answer
1) For next year, you are willing to pay all personal income tax you legally obliged to pay						
2) For next year, you intend to declare all information as accurately as possible when filing your personal income tax						

29. Please tick ✓ in the box that matches your opinion the best.

	Very Unlikely	Unlikely	Neither Likely nor Unlikely	Likely	Very Likely	Prefer Not to Answer
1) For next year, how likely is it that you might leave some reportable income off when filing your personal income tax?						
2) For next year, how likely is it that you might overstate any deduction or expenses when filing your personal income tax?						

30. Please provide us with any further comments and suggestions you may have regarding personal income tax administration in Thailand. This can include why you believe people evade taxes, what you think could help make people be more willing to pay taxes, other rewards or penalties that should be introduced, what government should do more for the citizens, etc.

More questions on the next page...

Please provide us with a little bit of your information

Sex
<input type="radio"/> Male
<input type="radio"/> Female
Age _____ years
Highest level of education:
<input type="radio"/> Primary school or lower
<input type="radio"/> Secondary school
<input type="radio"/> Two-year College's degree
<input type="radio"/> Bachelor
<input type="radio"/> Master
<input type="radio"/> Ph.D./Doctorate or higher
Occupation: (Choose all that apply)
<input type="radio"/> Government official
<input type="radio"/> Other governmental employee
<input type="radio"/> Private organization's employee
<input type="radio"/> Businessman, Entrepreneur
<input type="radio"/> Elected official, Politician
<input type="radio"/> Freelance
<input type="radio"/> Other (Please specify) _____

Marital Status:
<input type="radio"/> Single
<input type="radio"/> Married
If married, how do you file tax?
<input type="radio"/> Jointly with spouse
<input type="radio"/> Separately
Your annual total income or you and your spouse total annual income based on how you file tax
<input type="radio"/> Below 150,000 Baht (approximately 12,500 Baht/month)
<input type="radio"/> 150,001-500,000 Baht (approximately 12,500 – 42,000 Baht/month)
<input type="radio"/> 500,000-1,000,000 Baht (approximately 42,000 – 83,000 Baht/month)
<input type="radio"/> 1,000,001-4,000,000 Baht (approximately 83,000 – 330,000 Baht/month)
<input type="radio"/> 4,000,001 Baht and over (approximately 333,000 Baht/month)
Number of Children _____ (If none = 0)
People who are Financially Dependent on You
<input type="radio"/> Number of kids under 18 _____
<input type="radio"/> Number of seniors over 60 _____
<input type="radio"/> Number of handicapped people _____
<input type="radio"/> Number of unemployed people _____

This is the end of the survey. Thank you very much again for your valuable time in completing this survey. Please feel free to contact me at manee@ku.edu with any further questions or comments.

Appendix B**Thai Questionnaire**

รหัสแบบสำรวจ

รหัสพื้นที่

**แบบสอบถามความคิดเห็นเกี่ยวกับ
การจัดเก็บภาษีเงินได้บุคคลธรรมดา**

กรกฎาคม 2554

แบบสอบถามความคิดเห็นเกี่ยวกับการจัดเก็บภาษีเงินได้บุคคลธรรมดา

เรียน ท่านผู้ตอบแบบสอบถาม

ดิฉัน นางสาวมณีขวัญ จันทร์ศร กำลังศึกษาในระดับปริญญาเอก คณะรัฐประศาสนศาสตร์ ณ มหาวิทยาลัยแคนซัส ประเทศสหรัฐอเมริกา ขณะนี้อยู่ในระหว่างการรวบรวมข้อมูลเพื่อจัดทำวิทยานิพนธ์ เรื่อง ความคิดเห็นของประชาชนเกี่ยวกับการจัดเก็บภาษีเงินได้บุคคลธรรมดา โดยมีวัตถุประสงค์เพื่อเสนอแนะปรับปรุงการบริหารจัดเก็บภาษีเงินได้บุคคลธรรมดา ของประเทศไทย ในฐานะประชาชนไทย พวกเราทุกคนต่างมุ่งหวังที่จะเห็นประเทศชาติของเราพัฒนาดีขึ้น ดิฉัน ขอขอบพระคุณทุกท่านที่กรุณาสละเวลาตอบแบบสอบถามนี้เพื่อประโยชน์ทางวิชาการและสังคมไทยต่อไป

คณะรัฐประศาสนศาสตร์ มหาวิทยาลัยแคนซัส สนับสนุนการรักษาสิทธิของผู้มีส่วนร่วมในงานวิจัย จึงขอแนะนำเสนอ ข้อมูลต่อไปนี้ เพื่อประกอบการตัดสินใจของท่านในการตอบแบบสอบถามครั้งนี้ ถึงแม้ว่าท่านตกลงที่จะตอบแบบสอบถาม ท่านสามารถหยุดตอบได้ทุกเมื่อ โดยจะไม่มีผลกระทบต่อท่าน แบบสอบถามนี้คาดว่าจะใช้เวลาของท่านประมาณ 20 นาที และจะไม่ก่อให้เกิดความลำบากใจแก่ท่านมากเกินไปกว่าที่ท่านจะพบเจอในชีวิตประจำวัน ถึงแม้ว่าการเข้าร่วมในการตอบแบบสอบถามนี้จะไม่ได้ให้ประโยชน์แก่ท่านโดยตรง ผู้วิจัยเชื่อว่าข้อมูลที่ได้รับจะช่วยให้ผู้วิจัยเข้าใจปัญหาของการจัดเก็บ ภาษีเงินได้บุคคลธรรมดาของประเทศไทยมากยิ่งขึ้น และสามารถนำเสนอแนวทางในการปรับปรุงประสิทธิภาพ และความเป็นธรรมของระบบภาษีเงินได้บุคคลธรรมดาผู้วิจัยจึงขอความอนุเคราะห์จากท่านผู้มีเงินได้และเข้าข่ายใน การต้องยื่นชำระภาษีเงินได้บุคคลธรรมดาในการตอบแบบสอบถามครั้งนี้ อย่างไรก็ตาม การเข้าร่วมขึ้นอยู่กับ ความสมัครใจของท่าน

กรุณาอย่ากรอกชื่อหรือข้อมูลส่วนบุคคลของท่านลงในแบบสอบถามนี้ คำตอบของท่านจะไม่สามารถระบุถึง ตัวตนของท่านได้ในอนาคต และการรายงานจะแสดงผลเป็นค่าสถิติในเชิงของกลุ่มบุคคล โดยจะไม่มี การนำคำตอบของท่าน มาใช้ในทางที่ก่อให้เกิดความเสียหายแก่ท่าน คำตอบของท่านจะใช้เพื่อประโยชน์ทาง วิชาการและประโยชน์ต่อสาธารณะเท่านั้น ถ้าท่านต้องการข้อมูลเพิ่มเติม มีข้อสงสัย หรือข้อเสนอแนะประการใดเกี่ยวกับ งานวิจัยชิ้นนี้ ไม่ว่าจะก่อนหรือหลังการวิจัยนี้เสร็จสิ้น โปรดติดต่อผู้วิจัยทางโทรศัพท์หรือทางอีเมลตามที่อยู่ด้านล่างนี้ การตอบ แบบสอบถามนี้จนเสร็จแสดงว่าท่านเต็มใจมีส่วนร่วมในงานวิจัยครั้งนี้และท่านมีอายุมากกว่า 18 ปี หากท่านมีข้อสงสัย เกี่ยวกับสิทธิของท่านในฐานะผู้มีส่วนร่วมในงานวิจัย โปรดติดต่อ Human Subject Committee Lawrence Campus (HSCC), University of Kansas ทางโทรศัพท์ (ประเทศสหรัฐอเมริกา) +1 (785) 864-7429 หรือ +1 (785) 864-7385 หรือ ทางจดหมายที่ 2385 Irving Hill Road, Lawrence, Kansas 66045-7563 หรืออีเมล mdenning@ku.edu

ขอขอบพระคุณอย่างสูงในการสละเวลาอันมีค่าของท่าน

นางสาวมณีขวัญ จันทร์ศร (Miss Maneekwan Chandarasorn, Ph.D. Candidate) นักศึกษาระดับปริญญาเอก คณะรัฐประศาสนศาสตร์ มหาวิทยาลัยแคนซัส ผู้วิจัย 4048 Wescoe Hall, University of Kansas, Lawrence, KS 66045 USA

โทรศัพท์ +1 (785) 393-8636 (สหรัฐอเมริกา), โทรศัพท์ 081-443-4222 (ประเทศไทย), อีเมล manee@ku.edu

ศาสตราจารย์ ดร. เอช จอร์จ เฟรเดอริกสัน (H. George Frederickson, Edwin O. Stene Distinguished Professor of Public Administration, Ph.D.) อาจารย์ที่ปรึกษา 4060D Wescoe Hall, University of Kansas, Lawrence, KS 66045 USA

โทรศัพท์ +1 (785) 864-9095 (สหรัฐอเมริกา), อีเมล gfred@ku.edu

แบบสอบถามความคิดเห็นเกี่ยวกับการจัดเก็บภาษีเงินได้บุคคลธรรมดา

1. แบบสอบถามนี้ได้มาจาก

- การสัมภาษณ์
- การกรอกด้วยตนเองโดยผู้ตอบแบบสอบถาม

2. ท่านรู้สึกอย่างไรกับประโยคเหล่านี้ กรุณาทำเครื่องหมาย ✓ ในช่องที่ตรงกับความเห็นของท่านมากที่สุด

	ต่ำเกินไป มาก	ต่ำ	กำลัง เหมาะสม	สูง	สูงเกินไป มาก
1) ท่านคิดว่าอัตราภาษีเงินได้บุคคลธรรมดาในปัจจุบันนั้น					
2) จากข้อมูลรายรับของประเทศไทยแสดงว่า ประชากรที่จ่ายภาษีเงินได้ในอัตราสูงสุด จ่ายภาษีเป็นจำนวนถึงครึ่งหนึ่งของรายรับภาษีเงินได้บุคคลธรรมดาทั้งหมด ท่านคิดว่าบุคคลกลุ่มดังกล่าวจ่ายภาษี...					

3. ท่านเห็นด้วยหรือไม่เห็นด้วยอย่างน้อยเพียงใดกับคำกล่าวต่อไปนี้ กรุณาทำเครื่องหมาย ✓ ในช่องที่ตรงกับความเห็นของท่านมากที่สุด

	ไม่เห็น ด้วยอย่าง ยิ่ง	ไม่ เห็น ด้วย	เห็นด้วยและ ไม่เห็นด้วยพอๆ กัน	เห็น ด้วย	เห็นด้วย อย่างยิ่ง
1) การหลีกเลี่ยงไม่ชำระภาษีหรือชำระภาษีต่ำกว่าความเป็นจริง เป็นสิ่งที่ยอมรับได้ในสังคมไทย					
2) การที่กรมสรรพากรจะตรวจสอบพบว่าใครหลีกเลี่ยงไม่ชำระภาษีหรือชำระภาษีต่ำกว่าความเป็นจริงเป็นเรื่องยาก					
3) การบริหารจัดการภาครัฐทำให้ความเป็นธรรมแก่ทุกคนไม่ว่าจะรวยหรือจนประชาชนทุกคนอยู่ภายใต้ข้อบังคับของกฎหมายเดียวกันโดยไม่มีทางเลือกปฏิบัติ					
4) การบริหารการจัดเก็บภาษีให้ความเป็นธรรมแก่ทุกคนไม่ว่าจะรวยหรือจนประชาชนทุกคนอยู่ภายใต้ข้อบังคับของกฎหมายภาษีเดียวกันโดยไม่มีทางเลือกปฏิบัติ					
5) บทลงโทษในปัจจุบันต่ำเกินกว่าที่จะทำให้ประชาชนปฏิบัติตามกฎหมายภาษี					

6)กฎหมายภาษียังไม่มีการบังคับใช้จริงเพียงพอถึงแม้จะมีบทลงโทษตามกฎหมาย					
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4. ขอให้ท่านช่วยให้คะแนนในเรื่องต่างๆ ต่อไปนี้ ตามความเห็นของท่าน จากคะแนนต่ำที่สุด จนถึงสูงที่สุด กรุณาทำเครื่องหมาย ✓ ในช่องที่ตรงกับความเห็นของท่านมากที่สุด

	ต่ำที่สุด	ต่ำ	ปานกลาง	สูง	สูงที่สุด
1) ท่านคิดว่าระดับการคอร์รัปชันของรัฐบาลหรือนักการเมือง เช่น การนำเงินภาษีของประชาชนไปใช้เพื่อผลประโยชน์ส่วนตัว อยู่ในระดับใด					
2)ระดับความพึงพอใจของท่านต่อคุณภาพการให้บริการของหน่วยงานภาครัฐอยู่ในระดับใด					
3)ระดับความพึงพอใจของท่านต่อคุณภาพการให้บริการของกรมสรรพากรอยู่ในระดับใด					
4)ท่านคิดว่าระดับความรุนแรงของบทลงโทษสำหรับการหลีกเลี่ยงไม่ยื่นแบบชำระภาษีและชำระภาษีต่ำกว่าความเป็นจริงอยู่ในระดับใด					
5)ท่านคิดว่าระดับการบังคับใช้จริงของกฎหมายภาษีต่อผู้ที่หลีกเลี่ยงไม่ยื่นแบบชำระภาษีและชำระภาษีต่ำกว่าความเป็นจริงอยู่ในระดับใด					
6)ท่านคิดว่าระดับความเป็นธรรมของการให้บริการประชาชนของรัฐโดยการไม่เลือกปฏิบัติอยู่ในระดับใด					
7)ท่านคิดว่าระดับความเป็นธรรมของการจัดเก็บภาษีของกรมสรรพากรโดยการไม่เลือกปฏิบัติอยู่ในระดับใด					
8) ท่านเห็นข่าวหรือรับรู้ว่ามีคนหลีกเลี่ยงภาษี อยู่ในระดับใด					
9) ท่านเห็นข่าวหรือรับรู้ว่ามีคนที่หลีกเลี่ยงภาษีได้รับการลงโทษ อยู่ในระดับใด					

5. ท่านคิดว่าประชากรจำนวนร้อยละเท่าไร <u>ยื่นแบบชำระภาษี</u> จากจำนวนของผู้มีหน้าที่ต้องเสียภาษีเงินได้บุคคลธรรมดาทั้งหมด		
<input type="radio"/>	0-20%	ไม่มีหรือเกือบไม่มี
<input type="radio"/>	20-40%	น้อยกว่าครึ่ง
<input type="radio"/>	40-60%	ประมาณครึ่งหนึ่ง
<input type="radio"/>	60-80%	มากกว่าครึ่ง
<input type="radio"/>	80-100%	เกือบทั้งหมดหรือทั้งหมด

6. ท่านคิดว่าเหตุผลต่อไปนี้ เป็นเหตุผลที่คนบางส่วน **ไม่ยื่นแบบชำระภาษี**เงินได้บุคคลธรรมดาอย่างน้อยเพียงใด กรุณาทำเครื่องหมาย ✓ ในช่องที่ตรงกับความเห็นของท่านมากที่สุด

	เป็นไปได้ ได้อย่าง มาก	เป็น ไป ไม่ได้	เป็นไปได้และ เป็นไปได้ พอๆ กัน	เป็น ไป ได้	เป็นไปได้ อย่าง มาก
1) พวกเขาไม่ทราบว่าจะต้องเสียภาษี					
2) พวกเขาคิดว่ากรมสรรพากรคงไม่สามารถตรวจเจอ หากไม่ยื่นแบบชำระภาษี					
3) พวกเขาคิดว่าถึงแม้ว่ากรมสรรพากรจะตรวจเจอ พวกเขาก็จะไม่ถูกลงโทษจากการไม่ยื่นแบบชำระภาษี					
4) พวกเขาไม่เกรงกลัวต่อบทลงโทษที่มีอยู่ เนื่องจากบทลงโทษไม่รุนแรงพอ					
5) พวกเขาไม่ทราบว่าจะไปปรับแบบฟอร์มการชำระภาษีได้ที่ใด					
6) พวกเขาคิดว่าแบบฟอร์มการชำระภาษีซับซ้อนและเข้าใจยากเกินไป					
7) พวกเขาคิดว่าการกรอกแบบฟอร์มการชำระภาษีเสียเวลามากเกินไป					
8) พวกเขาไม่ต้องการถูกบันทึกในระบบรายชื่อผู้เสียภาษีของกรมสรรพากรและเสี่ยงต่อการถูกบังคับให้จ่ายภาษีต่อไปในอนาคต					
9) พวกเขาคิดว่าคนรวยควรเท่านั้นที่ควรจะเป็นผู้เสียภาษี					
10) พวกเขาคิดว่าภาระที่จะต้องเสียภาษีจากเงินที่หามาจากน้ำพักน้ำแรงของตัวเองแก่รัฐเป็นเรื่องไม่เป็นธรรม					
11) พวกเขาคิดว่าภาษีที่ต้องชำระสูงเกินไป					
12) พวกเขาคิดว่าคนอื่นๆ ก็หลีกเลี่ยงไม่ชำระภาษี					
13) พวกเขาคิดว่ารัฐใช้เงินภาษีของประชาชนอย่างไม่เหมาะสม					
14) พวกเขาคิดว่าภาครัฐมีการคอร์รัปชันมากเกินไป					
15) พวกเขาไม่ชอบรัฐบาล					
16) อื่นๆ โปรดระบุ _____					

7. ท่านคิดว่าประชากรจำนวนร้อยละเท่าไร **ยื่นชำระภาษีได้ถูกต้อง**จากจำนวนของผู้ที่ยื่นแบบชำระภาษีเงินได้บุคคลธรรมดาทั้งหมด

<input type="radio"/>	0-20%	ไม่มีหรือเกือบไม่มี
<input type="radio"/>	21-40%	น้อยกว่าครึ่ง
<input type="radio"/>	41-60%	ประมาณครึ่งหนึ่ง
<input type="radio"/>	61-80%	มากกว่าครึ่ง
<input type="radio"/>	81-100%	เกือบทั้งหมดหรือทั้งหมด

8. ท่านคิดว่าทำไมคนบางส่วนถึง **ยื่นชำระภาษีไม่ถูกต้อง** (เช่น แจ้งรายได้ต่ำกว่าความเป็นจริง แจ้งค่าลดหย่อนหรือค่าใช้จ่ายสูงกว่าความเป็นจริง เป็นต้น) กรุณาทำเครื่องหมาย ✓ ในช่องที่ตรงกับความเห็นของท่านมากที่สุด

	เป็นไปได้ อย่างมาก	เป็นไปได้	เป็นไปได้และ เป็นไปได้ พอๆ กัน	เป็นไปได้	เป็นไปได้ อย่างมาก
1) พวกเขาคิดว่ากรมสรรพากรคงไม่สามารถตรวจเจอหากยื่นชำระภาษีไม่ถูกต้อง					
2) พวกเขาคิดว่าถึงแม้ว่ากรมสรรพากรจะตรวจเจอ พวกเขา ก็จะไม่ถูกลงโทษจากการยื่นชำระภาษีไม่ถูกต้อง					
3) พวกเขาไม่เกรงกลัวต่อบทลงโทษที่มีอยู่ เนื่องจากบทลงโทษไม่รุนแรงพอ					
4) พวกเขาคิดว่าคนรวยต่างหากที่ควรจะเป็นผู้จ่ายภาษีมากกว่านี้					
5) พวกเขาคิดว่าตนเองจ่ายภาษีสูงเกินไปเมื่อเทียบกับบริการของรัฐที่ได้รับ					
6) พวกเขาคิดว่าการที่จะต้องเสียภาษีจากเงินที่หามาจากน้ำพักน้ำแรงของตัวเองแก่รัฐเป็นเรื่องไม่เป็นธรรม					
7) พวกเขาคิดว่าภาษีที่ต้องชำระสูงเกินไป (โดยไม่เกี่ยวข้องกับคุณภาพของบริการของรัฐที่ได้รับ และไม่เกี่ยวข้องกับว่าคนอื่นจ่ายมากหรือน้อยกว่า)					
8) พวกเขาคิดว่าคนอื่นๆ ก็ชำระภาษีต่ำกว่าความจริง					
9) พวกเขาคิดว่ารัฐใช้เงินภาษีของประชาชนอย่างไม่เหมาะสม					
10) พวกเขาคิดว่ามีภาครัฐมีการคอร์รัปชันมากเกินไป					

	เป็นไปได้ อย่างมาก	เป็นไปได้	เป็นไปได้และ เป็นไปได้ พอๆ กัน	เป็นไปได้	เป็นไปได้ อย่างมาก
11) พวกเขาไม่ชอบรัฐบาล					
12) พวกเขาไม่รู้ว่าจะต้องแจ้งรายการเงินได้ประเภทใดบ้าง เช่น เงินได้อื่นที่นอกเหนือจากส่วนที่ถูกหักภาษี ณ ที่จ่าย					
13) พวกเขาพยายามที่จะยื่นชำระภาษีอย่างถูกต้องแต่ ทำผิดพลาดโดยไม่ได้ตั้งใจ เนื่องจากแบบฟอร์มภาษี ซับซ้อนเกินไป					
14) พวกเขาแค่คำนวณผิดพลาด					
15) อื่นๆ โปรดระบุ _____					

9. ท่านคิดว่าโอกาสที่ท่านจะ**ถูกตรวจสอบภาษี**จากกรมสรรพากรเป็นร้อยละเท่าไร

- 0-20% ไม่มีหรือเกือบไม่มี
- 21-40% น้อยกว่าครึ่ง
- 41-60% ประมาณครึ่งหนึ่ง
- 61-80% มากกว่าครึ่ง
- 81-100% เกือบทั้งหมดหรือทั้งหมด

10. ท่านทราบหรือไม่ว่า **โทษทางอาญากรณีเจตนาละเลยไม่ยื่นแบบแสดงรายการเพื่อหลีกเลี่ยงการเสียภาษีอากร** ตามประมวลรัษฎากร 2551 คืออะไร

- ทราบ
- ไม่ทราบ
- ไม่แน่ใจ

11. ท่านคิดว่า**โทษทางอาญากรณีเจตนาละเลยไม่ยื่นแบบแสดงรายการเพื่อหลีกเลี่ยงการเสียภาษีอากร**ตามประมวลรัษฎากร 2551 คืออะไร (ถ้าท่านไม่ทราบ โปรดเลือกตอบข้อที่ท่านคิดว่าเป็นไปได้มากที่สุด)

- ปรับไม่เกิน 2,000 บาท หรือ จำคุกไม่เกิน 3 เดือน หรือ ทั้งปรับทั้งจำ
- ปรับไม่เกิน 5,000 บาท หรือ จำคุกไม่เกิน 6 เดือน หรือ ทั้งปรับทั้งจำ
- ปรับไม่เกิน 10,000 บาท หรือ จำคุกไม่เกิน 1 ปี หรือ ทั้งปรับทั้งจำ
- ปรับไม่เกิน 20,000 บาท หรือ จำคุกไม่เกิน 2 ปี หรือ ทั้งปรับทั้งจำ

12. ท่านทราบหรือไม่ว่า บทลงโทษตามประมวลรัษฎากร 2551 สำหรับการจ่ายภาษีเงินได้ไม่ตรงเวลา ต้องชำระ**เงินเพิ่ม**เป็นเท่าไร

- ทราบ
- ไม่ทราบ
- ไม่แน่ใจ

13. ท่านคิดว่าอัตราการเสีย**เงินเพิ่ม**สำหรับการจ่ายภาษีเงินได้ไม่ตรงเวลาตามประมวลรัษฎากร 2551 เป็นเท่าไร (ถ้าท่านไม่ทราบ โปรดเลือกตอบข้อที่ท่านคิดว่าเป็นไปได้มากที่สุด)

- ร้อยละ 0.5 ต่อเดือนของจำนวนภาษีที่ต้องชำระ
- ร้อยละ 1.5 ต่อเดือนของจำนวนภาษีที่ต้องชำระ
- ร้อยละ 5 ต่อเดือนของจำนวนภาษีที่ต้องชำระ
- ร้อยละ 10 ต่อเดือนของจำนวนภาษีที่ต้องชำระ

14. ท่านทราบหรือไม่ว่า บทลงโทษตามประมวลรัษฎากร 2551 ในกรณีที่ถูกกรมสรรพากรตรวจสอบแล้วพบว่าชำระภาษีไม่ถูกต้อง

ต้องเสีย**เบี้ยปรับ**เป็นอัตราเท่าไร

- ทราบ
- ไม่ทราบ
- ไม่แน่ใจ

15. ท่านคิดว่าบทลงโทษตามประมวลรัษฎากร 2551 ในกรณีที่ถูกกรมสรรพากรตรวจสอบแล้วพบว่าชำระภาษีไม่ถูกต้อง ต้องเสีย**เบี้ยปรับ**เป็นอัตราเท่าไร (ถ้าท่านไม่ทราบ โปรดเลือกตอบข้อที่ท่านคิดว่าเป็นไปได้มากที่สุด)

- 0.5 ถึง 1 เท่าของจำนวนภาษีที่ต้องชำระ
- 1 ถึง 2 เท่าของจำนวนภาษีที่ต้องชำระ
- 3 ถึง 4 เท่าของจำนวนภาษีที่ต้องชำระ
- 4 ถึง 5 เท่าของจำนวนภาษีที่ต้องชำระ

16. ท่านทราบหรือไม่ว่า**โทษทางอาญากรณีใจ** แจ้งข้อความเท็จ หรือแสดงหลักฐานเท็จหรือข้อโกงฯ เพื่อหลีกเลี่ยงหรือพยายาม**หลีกเลี่ยงการเสียภาษีอากร**ตามประมวลรัษฎากร 2551 คืออะไร

- ทราบ
- ไม่ทราบ
- ไม่แน่ใจ

17. ท่านคิดว่า**โทษทางอาญากรณีใจ** แจ้งข้อความเท็จ หรือแสดงหลักฐานเท็จหรือข้อโกงฯ เพื่อหลีกเลี่ยงหรือพยายาม**หลีกเลี่ยงการเสียภาษีอากร**ตามประมวลรัษฎากร 2551 คืออะไร (ถ้าท่านไม่ทราบ โปรดเลือกตอบข้อที่ท่านคิดว่าเป็นไปได้มากที่สุด)

- จำคุก 3 เดือน – 5 ปี และปรับ 1,000 – 100,000 บาท
- จำคุก 3 เดือน – 7 ปี และปรับ 2,000 – 200,000 บาท
- จำคุก 6 เดือน – 7 ปี และปรับ 5,000 – 200,000 บาท
- จำคุก 6 เดือน – 10 ปี และปรับ 5,000 – 500,000 บาท

18. ข้อความต่อไปนี้ เป็นบทลงโทษตามประมวลระษฎากร 2551 ท่านรู้สึกอย่างไรกับบทลงโทษแต่ละข้อ กรุณาทำเครื่องหมาย
 ✓ ในช่องที่ตรงกับความเห็นของท่านมากที่สุด

	เบา เกินไป มาก	เบา เกินไป	ไม่เบา หรือหนัก เกินไป	หนัก เกิน ไป	หนัก เกินไป มาก
1) โทษทางอาญากรณีเจตนาละเลยไม่ยื่นแบบแสดงรายการเพื่อ หลีกเลี่ยงการเสียภาษีอากร คือ ปรับไม่เกิน 5,000 บาท หรือ จำคุกไม่เกิน 6 เดือน หรือ ทั้งปรับทั้งจำ ท่านรู้สึกอย่างไรกับบทลงโทษดังกล่าว					
2) การจ่ายเงินเพิ่มสำหรับการจ่ายภาษีเงินได้ไม่ตรงเวลา คือร้อยละหนึ่งจุด ห้าต่อเดือนของจำนวนภาษีที่ต้องชำระ นั่นคือถ้าจำนวนภาษีที่ท่านต้องชำระ คือ 10,000 บาท ท่านจะต้องจ่ายค่าปรับอย่างน้อย 150 บาทต่อเดือน ท่าน รู้สึกอย่างไรกับบทลงโทษดังกล่าว					
3) ในกรณีถูกกรมสรรพากรตรวจสอบพบว่าชำระภาษีไม่ถูกต้อง จะต้องชำระ เบี้ยปรับเป็นจำนวนหนึ่งหรือสองเท่าของจำนวนภาษีที่ต้องชำระแล้วแต่ กรณีเพิ่มเติมจากเงินเพิ่มร้อยละหนึ่งจุดห้าต่อเดือน นั่นคือถ้าจำนวนภาษีที่ ท่านต้องชำระคือ 10,000 บาท ท่านจะต้องจ่ายเงินเพิ่ม 20,000 ถึง 30,000 บาท เพิ่มเติมจากค่าปรับ 150 บาทต่อเดือน ท่านรู้สึกอย่างไรกับบทลงโทษ ดังกล่าว					
4) โทษทางอาญากรณีจงใจ แจ้งข้อความเท็จ หรือแสดงหลักฐานเท็จหรือ ข้อโกงเพื่อหลีกเลี่ยงหรือพยายามหลีกเลี่ยง การเสียภาษีอากรคือจำคุก ตั้งแต่หกเดือนถึงเจ็ดปีและปรับตั้งแต่สองพันถึงสองแสนบาท ท่านรู้สึก อย่างไรกับบทลงโทษดังกล่าว					

19. ท่านคิดว่า**เป็นไปได้มากหรือน้อยเพียงใด** ที่ผู้ที่เจตนาละเลยไม่ยื่นแบบแสดงรายการเพื่อหลีกเลี่ยงการเสียภาษีอากร จะหันมา**ยื่นแบบชำระภาษี**มากขึ้น หาก**โทษทางอาญาเพิ่มขึ้นเป็นสองเท่า** เช่น จากปรับไม่เกิน 5,000 บาท หรือ จำคุกไม่เกิน 6 เดือน หรือ ทั้งปรับทั้งจำ เป็นปรับไม่เกิน 10,000 บาท หรือ จำคุกไม่เกิน 1 ปี หรือ ทั้งปรับทั้งจำ

- เป็นไปไม่ได้อย่างมาก
- เป็นไปไม่ได้
- เป็นไปได้และเป็นไปไม่ได้พอๆ กัน
- เป็นไปได้
- เป็นไปได้อย่างมาก

20. ท่านคิดว่า**เป็นไปได้มากหรือน้อยเพียงใด**ที่ท่านหรือประชาชนโดยทั่วไปจะ**พยายามแจ้งชำระภาษีให้ถูกต้องตามความเป็นจริงมากยิ่งขึ้น** (แจ้งรายได้ ค่าลดหย่อน หรือค่าใช้จ่ายให้ตรงกับความเป็นจริงมากยิ่งขึ้น) ในกรณีดังต่อไปนี้ กรุณาทำเครื่องหมาย ✓ ในช่องที่ตรงกับความเห็นของท่านมากที่สุด

	เป็นไปได้ ได้อย่าง มาก	เป็น ไป ไม่ได้	เป็นไปได้และ เป็นไปได้ พอๆ กัน	เป็น ไป ได้	เป็นไปได้ อย่างมาก
1) ถ้าโอกาสในการถูกตรวจสอบจากกรมสรรพากรสูงขึ้น					
2) ถ้ากรมสรรพากรแจ้งท่านล่วงหน้า (ก่อนที่ท่านจะยื่นแบบชำระภาษี) ว่าท่านจะถูกตรวจสอบภาษี					
3) ถ้ากรมสรรพากรประกาศให้ประชาชนรับรู้อย่างเป็นทางการถึงโอกาสในการถูกตรวจสอบภาษีของผู้ยื่นภาษีฯ ในแต่ละปี					
4) ถ้าเพิ่มบทลงโทษ เงินเพิ่ม เป็นสองเท่า เช่น จากร้อยละ 1.5 เป็นร้อยละ 3					
5) ถ้าเพิ่มบทลงโทษ เบี้ยปรับ เป็นสองเท่า เช่น จาก 1-2 เท่า เป็น 3-4 เท่า ของจำนวนภาษีที่ต้องชำระ					
6) ถ้าเพิ่มบทลงโทษ โทษทางอาญากรณีจิตใจหลีกเลี่ยงการเสียภาษีอากร เป็นสองเท่า เช่น จำคุก 3 เดือนถึง 7 ปี และปรับ 2,000 ถึง 200,000 เป็น จำคุก 6 เดือนถึง 14 ปี และปรับ 4,000 ถึง 400,000 บาท					
7) ถ้ามีการบังคับใช้กฎหมายภาษีอย่างจริงจังมากกว่านี้					
8) ถ้ามีการจับสลากให้รางวัลแก่ผู้ชำระภาษีอย่างถูกต้อง					
9) ถ้ามีการให้ประกาศนียบัตรประชาชนตัวอย่างแก่ผู้ชำระ					

	เป็นไปได้ ได้อย่าง มาก	เป็น ไป ไม่ได้	เป็นไปได้และ เป็นไปได้ พอๆกัน	เป็น ไป ได้	เป็นไปได้ อย่างมาก
ภาษีอย่างถูกต้อง					
10)ถ้ามีการคืนเงินภาษีบางส่วนให้แก่ผู้ที่ชำระภาษีอย่างถูกต้อง					
11)ถ้ามีการลดอัตราภาษารตรวจสอบภาษีในอนาคตให้แก่ผู้ที่ชำระภาษีอย่างถูกต้อง					
12)ถ้ามีการให้โอกาสเพียงครั้งเดียวแก่ผู้ที่เลี่ยงภาษีให้ชำระภาษีย้อนหลัง โดยไม่ต้องผ่านกระบวนการสอบสวนและไม่ต้องรับโทษใดๆ					
13)ถ้ากรมสรรพากรประกาศว่าจะเพิ่มบทลงโทษสำหรับผู้ที่เลี่ยงภาษีหลังจากการให้โอกาสครั้งเดียวในการชำระภาษีย้อนหลัง					
14) ถ้าคุณภาพการให้บริการของหน่วยงานภาครัฐดีขึ้น					
15) ถ้าคุณภาพการให้บริการของกรมสรรพากรดีขึ้น					
16)ถ้าการให้บริการประชาชนของภาครัฐมีความเป็นธรรมมากยิ่งขึ้นโดยไม่มีการเลือกปฏิบัติ					
17)ถ้าการจัดเก็บภาษีของกรมสรรพากรมีความเป็นธรรมมากยิ่งขึ้นโดยไม่มีการเลือกปฏิบัติ					
18) ถ้าภาครัฐมีการคอร์รัปชันน้อยลง					
19) ถ้าท่านเห็นข่าวหรือรับรู้มากขึ้นว่า คนที่หลีกเลี่ยงภาษีหรือชำระภาษีต่ำกว่าความเป็นจริงได้รับการลงโทษ					

21. ท่านคิดว่าเป็นไปได้หรือไม่ที่ท่านหรือประชาชน โดยทั่วไปจะแจ้งข้าราชการตรงกับความเป็นจริงลดลง เช่น ยกเว้นการแจ้ง รายได้บางส่วน ในกรณีดังต่อไปนี้ กรุณาทำเครื่องหมาย ✓ ในช่องที่ตรงกับความคิดเห็นของท่านมากที่สุด

	เป็นไปได้ อย่างมาก	เป็นไปได้	เป็นไปได้และ เป็นไปได้	เป็นไปได้	เป็นไปได้ อย่างมาก
1) ถ้ากรมสรรพากรแจ้งท่านล่วงหน้า (ก่อนที่ ท่านจะยื่นชำระภาษี) ว่าท่านจะไม่ถูก ตรวจสอบภาษี					
2) ถ้าท่านเห็นข่าวหรือรับรู้มากขึ้น ว่ามีคน หลีกเลี่ยงไม่ชำระภาษีหรือชำระภาษีต่ำกว่า ความเป็นจริง					

สำหรับคำถามต่อจากนี้ ท่านสามารถข้ามคำถามที่ท่านไม่สบายใจที่จะตอบหรือไม่เกี่ยวข้องกับท่านได้ อย่างไร
ก็ตาม คำตอบของท่านจะไม่สามารถระบุถึงตัวท่านได้ในอนาคต และการรายงานจะแสดงผลเป็นค่าสถิติใน
เชิงของกลุ่มบุคคลเท่านั้น

22. ในปีหรือสองปีที่ผ่านมา ท่านได้ยื่นแบบชำระภาษีเงินได้บุคคลธรรมดาหรือไม่

- ยื่น
- ไม่ได้ยื่น เพราะ (โปรดระบุ) _____
- ขอไม่ตอบ

ถ้าท่านไม่ได้ยื่นชำระภาษีในปีหรือสองปีที่ผ่านมา กรุณาข้ามไปที่ข้อ 27

23. ท่านทราบไหมว่าท่านจ่ายภาษีเงินได้บุคคลธรรมดาในอัตราเท่าใด?

- ได้รับการยกเว้นจากการเสียภาษีเงินได้บุคคลธรรมดาตามกฎหมาย
- 10 %
- 20 %
- 30 %
- 37 %
- ไม่ทราบ
- ขอไม่ตอบ

24. ถ้าเปรียบเทียบภาษีเงินได้บุคคลธรรมดาที่ท่านจ่ายกับบริการของภาครัฐที่ท่านได้รับ ท่านคิดว่าท่านจ่ายภาษี...

ต่ำเกินไปมาก

ต่ำเกินไป

กำลังเหมาะสม

สูงเกินไป

สูงเกินไปมาก

ขอไม่ตอบ

25. ท่านรู้สึกอย่างไรต่อข้อความต่อไปนี้ กรุณาทำเครื่องหมาย ✓ ในช่องที่ตรงกับตัวท่านมากที่สุด

	ไม่เห็นด้วย อย่างยิ่ง	ไม่เห็น ด้วย	เฉย ๆ	เห็น ด้วย	เห็นด้วย อย่างยิ่ง	ขอไม่ ตอบ
1) ในปีหรือสองปีที่ผ่านมา ท่าน เต็มใจ ชำระภาษีเงินได้บุคคล ธรรมดาทั้งหมดที่ท่านต้องชำระตามกฎหมาย (ไม่เกี่ยวกับว่า จริงๆ แล้วท่านได้ชำระภาษีหรือไม่)						
2) ในปีหรือสองปีที่ผ่านมา ท่านตั้งใจที่จะกรอกข้อมูลอย่าง ถูกต้องเท่าที่จะเป็นไปได้ลงในแบบฟอร์มภาษีเงินได้บุคคล ธรรมดา						

26. กรุณาทำเครื่องหมาย ✓ ในช่องที่ตรงกับตัวท่านมากที่สุด

	เป็นไป ไม่ได้ อย่างมาก	เป็น ไป ไม่ได้	เป็นไปได้ และ เป็นไปไม่ได้ พอๆ กัน	เป็น ไป ได้	เป็นไป ได้อย่าง มาก	ขอ ไม่ ตอบ
1) ในปีหรือสองปีที่ผ่านมา ท่านคิดว่าเป็นไปได้มากหรือน้อยเพียงใดที่ท่านอาจจะไม่ได้แจ้งรายได้บางส่วนในการกรอกแบบฟอร์มภาษีเงินได้บุคคลธรรมดา						
2) ในปีหรือสองปีที่ผ่านมา ท่านคิดว่าเป็นไปได้มากหรือน้อยเพียงใดที่ท่านอาจจะแจ้งค่าลดหย่อนหรือค่าใช้จ่ายต่างๆ สูงเกินกว่าความเป็นจริง						

27. ท่านจะยื่นแบบชำระภาษีเงินได้บุคคลธรรมดาในปีหน้าหรือไม่

- ยื่น
- ไม่ได้ยื่น เพราะ (โปรดระบุ) _____
- ขอไม่ตอบ

28. ท่านเห็นด้วยมากหรือน้อยเพียงใดกับประโยคนี้ กรุณาทำเครื่องหมาย ✓ ในช่องที่ตรงกับตัวท่านมากที่สุด

	ไม่เห็นด้วย อย่างยิ่ง	ไม่เห็น ด้วย	เฉย ๆ	เห็น ด้วย	เห็นด้วย อย่างยิ่ง	ขอไม่ ตอบ
1) ท่านเต็มใจในการชำระภาษีเงินได้บุคคลธรรมดาทั้งหมดที่ท่านต้องชำระตามกฎหมายในปีหน้า						
2) ในปีหน้า ท่านตั้งใจที่จะกรอกข้อมูลอย่างถูกต้องเท่าที่จะเป็นไปได้ลงในแบบฟอร์มภาษีเงินได้บุคคลธรรมดา						

29. กรุณาทำเครื่องหมาย ✓ ในช่องที่ตรงกับตัวท่านมากที่สุด

	เป็นไปได้ ไม่ได้ อย่าง มาก	เป็นไปได้ ไม่ได้	เป็นไปได้ และ เป็นไปได้ ไม่ได้ พอๆ กัน	เป็นไปได้	เป็นไปได้ อย่าง มาก	ขอไม่ ตอบ
1) ในปีหน้านี้ ท่านคิดว่าเป็นไปได้มากหรือน้อย เพียงใดที่ท่านอาจจะไม่ได้แจ้งรายได้บางส่วนในการ กรอกแบบฟอร์มภาษีเงินได้บุคคลธรรมดา						
2) ในปีหน้านี้ ท่านคิดว่าเป็นไปได้มากหรือน้อย เพียงใดที่ท่านอาจจะแจ้งค่าลดหย่อนหรือค่าใช้จ่าย ต่างๆ สูงเกินกว่าความเป็นจริง						

30. กรุณาให้ความเห็นของท่านเพิ่มเติมต่อระบบบริหารการจัดเก็บภาษีเงินได้บุคคลธรรมดาของประเทศไทย ความเห็นของท่านสามารถรวมถึงสาเหตุที่ท่านคิดว่าทำไมคนถึงเลี่ยงภาษี ทำอย่างไรถึงจะสามารถทำให้ประชาชนเต็มใจเสียภาษีมากยิ่งขึ้น
รางวัลหรือบทลงโทษใดที่ท่านคิดว่าควรจะนำมาใช้ รัฐควรจะทำอะไรให้ประชาชนมากขึ้น เป็นต้น

มีคำถามต่อหน้าถัดไป

โปรดกรอกข้อมูลส่วนตัวของท่าน

เพศ
<input type="radio"/> ชาย
<input type="radio"/> หญิง
อายุ _____ ปี
ระดับการศึกษาสูงสุด:
<input type="radio"/> ประถมศึกษาหรือต่ำกว่า
<input type="radio"/> มัธยมศึกษาหรือเทียบเท่า
<input type="radio"/> อนุปริญญา
<input type="radio"/> ปริญญาตรี
<input type="radio"/> ปริญญาโท
<input type="radio"/> ปริญญาเอกหรือสูงกว่า
อาชีพ: (เลือกทั้งหมดที่เกี่ยวข้อง)
<input type="radio"/> ข้าราชการ
<input type="radio"/> พนักงานอื่นๆ ของรัฐ
<input type="radio"/> พนักงานบริษัท
<input type="radio"/> นักธุรกิจ เจ้าของกิจการ ค้าขาย
<input type="radio"/> ข้าราชการการเมือง นักการเมือง
<input type="radio"/> อาชีพอิสระ
<input type="radio"/> อื่นๆ โปรดระบุ - _____

สถานภาพในการสมรสปัจจุบัน:
<input type="radio"/> โสด
<input type="radio"/> แต่งงาน
ถ้าแต่งงาน ท่านยื่นชำระภาษีอย่างไร
<input type="radio"/> ร่วมกับคู่สมรส
<input type="radio"/> แยกยื่นภาษี
รายได้ทั้งหมดของท่านหรือของท่านกับคู่สมรส ตามวิธีที่ท่านยื่นชำระภาษี
<input type="radio"/> ต่ำกว่า 150,000 บาท ต่อปี หรือประมาณ 12,500 บาท ต่อเดือน
<input type="radio"/> 150,001-500,000 บาท ต่อปี หรือประมาณ 12,500 – 42,000 บาท ต่อเดือน
<input type="radio"/> 500,000-1,000,000 บาท ต่อปี หรือประมาณ 42,000 – 83,000 บาท ต่อเดือน
<input type="radio"/> 1,000,001-4,000,000 บาท ต่อปี หรือประมาณ 83,000 – 330,000 บาท ต่อเดือน
<input type="radio"/> มากกว่า 4,000,001 บาท ต่อปี หรือประมาณ 333,000 บาท ต่อเดือน
จำนวนบุตร _____ คน (ถ้าไม่มีตอบ 0)
ผู้ที่พึ่งพาท่านด้านการเงิน
<input type="radio"/> เด็กอายุต่ำกว่า 18 ปี จำนวน _____ คน
<input type="radio"/> ผู้สูงอายุ เกิน 60 ปี จำนวน _____ คน
<input type="radio"/> ผู้พิการ จำนวน _____ คน
<input type="radio"/> ผู้ว่างงาน จำนวน _____ คน

จบแบบสอบถามเพียงเท่านี้ ขอขอบพระคุณอีกครั้งที่

ท่านกรุณาเสียสละเวลา

ตอบแบบสอบถามนี้ หากท่านมีคำถามหรือ

ข้อเสนอแนะใดๆ สามารถติดต่อผู้วิจัย

นางสาวมณีขวัญ จันทร์ศร ได้ที่ manee@ku.edu

Appendix C

Data Analysis Techniques

All data analysis techniques are presented here. First, processing involving how to deal with ‘Prefer Not to Answer’ and missing data will be discussed. Next, factor analysis (both exploratory and confirmatory), which is used to separate tax compliance reasons into subgroups based on their similarity, and the cross-validation strategy to confirm those subgroups will be explained. Finally, I will explain latent transition analysis (LTA), which is used to classify participants into different groups based on their tax compliance behaviors, and describe how I use independent variables (i.e. tax compliance reasons’ subgroups and other demographic characteristics) to predict their behaviors. I used R (R Development Core Team, 2011) for pre-analysis data processing and Mplus (Muthén & Muthén, 1998-2011) for all other statistics.

1. Pre-Analysis Data Processing Techniques

All responses in ‘Prefer Not to Answer’ were all treated as missing data. Note that the frequencies of these responses on each dependent variable question were 9 to 29 percent.

All missing data will be handled by a maximum likelihood method, which is one of the best methods handling missing data (Graham, 2009; Schafer & Graham, 2002). The likelihood function will be tailored to fit in each response and skip all missing values. However, the whole data of a participant may be excluded from the analysis dataset if all variables in the analysis were missing (e.g. in LTA). In Mplus, latent transition analysis cannot account for auxiliary variables. Therefore, unfortunately, about 6% of participants were deleted from the analysis (listwise deletion). Multiple imputations could be done but the method to pool the results from LTA is still unclear. Thus, I leave this as a limitation of this study.

For the income variable, I used averages of bounded income in each category to represent a value of each category. The last category (4,000,001 Baht per year or more) was assumed that the upper bound was 7,000,000 Baht per year, which the gap was equal to the second highest category. For the purpose of clarity, I used million Baht unit for income. Thus, the value of income of each category was 0.075 Million, 0.325 Million, 0.750 Million, 2.5 Million, and 5.5 Million Baht per year. This variable is treated as if it is in the ratio scale. Based on the transformed scale, the average income was 0.335 Million Baht (SD = 0.628).

2. Factor Analysis Techniques

Because all items in Question 6 and 8 were measured in five-ordered categories (from 1 very unlikely to 5 very likely), factor analysis on ordinal items and robust weighted least square estimation method were used. Robust weighted least square is an appropriate estimation method for non-normal distribution as maximum likelihood method could not be used for ordinal items because of multivariate normal distribution violation. I used robust weighted least squared estimator, specifically WLSMV estimator in Mplus. See Flora and Curran (2004) for further details about the estimation method.

Exploratory factor analysis (EFA) was used to suggest groups (factors) of tax compliance determinants in calibration sample. In EFA, researchers usually run multiple analyses by different number of factors or different ways of rotation in order to find the most fit/meaningful factors.

To select the number of factors, model fit indices, the contribution of additional factors, and the interpretation of factor results were used. The selected number of factor should provide adequate fit that adding another factor will not be meaningful.

- *Selecting Number of Factors*

There are many fit indices used for model fit evaluation. In this study, I used root mean squared error of approximation (RMSEA), comparative fit index (CFI), Tucker-Lewis index (TLI), and standardized root mean squared error (SRMR, which is available for CFA only). For adequate fit, RMSEA should be less than .10, CFI should be greater than .90, TLI should be greater than .90, and SRMR should be less than .08.

Next, I checked whether an additional factor was meaningful via factor loadings. Factor loading is the measure of how large each factor contributes to each indicator. If factor loading of a factor on an indicator is close to 0, the factor does not explain any variation in the indicator. If factor loading is close to 1 or -1, the factor dominantly explains the indicator. If the additional factor does not have high factor loadings with any indicators, this additional factor should be dropped.

Finally, all result factors should be meaningful for interpretation. The meaning of a factor is interpreted from the items that have high factor loading from the particular factor. Usually, researchers read the content of the items with high loadings, find their common things that these items measured, and use these common things as the meaning of a factor. Sometimes, the resulting factor loadings are not meaningful for interpretation, which means that the number of factors may not be correct.

- *Selecting Types of Rotation*

Factor loadings results also depend on different types of rotation. In EFA, different sets of factor loadings can provide exactly the same model fit. Researchers can pick one of the solutions that is easy to interpret. This situation is similar to choosing a different starting point in

explaining map direction. The target is still the same but picking the appropriate starting point can provide easier interpretation. EFA provides the different criteria for selecting an optimal factor loadings result by different rotation methods, such as Varimax, Quartimin, or Geomin. I used Quartimin in all analyses. The reasons I chose Quartimin rotation is that: 1) it is an oblique rotation, which allows factors to be correlated among one another and 2) this rotation theoretically provides only one high factor loading in each item. I also ran the results with other rotation methods, such as Geomin and Promax, but the results are similar to what I found by Quartimin. Thus, only the factor results from Quartimin will be reported in the results. See Browne (2001) for further details about rotation methods.

After EFA, Confirmatory factor analysis (CFA) was used to validate the factor results from EFA on the validation sample. In validation sample, the high factor loadings from EFA solution were freely estimated in CFA. However, all small cross-loadings from EFA results were constrained to be 0 in CFA. Then, the model fit was evaluated by the same criteria described in EFA (except SRMR). The CFA results should provide good fits to support cross validation of factor results. After cross-validation processes, all samples (both calibration and validation samples) were analyzed by CFA. Then, the scores of each factor (i.e. factor scores) were estimated from all participants using refined regression method. As a result, tax compliance factors were derived from this analysis.

3. Latent Transition Analysis Techniques

LTA is used to classified participants into subgroups based on their characteristics in multiple timepoints (Kaplan, 2008; Nylund, 2007; Nylund, Asparouhov, & Muthén, 2007). Here, their responses regarding tax compliance behaviors (Questions 22, 25.2, 26.1, 26.2, 27, 28.2,

29.1 and 29.2) were used in the analysis. In each time point (past behavior and future intention), there were three questions: 1) whether the participants file tax (2 category), 2) whether they understate their income (5 ordered categories), and 3) whether they overstate deduction/expenses (5 ordered categories). The purposes of LTA for this study are to obtain tax compliance classes and then gauge determinants of tax compliance by incorporating independent variables from factor analysis results to predict tax compliance classes.

- *Selecting Number of Classes*

Similar to EFA, LTA is usually exploratory. The first step is to find the number of latent classes (groups) of participants. The criterion for selecting number of classes in LTA is similar to those of EFA. Researchers need the number of classes that provides a good model fit in which all classes are interpretable. If adding another class to the optimum number of classes, that additional class will not be meaningful.

The model fit was evaluated by Akaike Information Criterion (AIC), Bayesian Information Criterion (BIC) and Sample Size adjusted Bayesian Information Criterion (SSBIC). The AIC, BIC, and SSBIC were used to compare the solutions based on different numbers of classes. The solution with the least values of these indices provides the best model fit. If there are different suggested solutions among fit indices, the researchers should choose the one with the best interpretation.

To interpret each class, the proportions of endorsing each response from each class are used in the interpretation of the meanings of all classes (similar to factor loading in factor analysis). For example, a class may be interpreted as not filing tax group if the proportion of file tax by this class is low (close to 0).

In this study, LTA was used to investigate how people change class membership between past behaviors and future intention via a multinomial logistic regression with dummy variables, where the intercept of the reference class was set to 0. See Nylund (2007) for further details about LTA equations. Here, the class interpreted as “not filing tax” is used as the reference class.

- *Finding tax compliance determinants*

Next, independent variables (tax compliance factors and demographic variables) were introduced to the model to find determinants of tax compliance. These independent variables have two roles: 1) predicting tax compliance classes in past behavior and 2) predicting tax compliance classes in their future intention (controlling for tax compliance classes in their past behavior). This study will not analyze the interaction between an independent variable and past tax compliance classes because of nonconvergence.

AIC is used to test the significance of the independent variables by comparing two models (free and fixed). The first model (free) estimates regression coefficients of an independent variable in all log odds equations. The second model (fixed) constrains the regression coefficients to be 0 in all log odds equations. If the first (free) model has a lower AIC, the effect of the independent variable onto class membership exists i.e. significant. If the second model (fixed) has a lower AIC, the effect of the independent variable onto class membership does not exist i.e. not significant. As a result, tax compliance determinants were determined.

Appendix D

Interview Protocol and Interview Questions

Oral Consent Procedures

As a student in the University of Kansas's Department of Public Administration, I am conducting my dissertation on the perceptions of Thai tax administration. The objective is to propose ways of improving our tax administration. I would like to interview you to obtain your views on current tax administration and ways you think could improve Thai tax administration. You have no obligation to participate and you may discontinue your involvement at any time.

Participation in this interview indicates your willingness to take part in this study. **The interview will take approximately 20 minutes of your time.** Please indicate your willingness to include your name in the research findings. If you do not agree to disclose your name, your name will not be associated in any publication or presentation with the information collected about you or with the research findings from this study.

Should you have any questions about this project or your participation in it you may ask me Maneekwan Chandarasorn, Ph.D. candidate, Public Administration Department, the University of Kansas at manee@ku.edu or call 081-443-4222. You may also contact my faculty supervisor, Professor H. George Frederickson at the Department of Public Administration at the University of Kansas at gfred@ku.edu or call +1(785) 864-9095. If you have any questions about your rights as a research participant, you may call the Human Subjects Protection Office at +1(785) 864-7429 or email mdenning@ku.edu.

Thai Tax Administration Perception Interview Questions

ประเด็นการสัมภาษณ์เรื่องการรับรู้เกี่ยวกับภาษีเงินได้บุคคลธรรมดาในประเทศไทย

1. What is your opinion on tax evasion situation in Thailand?

ท่านมีความคิดเห็นอย่างไรเกี่ยวกับการหลบเลี่ยงภาษีในเมืองไทย

- Do you think why some people don't file their personal income taxes?
ท่านคิดว่าทำไมคนบางกลุ่มถึงไม่ยื่นชำระภาษีเงินได้บุคคลธรรมดา
- Do you think why some people don't declare their incomes accurately when filing personal income taxes?
ท่านคิดว่าทำไมคนบางกลุ่มถึงยื่นชำระภาษีเงินได้บุคคลธรรมดาไม่ตรงกับความเป็นจริง
- Do you think Thai people perceive tax evasion as acceptable behavior? Is the situation getting better or worse comparing to the past?
ในความเห็นของท่าน ท่านคิดว่าการหลบเลี่ยงภาษีเป็นพฤติกรรมที่ยอมรับได้ในสังคมไทยหรือไม่อย่างไร สถานการณ์ในปัจจุบันดีขึ้นหรือแย่ลงกว่าในอดีต

2. What are the weaknesses and strengths of current Thai tax administration system?

ท่านคิดว่าอะไรคือจุดอ่อนและจุดแข็งของการบริหารการจัดเก็บภาษีของประเทศไทยในปัจจุบัน

3. What are the factors that affect tax complaint behavior of Thai people?

ท่านคิดว่าปัจจัยใดบ้างที่ส่งผลกระทบต่อการยินยอมจ่ายภาษีของคนไทย

- Enforcement perception (e.g. audit rate, penalties)
การรับรู้เกี่ยวกับการบังคับใช้กฎหมาย เช่น อัตราการตรวจสอบภาษี บทลงโทษ
- Incentive perception (e.g. rewards, tax amnesty)
การรับรู้เกี่ยวกับการให้รางวัลและสิ่งจูงใจต่างๆ
- Tax/governmental administration perception (e.g. procedural fairness, responsiveness)
การรับรู้เกี่ยวกับการบริหารจัดการของภาครัฐและหน่วยงานจัดเก็บภาษี เช่น ความมีประสิทธิภาพ ความเป็นธรรม ความโปร่งใส

4. What are the strategies you suggest could help make taxpayers become more compliant?

ท่านคิดว่ามีกลยุทธ์ใดที่จะสามารถช่วยให้ผู้มีหน้าที่ชำระภาษียื่นชำระภาษีอย่างถูกต้องมากขึ้น

Appendix E

Interview Participants

Tax expert no.1: High-ranking public official/tax administrator from Ministry of Finance, Thailand. 30 years of experience in income and consumption tax administration.

Tax expert no.2: Medium-ranking public official/tax policy expert from Ministry of Finance, Thailand. Senior Economist. 8 years of experience in income and consumption tax policy.

Tax expert no.3: High-ranking public official/tax policy expert from Ministry of Finance, Thailand. Head of Property Tax Policy Division. 30 years of experience in tax policy.

Tax expert no.4: High-ranking public official/tax policy expert from Ministry of Finance, Thailand. Head of Income and Consumption Tax Policy Division. 10+ years of experience in economic policy.

Tax expert no.5: University professor from Thammasat University, Thailand. Associate Professor in Economics. Major contributions in Local Public Finance and Decentralization. Work regularly as a consultant to the Thai government. Ph.D. from the United States.

Tax expert no.6: Executive-level public official/tax policy expert from Ministry of Finance Thailand. Director of Bureau of Policy on Financial Benefit Protection System. 20+ years of experience in tax policy.

Tax expert no.7: Medium-ranking public official/tax policy expert from Ministry of Finance, Thailand. Senior Economist. 5+ years of experience in income and consumption tax policy.

Tax expert no.8: Medium-ranking public official/tax policy expert from Ministry of Finance, Thailand. Senior Economist. 5+ years of experience in fiscal policy and income and consumption tax policy. Ph.D. from the United States.

Tax expert no.9: Executive-level public official/tax policy expert from Ministry of Finance. Director of Saving and Investment Policy Bureau. 30 years of experience in general tax policy and income and consumption tax policy.

Tax expert no.10: University professor/President from Durakij Pundit University, Thailand. Former Minister of Education of Thailand. Associate professor of Economics. Well-known columnist. Experiences in business sector. Ph.D. from the United States.

Tax expert no.11: High-ranking public official/tax policy expert from Ministry of Finance, Thailand. Head of Tax Incentive Policy Division. 30 years of experience in tax policy.

Tax expert no.12: Medium-ranking public official/tax administrator from Ministry of Finance, Thailand. 3 years of experience in income and consumption tax administration.

Tax expert no.13: University professor from Thai University Research Association, Thailand. Professor of Public Administration. Major contributions in Bureaucratic Reform. Former Director-General of the Office of the Educational Council of Thailand. Ph.D. from the United States.

Tax expert no.14: Executive public official/Deputy Director-General from Bureau of the Budget, Thailand. 30 years of experience in budgeting. M.P.A. from the United States.

Tax expert no.15: High-ranking public official/tax policy expert from Ministry of Finance, Thailand. Head of Export Promotion Sub-Division. 10+ years of experience in tax policy particularly in tax incentives.