



UNIVERSITI PUTRA MALAYSIA

**MORAL DEVELOPMENT AND ETHICAL DECISION MAKING
IN TAX COMPLIANCE: EVIDENCE FROM ACCOUNTANTS
IN MALAYSIA**

VEERINDERJEET SINGH

FEP 1999 10

**MORAL DEVELOPMENT AND ETHICAL DECISION MAKING
IN TAX COMPLIANCE : EVIDENCE FROM ACCOUNTANTS
IN MALAYSIA**

By

VEERINDERJEET SINGH

**Thesis Submitted in Fulfilment of the Requirements for the
Degree of Doctor of Philosophy in the Faculty of
Economics and Management
Universiti Putra Malaysia**

June 1999



DEDICATION

This thesis is dedicated to my late father,
Master A.D. Tejwant Singh Ji who always
encouraged my educational endeavours and
expounded the value of education;

to my mother who never wavered in her support
for my decision to pursue a doctoral degree;

to my brothers, sisters and other members of my
family for their support, patience and
understanding; and

to all those who have assisted me in one way or
another to complete this thesis.



ACKNOWLEDGEMENTS

I would like to thank the Deans of the Faculty of Economics and Management and the Graduate School of Universiti Putra Malaysia for allowing me the opportunity to pursue my doctoral degree.

I would like to give much thanks for the support, patience and understanding given by my late father, mother, brothers, sisters and other family members. Without their assistance, it would have been difficult for me to complete my PhD.

I extend my sincere thanks and gratitude to my committee chairman, Associate Professor Dr. K. Kuperan for his guidance and supervision throughout the period of my doctoral studies. Despite his hectic work schedule, Dr. Kuperan always found time especially during weekends to meet and discuss various aspects of my research. He was always mindful of the fact that I also had a very hectic work schedule in the private sector.

I am also very grateful for the assistance provided by the other members of my supervisory committee, Associate Professors Dr. Shamsheer Mohd. Ramadili and Tan Liong Tong. Their views and comments helped to fine tune many aspects of my research. I am most thankful to Dr. Shamsheer



who, despite the fact that he was away on his sabbatical in the United Kingdom, continued to offer constructive comments and guidance.

A special thanks to Professor Dr. Judy Tsui of the City University of Hong Kong who had given me encouragement as well as provided me with research materials on moral development.

To S. Kuppusamy, I owe a debt of gratitude for assisting me in the various statistical aspects of the research. He was ever-willing to spend his evenings to go through the statistical output with me.

My thanks are also due to the numerous individuals who have directly or indirectly contributed to the successful completion of this study.

Finally, I thank God for granting my wish to complete my doctoral studies.



TABLE OF CONTENTS

		Page
ACKNOWLEDGEMENTS		iii
LIST OF TABLES.....		viii
LIST OF FIGURES.....		x
ABSTRACT.....		xi
ABSTRAK.....		xiii
 CHAPTER		
I	INTRODUCTION.....	1
	Overview of the Tax Systems.....	1
	Background.....	13
	Tax Compliance.....	13
	Ethics Research in Accounting.....	21
	Meaning and Concept of Ethics.....	24
	Approaches to Understand Ethical Behaviour.....	26
	Motivation for the Study.....	34
	Objective of the Study.....	40
	Outline of the Study.....	44
	Summary.....	46
 II	LITERATURE REVIEW ON COMPLIANCE.....	 47
	Introduction.....	47
	Early Studies on Crime and Law Enforcement.....	48
	Economic Theories of Compliance Behaviour.....	51
	Becker's Model.....	52
	Extensions of the Becker Model.....	54
	Portfolio Selection Models.....	55
	Contributions from other Social Sciences.....	56
	Studies on Tax Compliance.....	66
	Theoretical or Economic Deterrence Models.....	69
	Psychological and Sociological Models of Tax Behaviour.....	95
	Determinants of Tax Compliance.....	118
	Legitimacy and Moral Development.....	174
	Summary.....	181
 III	LITERATURE REVIEW ON ETHICS.....	 187
	Introduction.....	187
	Professional and Business Ethics.....	188
	Accounting Ethics Literature.....	194
	Business and Marketing Ethics Literature.....	201
	Cognitive Theorists.....	206
	Social Situational Theorists.....	209
	Interactionist Theorists.....	212
	General Decision Making Model.....	221



	Theoretical Model for Ethical Decision-Making in Tax Compliance.....	223
	Summary.....	228
IV	COGNITIVE MORAL DEVELOPMENT THEORY.....	230
	Introduction.....	230
	Cognitive Process.....	231
	Kohlberg's Theory of Cognitive Moral Development.....	238
	Criticisms of Kohlberg's Theory.....	257
	Antecedents of Moral Development.....	261
	Moral Reasoning Levels of Professional Accountants.....	264
	Summary.....	274
V	HYPOTHESES DEVELOPMENT.....	275
	Introduction.....	275
	Decision-Making Task.....	276
	Individual Differences.....	278
	Big Six and Non-Big Six Firms.....	279
	Legitimacy.....	280
	Contextual Variable.....	282
	Moral Reasoning and Ethical Behaviour.....	283
	Moral Reasoning - The Defining Issues Test.....	288
	Hypothesis.....	297
	Moral Reasoning.....	297
	Individual Differences.....	301
	Contextual Factor.....	305
	Summary.....	314
VI	RESEARCH METHODOLOGY.....	315
	Introduction.....	315
	Measurement of Variables.....	316
	Dependent Variable.....	317
	Moral Reasoning.....	323
	Big Six and Non-Big Six Firms.....	330
	Legitimacy.....	331
	Size of Tax Deduction.....	333
	Subject and Sample Size.....	334
	Procedures.....	337
	Research Instruments.....	340
	Data Analysis Techniques.....	341
	Summary.....	347
VII	DATA ANALYSIS AND RESULTS.....	348
	Introduction.....	348
	Descriptive Statistics.....	348
	Validity and Internal Reliability of Variables.....	353
	Results.....	356
	Summary.....	372



VIII	DISCUSSION OF RESULTS	373
	Introduction	373
	Hypotheses Tests.....	375
	Moral Reasoning	392
	Type of Firm.....	399
	Legitimacy	401
	Contextual Variable.....	403
	Socio-Economic Variables.....	405
	Summary.....	408
IX	CONCLUSION AND RECOMMENDATIONS	410
	Introduction	410
	Summary of Objective, Research Questions and Hypotheses.....	410
	Summary of Findings.....	412
	Implications and Recommendations.....	414
	Limitations	421
	Future Research.....	424
	Summary.....	431
	BIBLIOGRAPHY	433
	.	
	APPENDIX	
	A Normative Ethical Theories.....	481
	B Theoretical Frameworks on Ethical Behaviour.....	492
	C Accountants' Tax Decision Making Questionnaire.....	502
VITA	512



LIST OF TABLES

Table	Page
2.1 Possible Causes of Tax Evasion.....	183
4.1 Six Stages of Moral Reasoning.....	246
4.2 The Six Equilibrium Stages of Ethical Cognition.....	250
4.3 Review of Ethical Reasoning Studies in Accounting and Auditing.....	265
5.1 Comparative Accountants' DIT scores.....	293
6.1 Summary of the Measurement of Variables.....	316
6.2 Sample Size.....	336
6.3 Demographic Information of Respondents.....	338
6.4 Independent and Dependent Variables.....	345
7.1 Accountants' Response to Tax Compliance Conflict Situations.....	349
7.2 Moral Reasoning (P Score) Values.....	350
7.3 Legitimacy Statements.....	351
7.4 Descriptive Statistics for Variables in the Model.....	352
7.5 Comparisons to DIT P Score Norms.....	352
7.6 Results of Hypotheses Testing (Compliance Conflict Situation A).....	358
7.7 Results of Hypotheses Testing (Compliance Conflict Situation B).....	360
7.8 Results of Hypotheses Testing (Compliance Conflict Situation C).....	362
7.9 Summarised Results of Hypotheses Testing.....	362
7.10 Results of OLS Estimates.....	364
7.11 Results of Probit Estimates.....	366
7.12 Results of OLS Estimates (Big Six and Non-Big Six).....	368
7.13 Results of Probit Estimates (Big Six and Non-Big Six).....	370
8.1 Results for Hypothesis Six (H ₀₆).....	376
8.2 Results for Hypothesis Seven (H ₀₇).....	378



8.3	Results for Hypothesis Eight (H_{08}).....	379
8.4	Results for Hypothesis Nine(H_{09}).....	381
8.5	Comparison of Results for H_{06} , H_{07} , H_{08} and H_{09}	382
8.6	Results for Hypothesis Ten (H_{010}).....	383
8.7	Results for Hypothesis Eleven(H_{011}).....	385
8.8	Comparisons to DIT P Score Norms.....	394



LIST OF FIGURES

Figure		Page
2.1	Determinants of Compliance.....	176
3.1	An Interactionist Model of Ethical Decision Making in Organisations	219
3.2	A Model of Decision Making.....	222
3.3	A Model for Ethical Decision Making in Tax Compliance	225
4.1	Four-Component Model	235
5.1	Theoretical Model for Ethical Decision Making in Tax Compliance	298
5.2	Alternate Hypothesis H _{A1}	299
5.3	Alternate Hypothesis H _{A2}	303
5.4	Alternate Hypothesis H _{A3}	303
5.5	Alternate Hypothesis H _{A4}	304
5.6	Alternate Hypothesis H _{A5}	305
5.7	Alternate Hypothesis H _{A6}	309
5.8	Alternate Hypothesis H _{A7}	310
5.9	Alternate Hypothesis H _{A8}	312
5.10	Alternate Hypothesis H _{A9}	312
5.11	Alternate Hypothesis H _{A10}	313
5.12	Alternate Hypothesis H _{A11}	314
 Appendix B		
1	A Contingency Model of Ethical Decision Making in a Marketing Organisation.....	496
2	General Theory of Marketing Ethics.....	497
3	A Behavioural Model of Ethical/Unethical Decision Making.....	498
4	A Model of Ethical Decision Behaviour.....	499
5	Three Types of Causal Relations.....	500
6	Cognitive-Contingency Model for the Study of Ethics in Accounting.....	501



Abstract of thesis presented to the Senate of Universiti Putra Malaysia in
fulfilment of the requirements for the degree of
Doctor of Philosophy

**MORAL DEVELOPMENT AND ETHICAL DECISION MAKING IN
TAX COMPLIANCE: EVIDENCE FROM ACCOUNTANTS IN MALAYSIA**

By

VEERINDERJEET SINGH
June 1999

Chairman: Associate Professor K. Kuperan, Ph.D
Faculty: Economics and Management

The objective of this study is to identify and empirically investigate some factors that may influence ethical decision-making by accountants in a tax compliance conflict situation. This study attempts to determine whether moral development influences tax compliance decision-making and behaviour in the context of Kohlbergs' cognitive moral development theory. It also specifically considers the individual and joint effects of a number of variables such as moral development, individual differences (type of firm and legitimacy) and size of tax deduction (contextual variable).

An empirical model was developed from a review of the literature on ethical decision-making in business and marketing. The model considers the individual and joint influences of the variables stated above. Accountants' ethical decision-making was operationalised in terms of the response to three tax compliance conflict situations. Eleven null hypotheses were developed for testing. A representative sample of one hundred and eighty accountants from Certified Public Accounting (CPA) firms were



selected as subjects for the mail survey. The data was analysed using multiple regression as well as probit and logit estimation techniques.

Of the eleven null hypotheses, one was rejected whereas there were mixed results for five others. The results for these five hypotheses were significant (at the 1% level) in two out of the three conflict situations. The contextual variable was a significant explanatory variable. Moral development was only significant when it interacted with either the contextual variable, the type of firm or legitimacy in different conflict situations. Although moral development was not a significant explanatory variable, it did perform well as an interaction variable. As such, the results lend support to the interactionist model used in the study. The type of firm variable performed well with regard to one of the conflict situations, thus indicating that there are differences in the way respondents from different firms make decisions. As for socio-economic variables, the most significant variable was membership of a professional body.

The overall conclusion that emerges from this study is that moral development is important as an interaction variable when it interacts with other variables such as context, type of firm or legitimacy. Various recommendations are made following the findings of the study. These involve educational interventions, ethics intervention, the role of professional bodies and improving legitimacy. Future research is also suggested in respect of further testing of the model used in the study.

Abstrak thesis yang dikemukakan kepada Senat Universiti Putra Malaysia sebagai memenuhi keperluan untuk Ijazah Doktor Falsafah

**PERKEMBANGAN MORAL DAN PEMBUATAN KEPUTUSAN BERETIKA
DALAM PEMATUHAN CUKAI : BUKTI DARI AKAUNTAN-AKAUNTAN
DI MALAYSIA**

Oleh

VEERINDERJEET SINGH

Jun 1999

Pengerusi: Profesor Madya K. Kuperan, Ph.D

Fakulti: Ekonomi dan Pengurusan

Objektif kajian ini adalah untuk mengenalpasti dan menyiasat secara empirikal beberapa faktor yang mungkin mempengaruhi pembuatan keputusan beretika oleh akauntan-akauntan dalam situasi konflik mengenai pematuhan cukai. Kajian ini bertujuan untuk menentukan samada perkembangan moral mempengaruhi pembuatan keputusan dan perlakuan pematuhan cukai dalam konteks teori Kohlberg mengenai perkembangan moral kognitif. Kajian ini juga merangkumi kesan langsung serta kesan gabungan bagi beberapa angkubah iaitu perkembangan moral, perbezaan individu (iaitu jenis firma dan kesahan) dan jumlah potongan cukai (iaitu angkubah konteks).

Satu model empirik telah dibina dari ulasan karya mengenai pembuatan keputusan beretika dalam perniagaan dan pemasaran. Model ini meliputi kesan berasingan serta kesan gabungan angkubah-angkubah tersebut. Bagi kajian ini, pembuatan keputusan beretika oleh akauntan diperolehi daripada jawapan kepada tiga situasi konflik mengenai pematuhan cukai. Sebelas hipotesis telah dirumus untuk diuji. Satu sampel

sebanyak seratus lapan puluh akauntan dari firma-firma akauntan umum bertauliah telah dipilih untuk mengisi soalselidik. Analisa data dibuat dengan menggunakan teknik regresi berganda serta anggaran probit dan logit.

Dari sebelas hipotesis, satu telah ditolak manakala bagi lima hipotesis, keputusan adalah bermakna (pada paras 1%) dalam dua daripada tiga situasi konflik. Angkubah konteks ialah satu angkubah yang penting. Keputusan bagi angkubah perkembangan moral adalah baik apabila ia berinteraksi dengan angkubah konteks, jenis firma atau kesahan dalam situasi konflik yang berlainan. Oleh itu, walaupun perkembangan moral dengan sendirinya tidak merupakan angkubah yang penting, maka ia adalah penting sebagai angkubah interaksi. Keputusan ini memberi sokongan kepada penggunaan model 'interactionist' dalam kajian ini. Angkubah jenis firma adalah juga bermakna bagi salah satu situasi konflik dan ini menunjukkan bahawa cara responden dari firma-firma membuat keputusan adalah berlainan. Mengenai angkubah-angkubah sosio-ekonomi, keahlian badan iktisas merupakan angkubah yang lebih bermakna.

Kesimpulan yang boleh dibuat dari kajian ini ialah perkembangan moral adalah penting sebagai angkubah interaksi apabila ia berinteraksi dengan angkubah-angkubah yang lain seperti konteks, jenis firma dan kesahan. Beberapa cadangan dibuat berasaskan penemuan dari kajian ini. Cadangan-cadangan ini merangkumi penekanan kepada pendidikan, peningkatan pengajaran etika, peranan badan-badan iktisas dan peningkatan kesahan. Penyelidikan tambahan juga dicadangkan bagi menguji dengan lebih lanjut model yang telah digunakan dalam kajian ini.

CHAPTER I

INTRODUCTION

Overview of Tax Systems

An efficient tax system requires an effective tax administration structure. A well-designed tax which is poorly administered can become an instrument of injustice; on the other hand, proper and effective administration can partially offset the demerits of a poorly designed tax. In view of the growing awareness of the vital role which taxation plays in a developing economy, substantive and major reforms in tax administration have and are being undertaken in many countries.

Generally, the fundamental objectives of the tax authority are to administer the various tax legislation passed by Parliament, to ensure that these are carried into effect and to make the tax system work. In the course of achieving these objectives, tax administrators should :

- encourage and assist voluntary compliance with the requirements of the law
- maintain a dialogue with taxpayers and tax agents
- maintain public confidence in the integrity of the tax system
- deter tax evasion



- administer the tax laws fairly, uniformly, impartially and without unwarranted rigidity (Singh, 1999)

The Inland Revenue Board of Malaysia Act 1995 provides for the establishment and incorporation of the Inland Revenue Board of Malaysia. The Inland Revenue Board (IRB) enjoys some degree of autonomy especially in terms of financial and personnel matters. The IRB operates as a statutory body and is a part of the Ministry of Finance and is headed by a Chief Executive who is also the Director General. The functions of the IRB are:

- (a) to act as an agent of the Government and to provide services in administering, assessing, collecting and enforcing payment of various taxes;
- (b) to advise the Government on matters relating to taxation and to liaise with the appropriate Ministries and statutory bodies on such matters;
- (c) to participate in or outside Malaysia in respect of matters relating to taxation; and
- (d) to perform such other functions as are conferred on the Board by any other written law.

The Malaysian tax system has developed in response to many influences: economic, political and social. The tax structure was not

designed with the express purpose of attaining the optimal requirements of a tax structure. Some of the criteria (Singh, 1999) which would constitute the basic requirements of an optimal tax structure include the following :

- (a) The distribution of the tax burden should be equitable, i.e. everyone should be made to contribute based on the ability to pay which is usually considered to be a fair system;
- (b) Taxes should be designed so as to minimise interference with economic decisions in an otherwise well-functioning economy;
- (c) Where tax policy is used to achieve other objectives such as to grant investment incentives, this should be done so as to minimise interference with the equity of the system i.e. everyone should be treated equally;
- (d) The tax structure should facilitate the use of fiscal policy for stabilisation and growth objectives;
- (e) The tax system should permit effective administration whereby all taxpayers are treated equally in terms of the provision of services and the tax system should be comprehensible to the taxpayer; and
- (f) Administration and compliance costs should be as low as possible so as not to burden taxpayers.

It is obvious that such ideal requirements are not easily met in practice. Besides, the actual tax system of a country is often a compromise in trade-offs between various objectives.

The tax system of a country should reflect the social, economic and political aims of the Government, and the administrative machinery should be able to implement it in the most equitable and efficient manner possible. If the administration remains inadequate, the policy must of itself be inadequate in that only the less sophisticated alternatives are practically available. If the administration is so weak that the evasion rate is extremely high, then the policy decisions become basically an exercise in futility. Tax administration, therefore, is the key to effective tax policy rather than the reverse (Singh, 1999) .

In planning to achieve the objective of administering a tax system which is effective and fair, some of the strategic steps which are planned by the IRB include :

- introduction of a self-assessment system
- clearing of backlog of assessment work
- tax education
- improving the attitude of staff through emphasis on total quality management
- human resource planning
- modernising the collection system and reducing arrears of tax

- simplifying tax laws
- creating an effective data base system
- setting up of new branch offices
- greater usage of information technology (Singh, 1999).

The above are measures to reform tax administration. If these measures are actually implemented effectively, the administration of the tax system would be more efficient. This will certainly enable more innovative tax reform measures to be considered and introduced.

Taxpayer non-compliance with the relevant legislation results in a substantial revenue loss to governments. Some estimates available for developed countries with more structured tax legislation and more advanced administrative machinery implies that the problem of non-compliance in developing countries (with less developed tax systems) may be even more severe.

In an appearance before the Congress of the United States of America (USA) in November 1993, Internal Revenue Service (IRS) Commissioner Margaret Milner Richardson estimated that taxpayer non-compliance costs the federal government approximately US\$150 billion per year. Elimination of this compliance gap would cover approximately three-fifths of the Federal budget deficit of the USA. The IRS has projected a tax gap, defined as the amount of income tax owed for a given year but not voluntarily paid, for individual taxpayers of US\$95.3 billion in 1992 (IRS,

1988, 1990 & 1996). Consequently, understanding the causes of the tax gap and identifying alternative strategies to increase tax compliance are primary concerns of the IRS. Commissioner Richardson has stated that increasing taxpayer compliance is a top priority of the IRS. An IRS programme instituted in 1988 called Compliance 2000 has, as its stated goal, the identification of the root causes of non-compliance and the development of the appropriate tools to improve voluntary compliance in the future (Plaine, 1994).

The income tax system in the USA is based on the willingness of citizens to pay their taxes voluntarily. The IRS estimates that for each one percentage point increase in the voluntary compliance rate, US\$7 to US\$10 billion of additional revenue could be raised (Wall Street Journal, 1994). Given the substantial economic impact of even small increases in the voluntary compliance rate, a primary goal of the IRS's Compliance 2000 programme is to increase the voluntary compliance rate from the level of 83% to a rate in excess of 90%. One way in which the IRS intends to reach this goal is by adopting a philosophy of outreach and education to promote voluntary compliance (IRS, 1993).

In light of the concern about growing Federal budget deficits in the USA, the study of taxpayer compliance has taken on tremendous practical importance. Research on tax compliance has grown tremendously over the years, especially in the USA. There has been a growing interest in this area which has led to increased research funding by the IRS, the American Bar

Foundation and other institutions in the USA. Work on tax compliance has also increased in other countries such as the Netherlands and Australia. The importance of understanding why persons comply or fail to comply with the tax laws has not gone unnoticed. Social scientists from a broad range of disciplines have explored the factors thought to contribute to tax compliance behaviour. In spite of the plethora of empirical findings, understanding of this phenomenon is still very limited. Andreoni et al. (1998, p. 855), in their review of the economic literature on tax compliance, have also commented that "much work remains to be done if we are to develop a fully satisfactory understanding of this intrinsically complex subject". In reality, it may not be possible to model the actual tax compliance behaviour of taxpayers and no model can conceivably understand and incorporate the complexities of the human mind. Further, it is felt that no legislative or policy measures can completely eliminate non-compliance behaviour. Nevertheless, attempts need to be made to understand the various components of tax compliance behaviour so as to at least reduce non-compliance behaviour.

However, in Asian countries, no research on tax compliance behaviour has been reported in the established academic journals. In Malaysia, the only known research on tax compliance is that on compliance costs by Loh et al. (1997) and on tax evasion by Kasipillai (1997). In Asian economies, the tax authorities hardly carry out any systematic research on compliance or non-compliance. This may be largely due to the fact that tax revenue collection has been on the increase due to decades of solid

economic growth. However, with increasing pressure to generate more revenue to fund development and infrastructural needs, tax reforms are being implemented. One of the areas of tax reforms is the introduction of self-assessment which is intended to shift the role of tax authorities from collectors of revenue preoccupied with processing of returns into service-oriented organisations with emphasis on audits and taxpayer services. This shift will require monitoring of compliance levels and research into compliance is then expected to increase. In the context of Malaysia, it has been announced by the Government in the 1999 national budget that the IRB will be introducing the self-assessment system on a staggered basis commencing from the year 2001. After the year 2004, it would apply to all categories of taxpayers (Singh, 1999). To-date, however, it is not known whether any empirical research has been commissioned by the IRB in light of the impending introduction of self-assessment.

It is generally felt that the official published estimates of gross domestic product (GDP) or gross national product (GNP) of a country are under-estimations of the true value i.e. they suffer from inaccuracy of measurement. The possible reasons for the inaccuracy are the exclusion from GDP of the value of goods and services used in informal markets and the hidden (unrecorded) economic activities associated with tax evasion (or tax non-compliance), smuggling, etc (Bhattacharya, 1990). The term "hidden economy" is described in a variety of ways, for example, irregular, unofficial, underground, informal, black, parallel, etc and is used to refer to

those economic activities that go unreported or are unmeasured by the available current techniques for monitoring economic activity.

In Malaysia, there are no official estimates of tax evasion (or tax non-compliance) reported by the IRB. The first documentation of the size of the hidden economy in Malaysia was carried out by Kanbur et al. (1993). Their estimation was for the years 1980 to 1985 and the size of the hidden economy was in the range of 0.2% to 1.2% of GDP. Subsequently, Kasipillai (1997) measured the monetary hidden sector (i.e. excluding non-monetary or barter activities) in Malaysia. He estimated hidden income as a base to measure tax evaded income for the period 1971 to 1994, and reported that the size of the hidden economy ranged from 3.7% to 8.8% of GNP. For 1994, the size of the hidden economy was estimated to be RM6,572 million. Using an average income tax rate factor of 13.4%, tax evaded was estimated as RM880 million.

The above estimates imply the possible loss in tax revenue on unreported income. The estimates of the hidden economy would refer to cash based income tax evasion and are thus not a measure of total income tax evasion. Non-compliance can and does take other forms, for example, over-claiming of expenditure, etc. Thus, the estimates are merely a guide to the extent of the size of the hidden economy and the resultant tax revenue loss to the government.

The IRB does publish statistics on the amount of tax (including penalties) collected from its tax investigation activities (i.e. in carrying out its role to deter tax evasion) as shown below:

Year	Number of Cases Finalised	Tax/Penalties Collected RM'000
1992	341	267,800
1993	454	210,300
1994	485	261,470
1995	504	302,241
1996	514	426,000
1997	521	509,785

(Source: IRB Annual Report, 1997)

However, there is no indication in the IRB Annual Report as to how many of the number of cases finalised involved individuals or companies. One observation from the statistics is that the number of cases finalised increased by 53% (from 1992 to 1997) whereas the tax and penalties collected increased by 90% over the same period.

Thus, the estimates and statistics do indicate a substantial loss in tax revenue and thus the need to institute measures that can minimise tax evasion and maximise tax collection. One such measure would be to align the behaviour of taxpayers so that they report their income and pay their tax liabilities. This requires understanding tax compliance behaviour and encouraging tax compliance by adopting various strategies.