Does Disclosure of Enforcement Strategies Affect Tax Minimisation? A Multi-Method Approach

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ABSTRACT

Tax gap and tax legitimacy are major concerns in every tax jurisdiction. There are inconsistent findings on the impact of legality and probability of detection on non-compliance behaviour. This study combines economic and socio-psychological elements by exploring how do disclosures of enforcement strategies and legality affect tax minimisation under different tax climate. Multi-method approach is applied with a classroom experiment and a survey which comprises three subgroups, namely postgraduate, employed, and self-employed group. It is discovered that, the experimental subjects assigned under the antagonistic climate will carry on with their tax minimisation decision regardless of the disclosures of enforcements and legality. Interestingly, while such disclosure of enforcements is significant to 'postgraduate' and 'employed' survey respondents under both climates, legality is only significant to both subgroups under synergistic climate. Without any significant relationships between disclosures and minimisation, self-employed individuals are unresponsive towards enforcements probably because it is easier for them to manipulate their reported income. In sum, perhaps other socio-psychological factors should be prioritised in addition to stringent enforcement to reduce illegal tax minimisation.

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INTRODUCTION

As tax gap due to non-compliance behaviour continues as a worldwide problem, authorities make every endeavour to reduce illegal tax minimisation among taxpayers (Pentland and Carlile, 1996; OECD, 2010). Tax gap is the actual tax should be collected against the amount which has been collected (HMRC, 2016). In April 2016, the Inland Revenue Service reported that the latest gross tax gap estimates of the U.S. from year 2008 to 2010 was $458 billion, which was equivalent to 16.3% of tax liability, comprising non-filing ($32 billion), under-reporting ($387 billion) and underpayment ($39 billion). In the United Kingdom for year 2016 to 2017 was £33.4 billion, equivalent to 5.7% of tax liability (HMRC, 2018). Of £33.4 billion, £3.2 billion tax gap was due to the failure to take reasonable care (£5.9 billion), followed by criminal attacks (£5.4 billion), legal interpretation and evasion (£5.3 billion each), non-payment (£3.4 billion), shadow economy and errors (£3.2 billion each), and avoidance (£1.7 billion).In particular, shadow economy arises due to the misbehaviour of individuals who falsify and conceal business activities from the government (Picur and Belkaoui, 2006).

In the Europe and Central Asia region, the shadow economy to GDP ratio of Malaysia was 31% (Khwaja and Iyer, 2014). Lately, OECD (2015) commented that Malaysia has a narrow tax base with low tax burden, evidenced by 13.77% total tax revenue to GDP ratio in 2016 (the latest data available at the time of this study from The World Bank, 2018), and tax gap is estimated at 20% to 30% (The Star Online, 2016). In addition, there were 14.7 million people from the labour force out of the total population of 32 million people, only 9.9 million were tax registrants, and 2.27 million paid taxes (DOSM, 2018; New Straits Times, 2017). As for company level, only 168,244 paid taxes out of 1.2 million of registered companies (New Straits Times, 2017). Both facts suggest high possibility of tax minimisation apart from low tax burden and narrow tax base.

Inland Revenue Board of Malaysia (IRBM), also known as Lembaga Hasil Dalam Negeri, (LHDN) holds and regards enforcement strategies as an appropriate compliance process to achieve voluntary compliance (Loo *et al.*, 2010), though past literatures suggest that economic approaches would lead to negative antagonistic climate with strategic tax behaviour (Braithwaite, 2007; Kirchler *et al.*, 2008). Despite the fact that there were many scholars (Devos, 2008; Kastlunger *et al.*, 2013; Pellizzari and Rizzi, 2014; Blaufus *et al.*, 2016) addressed the shortcomings of pure economic models which propagate the enforcement of higher penalties, tax rates, and probabilities of detection to reduce aggressive tax avoidance and evasion (Becker, 1968; Allingham and Sandmo, 1972), while some even attempted to fill the gap by moving towards the investigations of subjective probability of detection and audit experience (Fischer *et al.*, 1992; Andreoni *et al.*, 1998; Mittone; 2006). Yet, to the author's knowledge, there are very few studies manipulating tax climate treatment to explore tax minimisation before and after disclosure of probability of detection and penalty. In the end, this study serves theoretical contributions and practical implications in explaining the change in tax minimisation behaviour among groups due to disclosures of tax legality enforcement strategies in accordance with positive and negative tax climate.

Hence, the main objective of this paper is to explore whether disclosures of legality enforcement strategies affects tax minimisation under different tax climate treatment using a multi-method approach. Operational definition of tax climate will be discussed in the literature review section after a brief overview of economic model. Next, mix methodologies or multi-method approach including an experiment and a survey will be illustrated with the experimental treatments, scenarios, and sampling procedures. Subsequently, the following section discusses the results in accordance with experimental design and survey subgroups; and finally, this paper is wrapped with concluding remarks and limitations.

REVIEW OF LITERATURE

Economic Deterrence Model- Expected Utility Theory

The classic A-S Model (Allingham and Sandmo, 1972) explains tax behaviour with economic factors which mainly consist of tax rates, probability of detection and fines. It is assumed that taxpayers are amoral expected utility maximisers who make tax decisions according to the prevailing conditions. Thus, probability of detection and penalty increase tax compliance and reduce the expected value of tax evasion. For instance, when there is no audit taken place, a tax evader will earn his net income plus the evaded amount. Conversely,

if a tax audit is taken place, penalty will be imposed on the evaded amount, as a result, the tax evader will have to pay back the evaded amount with fine imposed on the evaded amount. *Ceteris paribus*, the higher probability of detection and penalty, the lower tendency for taxpayers to minimise tax illegally.

However, Fischer *et al.* (1992) concluded that there are inconsistent findings between audit probabilities, fines, and tax compliance, evidenced by a mixture of significant and insignificant low positive relationship between variables (Song and Yarbrough, 1978; Waïrneryd and Walerud, 1982). Further studies have discovered other contributing factors such as subjective audit probability (Fischer *et al.*, 1992) and audit experience (Andreoni *et al.*, 1998; Mittone; 2006).

Furthermore, more recent evidences highlight that taxpayers are indeed more honest in paying taxes than expected without resorting to illegal tax minimisation (Frey and Torgler, 2007; Kirchler *et al.*, 2008), which contradicts the prominent economic theory. Therefore, the research paradigm of individual tax behaviour has been expanded into socio-psychological factors, such as perceptions of trust, power, and morale (Torgler, 2003; Braithwaite, 2011; Daude *et al.*, 2012). The next subsection narrows down to the review of literature beyond economic factors with empirical findings pertinent to the objective of this study.

Beyond The Economic Factors And Tax Climate

In 2008, Kirchler *et al.* organised previous economic and socio-psychological studies using the *slippery slope framework* to further explore the understanding of tax compliance behaviour. According to them, tax climate is composed of the synergistic and antagonistic climate. They posited that synergistic tax climate motivates citizens to pay tax voluntarily; whilst antagonistic tax climate attracts enforced compliance, in which tax minimisation behaviour is at maximum. Synergistic climate is characterised by "service and clients" attitude, and it is maintained with the relationship of mutual trust between citizens and authorities, as well as perceived legitimate power of authorities by the citizens (Braithwaite, 2003; Kirchler *et al.*, 2008). In contrast, antagonistic climate is characterised by "cop and robber" attitude (Braithwaite, 2003; Kirchler *et al.*, 2008). It exists due to perceived untrustworthy authorities and perceived coercive power of authorities by the citizens (Kastlunger *et al.*, 2013). Under such climate, taxpayers are more opportunistic, they tend to minimise their tax liabilities by taking advantage of possible strategic tax planning within legality, which is known as tax avoidance. More aggressively, they deliberately infringe tax law, which is known as tax evasion. Having said that, over the decades, tax legitimacy has been more stringent and tax avoidance is commonly viewed as aggressive and illegal from the perspective of authorities.

Tax Revolution: Legality Of Tax Minimisation

Tax has been rigorously discussed far back in 1776, in *The Wealth of Nations*, by Adam Smith, the father of capitalism. According to Smith, the sources of revenue comprise wages, profit and rent, which need to be taxed. In the court case IRC v Duke of Westminster (1936), Lord Tomlin clarified that, a taxpayer has always been free to mitigate his tax liability. He also stressed that it is perfectly legitimate for a taxpayer to arrange his affairs to avoid or reduce the incidence of tax, as long as it is not dishonest or prohibited by law, which will be considered as evasion rather than avoidance. Unlike tax evasion which falls under non-compliance and is illegal; tax avoidance is a legitimate arrangement of one's financial affair without violating any tax laws to reduce taxes. In other words, tax minimisation behaviour can be either illegal (i.e., tax evasion) or legal (i.e., tax avoidance). This classic 'Duke of Westminster doctrine' is rooted in Malaysian tax jurisdiction and was an often-cited case in tax avoidance. Despite that, along with the tax reforms and revolution, tax avoidance is no longer legitimate (Naban and Kumar, 2016).

In view of the sophisticated business developments throughout the world, it becomes very challenging to draw a clear border between tax compliance and non-compliance. Specifically, it is observed that there are many grey areas and conflicting issues pertinent to tax avoidance and tax mitigation, a relatively new terminology in the literature. The general anti-avoidance rules (GAAR) have been imposed in various developed and developing countries not limited to New Zealand in 1974, Australia in 1981, Singapore in 1988, China in 2008, United Kingdom in 2013, and so forth. In Malaysia, Section 140(1) of the Income Tax Act 1967 is one of the general anti-avoidance provisions which empowers the Director-General (DG) of IRBM to disregard or vary transactions as he thinks fit that the said transaction is either (i) altering the incidence of tax; (ii) relieving any person from tax liability; (iii) evading or avoiding tax liabilities; or (iv) hindering or preventing the operation of law. The implementation of GAAR implies that tax avoidance is no

longer fall within legality. On the contrary, if it is a structured commercial transaction, it is regarded as tax mitigation which is legal (Naban and Kumar, 2016).

Exploration Of This Study

As mentioned, subjective probability of detection is proven to be more impactful in explaining tax compliance (Fischer *et al.*, 1992; Mittone, 2006). While fines and probability of detection may substitute each other due to their multiplicative linkage (Allingham and Sandmo, 1972), Alm *et al.* (1995) also posited that a combination of fines and high probability of detection significantly increase tax compliance.

In 2008, Kirchler *et al.* predicted that subjective probability of detection increases compliance in an antagonistic tax climate; and might become insignificant under the synergistic tax climate. This is because under the positive synergistic tax climate, taxpayers are highly committed to pay their fair share of tax without the need of deterrent strategies. Conversely, taxpayers who are under the prevailing antagonistic climate would pay tax depending on the enforcements carried out by tax authorities, such as probability of being audited and fines imposed. In 2010, Wahl *et al.* further asserted that tax payments are expected to be the highest under the synergistic tax climate, because taxpayers trust their authorities being fair, hence the power exerted by the authorities in such climate is perceived as legitimate and is expected to boost tax payments to the highest, without much minimisation adjustment; and vice versa for antagonistic tax climate, which is generally formed by perception of low trust in authorities with high coercive power.

In Malaysia, Hamid (2014) confirms that probability of detection affects tax agents' compliance behaviour, whereas Sia (2008) confirms a positive relationship between perceived probability of detection and tax compliance among taxpayers. However, in Australia, Devos (2008) finds that subjective probability of detection is only significant to non-evaders. Evaders' tax minimisation behaviour would not be improved with probability of detection. Interestingly, in Germany, Blaufus *et al.* (2016) discover that legal tax minimisation is only significant when probability of detection is unknown. On the contrary, when probability of detection is disclosed, the differences between taxpayers' perceptions of legal minimisation and illegal minimisation become insignificant.

All in all, these crucial yet inconclusive findings motivate the author to explore whether taxpayers minimise their tax liabilities due to disclosure of probability of detection and penalty in the context of Malaysia. The research question of this exploratory study is then derived: Is there a change in tax minimisation (by percentage) from pre-disclosure to post-disclosure of enforcement strategies? The experimental treatments and measurement of variables will be discussed shortly in the next section.

RESEARCH METHODOLOGY

While survey is commonly used due to its convenience, Zellmer-Bruhn et al. (2016) confirm that experimental design offers stronger test to evaluate internal validity of the proposed framework. It assesses the cause and relationship between independent and dependent variables by manipulating independent variables meanwhile controlling for nuisance variables. Some prominent scholars managed to overcome some of the challenges by applying the multi-method approach with a combination of an experiment and a survey design in their empirical studies (Wahl et al., 2010; Kirchler and Wahl, 2010). Using the multi-method approach, survey designed with fictitious case scenarios and direct observations responded by experienced taxpayers will be able to complement the shortcomings of inexperienced student sample in laboratory experiments. Therefore, this study employed multi-method approach including classroom experiment and survey via quota sampling into three subgroups: Self-employed, employed, and postgraduate students group. The classroom experiment was conducted on 102 final year undergraduate students from the business faculty, of which 50 subjects were randomly assigned under the synergistic climate treatment, and 52 subjects under the antagonistic climate treatment. For survey design, 1,344 survey forms were distributed by hand and online, with 301 usable responses in return (i.e., 22% response rate), comprising 100 self-employed respondents; 100 employed respondents; and 101 postgraduate respondents. Note that, both designs responded to the same hypothetical scenario and each participant was randomly assigned to one of the treatments. In fact, the manipulated treatments were adopted from Wahl et al. (2010), whereby under the synergistic [*antagonistic*] climate

treatment, participants were asked to imagine that they are living, working and paying tax in a fictitious country called Varosia, in which many factors causing the citizens of Varosia to trust their government a lot [*a little*], such as transparency [*lack of transparency*]; being supportive [*not supportive*] in citizens' interest and effective [*ineffective*] in prosecution of tax evaders.

Right after, there were two parts of hypothetical scenario adapted from Blaufus et al. (2016). Participants were required to imagine themselves working in Varosia, in which tax climate was controlled. Then, they were informed that their gross wage per year was $40,000. According to the tax jurisdiction, 20% tax rate was imposed on their gross wage, which was $8,000, thus their disposable income was $32,000 per year. In the first part of the hypothetical scenario, participants were asked about their tax decision in monetary term under the prevailing tax climate assigned to them. There were three options available: (a) no adjustment needed by declaring $8,000 tax liability; (b) legal tax avoidance, which allowed them to minimise $8,000 tax liability to any amount not less than $6,000; (c) illegal tax evasion, which allowed them to minimise $8,000 tax liability to as low as $2,000.

In the second part, participants were informed that, in addition to tax evasion, unfortunately, avoidance was also considered as aggressive and illegal in the context of Varosia. Furthermore, there was 25% probability of detection, and 100% penalty to be imposed on the tax minimised. With such additional information, candidates were instructed to re-decide whether they wanted to proceed with 'no adjustment' (i.e., $0 minimisation), 'avoidance' (i.e., to minimise not more than $2,000), or 'evasion' (i.e., to minimise not more than $6,000). The tax liabilities decided by the participants from part one and part two were converted into percentage of tax minimisation respectively, which is a ratio scale.

RESULTS AND DISCUSSION

Tax Decision Before And After Disclosure Of Enforcement Strategies- Experiment And Survey

Since a thorough understanding on the connection of pre-disclosure and post- disclosure tax decision is crucial before an investigation on the significance of the disclosure of enforcement strategies is taken place, cross tabulation is presented respectively for both designs in Table 1 and Table 2. Based on Table 1 (Refer to the fractions given in parentheses), under the synergistic climate, 64% of the subjects made tax avoidance decision which was initially assumed to be legal; 28% decided not to adjust their tax liabilities; and the remaining minority (8%) chose to evade tax illegally. Not surprisingly, there was much more illegal evasion decision in the negative antagonistic climate (33%) as compared to the synergistic climate (8%). Besides that, half of the subjects (50%) decided to avoid tax, and the remaining (17%) decided not to minimise their tax liabilities.

Subsequently, the subjects were informed that there was a 25% probability of detection with 100% penalty imposed on both tax avoided and evaded, and they were asked to decide on their tax liabilities over again. Eventually, under the synergistic climate, more than half (54%) did not want to minimise their tax liabilities; 38% opted for tax avoidance; and the same 8% decided on evading tax. In respect of the change in tax decision, surprisingly, one experimental subject changed from 'no adjustment' to 'avoidance'; while the remaining 13 subjects retained 'no adjustment' decision regardless of the disclosure of audit probability. Next, 50% of the subjects who initially opted for tax avoidance remained their decision after disclosure of probability of detection and penalty; meanwhile as many as 44% of the subjects no longer decided to minimise their tax liabilities; left with 6% changing their decision to aggressive evasion. Lastly, since there was only 8% (4 out of 50 subjects) chose to evade tax, two retained their decision at inception and remaining two changed from evasion to avoidance.

On the other hand, under the negative antagonistic climate, unfortunately, such disclosure did not lead to considerably change in their tax decision making: 76% who initially opted for tax evasion remained evading tax; 77% who opted for tax avoidance at inception carried on with avoiding tax; and all nine subjects retained their decision of no minimisation on their tax liabilities, probably due to the fear of being audited and penalised. As a result, the post-disclosure tax decision revealed 29% of subjects evading tax, 46% avoiding

tax, and merely 25% chose not to minimise their tax liabilities under the antagonistic climate. Apparently, subjects who were assigned under the negative antagonistic climate treatment possess higher tax minimisation behaviour and rarely change to legal tax decision upon disclosure of enforcement strategies as compared to subjects who were assigned under the positive synergistic climate treatment.

Table 1 Cross Tabulation of Tax Decision Before and After Disclosure of Probability of Detection- Experiment

Tax Climate		Tax decision before disclosure of 25% probability of detection						Total	%
		No adj.	%	Avoid-ance	%	Eva-sion	%		
	Tax decision after disclosure of 25% probability of detection								
Synergistic climate (n=50)	No adj.	13	93%	14	44%	0	0%	27	54%
	Avoidance	1	7%	16	50%	2	50%	19	38%
	Evasion	0	0%	2	6%	2	50%	4	8%
	Total	14	100%	32	100%	4	100%	50	100%
	(%)	(28%)		(64%)		(8%)		(100%)	
Antagonistic climate (n=52)	No adj.	9	100%	4	15%	0	0%	13	25%
	Avoidance	0	0%	20	77%	4	24%	24	46%
	Evasion	0	0%	2	8%	13	76%	15	29%
	Total	9	100%	26	100%	17	100%	52	100%
	(%)	(17%)		(50%)		(33%)		(100%)	

Note: Percentage of tax decision before disclosure of probability of detection was computed in parentheses under each climate respectively.

Followed by the experimental design, Table 2 tabulates tax decision before and after disclosure of enforcement strategies for survey subgroups. Similar patterns of tax decision for both postgraduate and employed group were detected under the synergistic climate, where 40% of both groups did not minimise their tax liabilities; 48% of them opted for tax avoidance which was deemed to be legal initially; and remaining 12% decided on tax evasion. Upon disclosure of audit probability and illegal nature of tax avoidance, around 60% to 64% of both groups chose not to adjust their tax liabilities; approximately 35% of them decided to avoid tax and the remaining one to two respondents decided on evading tax. For the self-employed group, only 26% chose 'no adjustment' at inception; 62% opted for tax avoidance; and remaining 12% made the same decision as per two other groups, which was tax evasion. It seems that disclosures of probability of detection and penalty did not change their tax decisions considerably: A slight increase from 26% to 28% chose 'no adjustment'; 66% opted for tax avoidance; and 6% decided on tax evasion. This implies that self-employed respondents score exceptionally high in tax avoidance among all.

Briefly, regardless of subgroups, for the survey respondents who had decided not to minimise their tax liabilities, majority remained their decisions unchanged, of which their reactions were closed to the experimental subjects (Refer to Table 1). Interestingly, for those who had chosen for tax avoidance at inception, their changes in tax decision upon disclosure of enforcement strategies varied among subgroups: 54% of the postgraduate group retained tax avoidance decision; remaining 46% changed to 'no adjustment' decision once they were informed that tax avoidance could be considered as illegal with penalty imposed. Again, their reactions were close to experimental subjects (Refer to Table 1). In spite of the same scenario and disclosure, 67% of the employed group and 90% of the self-employed group insisted on tax avoidance. Lastly, as for tax evasion in general, most of the employed group (67%) changed from aggressive tax evasion to no adjustment decision; while postgraduate (67%) and self-employed (83%) groups mellowed down from evasion to avoidance.

To summarise inferences for survey design under the synergistic climate treatment, firstly, in line with experimental design, for those who do not minimise their tax liabilities before disclosure of enforcement strategies insist the same as their post-disclosure tax decision. Secondly, postgraduate group from survey design reacts alike to the experimental design where half of them change from tax avoidance as pre-disclosure decision to no adjustment as post-disclosure decision, and the remaining half retain their initial tax avoidance decision. On the contrary, majority of the self-employed group followed by employed group retain tax avoidance decision even they are well informed that it is illegal which comes with penalty upon detection. Tax evasion decision under the positive synergistic climate is not further discussed given that it only covers 2% to 6% among tax decisions, as expected.

After a thorough discussion on the change in tax decision under the synergistic climate, tax decision across three subgroups under the antagonistic climate will be elaborated in detail. Initially, 'no adjustment'

decision was chosen by 12% of the postgraduate group; 8% of the employed group; and the 18% of self-employed group. It s eems that postgraduate and employed groups (No adjustment$_{synergistic}$ = 40% vs. No adjustment$_{antagonistic}$ = 8%-12%) have more drastic reactions under different climate treatments as compared to self-employed groups (No adjustment$_{synergistic}$ = 26% vs. No adjustment$_{antagonistic}$ = 18%). In line with other design and climate treatment, 'tax avoidance' decision was mostly chosen, making up of 52% to 64% across subgroups. Besides that, 'tax evasion' decision was double folded in comparison with synergistic climate treatment of survey design, from 12% to approximately 28%.

Focusing on the antagonistic treatment of survey design, generally, tax decisions had been moderately improved after 25% disclosure of probability of detection with 100% penalty imposed on tax minimisation. For postgraduate group, 65% remained avoiding tax upon disclosure of enforcement strategies; and 35% changed from avoidance to 'no adjustment'. For employed group, 72% retained their tax avoidance decision; with 22% changed to no tax adjustment. For self-employed group, as much as 81% remained avoiding tax; with solely 8% changed to 'no adjustment'. Consistent with synergistic climate treatment, self-employed is the group with the highest post-disclosure avoidance decision, followed by employed group (67%) and postgraduate group (54%). Surprisingly, 86% of the employed group remained 'tax evasion' decision after probability of detection and penalty had been made known to them; followed by 43% of postgraduate group not changing their evasion decision; and merely 27% of the self-employed group carried on with tax evasion decision, while 60% of them mellowed down to tax avoidance and remaining 13% decided not to minimise their tax liabilities. With respect to this, tax climate treatments contradict each other, whereby under the synergistic climate, all subgroups have the same proportion (17%) in retaining post-disclosure evasion decision. For post-disclosure tax decision, more than half of the employed individuals under the positive synergistic climate change from evasion to no adjustment; meanwhile more than half of the postgraduate students who are slightly more aggressive change from evasion to avoidance; and finally self-employed individuals are probably most aggressive among groups because almost all of them opt for avoidance from evasion. It seems that self-employed who consistently choose to minimise tax through avoidance regardless of tax climate, audit probability and penalty, as well as its legality. On the other hand, drastic change of response can be observed in the employed group under different tax climate. Under the synergistic climate, more than half of the employed individuals who have initially decided on illegal tax evasion no longer minimise their tax liabilities upon disclosure of audit probability and penalty probably due to the fear of being audited and penalties imposed; whereas under the antagonistic climate, almost all of them remain evading tax even though probability of detection and penalty have been made known to them.

In sum, the improvement in tax decision under the antagonistic climate for both survey and experiment is not as impressive as the synergistic climate. Other factors such as untrustworthy and perceived coercive power might substantially affect tax decisions in addition to the fear of audit probability under the negative antagonistic climate. The effects of disclosure of enforcement strategies on tax minimisation (by percentage) based on tax climate treatments will be probed by Wilcoxon Signed Rank Test in the later section.

Table 2 Cross Tabulation of Tax Decision Before and After Disclosure of Probability of Detection- Survey Subgroups

Tax Climate	Subgroup		Tax decision before disclosure of 25% probability of detection						Total	%
			No adj.	%	Avoid-ance	%	Eva-sion	%		
		Tax decision after disclosure of 25% probability of detection								
Synergistic climate (n=150)	Postgraduate (n = 50)	No adj.	20	100%	11	46%	1	17%	32	64%
		Avoidance	0	0%	13	54%	4	67%	17	34%
		Evasion	0	0%	0	0%	1	17%	1	2%
		Total	20	100%	24	100%	6	100%	50	100%
		%	(40%)		(48%)		(12%)		(100%)	
	Employed (n = 50)	No adj.	18	90%	8	33%	4	67%	30	60%
		Avoidance	1	5%	16	67%	1	17%	18	36%
		Evasion	1	5%	0	0%	1	17%	2	4%
		Total	20	100%	24	100%	6	100%	50	100%
		%	(40%)		(48%)		(12%)		(100%)	
	Self-Employed (n = 50)	No adj.	12	92%	2	7%	0	0%	14	28%
		Avoidance	0	0%	28	90%	5	83%	33	66%
		Evasion	1	8%	1	3%	1	17%	3	6%
		Total	13	100%	31	100%	6	100%	50	100%
		%	(26%)		(62%)		(12%)		(100%)	

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Table 2 Cont.

Antagonistic climate (n=151)	Postgraduate (n = 51)	No adj.	6	100%	11	35%	3	21%	20	39%
		Avoidance	0	0%	20	65%	5	36%	25	49%
		Evasion	0	0%	0	0%	6	43%	6	12%
		Total	6	100%	31	100%	14	100%	51	100%
		%	(12%)		(61%)		(27%)		(100%)	
	Employed (n = 50)	No adj.	4	100%	7	22%	0	0%	11	22%
		Avoidance	0	0%	23	72%	2	14%	25	50%
		Evasion	0	0%	2	6%	12	86%	14	28%
		Total	4	100%	32	100%	14	100%	50	100%
		%	(8%)		(64%)		(28%)		(100%)	
	Self-Employed (n = 50)	No adj.	6	67%	2	8%	2	13%	10	20%
		Avoidance	2	22%	21	81%	9	60%	32	64%
		Evasion	1	11%	3	12%	4	27%	8	16%
		Total	9	100%	26	100%	15	100%	50	100%
		%	(18%)		(52%)		(30%)		(100%)	

Note: Percentage of tax decision before disclosure of probability of detection of each subgroup was computed in parentheses under the respective climate.

Wilcoxon Signed Rank Test: Tax Minimisation (By Percentage)

In this section, Wilcoxon Sign Rank Test was performed to explore the research question of this study: Do disclosures of tax legality and enforcement strategies change tax minimisation (by percentage) under different tax climate treatment for each subgroup?

For experimental sample, Wilcoxon Signed Rank Test merely revealed a significant difference in tax minimisation due to disclosure of enforcement strategies under the synergistic climate, $z = -2.821$, $p = .005$, with small effect ($r = .28$). The median score on tax minimisation decreased from pre-disclosure (Md = 21.88%) to post-disclosure (Md = 0%).

For survey sample, Wilcoxon Signed Rank Test revealed statistically significant differences in tax minimisation for postgraduate group and employed group under both climate treatments, but not for self-employed group. For postgraduate group, under the synergistic climate, $z = -3.571$, $p < .001$, with medium effect ($r = .36$), and median score on tax minimisation decreased from pre-disclosure (Md = 25%) to post-disclosure (Md = 0%); while for antagonistic climate, $z = -3.879$, $p < .001$, with medium effect ($r = .38$), and median score on tax minimisation decreased from pre-disclosure (Md = 25%) to post-disclosure (Md = 22%). For employed group, under the synergistic climate, $z = -2.622$, $p = .009$, with small effect ($r = .26$), and median score on tax minimisation decreased from pre-disclosure (Md = 25%) to post-disclosure (Md = 0%); while for antagonistic climate, $z = -2.728$, $p = .006$, with small effect ($r = .27$), and median score on tax minimisation decreased from pre-disclosure (Md = 25%) to post-disclosure (Md = 21%).

The interpretations of the results are as follows: Experimental subjects who were undergraduate students minimised less through avoidance strategy (Md = 21.88%) as compared to postgraduate students and employed individuals from survey design (Md = 25%) under the prevailing synergistic climate; and all of them changed their decisions from tax avoidance to no minimisation once they were informed that tax avoidance was considered as illegal under the tax jurisdiction. Such reactions are expected as the participants do not want to involve themselves in any illegal transactions in a trustworthy and legitimate country they live in.

Conversely, only employed and postgraduate groups have significant reaction with respect to the disclosures of legality and enforcement strategies under the negative antagonistic climate. They might still consider avoiding tax, knowing that it is illegal. Nevertheless, their tax minimisation significantly reduces perhaps due to the fear of the severity of penalisation in a country they perceived to be coercive. Experimental subjects assigned under the antagonistic climate treatment are not significantly affected maybe due to their lack of real experience in fulfilling tax obligations.

Interestingly, there are insignificant effects of such disclosures on self-employed individuals under both climate treatments. Consistent with Blaufus *et al.* (2016) findings, legality of minimisation behaviour (tax avoidance in this case) does not significantly matter to them in making their tax payment decision, knowing that there is a 25% tendency of being audited followed by 100% penalty imposed. Furthermore, since self-employed is the group among all with the highest chance to avoid or evade tax, enforcement strategies do not have material impact on them probably because they perceive their opportunity cost of illegal minimisation is lower than otherwise (Devos, 2008).

CONCLUSIONS

Tax legitimacy is often viewed differently from the taxpayers' perspectives and authorities' perspectives. The introduction of GAAR implies that tax avoidance is with no commercial substance and is therefore considered as illegal (Naban and Kumar, 2016). The IRBM insists on imposing stringent enforcement strategies to reduce non-compliance (Loo *et al.*, 2010). In the West, empirical studies confirm that economic approach will lead to negative antagonistic climate with strategic tax minimisation behaviour (Kastlunger *et al.*, 2013; Wahl *et al.*, 2010). Nevertheless, in the context of Malaysia, studies have proven that economic approach does increase taxpayers and tax agents' compliance behaviour (Hamid, 2014; Sia, 2008). However, there are very few studies in Malaysia integrating economics and socio-psychological factors such as tax climate in understanding Malaysians' non-compliance behaviour.

Therefore, in this study, tax climate treatment was manipulated across experimental subjects and survey respondents which comprised postgraduate, employed, and self-employed group. It examined whether disclosure of enforcement strategies has an impact on tax minimisation under each climate treatment across subgroups. Preliminary observations were detected from the cross tabulations of tax decision before and after disclosure of enforcement strategies for both experimental and survey designs. It was quite obvious that, there was not much change in tax decision of undergraduate students from the experiment under the antagonistic climate; and self-employed individuals from survey under both climates.

Further inferences were made via Wilcoxon Sign Rank Test: Small effect was found with respect to the impact of disclosure of probability of detection on tax minimisation to the undergraduate students under the synergistic climate. Meanwhile, small effects were also detected on employed individuals under both climates, followed by medium effects on postgraduate students under both climates. It seems that, the positive past findings between probability of detection and compliance in the context of Malaysia (Hamid, 2014; Sia, 2008) are not applicable to self-employed who are more 'creative' in declaring their income and expenses. In addition to contributions to the literature and methodologies, these results carry an important practical implication to the tax authorities, that, stringent enforcements might not be the best tool to reduce avoidance or evasion. Instead, tax awareness and education should be prioritised, with any actions to maintain a trustworthy and legitimate relationship between citizens and authorities.

In future, more complex experimental manipulation is suggested to explore the effect of disclosures of probability of detection and penalty on tax minimisation separately while controlling for perceived tax cheating. It will also be meaningful to allow the participants to adjust their tax liabilities at any amount after a thorough understanding among tax mitigation, avoidance and evasion. Contributing inferences could be generated via ANCOVA. Lastly, in view of the encouraging results of this exploratory study, it should be expanded and validated by a larger sample size which include working adults in the experimental design if possible.

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