Perceptions of corruption and tax non-compliance behaviour: 
Policy implications for emerging countries

Arifin Rosid  
Directorate General of Taxation, Ministry of Finance, Indonesia  
School of Taxation and Business Law, UNSW Business School, UNSW Australia  
(email: a.rosid@unsw.edu.au)

Chris Evans  
School of Taxation and Business Law, UNSW Business School, UNSW Australia  
Department of Taxation, University of Pretoria, South Africa  
Tax Administration Research Centre, University of Exeter, UK  
(email: cc.evans@unsw.edu.au)

Binh Tran-Nam  
School of Taxation and Business Law, UNSW Business School, UNSW Australia  
RMIT Asia Graduate Centre, RMIT University Vietnam  
Tax Administration Research Centre, University of Exeter, UK  
(email: b.tran-nam@unsw.edu.au)

Paper prepared for the Tax and Corruption Symposium, Sydney, 12-13 April 2017. The views expressed in this paper are those of the authors and do not necessarily represent those of the institutions where the authors serve.

ABSTRACT

Perceptions of corruption and tax non-compliance behaviour are key challenges to state-building in emerging countries. This paper develops a theoretical model in which different forms of perceived corruption can adversely influence the way individual taxpayers behave using a social psychology approach. This paper then applies the model to Indonesia and places the empirical findings obtained in the context of compliance risk management to identify strategies designed to improve tax compliance and to explore the necessary steps to implement them effectively. It sheds light on the applicability of the traditional responsive regulatory approach, which adopts various combinations of measures to achieve either voluntary or enforced compliance, utilised by revenue authorities in specifically dealing with intentionally non-compliant taxpayers. While the empirical evidence is based on Indonesian experience, it is suggested that the model is sufficiently general and robust to be applicable to other emerging countries in the Asia-Pacific region.

Keywords: corruption, tax compliance, compliance risk management, norm-based intervention, focused enforcement

INTRODUCTION

Revenue collections in developing economies are generally afflicted by widespread evasion, coercion, and corruption (McKerchar and Evans 2009, Bird 2015). Corruption creates inefficient tax systems, erodes tax collection legitimacy, reduces corporate and personal citizens’ willingness to pay their fair shares of taxes and, as a result, lowers levels of tax collection (Imam and Jacobs 2007, Alm, Martinez-Vazquez and McClellan...
Due to its secretive nature, most of the indicators used to identify and assess corruption are based on subjective measurements, typically known as 'perceptions of corruption' (Campbell 2013). Perceptions of corruption also have a negative impact upon the way taxpayers behave. That is, perceived corruption may erode taxpayers’ willingness to contribute their fair share of tax (Jahkke 2015), cultivate a culture of distrust among stakeholders towards related institutions (Melgar, Rossi, and Smith 2010), strengthen a damaging public perception that causes taxpayers to disengage from any reciprocal relationship with the government (Fjeldstad and Tungodden 2003), reduce the moral cost of evading tax and further encourage taxpayers to behave opportunistically (Torgler, Demir, Macintyre, and Schaffner 2008). Perceptions of corruption also undermine compliance as taxpayers may perceive that, due to corruption, the presence (or benefit) of government expenditures they receive will be reduced (Alm, McClelland, and Schulze 1992) as well as induce more taxpayers to underreport taxes, as more underreported taxes create more opportunities for bribery of tax officials (Çule and Fulton 2009). Consequently, perceptions of corruption may have a worse effect than the corruption itself (Melgar, Rossi, and Smith 2010).

Yet despite being a serious problem for emerging countries, research into perceptions of corruption in the taxation context has received relatively little attention, and empirical evidence on its impact on intentional tax (non)compliance is minimal. In particular, to what extent (and precisely how) does perceived corruption affect tax compliance? Are there policy implications that a revenue authority (such as the Indonesian tax authority, the DGT) can undertake (or have in place) to improve compliance? These are the major questions we address in this paper.

We choose Indonesia for two major reasons. First, Indonesia appears to be among the more corrupt of the major countries in the Asia-Pacific region (Transparency International 2015). Further, a study by Kuncoro (2004) found that a typical bribe rate paid by Indonesian firms is between 10-15% of annual production costs, and survey results from the Global Competitiveness Report 2016–2017 also suggest that corruption is the most problematic factor for doing business in Indonesia (World Economic Forum 2016). Second, Indonesia has been classified as a major emerging country with continual compliance issues (OECD 2014a, Directorate General of Taxation (DGT) 2015a). The Indonesian tax ratio is classified as lower than those of other low-income countries (IMF 2011), and the percentage of individual income tax revenue to GDP in Indonesia, partly due to corruption and poor governance, is the lowest among neighbouring countries (i.e. 1.3% compared to 1.9% in Thailand, 2.1% in Philippines, and 2.7% in Malaysia) (Bird and Zolt 2005).

Recently, Indonesia has introduced and offered a tax amnesty program for nine months, from July 2016 to March 2017, to generate more revenue and broaden the tax base. However, in the first phase of the program (July–September 2016, involving a 2% redemption rate), 82% (284,679 out of 347,033) of amnesty participants were taxpayers who had already lodged their annual tax returns, and 89% ($6.64 billion out of $7.46

---

1 In the literature on corruption in general, there are two competing views regarding the impact of corruption on economic efficiency, namely, the ‘sand-the-wheels’ and ‘grease-the-wheels’ hypotheses. For a summary of those hypotheses, refer to Nguyen et al. (2016). In the context of tax corruption, the authors are inclined to support the ‘sand-the-wheels’ hypothesis, i.e., tax corruption is harmful.
billion) of the tax declared was paid by individual taxpayers. This is a strong indication of the extent of non-compliance by personal taxpayers in Indonesia.

Before proceeding further, the following point needs to be made. While the empirical findings of this paper are confined to Indonesia, it is important to note that the theoretical model (to be developed in the next section) is of sufficient generality and robustness to be applicable to other emerging economies, especially those in the Asia-Pacific region. This is so because the development of the theoretical model does not depend on any country-specific characteristics or assumptions.

There is no consensus on the definition of corruption. In fact, corruption can be defined in several ways (see, for example, Blackburn, Bose, and Haque 2010). Most of the definitions, however, appear to emphasise governmental aspects of corruption by highlighting the abuse of public authority for personal gains—accordingly, commonly termed as ‘government corruption’ (Shleifer and Vishny 1993: 599).

One popular way of classifying corruption is by using its scale (UNDP 2008). In this sense, corruption is categorised in the sector where it occurs or the amounts of money involved. For example, like the subsequent UNDP definition (2008), Doig and Theobald (1999) distinguish two types of corruption: grand corruption and petty corruption. Grand corruption, on the one hand, represents the misuse of public power by high-level public officials such as ministers or senior staff, for personal pecuniary gain. On the other hand, petty corruption refers to the extortion of small payments by low-level public officials in daily interactions designed to ‘smooth’ transactions, and accordingly it is often called ‘grease’ money. We adopt this classification in this paper.

We then also distinguish corruption in the tax department (the DGT) from corrupt activities in all other government sectors.

Accordingly, five different types of perceptions of corruption are identified: grand corruption; grand tax-corruption; petty corruption; petty-tax corruption; and a fifth category that embraces all four of these categories—general corruption (figure 1).

To maintain the specificity of the study, we then review the definition of tax compliance behaviour. While there is no consensus of what precisely is meant by compliant behaviour, we identify that the definitions of tax compliance can be broadly categorised

---

into two approaches: conceptual and operational. The conceptual approach tends to emphasise the taxpayers’ willingness to comply without the application of enforcement activity (see, for example, James and Alley 1999: 32), whereas the operational approach appears to focus on the administrative fulfilment of particular tax obligations (see, for example, OECD 2014b). For practical purposes, the operational approach seems to offer an advantage by evaluating whether taxpayers register in the system, file timely tax returns, make accurate and complete reports, and pay their tax liabilities on time.

We also observe that two critical aspects need to be considered in examining tax compliance behaviour: intention and outcome (see, for example, Bird 2015, World Bank 2015). While the outcomes of compliance behaviour vary (Tran-Nam 2003, Langham, Paulsen, and Hartel 2012), intention can be reasonably considered as an accurate proxy for performed behaviour (Lewis 1982, OECD 2010). For this reason, to obtain a greater clarity on the definitional issues and to maintain the specificity of the results, our study sets out two conceptual boundaries. First, tax compliance is specifically defined as ‘taxpayers’ willingness to accurately report income in accordance with the prevailing tax law’ (OECD 2014b).3 Second, our research focuses on both intentional compliance and intentional non-compliance behaviour so far as tax reporting is concerned. Accordingly, tax compliance behaviour in this paper refers to the self-reported behaviour of the taxpayers’ intended reporting behaviour.

This paper provides a deeper understanding as to what extent, and how, perceptions of corruption influence intentional underreporting behaviour of personal income taxpayers (PITs) in Indonesia. Understanding public perceptions is important because this is one of the external factors that is capable of shaping tax compliance outcomes (OECD 2014b).

This paper then places these empirical findings into a risk-based compliance management context to identify strategies designed to improve tax compliance and to explore the necessary steps to implement them effectively. The policy implications resulting from this study are crucial and relevant for developing economies such as Indonesia, particularly in relation to the 2030 United Nations’ Agenda for Sustainable Development goals where strengthening domestic revenue mobilisation and improving domestic capacity for tax revenue collection are considered as key drivers of these goals (United Nations 2015). Finally, it is worth noting that in many cases decisions in tax administration need to be made under uncertainty (Wenzel and Taylor 2003). This study provides evidence-based results that may be beneficial, particularly to the DGT, to reduce this ex ante uncertainty.

**METHODOLOGY**

The primary concern in the study of perceptions of corruption and tax compliance behaviour is how to obtain reliable data. For this purpose, field research was undertaken in the period from January 2015 through to July 2015. This study sought to measure perceived levels of corruption and tax compliance behaviour at the individual level by asking Indonesian PITs the extent of perceived corruption and underreporting behaviour of income tax. Inevitably, questions on corruption and underreporting behaviour are highly context-dependent and also very susceptible to social desirability bias. That is, there is always a possibility that taxpayers will answer such questions in a less than

---

3 It is worth noting that this definition deliberately excludes the ‘registration’, ‘filing’, and ‘payment’ criteria.
wholly truthful fashion. In order to address these concerns and minimise respondent bias, a number of strategies were adopted.

First, to enhance the research method capabilities and to improve the quality of the research outcomes, this study adopted both the qualitative and quantitative paradigms in a sequential priority model. Initially, in-depth interviews with nine participants (three taxpayers, three tax agents and three tax officers) were used to clarify, modify, and develop more robust observed variables in the design of the survey questionnaire from theoretical perspectives. This was then followed by an extensive survey conducted with PITs who were submitting personal tax returns (Surat Pemberitahuan Tahunan—SPT) in twelve tax offices across four Indonesian regions (Denpasar, Malang, Surabaya and Yogyakarta).

Second, to minimise taxpayers’ suspicion of the data collection in the quantitative phase, a team of research intermediaries—trained research assistants recruited from the local universities—was involved in the survey. The research intermediaries played a crucial role in assuring the taxpayers that the study was an academic project as well as indicating that the study had no link with the Indonesian tax authority.

The survey was conducted by using mixed-modes: a combination of face-to-face interviews and self-completion survey. Face-to-face interviews were initially used by the research intermediaries to recruit respondents because this method has a good reputation for gaining the cooperation of respondents. Meanwhile, self-completion surveys were employed to capture respondents’ sensitive answers because this method was considered as the most suitable mode to collect particularly confidential responses (de Vaus 2014).

Third, and prior to the survey conduct, two-stage pilot tests were undertaken to ensure that the questionnaire was accurate and reliable for data collection. Further, to reduce potential social desirability bias, an ‘everybody does it’ technique (de Vaus 2014) was adopted by adding a preamble phrase that ‘not everyone necessarily reports all of his or her actual income to the tax office’ in the questionnaire. Also, to psychologically emphasise the ‘anonymous nature’ of the survey, we deliberately placed the ‘background information’ section of the respondents on to the last page of the questionnaire.

Fourth, most of the tax offices (75%) where the surveys took place were located on the Java Island. The choice of survey locations was dictated by the fact that in terms of economic activity, and despite its small size, Java Island accounts for almost 58% of Indonesian GDP (BPS, 2013). As a result, the majority of income taxpayers (60%) are administered by 189 tax offices (57% of the total number of tax offices in Indonesia) in this area. Nevertheless, our research budget allowed us to survey 397 taxpayers only in 12 tax offices.  

Finally, because intentional (non)compliance behaviour is the focus of our study, we adopt the Theory of Planned Behaviour (TPB) as a primary theoretical lens. The main reason for adopting the TPB is because, by definition, perception is closely related to belief. The TPB deals with three beliefs: behavioural beliefs, normative beliefs, and

---

4 Based on a careful estimation, it was concluded that the accessible population of this study was around 360,000 respondents. This is an indicative number of the accessible population, estimated by multiplying the number of registered PITs who were obliged to lodge annual tax returns as of December 2012 with the rate of filing ratio of each tax office under study. Moreover, as this study adopted structural equation modelling (SEM), it was observed that the minimum samples for this study would be 384.

5 Perception can be referred to as ‘a belief or opinion, often held by many people and based on how things seem’. See, <http://dictionary.cambridge.org/dictionary/british/perception>, retrieved 18 April 2014. As
control beliefs (Fishbein and Ajzen 2010). Once beliefs associated with a certain behaviour have been developed, these beliefs then provide the basis for the attitudes, subjective norms, and perceived control which in turn lead to the formation of intention and a given behaviour (Fishbein and Ajzen 2010). Accordingly, the theory conceptualises that attitudes toward behaviour, subjective norms and perceived behavioural control lead to the formation of behavioural intention, in which behavioural intention enables the prediction of actual behaviour (Fishbein and Ajzen 2010). By adopting this framework, we were particularly interested to know whether different forms of perceived corruption have differing impacts upon the way Indonesian individual taxpayers behave so far as tax reporting is concerned.

**QUALITATIVE RESULTS**

The interviews were open-ended and interviewees were encouraged to provide their own thoughts and opinions on the questions. The interview data were subsequently transcribed into a verbatim format. CDC EZ-Text 4.0 software was then used for analysis by using a deductive and theoretical thematic analysis procedure described by Braun and Clarke (2006).

Seven themes were established and coded: taxpayers’ general information (TGI); perceptions of corruption (PoC); attitude towards behaviour (ATB); subjective norms (SNO); perceived behavioural control (PBC); intention to comply (ITC); and tax compliance behaviour (TCB). Each of the themes, except PBC and ITC, was then categorised into relevant sub-themes, resulting in 15 sub-themes. Each of the sub-themes was coded as a ‘child’ of its original code in the software and each had a bipolar scale (e.g. low–high, negative–positive, harmful–beneficial). As a result, a total of 34 pre-existing codes were established. The deductive thematic analysis resulted in 28 categories which covered 82% of available pre-existing codes, leaving six pre-existing codes unused. A total of 272 assigned codes were identified from the interview data.

Three main findings emerged from the analysis of the interviews. First, Indonesian PITs were mostly perceived by the participants as having a high likelihood of not complying with their tax obligations, indicated by the extent of negative intention to comply. The participants were of the opinion that complying with the tax law was associated with ‘bad’ feelings and ‘disadvantages’ which represent the prevalence of negative attitudes toward compliance behaviour. An overall negative value on the subjective norms theme also indicated that the perceived level of social pressures to comply with the tax law was completely absent, which in turn might implicitly encourage PITs to become non-compliant. The analysis of the interview data also revealed that PITs were generally assumed to have a considerable control over whether or not they want to intentionally engage in tax evasion.

Second, the interview data also demonstrated an inverse relation between high levels of perceived corruption and low levels of compliance behaviour. However, little was known from the data about how this correlation was linked. What the data may suggest is that high levels of perceived corruption might be related to both situational and motivational factors. There are two reasons for this. First, the situational factor was indicated by the extent of negative psychological evaluation towards a high level of perceived corruption and complying with tax obligations.6 Thus, corruption, either perceived or real, might

---

6 For instance, ‘why should I pay tax if it is just being corrupted?’ was a frequently expressed view heard from the participants—this sentiment was uttered 38 times in total during the interviews. Also, as several
led to a negative psychological evaluation towards the completeness and the accuracy of information declared in the annual income tax return of PITs. Second, the motivational factor could be related to a lack of perceived social pressure among PITs to fully comply with the tax law, particularly in providing complete and accurate information declared in the annual income tax returns. Overall negative values on both injunctive (what others believe is right) and descriptive norms (what others do) among the participants indicated that the beliefs of certain groups of referents discourage PITs from complying with the tax law and beliefs that PITs' important referents are not fully reporting their income were evident.

Finally, it was possible to propose a hypothetical model of relationships between high levels of perceived corruption with low levels of compliance behaviour. In this sense, this hypothetical model conceptualises that perceived levels of corruption influence both attitudes and subjective norms of Indonesian PIT. Then, the affected attitudes and subjective norms, combined with high level of perceived behavioural control for non-compliance, lead to the formation of a negative intention to fully comply with the tax law. Subsequently, this negative behavioural intention can be reasonably used to predict the low levels of compliance behaviour. In other words, the relationship between high levels of perceived corruption and low levels of tax compliance is indirect.

These key findings and hypothetical relationships were then used and further investigated in the quantitative phase.

SURVEY RESULTS

Demographic data

The survey questionnaire employed 72 questions in total. The respondents were specifically asked to indicate their beliefs, values, attitudes, intentions and behaviour regarding ten constructs using a 7-point rating scale of interval measurement by using 56 reflective indicators.

The respondents consisted of two groups: 196 self-employed PITs and 201 employed PITs. The surveyed self-employed PITs are categorised as small and medium enterprises (SME) with annual sales turnover of operating business less than IDR 4.8 billion (roughly $360,000), but there is no income threshold applied for the employed PITs.

We looked at several demographic characteristics of the respondents to obtain initial insight that might guide the discussion of policy implications (table 1). In terms of age group, the respondents were concentrated in two age ranges, 24-34 and 35-44 years old (35% and 33% of respondents respectively). A larger proportion was male (64%). Most respondents were married (90%), and the share of married self-employed PITs was higher than those of employed PITs (93% and 86% respectively).

<table>
<thead>
<tr>
<th>Demographic characteristics</th>
<th>Self-employed taxpayers (n = 196)</th>
<th>Employed taxpayers (n = 201)</th>
<th>Total (n = 397)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age group</td>
<td>&lt; 25 years</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>6.6</td>
<td>6.0</td>
<td>6.3</td>
</tr>
</tbody>
</table>

participants have precisely described, to compensate for such a ‘non-deductible payment’ (i.e. bribe) for tax calculation purposes, certain types of taxpayers might have no choice but to underreport their actual income. Otherwise, taxpayers may have to pay ‘double-taxes’ which obviously reduces their financial circumstances.
As nine out of twelve of the surveyed tax offices were on the Java Island, the study sample was dominated by Javanese respondents (almost 67%). Balinese respondents were in the second position with nearly 18%. Both types of taxpayer shared almost similar portions of these two-dominant races. Various other races comprised minor ethnic groups including ‘Others’ (e.g. Tionghoa), Sumatranese, Sundanese, Sulawesinese and Kalimantanese.

The study sample was dominated by respondents who had an annual income less than IDR 60 million ($4,500) (70%), followed by those who had IDR 60-99 million (17%). In the third and fourth position were those who had income group IDR 100-149 million and 150-199 million (7% and 5% respectively). The smallest income-group level was those who had more than IDR 200 million annual income (2% of the total respondents).

The vast majority of the respondents had college degrees, with the largest group (60%) having undergraduate level education, followed by diploma and postgraduate levels (10% and 7% respectively). Respondents who had high school qualifications comprised 23% of respondents. More than half of the respondents were ‘self-preparers’ in completing their

Source: Calculated from the survey data
annual tax return (51%), followed by those who received assistance from tax offices (32%). In contrast, only a miniscule portion of the respondents had used tax agents to fully deal with their annual income tax return (2%). While most self-employed PITs were self-preparers (62%), the majority of employed PITs had received assistance from tax offices in completing their annual tax returns (46%).

With respect to previous interactions with the DGT, by far the largest proportion of respondents had never been contacted by tax offices (74%), followed by those who had been contacted but never been audited by tax offices (24%). Those who had been audited and penalised by tax offices constituted about the same small proportion as those who had been audited but never been penalised (roughly 1% of respondents). Those who had been audited by the tax authority were all self-employed PIT, and the proportion of those who had been penalised was slightly higher than those who had never been sanctioned (roughly 3% and 2% respectively).

**Perceptions, attitudes, norms, perceived control for non-compliance and intentions**

Table 2 summarises key survey outcomes relating to perceived levels of corruption and other attitudes, norms, perceived behavioural control for non-compliance and intentions, based upon responses to a seven-point rating scale.

<table>
<thead>
<tr>
<th>Construct</th>
<th>General description</th>
<th>Self-employed (n = 196)</th>
<th>Employed (n = 201)</th>
<th>All respondents (n = 397)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perception of general corruption (PGC)</td>
<td>Taxpayer’s perceived level of abuse of entrusted power by public official for private gain</td>
<td>6.21 (0.84)</td>
<td>6.10 (0.93)</td>
<td>6.15 (0.89)</td>
</tr>
<tr>
<td>Perception of grand corruption (GCO)</td>
<td>Taxpayer’s perceived level of misuse of public power by high-level public official for private gain which often involves large sums of money</td>
<td>6.49 (0.64)</td>
<td>6.48 (0.70)</td>
<td>6.48 (0.67)</td>
</tr>
<tr>
<td>Perception of petty corruption (PCO)</td>
<td>Taxpayer’s perceived level of extortion of small payments by low-level public officials in daily interactions with the public as ‘grease money’</td>
<td>6.41 (0.66)</td>
<td>6.27 (0.75)</td>
<td>6.34 (0.71)</td>
</tr>
<tr>
<td>Perception of grand tax-corruption (GTC)</td>
<td>Taxpayer’s perceived level of misuse of public power by high-level tax official for personal pecuniary gains which often involves large illegal payment in dealing with certain tax cases.</td>
<td>5.57 (1.14)</td>
<td>5.49 (1.07)</td>
<td>5.52 (1.11)</td>
</tr>
</tbody>
</table>
The respondents were generally of the opinion that the levels of corruption in Indonesia were very high. Specifically, the highest perceived level of corruption was in relation to grand corruption, with the mean score for its indicators 6.49 out of 7 for self-employed individuals, and 6.48 for all respondents. In contrast, perceptions of petty tax-corruption appeared to have the lowest mean score, with an indicator of 5.01. The data also suggest that, except for petty tax-corruption, self-employed PITs tend to have a higher level of perceived corruption than employed PITs.

**Attitudes towards tax underreporting**

In support of the qualitative results, fully reporting actual income in the annual tax returns seems to be associated by the respondents with lack of positive experiential attitudes and unpleasant instrumental attitudes. The survey data show the respondents tend to be favourably disposed to underreporting income (M = 4.40), and that self-
employed PITs seem to have a higher disposition towards underreporting (M = 4.51) than employed PITs (M = 4.30).

**Subjective norms towards tax underreporting**

The respondents generally perceived that their significant referents (persons likely to influence their intentions and behaviours) think they should not fully report their actual income. As a result, they appear to have positive subjective norms towards underreporting their actual income. The survey data suggest that the perceived level of social pressures not to fully report actual income was somewhat high (M = 3.80), and that self-employed PITs appear to have a higher degree of subjective norms towards tax underreporting (M = 3.89) than employed PITs (3.72).

**Perceived behavioural control over tax underreporting**

The data indicate that the respondents’ have a perception that they have the ability and the opportunity to underreport income. This is particularly the case with the self-employed respondents. The data reveal that self-employed PITs appear to have a considerable control over whether or not they want to intentionally engage in tax evasion (M = 4.56). In contrast, employed PITs scored much lower (M = 3.12) than self-employed PITs. This significant divergence may clearly reflect the different nature of opportunity for non-compliance between employed and self-employed PITs, as employed PITs typically have their income subject to withholding tax.

**Intention to report actual income**

The data suggest that the respondents generally do not appear to have a high level of willingness to fully report their actual income (M = 3.80). Self-employed PITs seem to have a lower level of willingness to fully report actual income (M = 3.57) than employed PITs (M = 4.02).

**Levels of (under)reported income**

The survey data indicates that only 18% (36 out of 196) of self-employed PITs agreed or strongly agreed that they had fully reported their actual income in the 2014 annual tax return (table 3). In contrast, 63% (125 out of 201) of employed PITs agreed or strongly agreed that they had reported their income other than salary, wage, or other tax withheld income in their annual income tax return. It is important to note however that a large portion of the surveyed employed PITs had no additional income other than from employment (83%), implying that the rest (17%, or 34 employed PITs) received additional income. Further, roughly 4% of employed PITs (seven respondents) have reported that they did not earn income in 2014 (table 3).

<table>
<thead>
<tr>
<th>Type of PIT</th>
<th>Question (a): I have fully reported my actual income in my annual tax return for fiscal year 2014 / I have fully reported my income other than salary, wage, or other tax withheld income on my annual tax return for 2014</th>
<th>SD</th>
<th>D</th>
<th>sD</th>
<th>N</th>
<th>sA</th>
<th>A</th>
<th>SA</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-employed</td>
<td></td>
<td>4</td>
<td>15</td>
<td>42</td>
<td>54</td>
<td>45</td>
<td>27</td>
<td>9</td>
<td>196</td>
</tr>
<tr>
<td>Employed</td>
<td></td>
<td>5</td>
<td>18</td>
<td>13</td>
<td>27</td>
<td>13</td>
<td>84</td>
<td>41</td>
<td>201</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>9</td>
<td>33</td>
<td>55</td>
<td>81</td>
<td>58</td>
<td>111</td>
<td>50</td>
<td>397</td>
</tr>
</tbody>
</table>

*Question (b): As far as I can remember, the amount of income I have reported in my annual tax return was roughly ... of my actual income*

11
In terms of the amount of income being underreported in the annual tax returns, the data indicate that 44% of self-employed PITs had underreported between 50% and 100% of their actual income. Surprisingly, no respondent from the group of employed PITs who received additional income other than from employment reported their additional income in the annual tax return—all of them (34 employed PITs) answered 0%.

**QUANTITATIVE APPROACH AND RESULTS**

We used the survey data to examine the hypothetical relationships of variables under study derived from the qualitative phase. Based on the type of perceived corruption being considered, three basic models were used to analyse the impact of the five types of perceived corruption under consideration (figure 2).

**FIGURE 2 Hypothesised channels of causality between perceptions of corruption and tax non-compliance Behaviour**

Model A

Model B

Model C

Note: PGC = perceptions of general corruption; GCO = perceptions of grand corruption; PCO = perceptions of petty corruption; GTC = perceptions of grand tax-corruption; PTC = perceptions of petty tax-corruption; ATB = attitude towards tax underreporting; SNO = subjective norm towards tax underreporting; PBC = perceived behavioural control over tax underreporting; ITC = intention to report actual income; TCB = level of reported income
In doing so, a structural equation modeling (SEM) approach was performed by using IBM® SPSS® Statistics and IBM® SPSS® Amos. Commonly used to assess dependence relationships among latent variables simultaneously (Hair et al. 2010), SEM is ‘a technique to specify, estimate, and evaluate models of linear relationships among a set of observed variables in terms of a generally smaller number of unobserved variables’ (Shah and Goldstein 2006: 149). We consider this technique to be the most appropriate method to analyse the survey data in this study.

For each model illustrated in figure 2 we further specified two categories: full and partial models. The reason is because self-employed PITs who did not earn income (seven respondents) and employed PITs who did not receive additional income other than from employment (167 respondents) could not be included in the full model analysis. Accordingly, while the whole sample (397 respondents) are used in the analysis of partial models, only 223 respondents can be used in the analysis of full models. As a result, six models were actually examined. Detailed discussions of the SEM analysis and its findings can be found in Rosid, Evans, and Tran-Nam (2016).

The quantitative findings demonstrate the underlying mechanisms by which the different forms of perceived corruption negatively influence the way individual taxpayers behave by way of three principal findings. First, perceptions of corruption appear to have stronger influences on taxpayers’ attitudes towards tax underreporting than their subjective norms towards tax underreporting. In this regard, perceptions of grand corruption and grand tax-corruption were found to be influential in affecting taxpayers’ attitudes towards tax underreporting (with path coefficients ranging from 0.317 to 0.363, and 0.225 to 0.290 respectively), while perceptions of petty corruption tend to affect taxpayers’ subjective norms towards tax underreporting (with path coefficients ranging from 0.326 to 0.331).

Second, taxpayers’ attitudes towards tax underreporting and their subjective norms towards tax underreporting, coupled with the perceived behavioural control over tax underreporting, appear to undermine taxpayers’ intention to report actual income. Attitudes towards tax underreporting seem to have the strongest direct effect upon taxpayers’ intention to report actual income (with path coefficients ranging from -0.400 to -0.445), followed by perceived behavioural control over tax underreporting in the second place with path coefficients ranging from -0.165 to -0.244. Subjective norms towards tax underreporting appear to have the weakest direct effect upon taxpayers’ intention to report actual income with path coefficients ranging from -0.122 to -0.175. The findings also suggest that intention to report actual income is a good predictor of tax reporting behaviour, with path coefficients greater than 0.550.

Third, it was demonstrated that perceptions of corruption have an impact upon taxpayers intentionally underreporting their income tax. It was found that when perceived levels of grand corruption, grand tax-corruption and general corruption increase by one standard deviation, intentional tax underreporting behaviour increases by 0.073, 0.071 and 0.034 standard deviations respectively.

Further, using multi-variate analysis of variance (MANOVA), it was found that the perceived levels of corruption, as outcomes, were not related to age groups, gender or

---

7 By the term ‘full’ model we mean the inclusion of ‘level of reported income (TCB)’ variable in the model (figure 2). Analogously, the term ‘partial’ means the exclusion of the TCB variable.

8 These three findings draw heavily from Rosid, Evans, and Tran-Nam (2016). Mainly due to space considerations, the process of empirical investigation is not discussed further in this paper. We refer interested readers to Rosid, Evans, and Tran-Nam (2016).
income levels; but were associated with education levels and employment status (table 4). In particular, perceptions of general corruption were found to be related to education levels (Wilk’s \( \Lambda = 0.942, F(15, 1074) = 1.57, p = 0.07, \) partial \( \eta^2 = 0.02 \)), with respondents who have higher education levels expressing lower levels of perceived corruption (M for high school = 6.27, diploma = 6.21, undergraduate = 6.14, and postgraduate = 5.83). Similarly, perceptions of petty tax-corruption were found to be only related to education levels (Wilk’s \( \Lambda = 0.929, F(15, 1074) = 1.94, p = 0.02, \) partial \( \eta^2 = 0.02 \)), with respondents who have higher education levels expressing lower levels of perceived corruption (M for high school = 5.18, diploma = 5.16, undergraduate = 4.98, and postgraduate = 4.48). These differences were tested for statistical significance using \( p \)-value equal to 0.10 and 0.05 respectively. Furthermore, a statistically significant difference between employment status was evident when considered jointly on the dependent variables of petty corruption (Wilk’s \( \Lambda = 0.966, F(5, 391) = 1.94, p = 0.02, \) partial \( \eta^2 = 0.03 \)), with self-employed PITs (M = 6.41) scoring higher than employed PITs (M = 6.26). Nevertheless, considering the small effect sizes, these might be rather negligible.

| TABLE 4 Statistically significant differences among perceptions of corruption by demographic variables |
|-----------------------------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| Outcomes                                      | Predictors (demographic variables)                                                                 |
| Perceived level of                            | Age | Gender | Education | Income level | Employment status |
| General corruption (PGC)                      |      |        | \( \gamma^a \) |            |                    |
| Grand corruption (GCO)                        |      |        |            |            |                    |
| Petty corruption (PCO)                        |      |        |            |            | \( \gamma^b \)    |
| Grand tax-corruption (GTC)                    |      |        |            |            |                    |
| Petty tax-corruption (PTC)                    |      |        |            |            |                    |
| \( \gamma^a \) = statistically significant difference evident, with the higher the level of education, the lower the score of PGC. |
| \( \gamma^b \) = statistically significant difference evident, with the higher the level of education, the lower the score of PTC. |
| \( \gamma^c \) = statistically significant difference evident, with self-employed PITs scored higher than employed PITs. |

Source: Calculated from the survey data

It was also found that the TPB constructs under consideration, as outcomes, were not related to age groups and education levels. Instead, they were associated with gender, income level, and employment status (table 5).

| TABLE 5 Statistically significant differences among the TPB constructs by demographic variables |
|-----------------------------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| Outcomes                                      | Predictors (demographic variables)                                                                 |
| The TPB constructs                            | Age | Gender | Education | Income level | Employment status |
| Attitude towards tax underreporting (ATB)     |      |        |            |            |                    |
| Subjective norms towards tax underreporting (SNO) |      |        | \( \gamma^a \) |            |                    |

14
Perceived behavioural control over tax underreporting (PBC) & Yc & Yd & \\
Intention to report actual income (ITC) & Yb & - & - & Yb & \\
Level of reported income (TCB) & - & - & - & - & Ye \\

- = statistically significant difference not evident. 
Ya = statistically significant difference evident, with male PITs scored higher than female PITs. 
Yb = statistically significant difference evident, with male PITs scored lower than female PITs. 
Yc = statistically significant difference evident, with the higher the level of income, the higher the score of PBC. 
Yd = statistically significant difference evident, with self-employed PITs scored higher than employed PITs. 
Ye = statistically significant difference evident, with self-employed PITs scored lower than employed PITs. 

Source: Calculated from the survey data

In terms of gender, a statistically significant difference between male and female was evident when considered jointly on the dependent variables of subjective norms towards tax underreporting (Wilk’s Λ = 0.959, F(8, 388) = 2.06, p = 0.04, partial η² = 0.27), with males (M = 3.88) scoring higher than females (M = 3.65). Similarly, a statistically significant result was also found when considered jointly on the dependent variables of intention to report actual income (Wilk’s Λ = 0.972, F(4, 392) = 2.84, p = 0.02, partial η² = 0.03), with males (M = 3.70) scoring lower than females (M = 3.96). However, considering its small effect size, the effect of gender upon intention to report actual income might be negligible.

The extent of perceived behavioural control over tax underreporting seems to be related to income levels. A statistically significant difference among income levels was evident when considered jointly on the dependent variables of PBC (Wilk’s Λ = 0.887, F(32, 1421) = 1.47, p = 0.04, partial η² = 0.03), with respondents who have higher level of income tend to have higher perceived level of behavioural control for tax underreporting (M for those under IDR 60 million = 3.78, those between IDR 60 million and IDR 99 million = 3.94, those between IDR 100 million and IDR 149 million = 4.03, those between IDR 150 million and IDR 199 million = 3.61, and those over IDR 200 million = 4.26). Nevertheless, considering its small effect size, this might be negligible.

By contrast, the extent of perceived behavioural control over tax underreporting appears to be substantially related to employment status. A statistically significant difference between self-employed and employed PITs was evident when considered jointly on the dependent variables of PBC (Wilk’s Λ = 0.584, F(8, 388) = 34.49, p = 0.00, partial η² = 0.42), with self-employed (M = 4.56) scoring higher than employed PITs (M = 3.12).

Although with a small effect size, a statistically significant difference between self-employed and employed PITs was also found when considered jointly on the dependent variables of intention to report actual income (Wilk’s Λ = 0.958, F(4, 392) = 4.278, p = 0.00, partial η² = 0.04), with self-employed PITs (M = 3.57) scoring lower than employed PITs (M = 4.02). Finally, a statistically significant effect of employment status was evident when considered jointly on the dependent variables of level of reported income
(Wilk’s $\Lambda = 0.473$, $F(2, 220) = 122.49$, $p = 0.00$, partial $\eta^2 = 0.27$), with self-employed PITs ($M = 4.37$) scoring higher than employed PITs ($M = 1.62$).\(^9\)

In summary, therefore, high levels of perceived corruption were found to be pervasive regardless of taxpayers’ demographic background. The findings also suggest that while self-employed PITs appeared to have higher perceived behavioral control over tax underreporting, employed PITs were found to have a lower level of reported income than self-employed PITs so far as extra income is concerned.

**POLICY IMPLICATIONS**

**Compliance Risk Management**

The DGT has identified several issues relating to its low tax ratio, and is particularly concerned with the ongoing low level of tax compliance (DGT 2015b). It aims to increase the tax ratio from 12.2% in 2015 to 15% in 2019 (DGT 2015b). In relation to this aim, the DGT has recently outlined several strategic initiatives to improve tax compliance in Indonesia that are scheduled to take place in the period from 2015 to 2019. Among these is an initiative to implement a Compliance Risk Management (CRM) process. Given its pivotal importance, the CRM is the focal point of our discussion in this paper.

The DGT defines the CRM process as ‘a systematic process to select appropriate instruments to improve taxpayer compliance and to deter non-compliance effectively, based on knowledge of taxpayer behaviour and the DGT’s resource availability’ (DGT 2015b: 36). Currently, the DGT acknowledges the absence of a comprehensive risk-based approach in dealing with compliance issues, and as a result, it is unable to allocate its resources and appropriate treatments for various types of taxpayer based on their risk in an efficient and effective way (DGT 2015b). It further notes that several decision-making processes on crucial issues are based on subjective judgements and that its understanding of taxpayer compliance behaviour is inadequate (DGT 2015b).\(^{10}\)

The paper now explores how the findings of our study may have policy implications in relation to the implementation of a CRM process by the DGT designed to improve tax compliance. As a starting point, it is important to understand that the implementation of the CRM process emphasises the importance of recognising the operating context (figure 3).

---

\(^9\) This result seems to be counter-intuitive. Nevertheless, recent data on the 2016 tax amnesty program might partly reflect this phenomenon. The internal data provided by the DGT on 12 October 2016 suggest that, surprisingly, more than 53% of the total tax payments collected from phase one of the 2016 tax amnesty program (July–September 2016) was paid by employed PITs. As our findings suggest, one possible explanation for this is that the employed PITs tend to conceal much of their additional income other than income from employment.

\(^{10}\) In this sense, the DGT describes a situation where many of its tax officers are constantly monitoring the same taxpayers without using a compliance prioritisation approach, and terms this business-as-usual phenomenon as ‘berburu di kebun binatang’ or ‘hunting at the zoo’ (DGT, 2015b, p. 36).
That is, in administering and collecting tax revenue a tax authority is often shaped by specific organisational, socio-economic and political contexts in which it operates (OECD 2004). Among many external factors that impact tax administration in developing countries is the extent of corruption (Bird 2015). In this sphere, our empirical findings clearly support the notion that high level of perceived corruption is an important part of the external operating context.

As figure 3 illustrates, once the external context is established, the CRM process then involves at least seven further stages. However, due to space consideration and for the sake of clarity, our paper only discusses four of these seven phases: (i) risk identification; (ii) risk assessment and prioritisation; (iii) the analysis of compliance behaviour; and (iv) the formulation of treatment strategies. Thus, the three other steps (planning and implementation of strategies; compliance outcome evaluation; and performance monitoring) are beyond the scope of this paper.

**Implementing the Compliance Risk Management process**

Tax administrations need to seek an improved understanding of taxpayer behaviour to develop more effective and stronger compliance risk treatments (Walsh 2012). Given the DGT’s future implementation of the CRM process and the high level of perceived corruption as a major feature of its operating context, our findings provide several significant inputs.

**Risk identification**

First, the initial step in the implementation of the CRM process is risk identification. At the strategic level, this phase is needed to assess specific types of non-compliance behaviour that seem to have substantial tax revenue implications if left untreated. In this regard, our study suggests that intentional underreporting risk, particularly by self-employed PITs, is a compliance risk that the DGT must confront.

For an appropriate treatment, this risk needs to be identified at a particular level. Two major indicators can be used to specify risk: macro level and public opinion indicators (OECD 2004). While macro level indicators generally illustrate a relationship between an aspect of compliance and an external statistic or benchmark for tracking a global trend,
Public opinion indicators describe public awareness, perception, attitudes, motivation and incidence of noncompliance based on public opinion surveys or research results (OECD 2004).

In pursuit of a narrower definition, our findings provide evidence of the identified risk from the perspective of the individual taxpayers, with an emphasis on the socio-psychological perspective. In this sense, our results suggest that an underreporting risk is evident, with only 18% of surveyed self-employed PITs agreeing or strongly agreeing that they had reported their actual income, and 44% of them suggesting that they had underreported between 50% and 100% of their actual income. Additionally, our findings also indicate that the surveyed employed PITs tend to conceal much of their additional income other than from their employment.

**Risk assessment and prioritisation**

The second step involves risk assessment and prioritisation. The purpose of this process is to separate major risks from the minor ones based on their consequences and likelihood. The OECD (2004) recommends it should be based on objective evidence. In this sense, our analysis provides two relevant objective pieces of evidence relevant to this stage.

First, in terms of consequences and as noted above, we found that only 7% of self-employed PITs had reported all of their actual income, while 44% of them had underreported between 50% and 100% of the actual income. In terms of level of risk, therefore, we may reasonably consider the consequence is either 'high' or 'very high'.

Second, in terms of likelihood, we use our path coefficient of behavioural intention as an indicator of probability. This is because behavioural intention can be considered as the closest and the most accurate proxy for performed behaviour (Fishbein and Ajzen 2010). In our analysis, we find that the direct effect of intention to report actual income upon the level of reported income is approximately 0.56. In this sense, we have established that Indonesian PITs do not appear to have a high level of intention to report their actual income, with the indicators' mean score of 3.81 out of 7 scale. Worryingly, self-employed PITs tend to have a lower intention than employed PITs with scores of 3.56 and 4.02 respectively. Thus, it seems safe to say that the likelihood of underreporting risk is 'almost certain'.

Based on these findings, the risk rating relative to the consequence and the likelihood of intentional underreporting by self-employed PITs can be prioritised as either 'high' or 'severe' risk. This is an arbitrary risk rating when the consequence of the risk is ranging from 'high' to 'very high' and the likelihood of the risk is 'almost certain'. It is critical to understand that tax authorities will not be able to address all risks (OECD 2004). For this reason, because of a balanced approach (see below), some risks being addressed may not deal with instant high revenue exposure (OECD 2010).

**Analysis of compliance behaviour**

The third step involves compliance behaviour analysis. One benefit of implementing a compliance risk management approach is the ability to focus on the underlying

---

11 Consequence is evaluated in the terms of its impact upon organisational objectives. It can be measured either qualitatively or quantitatively or both (OECD 2004).

12 Likelihood is assessed in terms of its probability of the risk of it occurring. Similar to consequence, it can be in either qualitative or quantitative, or both (OECD 2004). In other words, it is somewhat arbitrary.

13 It can be described in both subjective and objective formats. For instance, a subjective definition of 'almost certain' is 'expected to occur in most circumstances', while an objective definition would be 'likely to occur this year or at frequent intervals' (OECD 2004: 28).
drivers—rather than the symptoms—of noncompliance and the promotion of different methods to address various tax compliance risks—rather than adopting a ‘one size fits all’ approach (OECD 2004). Understanding the underlying factors that influence specific compliance behaviour is essential to assist the selection of appropriate compliance strategies. That is, on the one hand, by allowing the tax authority to identify the ‘causes’ of non-compliance, a longer-term sustainable compliance outcome can be achieved. On the other hand, failing to appropriately treat the causes of non-compliance behaviour not only exacerbates the underlying systemic problem but also may cause community outrage. Unfortunately, it has been shown that there is no easy answer in understanding the determinants of either compliance or non-compliance behaviour (OECD 2004).

In response, using the OECD’s (2004) process for discovering the drivers of particular behaviour, our findings arguably provide three important insights. First, our study provides evidence that intentional underreporting income is occurring among Indonesian PITs. Second, in terms of the taxpayers’ characteristic, our findings suggest that while self-employed and employed PITs seem to have similar values in relation to attitudes towards underreporting behaviour and perceived subjective norms (table 5), they have a significant difference in terms of perceived behavioural control over tax underreporting, with self-employed PITs scoring much higher (M = 4.56 out of 7) than employed PITs (M = 3.12 out of 7).

This notable gap represents, in all probability, the different nature of opportunity for non-compliance between employed and self-employed PITs. The Indonesian PITs not only seem to have a relatively high score for their attitudes towards underreporting behaviour (M = 4.40 out of 7) but also appear to have lack of strong social pressures or normative norms in terms of reporting full actual income (M = 3.80 out of 7) (table 2).

Third, and most importantly, our study provides an objective answer for the critical question ‘why are they doing it?’. We find that in the Indonesian context high levels of perceived corruption, among other factors, appear to negatively influence taxpayers to intentionally underreport their income. Our study empirically demonstrates that perceptions of grand corruption, grand tax-corruption and general corruption appear to be responsible for intentional underreporting behaviour with standardised total negative effects of 0.073, 0.071 and 0.034 respectively.

**Determining appropriate treatment strategies**

The last stage in our discussion is determining appropriate treatment strategies. It has been recognised that while influencing taxpayer behaviour is not yet a science, it is also not simply guesswork (OECD 2010). For this reason, treatment strategies can only be done after risk has been appropriately addressed and the possible causes of non-compliant behaviour have been clearly established (OECD 2004). It has also been argued that it is impossible to apply a single specific tax administration strategy (OECD 2010). This is because tax authorities not only have to deal with different motivational postures of taxpayers but also generally have finite resources (Osofsky 2014). In this sense, with respect to the applications of responsive regulatory framework, our findings suggest five practical implications for the treatment strategies.

---

14 Three basic questions need to be addressed in understanding taxpayer compliance behaviour: (i) what is occurring?—e.g. underreporting income; (ii) who is doing it?—i.e. characteristic of the taxpayer; (iii) why are they doing it?—e.g. perceived inequity (OECD 2004: 42).

15 The fundamental principle of this approach is that policy makers should be responsive to the culture, conduct, and context of those they seek to regulate. Thus, it requires a diversity of regulatory strategies to be context appropriate (Wood et al. 2010).
First, a norms-based intervention approach using extensive publicity campaigns or customised letter sent to the targeted taxpayers may represent a sensible strategy for adoption by the Indonesian DGT (Onu and Oats 2015).

The goal of an intervention is generally to alleviate an identified social problem in a given segment of the taxpaying population. In this sense, the most widely used intervention strategy is using a persuasive message to disseminate relevant information to the target. It can be used to reach a wide population at relatively low cost (Fishbein and Ajzen 2010).

However, while this strategy seems easy and inexpensive, it should be cautiously undertaken. This is because in our findings we provide evidence that most taxpayers appear to perceive that their peers do not pay their fair share of taxes. In particular, with regard to reporting actual income we found both low descriptive (what others do) and low injunctive (what others believe is right) norms co-occur.\(^\text{16}\) Thus, to improve the level of compliance, it may be ineffective to target low-compliant taxpayers using normative descriptive norms (such as stating ‘most taxpayers fully report their income’ or ‘only few people evade tax’ in letters sent to taxpayers) because the messages would feel counterintuitive or contrast to their own existing beliefs. On the other hand, it also seems to be problematic to campaign using the actual descriptive norm arising from our findings because it may be utilised by the targeted taxpayers as a ‘golden standard’. That is, there is a risk that the campaigns that communicate the actual descriptive norm encourage those above average to adjust their behaviour downwards and therefore would reinforce the existing low compliance.

In response, we propose that it may be appropriate only to disseminate the normative injunctive message (such as ‘underreporting tax is wrong’ or ‘paying tax is the right thing to do’) among the targeted low-compliant taxpayers.

The second implication relates to the implementation of a focused enforcement approach. In a non-compliant group, taxpayer behaviour can be influenced by increasing the frequency of audit (OECD 2004, 2010). Although it often has significant cost, enforced compliance is required where non-compliance exists (OECD 2014b). However, because the DGT’s enforcement resources are very limited (DGT 2015a), the audit rate is extremely low. For example, in 2014, the target for audit coverage ratio (ACR) for individual taxpayers was only 0.1%.\(^\text{17}\) Without specific treatment, it seems unattainable to make taxpayers believe that their risk of getting audited has increased.

To make an enforcement approach among low-compliant taxpayers work, as suggested by Ososky (2014), we propose segmentation and rotation of special audits among the targeted taxpayers. By way of illustration, there were approximately 640,000 self-employed PITs who lodged their 2014 annual tax return, and there are roughly 4,600 tax auditors (DGT 2015a). Assume that in a given year, one tax auditor is able to perform one special audit (i.e. an audit which is related to a noncompliance indicator) for one PIT. If these 4,600 auditors were spread equally across all the self-employed PITs, then the audit rate for each self-employed PIT would be 0.7%. Under a focused enforcement approach, the 640,000 self-employed PITs are split into different sectors or segments. In this case, for example, the focus of a ‘special audit project’ could be the trading sector

---

\(^{16}\) In this sense, while descriptive norm tends to guide people to deal with uncertain situations, injunctive norms are likely to assist people in avoiding social disapproval (Onu and Oats 2015).

\(^{17}\) See, the DGT’s official letter SE- 15/PJ/2014 on 21 March 2014 regarding Audit Plan and Strategies for 2014. The ACR for PIT represent the number of audited PITs towards the number of PITs’ annual tax returns received by the DGT. The actual ACR is probably much lower. For example in 2011, our calculation suggests that the random-based audit rate for PITs was less than 0.021%. 

(categorised as ‘G’ in 2012 Business Sector Classification—KLU). Assume that this sector accounts for about 30% of the entire sector. Within this sector, 10% are those in car and motorcycle sales, repair and maintenance (coded as ‘45’ in KLU). These 19,200 self-employed PITs would be the targeted ‘subsector’. If, for example, 2,300 tax auditors (50%) are allocated to this subsector, this allocation means that the taxpayers in this subsector now face a 12% chance of being audited. Consequently, other subsectors would face a corresponding lower audit rates. But, because previously they already had a very small chance of getting audited, this variation would not be evident for them possibly due to a phenomenon termed as ‘probability neglect’ (Sunstein 2002). Thus, taxpayers outside the enforcement project may be unresponsive to a very small reduction in the likelihood of them getting audited (i.e. from 0.7% to 0.36%). On the other hand, we argue that a significant increase of probability of audit in the targeted subsector would increase their intention to report actual income because they now have a lower level of perceived behavioural control over tax underreporting, particularly due to ‘uncertainty aversion’ (Reeson and Dunstall 2009) and ‘availability bias’ (Sunstein 2002). Accordingly, we suggest that their levels of reported income would increase.

To make this focused enforcement approach work effectively in raising the levels of reported income, two further activities need to be undertaken. First, wide-reaching announcements of a particular enforcement project must be made by the DGT prior to the start of tax lodgement season. By doing so, those targeted in the focused enforcement project recognise that they are subject to the project and able to change their underreporting behaviour accordingly. Second, there should be no official announcement regarding the withdrawal or completion of the enforcement project. This quiet withdrawal may allow the DGT to ‘free ride’ for some time off the taxpayers’ perceived increased chance of getting audited and may extend the compliance benefits of the projects.

The third practical implication that derives from our findings is that the norm-based intervention and the focused enforcement approaches must be combined on a proportionate basis. This is because a relatively high level of compliance would appear to be necessary in order to create norms of compliance and to foster future compliance.

Some scholars suggest that norms appear to be subject to so-called ‘tipping points’ (Besley and Persson 2014). This means the intended norms become more widespread once some threshold is achieved. Unfortunately, in the Indonesian context, our findings suggest that this is not the case. This implies that, as an initial step, the focused enforcement approach would appear to be very crucial to increase the level of compliance. It has been argued that taxpayers knowing that a tax authority has the power and uses it to punish tax evaders provides the greatest leverage (Kirchler 2007). This approach then must be complemented by a norm-based intervention approach simultaneously. This is because if the norms that regulate the taxpayers’ behaviour are not changed, non-compliance behaviour will probably increase once the probability of audit is lowered.

---

18 Alternatively, this categorisation could be based on types of profession such as lawyers, accountants, architects, artist and other prominent jobs.

19 Focused enforcement creates perceived greater uncertainty among the population (Osofsky 2014). Taxpayers may know there is some chances of getting audited but not know the increased probability. Research suggest that people tend to avoid uncertainty.

20 It is a cognitive bias that suggests individuals tend to rely more heavily on information that is more readily accessible in order to evaluate the likelihood, or frequency, of an event.
The fourth practical implication is that the integrity of the DGT must be established and maintained to create trust (OECD 2010). A lack of integrity destroys trust; trust and corruption cannot coexist (OECD 2004). While the DGT has to some extent shown its efforts to build integrity and tackle corruption (DGT 2013), our findings imply that perceptions of tax corruption among taxpayers still persist. Our results also provide evidence that media coverage is very influential upon the perceived levels of corruption. Thus, an effective way to disseminate any effort of building integrity and tackling corruption must be sought, either through taxpayers’ personal experiences or extensive media coverage. Also, credible anti-corruption measures currently undertaken by the DGT should be made more visible to taxpayers.

Finally, the DGT needs to establish strategic alliances and partnerships with other relevant government representatives. The objectives of this treatment strategy are twofold. First, it should be evident that the pervasiveness of general corruption issues in Indonesia, while significantly influential in terms of the operating context, is beyond the control and the responsibility of the DGT. The DGT needs to advise the relevant institutions, both at the highest governmental and political levels, of the adverse impact of perceived corruption upon its revenue collection processes. Indeed, a conducive political reality of a country is one of the crucial ingredients required to make major changes in taxation take place (Bird, 2013). It implies that strong commitment of political leadership to eradicate the current levels of corruption is a crucial element for an optimal tax collection process.

Second, our findings suggest that perceived behavioural control over underreporting tax among self-employed PITs is relatively high. It implies that there is a need to extend the nature and scope of the information reporting regime by third parties (such as banks or other related financial institutions). This is particularly important in an environment where a large portion of self-employed PITs in Indonesia are presumably involved in cash businesses and 60% of non-agricultural employment in Indonesia is informal (OECD 2015). Thus, the DGT needs strong support from other entities to implement a more extensive third party information reporting regime to increase the compliance level by particularly identifying, controlling and catching those who evade.

In summary, these practical implications are illustrated in figure 4.

**FIGURE 4** A combined approach to address the malign impact of perceptions of corruption upon intentional underreporting Behaviour: A tax authority perspective
CONCLUSION

This paper has described the empirical relationship between perceptions of corruption and intentional underreporting behaviour, in the context of PITs in Indonesia. The paper shows that high levels of perceived corruption appear to have an adverse impact on taxpayers’ attitudes and norms toward reporting actual income. These circumstances, coupled with relatively high levels of perceived behavioural control over tax underreporting, appear to undermine taxpayers’ intention to report actual income.

Thus, prevalent underreported tax, not only among self-employed PITs but also employed PITs, appears to be evident. From a CRM perspective, this suggests that the underreporting risk is an identified risk that the DGT should prioritise. We elaborate several strategies to address this risk by establishing high levels of perceived corruption as an important external operating context. We then discuss how our findings can be related to risk assessment and prioritisation, compliance behaviour analysis, and the formulation of treatment strategies within the CRM framework.

To the extent that currently the DGT has limited resources, we mainly propose a balanced combination of customised norm-based intervention and focused enforcement as two primary treatment strategies to address intentional underreporting behaviour among Indonesian PITs. Our discussion also suggests that to deter, detect and address intentional underreporting by Indonesian PITs, strategic alliances and partnerships with other relevant government representatives are crucial for the DGT.

Corruption and tax (non)compliance are distinct and separate problems. But, as Alm, Martinez-Vazquez and McClellan (2016) emphasise, they can easily become intertwined and reinforcing. This paper has clearly shown that corruption, or more strictly perceptions of certain forms of corruption, can have a malign impact upon tax compliance through a variety of forces and relationships. This is particularly problematic in countries like Indonesia where corruption is perceived to be endemic and tax compliance outcomes are typically sub-optimal. The paper has then established that within the broader context of compliance risk management processes, and in the specific instance of Indonesia, much can still be done to mitigate that malign impact.

Finally, it has to be acknowledged that the greater insights into the impact of corruption on tax compliance behaviour derived from this study will never be more that a small—albeit important—part of our overall understanding of tax compliance behaviour. The question of why taxpayers comply with their tax obligations is clearly not easy to answer. Accordingly, from a tax authority perspective, a range of other options should also be taken into account to influence taxpayers’ behaviour. These include, *inter alia*, improving identification and registration of taxpayers (including detection of false and non-registration), verification of the correctness of received information (including audit and enforcement activities), and provision of service excellence and assistance to taxpayers. By doing so, it is hoped that the effectiveness and efficiency of such strategies discussed in policy implications can be optimised in terms of achieving improvements in compliance.
REFERENCES


Lewis, A. (1982), The psychology of taxation, Robertson, Oxford.


UNDP (2008), *A users’ guide to measuring corruption*, UNDP Oslo Governance Centre, Oslo.


