

Corporate Tax Avoidance as Breaching of 'Tax Contract' with Government: Do Country Factors Matter?

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Abstract:

This research examines the effect of good tax policy on tax avoidance and how it affects the economic development of countries in the Asia-Pacific region. Based on 116 country-year sample data, the results of the panel least-square regression analysis show that good tax policy, particularly for fairness, transparency in tax system, and transparency in tax usage, affects tax avoidance practices. Transparency in tax usage is the most important determinant of tax avoidance thus followed by fairness and transparency in tax system, respectively. We also find evidence that tax avoidance practices have a negative effect on equitable economic development. An important implication of this finding is that the government should manage tax funds effectively and efficiently on the best interests of society in an effort to reduce poverty and realize greater social welfare. In addition, the government is also responsible for increasing fairness in the tax payment, encouraging participation in the tax lawmaking, and improving the proper use of tax funds to suppress tax avoidance practices that could harm a country's economic development.

Keywords: tax avoidance; good tax policy; economic development; Asia-Pacific.

JEL Classification: G30; G38.

Introduction

We investigate five country-level factors which constitute good tax policy on tax avoidance and how tax avoidance affects the economic development of countries in the Asia-Pacific region. A large number of studies have identified the determinant of tax avoidance practices in both firm-level factors (*e.g.* Armstrong *et al.* 2015, Brune *et al.* 2019, Hoopes *et al.* 2012, Huang *et al.* 2016, McGuire *et al.* 2012) and managerial-level factors (*e.g.* Boone *et al.* 2013, Dyreng *et al.* 2010, Ko *et al.* 2014, Koester *et al.* 2016). However, very few studies have examined country-level factors on tax avoidance and the possible effect of tax avoidance on the economic development of a country. Corporate tax is an important source of government revenue to finance the governmental social programs (Huseynov and Klamm 2012) in order to enhance general welfare in society. The attainment of general welfare in society is due to the role of government in facilitating the redistribution of wealth among citizens through taxes (Gruber 2016).

This study thus extends the explanation of tax avoidance practices to include country-level factors with some following reasons. First, there is a difference in the amount of tax avoidance reported across countries (Cobham and Janský 2018, Tsakumis *et al.* 2007), indicating that some country-specific factors may explain better than what had been identified by prior research. Moreover, Evertsson (2016) recognizes that tax avoidance is not a problem of a corporation but it has global consequences due to the more borderless world. Second, tax could be viewed as

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an implicit contract (Kanagaretnam *et al.* 2018, Scholz 2003) between the company and the government so it leads to an intuitive view to investigate country-level factors in explaining tax-related behavior. Third, while the majority of research used agency-view and reported support for it, some other research finds that the manager is not always doing in an opportunistic way as agency-view predicts (Huseynov and Klamm 2012, Khurana *et al.* 2018, Minnick and Noga 2010, Park *et al.* 2016, Zeng 2019). In this regard, we argue that the agency model is insufficient to explain tax avoidance phenomena.

Different from the majority of previous studies that make use of agency theory to explain the tax avoidance phenomenon, we employ the reciprocity concept in the context of implicit 'tax contract' between the company and the government. We argue that it better explains the tax avoidance phenomenon, especially to the question of why some socially responsible firms are still engaged in tax avoidance (Campbell and Helleloid 2016, Huseynov and Klamm 2012) which agency-view could not answer. The essence of reciprocity concept is the evaluation of action in terms of perceived kindness (*i.e.* fairness) and unkindness to respond in the form of behavior. Applying to this study context, taxpayers are willing to pay taxes (exercise their obligations) in the exchange of government performed an obligation to improve social welfare (Scholz 2003). When the government failed to manage properly the tax funds collected, taxpayers (including a company) perceived that action as an unkindness so motivate them to breach 'tax contract' with a non-compliance behavior, namely tax avoidance. It thus makes sense why socially responsible companies avoid tax which seems to conflict with the spirit carried.

In addition, we argue that good tax policy which represents the ability of the government to manage tax funds properly is an important key to suppress corporate tax avoidance practices. Tax Policy Concept Statement (TPCS) No. 1 identifies 10 indicators of good tax policy that we simplified into five country-level factors. Several studies have shown that the practice of good tax policy, such as moral concepts (*i.e.* fairness) (West 2018), tax system characteristics (Atwood *et al.* 2012), complexity of the tax system (Neck *et al.* 2012), and uncertainty (Guenther *et al.* 2019), influences tax avoidance practices in a favorable manner. We thus predict that good tax policy is negatively associated with tax avoidance and tax avoidance is negatively associated to equitable economic development.

This study uses a sample of countries in Asia-Pacific region for the period 2009-2017. The final sample comprises of 116 country-year observations. The starting year of 2009 is chosen to way-off the effect of the global crisis due to the use of country-level factors in this study. The selection of the Asia-Pacific region as our setting context is consistent with the SDGs (Sustainable Development Goals) agendas for Asia-Pacific countries by the United Nations. While it is known that several countries in the Asia-Pacific region have a large corporate tax rate to finance the government's programs, it is notable that on 2019 Progress Report they face problems in achieving some points of the SDGs, including economic growth. Following Richardson (2006) and (Atwood *et al.* 2012), we use OLS regression estimation to make our analysis.

We find empirical evidence to support the notion that country-level factors which constitute good tax policy, particularly for fairness, transparency in tax system, and transparency in tax usage, affects tax avoidance practices. Among three factors evidenced, transparency in tax usage becomes the most important determinant of tax avoidance thus followed by fairness and transparency in tax system, respectively. That relation is robust in the existence of rule of law as a control variable representing tax law enforcement by the government. In our analysis, rule of law as a form of tax enforcement is not statistically significant which indicates the insufficiency of hard law to improve tax compliance (*i.e.* reduce tax avoidance) as stated by (Bird and Davis-Nozemack 2018). We also reveal an evidence that tax avoidance practices have a negative effect on equitable economic development. An important implication of this finding is that the government should manage tax revenue effectively and efficiently on the best interests of the society in an effort to reduce poverty and realize better social welfare. In addition, the government is also responsible for increasing fairness in the tax payment, encouraging participation in the tax lawmaking, and improving the proper use of tax funds to suppress tax avoidance practices that could harm a country's economic development.

This research contributes to the literature in several ways. First, we add an explanation regarding tax avoidance phenomena that could not explain by agency model while show an evidence of non-opportunism in tax avoidance practices. Based on the reciprocity concept, corporate tax avoidance is a response behavior for the perceived unkindness action of the government. In this study, we translate "unkindness action" term as a bad tax policy to oppose good tax policy. Second, we demonstrate that country-level factors matter to tax avoidance practices. It implies the role of government to increase tax compliance, thereby reducing tax avoidance, is required. We suggest that the government should not only focus on the hard law but also on the soft law due to its insufficiency (Bird and Davis-Nozemack 2018). Third, we provide evidence that tax avoidance practices have a negative impact on equitable economic development. This finding could be seen as a warning for the government

of a country to any increasing level of tax avoidance practices. The obvious reason is that the increasing level of tax avoidance leads to greater loss on government revenue (Cobham and Janský 2018) which actually could be used to improve social welfare.

The remaining of this paper is organized as follows. Section 1 reviews the literature of tax avoidance determinants, theory used in this study, and hypotheses development. Section 2 describes the methodology. Section 3 presents the results and discussion of the empirical results of this research. Finally, the last section offers conclusions, limitations, and future research opportunities.

1. Literature Review and Hypotheses Development

Considerable research has examined the various factors that might explain the behavior of manager, on behalf of the company, to avoid tax. However, prior research largely identifies firm-level factors in their research, such as corporate governance (Armstrong *et al.* 2015, Bayar *et al.* 2018), ownership structure (Badertscher *et al.* 2013), role of founder (Brune *et al.* 2019), and stock liquidity (Chen *et al.* 2019). Prior research also considers manager-level factors in explaining tax avoidance behavior, such as managerial ability (Koester *et al.* 2016, Park *et al.* 2016) and religiosity (Boone *et al.* 2013). Factors identified by prior studies show that they generally use an agency model lens to view tax avoidance as an opportunistic way of managers. Specifically, they focus on the relationship between manager as self-interested agent and shareholders as principal in build-up the argument. If an agency relationship is assumed, the existence and the strength of mechanisms to control manager's behavior thus reduce tax avoidance are required. We argue that agency view is insufficient if we took a look from the relationship between the company and government as the essence of paying taxes.

Prior to discussing further that relationship, we need to agree to the legal fiction concept of the company. With legal fiction concept in hand, a company could be seen as a "person" according to the law due to share of some characteristics of a person (Schane 1986). The legal fiction concept makes it possible to consider tax as a form of contract between the company and the corresponding government through legislation, thus able to attach each party with right and obligation. In this regard, the company like an individual is a taxpayer while the government is obliged to manage tax funds to improve social welfare. This is merely to emphasize that both the company and CEO as an individual have tax obligations and could avoid them, thus differentiate the two.

Even so, the company could not decide for itself yet the most powerful manager (CEO) does. Therefore, the observed company actions are the decisions of CEO who behave on behalf of the company (Hambrick and Mason 1984). It thus allows us to apply the logic of motivation behind corporate action to avoid taxes in which we try to challenge the agency view. Broadly speaking, we are not concerned with the tax avoidance undertaken by the CEO for himself but rather the motivation of corporate tax avoidance that the decision is made by the CEO. CEO, on behalf of the company, is not always motivated by opportunism in deciding corporate tax avoidance as an agency model predicted. Prior research shows that CEO is also motivated by efficiency, *i.e.* the reduction amount of tax paid due to more efficient operation is allocated to investment (Khurana *et al.* 2018). Other evidence also demonstrates how CEO prioritizing shareholders (Goh *et al.* 2016, Park *et al.* 2016, Tang 2019) or even other stakeholders (Huseynov and Klamm 2012, Minnick and Noga 2010, Zeng 2019) while engaging corporate tax avoidance. In this study, we provide an explanation about motivation behind corporate tax avoidance other than opportunism from the broader perspective.

Different from most previous studies, we take the view from the relationship between the company and the government in regard to tax. The argument is that the essence of paying taxes is to transfer a certain amount of cash from the company to the government in place according to tax legislation applicable. The desired purpose is for improving social welfare. Although the company also has CSR or other social activities that could be performed, the government takes over through taxes to create greater improvement in social welfare (Scholz 2003). The government collect taxes from taxpayers (*i.e.* individual or company) and use the tax funds to support social programs held (Huseynov and Klamm 2012). It enables exchange among citizens (Scholz 2003) thus decreasing uneven economic development in a country.

The right and obligation arising from the relationship between the company and the government related to tax make it possible to be considered as an implicit tax contract (Scholz 2003). The term 'implicit' is applied to this contract because it is not the result of a formal agreement between those two parties but rather comes from the forced tax legislation. To connect our argument about the non-opportunistic motivation of tax avoidance, and tax as a contract, we bring in the concept of reciprocity (Falk and Fischbacher 2006) in this context. The essential point of this theory is the evaluation of action in terms of perceived kindness (*i.e.* fairness) and unkindness to respond in the form of behavior.

Applying to this study context, taxpayers are willing to pay taxes (exercise their obligations) in the exchange over the fulfilment of their rights by the government (*i.e.* the government performed its obligation to improve social welfare) (Scholz 2003). When the government failed to manage properly the tax funds collected, taxpayers (including a company) perceived that action as an unkindness so motivate them to breach 'tax contract' with a non-compliance behavior, namely tax avoidance. Following Chaffee (2019), we construe tax avoidance as an attempt to reduce corporate tax obligations to the government through an arrangement of business transactions in such a way that is still in the corridor of law. The company thus believes that it is better to manage the fund by itself in the form of CSR (Corporate Social Responsibility) or other social activities. Even so, from the government point of view, that action is not really favorable because hard to control and also the more tax avoidance could harm the economy due to uneven economic development. It thus suggests that the government still need to work towards increasing tax compliance.

In order to increase tax compliance (*i.e.* obligation for the taxpayers and right for the government), the government largely makes use of hard law or coercive mechanism which incorporate sanctions for the nonconformance (Bird and Davis-Nozemack 2018). With the above argument in hand, we could not rely only on the hard law for at least two reasons, that is (1) CEO, on behalf of the company, is not motivated by opportunism rather reciprocity of an action, (2) tax avoidance is still in the corridor of tax legislation (Blaufus *et al.* 2016, Neck *et al.* 2012). Because the CEO does not attempt to avoid sanction, soft law and other factors, such as religiosity, moral reasoning and value orientation, perception of fairness of government or tax process, and taxpayer participation and voice in the making of law, may be applied (Bird and Davis-Nozemack 2018).

In this regard, we contend that good tax policy, which incorporates soft law and other factors, could be effective in increasing tax compliance (or reducing tax avoidance). It is argued that if the government takes the good tax policy in place then it will increase societal trust (including trust with the government). Societal trust is proved to be negatively associated with tax avoidance (Chircop *et al.* 2018, Kanagaretnam *et al.* 2018). Trust is based on common expectations which are important for starting the interaction and exchange among parties (Neu 1991). Expectation, that Neu (1991) suggests it includes norm of fairness, is reflected in the evaluation of other party action in reciprocity theory (Falk and Fischbacher 2006). With this view, it thus better explains why some firms that declaring them-self as socially responsible are still engaged in tax avoidance (Campbell and Helleloid 2016, Huseynov and Klamm 2012) which agency-view could not have answered.

According to the discussion above, we propose five country-level factors representing the ability of the government to manage tax funds for social welfare. In Tax Policy Concept Statement (TPCS) No. 1, The Association of International Certified Professional Accountants (the Association) identifies 10 indicators of good tax policy which we simplified into five country-level factors based on the similarity in definition and meaning. The five factors are fairness, transparency in tax system, transparency in tax usage, the complexity of bureaucracy, and level of uncertainty.

Fairness and Tax Avoidance. Based on TPCS No. 1, equity and fairness are understood as a similar treatment in terms of tax levied for similarly situated taxpayers. In this study, we take the view that a tax is considered as fair if it imposes tax burdens that rise proportionately with the taxpayers' ability (*i.e.* wealth, income, profits). That view is known as the vertical equity principle in measuring tax fairness (Gruber 2016). With that definition, a tax imposed on each taxpayer is not only adjusted for the increasing wealth but also for the decreasing wealth. Specifically, the company which reported higher income should pay more taxes and the company which suffered loss is compensated (*i.e.* loss carryback and loss carry forward rules). Fairness in tax payment is viewed as a guarantee that the government does not aggravate its taxpayers and credible to redistribute wealth among citizens (including a company) to improve social welfare. Applying the reciprocity concept, we expect that the fairness of tax payment leads to a decrease in tax avoidance engaged by the company due to the kindness of government action is perceived. Empirical studies about fairness already appear in accounting, such as in whistleblowing (*e.g.* Seifert *et al.* 2010) and managerial control (*e.g.* Long *et al.* 2011) literature. Both Seifert *et al.* (2010) and Long *et al.* (2011) show that fairness leads to favorable outcomes. Fairness enables an individual to frame a relationship as a mutual social exchange (Seifert *et al.* 2010). In taxation literature, Kanagaretnam *et al.* (2018) document that societal trust based on fairness evaluation is negatively associated with tax avoidance practices. The discussion leads to the following hypothesis:

H1: Tax avoidance is less in a country that the tax payment is perceived as fair

Transparency in Tax System and Tax Avoidance. Based on TPCS No.1, transparency in tax system represents both accessibility and visibility of information regarding tax regulations and their development, modification, and purpose. In other words, it concerns with the opportunity of the taxpayers (including a company) to participate in

lawmaking and guidance process. An opportunity to participate promotes understanding and respect to the tax system thus creates a commitment to comply with the regulation (*i.e.* paying taxes). Bird and Davis-Nozemack (2018) recognize it as one of the factors to increase tax compliance (reduce tax avoidance) in addition to hard law that insufficient to handle it. Using as a control variable Richardson (2006) contend that opportunity to participate in democratic political process increase the credibility of government in managing tax funds due to take taxpayer preferences into consideration. It improves both confidence (Richardson 2006) and perceived fairness from the company's point of view. Reciprocity concept thus predicts that the company will be less engaged in tax avoidance if they perceived that they could participate in the lawmaking process which it is perceived as kindness action of the government. This leads to the following hypothesis:

H2: Transparency in the tax system is negatively associated with tax avoidance

Transparency in Tax Usage and Tax Avoidance. Transparency in tax usage is related to how the government use tax funds collected for improving social welfare. It contains two aspects of the good tax policy principles described in TPCS No.1, namely neutrality and economic growth and efficiency. It talks about the tax system employed by the government that is not burden the achievement of economic goals, including economic growth, capital formation, and international competitiveness. The tax payers expectation is that the government could properly uses tax funds to support governmental social programs (Huseynov and Klamm 2012) thus creates equitable economic development through redistribution of wealth. Consequently, the credibility of the government is improved and the taxpayers will perceive the kindness of the government's action. On the contrary, the government's action that will harm the attainment of improving social welfare, such as corruption, is perceived as unkindness action hence leading to the breaching of the 'tax contract'. In the foreign direct investment (FDI) context, Egger and Winner (2005) found that corruption introduces high costs for multinationals to enter in FDI in that country. This discussion leads to the following hypothesis:

H3: Transparency in tax usage is negatively associated with tax avoidance

Complexity of Bureaucracy and Tax Avoidance. Based on TPCS No. 1, simple tax laws are so important in encouraging taxpayers to be aware and understand all relevant tax regulations. In turn, it will support them to comply in an appropriate, effective and efficient manner. Simplicity in the tax system is crucial for both taxpayers and tax administrators. However, the more complex rules have greater possibility to include errors in computation and disregard for the system that may decrease taxpayers' compliance. Inefficiency that comes from the overly complex tax system reduces the credibility of the government in managing tax funds. The reason is that a complex system introduces loopholes for tax officials and politicians to rent-seeking which leads to corruption (Zelekha 2017). In effect, an unkindness of the government's action is perceived. The reciprocity concept thus predicts that the taxpayers will reciprocate it with the 'tax contract' breaching through noncompliance behavior, namely tax avoidance. It leads to the following hypothesis:

H4: The more complex (inefficient) the bureaucracy, the more tax avoidance engaged

Level of Uncertainty and Tax Avoidance. Uncertainty can be in the form of potential for a claimed tax benefit to be lost upon challenge (Dyreg *et al.* 2019) due to changes in regulations or in terms of corporate tax regulations in one industry or different groups of firms (Guenther *et al.* 2019). The World Bank defines uncertainty in a country as being related to the possibility of the government becoming unstable, there is violence, acts of terrorism, armed conflict, ethnicity, religion, including violent demonstrations and human rights violations. By implementing reciprocity theory, a government that fails to guarantee certainty in its country, will tend to be responded negatively by taxpayers by utilizing various loopholes to avoid tax. Uncertainty in policy, political, and economic can have an impact on the increasing practice of tax evasion in one country (Katz and Owen 2013). Thus, we hypothesize:

H5: Level of uncertainty is positively associated with tax avoidance

Tax Avoidance and Equitable Economic Development. The equitable economic development indicator considers equality within the economy. The government collects taxes from taxpayers and then uses them to improve the country's economic development. Based on reciprocity theory, the government that carries out good tax policy appropriately, will get a good response from taxpayers in the form of trust and better compliance to pay taxes. However, if the government fails to implement a good tax policy, taxpayers will respond with decreased trust and compliance and will breach tax contracts with the government in the form of higher tax avoidance. Increased tax avoidance will cause a decrease in state revenue from taxation sources which can have a negative impact on a country's equitable economic development. Based on previous research, it is found that the practice of corporate

tax avoidance is harmful for economic development (Chircop *et al.* 2018). Thus, the final hypothesis that we construct is as follows:

H6: Tax avoidance is negatively associated with equitable economic development

2. Methodology

This study uses a sample of countries in Asia-Pacific, which originally consisted of 33 countries, for the period 2009-2017. The starting year of 2009 is chosen to way-off the effect of the global crisis due to the use of country-level factors in this study. While it is known that several countries in the Asia-Pacific region have a large corporate tax rate to finance the government's programs, it is notable that on 2019 Progress Report they face problems in achieving some points of the SDGs, including economic growth. Therefore, the selection of this study setting is consistent with the SDGs (Sustainable Development Goals) agendas for Asia-Pacific countries by the United Nations. Table 1 shows the process of sampling research data. The final sample used was 116 country-year consisting of Bangladesh, China, India, Indonesia, Japan, Malaysia, Pakistan, Philippines, Singapore, South Korea, Thailand, Vietnam, Australia, and New Zealand.

Table 1. Sampling process of Asia-Pacific countries

Sample Criteria	Number of Country-Year
Number of initial samples, 37 countries, 9 years (2009-2017)	333
Negative AETR data and incomplete research data	(217)
Number of final samples	116

Source: Authors' own data processing (2019)

This study has two objectives, to examine the effect of good tax policy on tax avoidance practices and examine how the effect of tax avoidance on economic development in Asia-Pacific countries. To answer the first research question (hypothesis testing H1-H5), we use Model 1. The dependent variable is the accounting effective tax rate, the independent variable consists of dummy fairness variables, transparency of tax systems, transparency of tax usage, complexity, and uncertainty. The rule of law is control variable in this model.

$$AETR_{it} = \beta_0 + \beta_1 FAIRNESS_1it + \beta_2 FAIRNESS_2it + \beta_3 TRANS_TAXSYSTEMit + \beta_4 TRANS_TAXUSAGEit + \beta_5 COMPLEXit + \beta_6 UNCERTAINTYit + \beta_7 RULEOFLAWit + \epsilon_{it} \quad (1)$$

Meanwhile, to answer the second research question (hypothesis testing H6), we use Model 2. Uneven economic development as the dependent variable, accounting effective tax rate as the independent variable, and tax rate as the control variable.

$$ECODEV_{it} = \beta_0 + \beta_1 AETR_{it} + \beta_2 TAXRATE_{it} + \epsilon_{it} \quad (2)$$

Table 2. Data Description and Sources

Variable	Description	Sources
Tax Avoidance (AETR)	Total tax expense (current + deferred) scaled by net income before tax for country <i>i</i> in year <i>t</i> . We exclude AETR that has a value less than zero (negative).	Osiris Database
Fairness (FAIRNESS_1 and FAIRNESS_2)	Proxied by loss carryback and loss carry forward. A dummy variable coded as one if tax regulation of a country included loss carryback, loss carry forward, or both. Coded zero if otherwise.	https://www.tax-index.org/
Transparency in Tax System (TRANS_TAXSYSTEM)	Proxied by the Political Rights, evaluate three categories: electoral process, political pluralism and participation, and the functioning of government. The index ranges from 1 (strong rights) to 7 (weak rights).	The Freedom House (https://freedomhouse.org/); https://www.theglobaleconomy.com/
Transparency in Tax Usage (TRANS_TAXUSAGE)	Proxied by Corruption Perception Index (CPI). The index ranges from 0 (bad)-10 (good).	Transparency International; https://www.theglobaleconomy.com/
Complexity (COMPLEX)	Proxied by Inefficiency Government Bureaucracy. The index ranges from 0 (low)-30 (high)	World Competitiveness Index; The World Bank.
Uncertainty (UNCERTAINTY)	Proxied by political stability index. The index ranges from -2.5 (weak)-2.5 (strong).	The World Bank; https://www.theglobaleconomy.com/

Variable	Description	Sources
Rule of Law (RULEOFLAW)	Proxied by The index for Rule of Law. The index ranges from -2.5 (weak)-2.5 (strong).	The World Bank; https://www.theglobaleconomy.com/
Uneven economic development (ECODEV)	The higher the value of the index, the higher the inequality in the country's economy.	Fund for Peace; https://www.theglobaleconomy.com/
Tax Rate (TAXRATE)	Corporate tax rate, the highest statutory corporate tax rate at central government level.	KPMG member firms; https://www.theglobaleconomy.com/

Source: Authors' own data processing (2019)

3. Results and discussions

Table 3 reports descriptive statistics for the dependent variable, independent variable, and control variable for the two models used in this study. Based on Table 3, the mean value of effective accounting tax rate is still in the range of zero to one, which is 0.71. This number is quite large because in the calculation of the AETR we used is the total tax expense (that includes current tax expense and deferred tax expense). The mean value of fairness is marginally above 0.5 can be interpreted that half of the sample countries in the study recognize carry back loss and carry forward loss. The mean value of transparency in the tax system and in tax usage respectively of 3.09 and 5.10 shows that transparency still tends to be low. Low transparency has the potential to increase tax avoidance by taxpayers. The low mean value of complexity of the taxation system in the sample countries also tends to be uncomplicated, as well as a low mean value of uncertainty. It can encourage a positive impact in reducing corporate tax avoidance in the countries sample in this research.

Table 3. Descriptive statistics of research variables

Variable	Number	Mean	Std. Dev	Minimum	Maximum	Skewness
AETR	116	0.7067	0.2727	0.2926	1.7625	1.3066
FAIRNESS_1	116	0.5172	0.5019	0.0000	1.0000	-0.0690
FAIRNESS_2	116	0.6810	0.4681	0.0000	1.0000	-0.7768
TRANS_TAXSYSTEM	116	3.0948	1.8320	1.0000	7.0000	0.6266
TRANS_TAXUSAGE	116	5.1043	2.3728	2.3000	9.5000	0.6327
COMPLEX	116	11.9285	4.2216	1.9000	20.6000	-0.5201
UNCERTAINTY	116	-0.2576	1.1919	-2.8100	1.5900	-0.1960
RULEOFLAW	116	0.4003	1.0024	-0.9300	2.0100	0.3353
ECODEV	116	5.6121	2.2209	1.6000	9.2000	-0.2006
TAXRATE	116	0.2748	0.0546	0.1700	0.4100	0.0994

Source: Authors' own data processing (2019)

Table 4 Panel A summarizes the regression results for the first model in which AETR is the dependent variable. The dummy variable FAIRNESS_1 was found to have a positive impact on AETR, while the second dummy variable FAIRNESS_2, on the other hand, was found to have a negative effect on AETR.

Table 4. Regressions results. Panel A: Tax avoidance results

Variable	Hypo.	Pred.	Coef.	Std. Error	t-stat	Prob.
FAIRNESS_1	H1	+	0.2576	0.0627	4.1106	0.0001
FAIRNESS_2	H1	+	-0.1848	0.0825	-2.2405	0.0273
TRANS_TAXSYSTEM	H2	-	-0.0328	0.0156	-2.0973	0.0385
TRANS_TAXUSAGE	H3	+	0.0832	0.0344	2.4198	0.0173
COMPLEX	H4	-	0.0172	0.0065	2.6599	0.0091
UNCERTAINTY	H5	+	-0.1176	0.0443	-2.4875	0.0145
RULE OF LAW			0.0628	0.0941	0.6676	0.5059
C			0.1176	0.2274	0.5173	0.6061
N = 116						
Adj. R-Squared = 50.52%						

Note: Dependent Variable: AETR

This finding supports H1 partially. It is consistent with the arguments presented earlier, that based on reciprocity theory, the fairness of tax payments will potentially improve the level of tax avoidance executed by companies because the kindness of government action is perceived.

Table 5. Regressions results. Panel B: Standardized coefficient of independent variables

Variable	Rank	Pred. Sign	Actual Sign	Unstandardized Coef.	Standard Deviation	Standardized Coef.
TRANS_TAXUSAGE	1	+	+	0.0832	2.3723	0.7246
UNCERTAINTY	2	+	-	-0.1176	1.1919	-0.4818
FAIRNESS_1	3	+	+	0.2576	0.5019	0.4742
FAIRNESS_2		+	-	-0.1848	0.4681	-0.3173
COMPLEX		-	+	0.0172	4.2216	0.2656
TRANS_TAXSYSTEM		-	-	-0.0328	1.8320	-0.2203

Note: Dependent Variable: AETR

Table 6. Regressions results. Panel C: Economic development result

Variable	Hypo.	Pred.	Coef.	Std. Error	t-stat	Prob.
AETR	H6	-	-3.7007	0.7515	-4.9247	0.0000
TAXRATE			9.3444	3.8013	2.4582	0.0156
C			5.6593	1.0051	5.6306	0.0000

Note: Dependent Variable: ECODEV; N = 116; Adj. R-Squared = 16.64%.

Source: Authors' own data processing (2019)

Companies that suffer losses are not required to pay tax burdens to the government. The government provides leeway in terms of carry back loss and/or carry forward loss for companies that suffer losses. Implementing one of the loss carry back or loss carry forward policies has the potential to suppress tax avoidance practices. However, if the government enforces both at the same time (loss carry back or loss carry forward), there is a possibility of increasing opportunities for companies to take advantage of these loopholes to avoid tax more. This argument explains why H1 is partially supported. This empirical evidence is consistent with findings (Kanagaretnam *et al.* 2018) and (Richardson 2006) which document that fairness has a negative effect on tax avoidance.

Further findings from the data in Panel A also provide empirical evidence that transparency in the tax system has a negative impact on AETR. Thus H2 (transparency in the tax system is negatively associated with tax avoidance) is supported. Reciprocity theory predicts that the company will be less engaged in tax avoidance if they are perceived that they can participate in the lawmaking process which is perceived as the kindness of action of the government. The opportunity to participate in democratic political processes increases the credibility of government in managing tax funds due to take taxpayer preferences into consideration (Richardson 2006).

Testing of the hypothesis H3 (transparency in tax usage is negatively associated with tax avoidance) is also supported. Based on the context in reciprocity theory, if the government is transparent in using tax revenue for the purpose of reducing poverty and increasing social welfare, it will be responded positively by taxpayers, with more trust and compliance in paying taxes. On the contrary, the government's action that will harm the attainment of improving social welfare, such as corruption, is perceived as unkindness action hence leading to the breaching of the 'tax contract'. This finding supports research result by Tang (2019) which documents that corrupt practices are one of the important determinants of tax avoidance practices carried out by taxpayers and controlling the level of corruption can also prevent tax avoidance (Zeng 2019).

Results in Panel A also shows that the hypothesis H4 (the more complex (inefficient) bureaucracy, the more tax avoidance involved) is not supported. Empirical evidence in this study implies the opposite, complexity has a positive impact on AETR. In other words, the more complex the taxation system, the lower the level of tax avoidance. The data in this research do not support the theory of reciprocity. It can occur because the more complex regulation of taxation can reduce the opportunity to take advantage of loopholes in conducting tax avoidance. This finding is not consistent with previous studies, where the higher tax policies complexity can drive higher level of corruption practices (Zelekha 2017) and thus increasing tax avoidance (Neck *et al.* 2012, Richardson 2006).

Hypothesis testing of H5 (level of uncertainty is positively associated with tax avoidance) is also not supported. The level of uncertainty has a negative impact on AETR, which means the higher the level of uncertainty, the lower the tax avoidance. The results of this study also do not support the theory of reciprocity. This might occur because the level of uncertainty in the research data also tends to be small. Based on data in descriptive statistics, it can be seen that the mean value of uncertainty is -0.25 (low).

From Table 4 Panel B, we conclude that transparency in tax usage is the most important determinant of tax avoidance thus followed by fairness and transparency in tax system, respectively. This result is somewhat different from the findings (Richardson 2006) which document that complexity is the main determinant in tax avoidance.

Finally, Panel C shows that the hypothesis H6 (tax avoidance is negatively associated with equitable economic development) is supported. Based on reciprocity theory, if the government fails to implement a good tax policy, taxpayers will respond with decreased trust and compliance and will breach tax contracts with the government in the form of higher tax avoidance. Increased tax avoidance will cause a decrease in state revenue from taxation sources which can have a negative impact on a country's equitable economic development. This finding is consistent with the results (Chircop *et al.* 2018).

Conclusion

Our study reveals empirical evidence that country-level factors which constitute good tax policy, particularly for fairness, transparency in tax system, and transparency in tax usage, affects tax avoidance practices. Transparency in tax usage is the most important determinant of tax avoidance thus followed by fairness and transparency in tax system, respectively. The results also imply that tax avoidance practices have a negative effect on equitable economic development. A crucial implication of this finding is that the government should manage tax funds effectively and efficiently on the best interests of society in an effort to reduce poverty and realize greater social welfare. Moreover, the government is also responsible for increasing fairness in the tax payment, encouraging participation in the tax lawmaking, and improving the proper use of tax funds to suppress tax avoidance practices that could harm a country's economic development.

This study is not without limitations. First, in measuring tax avoidance at a country level, this study only takes into account companies that are listed on the stock exchange of each country involved in the sample. In other words, the measurement of tax avoidance does not include tax avoidance of individuals and companies that are not listed on the stock exchange. Second, we based our analysis and conclusion on the limited amount of observations due to the availability of the data for our countries sample. Hence, future research could employ the broader tax avoidance measure which incorporates both total tax avoidance from individual and corporate taxpayers or both listed and non-listed firms. Another opportunity is that future research could replicate this study to investigate whether individual taxpayers behave similarly with a company. We also suggest future research to investigate the relationship between tax avoidance and corporate social responsibility in regard to this study result, that is the company which perceived the government action as unkindness tend to engage more in social activities as an exchange of avoiding taxes.

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