The Effect of Government Effectiveness, Rule of Law, Control of Corruption, Regulatory Quality and e-Government on Tax Compliance (Empirical Study in ASEAN Countries)

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Abstract. This study aims to examine the effect of good governance on tax compliance as measured by government effectiveness, rule of law, control of corruption, regulatory quality and e-government. This issue of tax compliance is important to discuss, given the low average of tax compliance of ASEAN countries in 2020, which amounted to 15,05% when compared to the average tax compliance of OECD countries in 2020 which amounted to 33.5%. The trust in good governance will increase on tax compliance. In recent years, quality governance has been the main reason and measurement for society to pay tax. The purpose of this paper is to investigate the relationship between government effectiveness, rule of law, control of corruption, regulatory quality and e-government as a set of good governance and tax compliance procedures. The study uses data from ASEAN countries between the years 2010-2020. The empirical analysis applies panel data methodology to investigate the relationship.

Keywords: tax compliance, government effectiveness, rule of law, control of corruption, regulatory quality, e-government

1 Introduction

This issue of tax compliance is important to discuss, given the low average of tax compliance of ASEAN countries in 2020, which amounted to 15,05% when compared to the average tax compliance of OECD countries in 2020 which amounted to 33.5% [1]. The trust in good governance will increase on tax compliance [2]. In recent years, quality governance has been the main reason and measurement for society to pay tax [3].

Currently, tax compliance can be reflected in the tax ratio, which is the ratio of tax revenue to Gross Domestic Product (GDP) [2]. The higher the tax ratio of a country, the higher the tax compliance in that country is indicated, meanwhile GDP itself is an indicator of a country's economic growth which states the amount of production of goods and services produced in the country within a certain period of time. Good governance affects tax compliance in line with Keynes' Classical Theory which states that economic growth is influenced by the government [4].

Indonesia is listed as the third-lowest ranked country for tax compliance in 2020 with a tax compliance value of 10.1%. Indonesia's tax compliance in 2020 is the lowest tax compliance since 2007 and has decreased by 1.5 points when compared to tax compliance in

2019 [1]. Indonesia's tax compliance in 2020 when compared to 2007 tax compliance decreased by 2.1 points, from 12.2% to 10.1%. While Indonesia's highest tax compliance from 2007 to 2020 was 13% in 2018 and the lowest was 10.1% in 2020.

Citizens' trust in good governance can increase tax compliance [5]. According to [6], taxpayers' attitudes towards the government as the tax collection authority can affect tax compliance. [7] states that strengthening tax compliance has been a priority for developed and developing countries since the 2008 financial crisis. However, improving tax compliance has long been a major goal of a country's development, both to increase revenue or state revenue and to build a strong society and trusted institutions.

According to [8], good governance has six principles, namely legitimacy, rights, transparency and accountability, performance and equity. It is a framework where all parties, including the private sector, non-governmental organizations (NGOs), and all citizens can play an active role in development which will then encourage the growth of business confidence and public trust. According to [5] good governance has four key dimensions, namely government effectiveness, law enforcement, corruption control, and regulatory quality.

High tax compliance costs due to cumbersome regulations will deter investment, encourage tax evasion, and weaken economic growth ([9]; [10]; [11]). The implementation of e-government or the use of information and communication technology by the government in the form of e-filing can reduce these tax compliance costs. The implementation of e-government as a form of good governance in the era of digital disruption in providing tax services to taxpayers through e-filing. [12] in their research on whether e-government can increase government capacity as measured by tax compliance costs and tax revenue found that the use of e-filing as a form of e-government implementation reduces tax compliance costs and increases the tax ratio.

There is limited research on tax compliance over the past decade from a good governance perspective. This study examined the effect of good governance on tax compliance as measured through government effectiveness, rule of law, control of corruption, regulatory quality and e-government. The novelty of this research compared to previous research is that it adds key dimensions of good governance in the form of regulatory quality and the application of e-government in the form of e-filing to see its effect on tax compliance.

2 Literature Review

2.1 Compliance Theory

Compliance theory is a theory coined by Stanley Milgram which explains a condition in which a person obeys a predetermined order or rule. Tax compliance is a measure of the extent to which a person or organization complies with tax regulations and tax laws in their country [14]. Tax compliance is a key factor in tax revenue for a country because the greater the level of tax compliance, the greater the tax revenue of a country. Therefore, tax revenue has an important role in the development of the country which is used for sustainable economic development and to finance other expenditures such as social programs and infrastructure investment.

2.2 Agency Theory

[15] define an agency relationship as a contract in which the principal as the owner hires another person as an agent or agent to perform a number of services in accordance with their wishes which include delegating power to the agent to make decisions in running the company. Both the agent and the owner will maximize their respective utilities so that conditions can occur where an agent does not work optimally for the owner's interests but his personal interests.

[16] states that agency theory uses three basic assumptions of human nature, namely; (1) humans are generally self-interested; (2) humans have limited thinking power about the future (bounded rationality); (3) humans always avoid risk (risk averse). Based on the assumptions of human nature, it can be assumed that the government in managing the state will tend to have an opportunistic nature or act to achieve self-interest. The government as the manager of the country has more information about the state of the country and the prospects of the country when compared to the people.

2.3 Good Government Governance

According to [8], good governance has six principles, namely legitimacy, rights, transparency and accountability, performance and equity. It is a framework in which all parties, both the private sector and non-governmental organizations (NGOs), and all citizens can play an active role in development which will then encourage the growth of business confidence and public trust.

The relationship between the government and its people is also a form of agency relationship, namely the government is an agent who takes action for the benefit of the principal so that the government acts optimally to prosper the people. The action of state management by the government then requires control and supervision from the owner, in this case the people who act as owners of capital resources. According to [3] through the Worlwide Governance Indicator revealed that good governance has several key dimensions, namely government effectiveness, rule of law, control of corruption, and regulatory quality.

2.4 Hypothesis Development

Effect of Government Effectiveness on Tax Compliance

Compliance theory explains the condition of a person obeying a predetermined rule. [2] argues that an effective government is needed to gain public trust which will then increase tax compliance. Government effectiveness is reflected in perceptions of the quality of public services, the quality of public services and the level of independence from political pressure, the quality of policy formulation and implementation, and the credibility of the government's commitment to these policies [5]. These attributes help to increase public trust, respect and support for government programs. So the hypothesis is H_1 : Government effectiveness has a positive effect on tax compliance.

Effect of Rule of Law on Tax Compliance.

Based on [5] it is known that citizens must be willing to comply and cooperate to collect the necessary taxes in a country. Cooperation commitment can be enhanced by credible and consistent law enforcement. Law enforcement is a measure of the extent to which a person enforces the law or obeys the rules of society. Rule of law reflects perceptions of the extent to which agents have confidence in and abide by the rules of society, and in particular the quality of enforcement of contracts, property rights, police, and courts, as well as the likelihood of crime and violence [3]. Law enforcement will provide positive energy for the business climate, it will encourage investors to continue to invest [17]. A good business climate is expected to increase the tax ratio and also tax compliance. So the hypothesis is H_2 : Rule of law has a positive effect on tax compliance.

Effect Control of Corruption on Tax Compliance

Control of corruption according to the World Bank [5] is a measure of the extent to which power is used for personal gain and to commit corruption. According to [2] and [6], control of corruption has a positive effect on tax compliance. Controlling corruption carried out by the government will increase public awareness of paying taxes, in this case it will increase tax compliance. This is supported by the research of [18] which found a positive relationship between corruption control efforts and tax revenue in ASEAN countries and the results of Gupta's research [19] which found a positive relationship between corruption control and tax revenue in developing countries. Meanwhile, the results of research by [11] found that corruption control efforts have a positive effect on tax revenue in developing and developed countries. So the hypothesis is H_3 : Control of corruption has a positive effect on tax compliance.

Effect of Regulatory Quality on Tax Compliance

Regulations are made for the benefit of the people so that people's lives become more effective and efficient and to protect all people in order to create people's prosperity. [20] states that issues regarding the preparation and formation of regulations have until now been important in order to successfully create quality regulations. Regulatory quality according to [21] is a measure of the government's ability to formulate and implement policies and regulations and the ability to promote private sector development as an effort to encourage economic growth. [2] found that regulatory quality has a significant positive effect on economic growth as proxied by the ratio of taxes to GDP in ASEAN countries. This finding is supported by the results of Bayar's research [10] which states that the implementation of policies and regulations has a significant positive effect on economic growth in European Union countries. So the hypothesis is H_4 : Regulatory Quality has a positive effect on tax compliance.

Effect of e-Government on Tax Compliance

The application of information and communication technology by the government or commonly referred to as e-government is a manifestation of good governance by forming a clean, transparent government and responding effectively to the demands of change. Through e-government, there will be an increase in the quality of government services to the public and the private sector due to transparency, increased control and increased accountability of government administration. This is in line with compliance theory because with the above, the level of one's tax compliance can be measured easily and this will certainly increase tax compliance. An example of the application of e-government is the availability of integrated services from government agencies to the public through an online system, one of which is electronic filing and tax payment commonly referred to as e-filing [12]. So the hypothesis is H_5 : e-Government has a positive effect on tax compliance.

3 Methodology and Data Analysis

In this study, the approach used is a quantitative approach using regression panel data analysis. The source of data for this study was obtained from the World Bank, namely the Worldwide Governance Indicators (WGI) as a result of the development of research [3]. The next data source is the ratio of taxes to Gross Domestic Product (GDP) obtained from the Organization for Economic Co-operation and Development (OECD). Meanwhile, data on the date of e-government usage in the form of e-filing is taken from the World Bank's Global e-Government Systems Database (GeGSD). The samples in this study are eight countries in the ASEAN region during the 2010-2020 period that have the data above.

3.1 Operational Variables

The dependent variable in this study is tax compliance proxied by the tax ratio, which is the ratio of tax revenue to Gross Domestic Product (GDP). While the independent variable in this study, namely government effectiveness, rule of law, control of corruption and regulatory quality, is measured using an index indicator issued by the World Bank in the form of the Worlwide Governance Indicator (WGI). The next independent variable, namely egovernment, is proxied by a dummy variable, namely if the country in that year has used efiling, it will be given a score of 1, while if in that year it has not used e-filing, it will be given a score of 0. The date of use of e-government in the form of e-filing is taken from the Global e-Government Systems Database (GeGSD) issued by the World Bank.

3.2 Research Model

The research model can be written systematically as follows:

Y (Tax Compliance)_{it} = $\alpha + \beta_1$ Government Effectiveness (GE) + β_2 Rule of Law (ROL) + β_3 Control of Corruption (CC) + β_4 Regulatory Quality (RQ) + β_5 e-Government (EGOV) + e_{it}

4 Result Research and Discussion

4.1 Descriptive Statistics

Based on the table below (See Table 1), the descriptive statistics are: In the tax compliance variable, the mean value is 15.36 where the lowest value is 7.31 and the highest is 25.33. This shows that the average tax compliance of ASEAN countries is still low in the last decade and there is a large tax compliance gap between ASEAN countries.

In the government effectiveness and regulatory quality variables, the mean value is positive, which means that the level of government effectiveness and regulatory quality in ASEAN countries is effective and has good quality. Meanwhile, the control of corruption and rule of law variables show negative mean values, which means that most ASEAN countries have not done a good job controlling corruption and rule of law.

Table 1. Descriptive Statistics

Desc	Tax	GE	ROL	CC	RQ	EGOV
	Compliance				-	
Mean	15.36962	0.259108	-0.116769	-0.239711	0.112663	0.738636
Med	14.33415	0.093485	-0.338175	-0.481597	-0.009083	1.000000
Max	25.33897	2.324860	1.870237	2.171363	2.255347	1.000000
Min	7.313746	-0.960995	-1.123092	-1.335210	-1.016097	0.000000
Std. Dev.	4.073404	0.904072	0.847161	0.984928	0.863213	0.441896
Skew	0.649010	0.995079	1.189508	1.553183	1.206712	-1.086247
Kurtosis	2.758915	3.164687	3.521485	4.410868	3.803080	2.179933
Jarque-Bera	6.390926	14.62212	21.74944	42.68022	25.67591	19.77155
Prob.	0.040948	0.000668	0.000019	0.000000	0.000003	0.000051
Sum	1352.526	22.80147	-10.27570	-21.09454	9.914310	65.00000
Sum Sq	1443.558	71.10906	62.43838	84.39726	64.82692	16.98864
Dev						
Observation	88	88	88	88	88	88

4.2 Hypothesis Test

Based on table below (See Table 2) the regression method result using Random Effect Model are:

Variable	Coefficient	Std. Error	t-Statistic	Prob
С	11.74515	2.036272	5.767967	0.0000
GE	4.679392	1.766674	2.648701	0.0097
ROL	-2.613880	1.952061	-1.339036	0.1843
CC	-2.806742	1.961205	-1.431131	0.1562
RQ	-0.927723	1.912631	-0.485051	0.6289
EGOV	2.082885	1.186261	1.755840	0.0828

Y = 11.74515 + 4.679392 GE - 2.613880 ROL - 2.806742 CC - 0.927723 RQ + 2.082885EGOV

Government Effectiveness Has a Positive Effect on Tax Compliance

 H_1 is supported so government effectivenes has a positive effect on tax compliance, this is in line with the results of research from [22] and [2] which explain that an effective government is needed to gain public trust which will then increase tax compliance.

Rule of Law Has a Positive Effect on Tax Compliance

H₂ is not supported so rule of law has no effect on tax compliance, this contradicts the results of research by [2] and [6] which found that rule of law has a significant positive effect on tax compliance, where the more law enforcement increases, the level of tax compliance will also increase. This finding may be due to the low rule of law of most ASEAN countries. Control of Corruption Has a Positive Effect on Tax Compliance

H₃ is not supported so control of corruption has no effect on tax compliance, this contradicts the results of research by [23], [19], [11], [18], and [2] which found that control of corruption has a significant positive effect on tax compliance, that corruption control efforts have a positive effect on tax revenue and corruption reduces tax revenue. This finding may be due to the low control of corruption of most ASEAN countries.

Regulatory Quality Has a Positive Effect on Tax Compliance

 H_4 is not supported so regulatory quality has no effect on tax compliance, this contradicts the results of research by [10] and [2] which found that regulatory quality has a significant positive effect on tax compliance, where the existence of quality regulations will increase public confidence in the government which will directly increase economic growth. This finding may be due to the low regulatory quality of most ASEAN countries.

e-Government Has a Positive Effect on Tax Compliance

 H_5 is not supported so e-government has no effect on tax compliance, this contradicts the results of research by [12] and [24] which found that the use of e-filing as a form of e-government implementation reduces tax compliance costs and increases the tax ratio. This finding may be due to there are still many countries in ASEAN that have not used e-filing in the observation period.

5 Summary

This study attempts to test the effect of good governance on tax compliance as measured through government effectiveness, rule of law, control of corruption, regulatory quality and e-government. Based on the research conducted, it was found that government effectivenes has a positive effect on tax compliance. Meanwhile, rule of law, control of corruption, regulatory quality and e-government has no effect on tax compliance.

6 Implications/Limitations and Suggestions for Further Research

This study has several limitations, namely there are 3 countries in ASEAN that are not sampled because there is no complete data on the tax ratio, namely Brunei Darussalam, Myanmar and Timor-Leste during the study period. Independent variable on e-government implementation using dummy data. Further research is expected to use non-dummies in measuring e-government implementation and increase the number of research samples.

References

- [1] OECD, *Revenue Statistics in Asia and the Pacific 2022*. in Revenue Statistics in Asia and the Pacific. OECD, 2022. doi: 10.1787/db29f89a-en.
- [2] Marselina, "The Effect of Government Effectiveness, Rule of Law and Control of Corruption on Tax Obedience," 2019. [Online]. Available: www.ijicc.net
- [3] D. Kaufmann, A. Kraay, and M. Mastruzzi, "The Worldwide Governance Indicators: Methodology and Analytical Issues," *Hague Journal on the Rule of Law*, vol. 3, no. 02, pp. 220–246, Sep. 2011, doi: 10.1017/S1876404511200046.
- [4] A. Azwar, "Peran Alokatif Pemerintah melalui Pengadaan Barang/Jasa dan Pengaruhnya Terhadap Perekonomian Indonesia," *Kajian Ekonomi dan Keuangan*, vol. 20, no. 2, 2016, doi: 10.31685/kek.v20i2.186.
- [5] World Bank, World Development Report 2017: Governance and the Law. Washington, DC: World Bank, 2017. doi: 10.1596/978-1-4648-0950-7.

- [6] J. Slemrod, "Tax Compliance and Enforcement," 2018. [Online]. Available: http://www.nber.org/papers/w24799
- [7] International Monetary Fund, "Current Challenges in Revenue Mobilization -Improving Tax Compliance," *Policy Papers*, vol. 2015, no. 005, p. 1, Jan. 2015, doi: https://doi.org/10.5089/9781498344890.007.
- [8] United Nations Development Programme, *Human Development Report 2016 : Human Development for Everyone*. 2016. Accessed: Jun. 03, 2023. [Online]. Available: http://hdr.undp.org/sites/default/files/2016_human_development_report.pdf
- [9] J. Alm, "What Motivates Tax Compliance?," *J Econ Surv*, vol. 33, no. 2, pp. 353–388, Apr. 2019, doi: 10.1111/joes.12272.
- [10] Y. Bayar, "Public Governance and Economic Growth in The Transitional Economies of The European Union," *Transylvanian Review of Administrative Sciences*, vol. 2016, no. 48, 2016.
- [11] R. M. Bird, J. Martinez-Vazquez, and B. Torgler, "Tax Effort in Developing Countries and High Income Countries: The Impact of Corruption, Voice and Accountability," *Econ Anal Policy*, vol. 38, no. 1, 2008, doi: 10.1016/S0313-5926(08)50006-3.
- [12] A. Kochanova, Z. Hasnain, and B. Larson, "Does E-Government Improve Government Capacity? Evidence from Tax Compliance Costs, Tax Revenue, and Public Procurement Competitiveness," *World Bank Econ Rev*, vol. 34, no. 1, pp. 101– 120, Feb. 2020, doi: 10.1093/wber/lhx024.
- [13] H. Ochs and A. Whitford, "Milgram Experiments," in *Encyclopedia of Public Administration and Public Policy, Second Edition (Print Version)*, 2007. doi: 10.1201/noe1420052756.ch249.
- [14] A. Young, L. Lei, B. Wong, and B. Kwok, "Individual Tax Compliance in China: a review," *International Journal of Law and Management*, vol. 58, no. 5, pp. 562–574, Sep. 2016, doi: 10.1108/IJLMA-12-2015-0063.
- [15] M. C. Jensen and W. H. Meckling, "Theory of the firm: Managerial behavior, agency costs and ownership structure," *J financ econ*, vol. 3, no. 4, 1976, doi: 10.1016/0304-405X(76)90026-X.
- [16] K. M. Eisenhardt, "Agency Theory: An Assessment and Review," Academy of Management Reviuw, vol. 14, no. 1, 1989.
- B. Dickinson, "Tax and good governance," *OECD Journal: General Papers*, vol. 2010, no. 1, pp. 69–76, May 2011, doi: 10.1787/gen_papers-2010-5kgc6cl2zv0q.
- [18] M. Syadullah, B. G. Adriansyah, and T. Wibowo, "Impact of Economic and Non-Economic Factors on Income Inequality in ASEAN Countries," *Asian Economic and Financial Review*, vol. 9, no. 12, 2019, doi: 10.18488/journal.aefr.2019.912.1346.1357.
- [19] A. Sen Gupta, "Determinants of Tax Revenue Efforts in Developing Countries," *IMF Working Papers*, vol. 07, no. 184, p. 1, 2007, doi: 10.5089/9781451867480.001.
- [20] W. Silalahi, "Penataan Regulasi Berkualitas Dalam Rangka Terjaminnya Supremasi Hukum," Jurnal Hukum Progresif, vol. 8, no. 1, pp. 56–66, Apr. 2020, doi: 10.14710/hp.8.1.56-66.
- [21] F. Demarani, "The Effect Of Government Governance And Tax Ratio to Economic Growth (Case Study In Asean Countries)," *Jurnal Ekonomi Pembangunan*, vol. 7, no. 2, pp. 195–222, 2018.
- [22] J. Aizenman, Y. Jinjarak, J. Kim, and D. Park, "Tax Revenue Trends in Latin America and Asia: A Comparative Analysis," *Emerging Markets Finance and Trade*, vol. 55, no. 2, pp. 427–449, Jan. 2019, doi: 10.1080/1540496X.2018.1527686.

- [23] P. A. Imam and D. F. Jacobs, "Effect of Corruptionon Tax Revenues in the Middle East," *IMF Working Papers*, vol. 07, no. 270, p. 1, 2007, doi: 10.5089/9781451868333.001.
- [24] F. Yilmaz and J. Coolidge, "Can e-filing reduce tax compliance costs in developing countries?," *World Bank Policy Research Working Paper*, no. October, 2013, [Online]. Available: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2337800