International Journal of Business and Management Invention (IJBMI)
ISSN (Online): 2319 – 8028, ISSN (Print): 2319 – 801X
www.ijbmi.org || Volume 10 Issue 9 Ser. II || September 2021 || PP—01-07

Effect of Tax Rates and Tax Reform OnTax Revenue in ASEAN Countries

Ruslin*, Rosnawintang, Ernawati
Corresponding Author:Ruslin
Halu Oleo University, Kendari - Indonesia

ABSTRACT: *ASEAN countries as regional organizations have an average member of developing countries with a per capita income of the majority of the community being lower-middle with a range of $4097 and categorized as an emerging economy by the World Bank. The majority of ASEAN countries rely on state revenues from tax sources allocated to develop the country. Inspired by his contribution, this paper tries to analyze more deeply related to the implementation of tax rates and tax reforms that have been carried out in ASEAN on tax revenues.This paper* analyses *how much influence the fiscal policies of ASEAN countries have in this case tax rates and tax reform with panel data regression techniques between 1999 and 2019 over 20 years. This paper finds that the tax rate has a negative and significant effect, meaning that it has made a small contribution to tax revenue. Furthermore, and tax reform has been effectively implemented and has a significant positive effect on tax revenue*

KEYWORD*: Tax Rate, Tax Reform, Tax Revenue*

Date of Submission: 14-09-2021Date of Acceptance: 29-09-2021

I. INTRODUCTION

ASEAN (Association of Southeast Asian Nations) is a geo-political and economic organization between countries in the Southeast Asia region consisting of ten countries, namely Singapore, Malaysia, Thailand, Indonesia, the Philippines, Vietnam, Myanmar, Cambodia, Laos, and Brunei Darussalam. The formation of this association is essentially a political statement to strengthen the independence of each country from super-power interests, legitimizing the sovereignty of ASEAN member countries in realizing stability in the region. Various dynamics and interactions occur in the ASEAN region, including the tax sector, which is a very important state issue because the financing needs of a country's development depend on the revenue performance of this sector.

In general, the important discussion in the tax sector is about the exchange of information, maximizing state revenues, and regional agreements on tax avoidance. In Indonesia, the ratio of tax to gross domestic product has been around 11% in the last five years, which is relatively low from the world average of 16%. This is caused by low tax compliance, tax leakage, the size of the shadow economy, and an unbalanced revenue structure (Darussalam &Nuntung, 2017). Fiscal and monetary authorities in each country then think of various fiscal policy measures which include incentives, tax reductions and granting relaxation. Fiscal policies in the field of taxation include lowering tax rates and tax deregulation. Hope after the pandemic can again attract foreign investment or capital inflows as a factor of production that can stimulate economic performance in the manufacturing, trade and service sectors. The fiscal policy is actually in stark contrast to the government's agenda of reforming the tax system, expanding the tax base and increasing the tax ratio. This fiscal policy was forced to continue to be carried out in order to be able to compete with other emerging countries in attracting foreign investment and maintaining the country's fiscal sustainability.

Laffer's theory which is expressed in the curve, the relationship between tax rates and government income turns out that a decrease in tax rates can encourage economic growth. This theory can be proven because a decrease in tax rates causes individuals and companies to have reserves or excess money is not spent on taxes that can be rolled back (reinvestment) in business development and increase the number of workers soas to encourage economic activity.

The tax rate referred to in this study consists of the tax component used to influence the dominant sentiment of investment in ASEAN countries, namely Corporate Income Tax or Corporate/Company Tax Rates. Based on previous research (Gashi et al., 2018), (Nurchamidet al. , 2011), (Macek, 2014) while Tax Reform is a significant change in the tax system which includes reforming tax administration, improving tax regulations, and increasing the tax base. Based on previous research (Wijayanto, B &Vidyattama, Y, 2018), (Iswahyudi, 2019), (Yilimon, 2015)

The success of tax revenue is also an indicator of the success of tax reforms implemented in the regions whose stages start from the process of agenda-setting, policy formulation, policy adoption, policy implementation, and policy assessment. so that effective tax reform requires a good administrative system and cooperation between tax authorities, taxpayers, and the government. This sustainability supports economic growth in the short and long term (Habib Saragih, 2018).

The government's capacity to achieve revenue targets, maintain competitiveness and stabilize the economy is very important, because from a macro perspective, slowing economic growth, financial market volatility, and international trade are factors that make the role of tax policy more relevant to maintain economic productivity, especially in creating sustainable growth. inclusive. The results of the study (Habib Saragih, 2018) Fiscal policy in the field of taxation is because the success of tax reform is the main factor in tax revenue that drives economic growth. Meanwhile, the results of research (Gale &Samwick, 2014) state that high tax revenues do not always encourage high economic growth if the revenues are not used to finance productive state development projects.

The purpose of this study is to review in-depth over a long period the effect of tax rates and tax reforms that have been carried out in ASEAN countries on tax revenues.

1.2 Literature Review

Tax Rate Concepts and Theory

The imposition of taxes is related to the fulfillment of subjective and objective requirements according to tax law to determine the obligation to collect taxes, while tax collection is related to the implementation of the collection method, the amount, the system, and where and by whom.

a. Insurance Theory
   The state must protect, regulate and serve the community from all interests, safety, and security of life and or property. As is the case with insurance, before being insured occurs, then for such protection, someone must pay the insurance premium. The taxes paid include building schools, hospitals, and security. If the child is going to school, the school is already there, if he is sick there is a hospital, if there is a thief there is already a place to ask for protection.
b. Interest Theory
   The distribution of the tax burden must be levied in proportion to the size of the government's duties that must be fulfilled to fulfill the protection it needs. The greater a person's interest in protection or services from the government, the greater the tax burden.
c. Carrying Power Theory
   The imposition of the tax burden must be following the ability to pay tax. The greater the income or wealth of a person, the greater the carrying capacity, because the tax burden is greater. On the other hand, with the same level of income, the greater the dependents (family) the lower the carrying capacity.
d. Purchasing Power Theory
   The imposition of taxes is based on a person's purchasing power. Regardless of the amount of income. The amount of a person's purchasing power is not always supported by carrying power; because there are times when the purchase is made because of a compulsive interest (treatment). Example: Value Added Tax or Sales Tax, the greater the purchasing power (consumption of goods and services), the greater the tax payment.
e. Absolute Tax Liability Theory (Devotion Theory)
   Taxes are the absolute right of the state in collecting taxes. Payment of taxes as an obligation that is coercive to the state is considered as a person's dedication to the state.

Tax Reform Concepts and Theories

According to (Williamson, 2004) Tax Reform is the expansion of the tax base, improvement of tax administration, reducing the occurrence of tax evasion and manipulation, and regulating the imposition of assets located abroad. In general, tax reform includes efforts to intensify and expand taxation. Intensification is a tax collection effort in tax administration. Meanwhile, extensification is the expansion of the tax base and the applicable tax rates.

According to Cottarelli, C, (2013) the success or success of tax reforms carried out by a country can be at least 6 things, as follows :

a) First, public involvement, which means there is a good understanding in the community as a result of communication and community involvement in formulating tax policies carried out transparently.

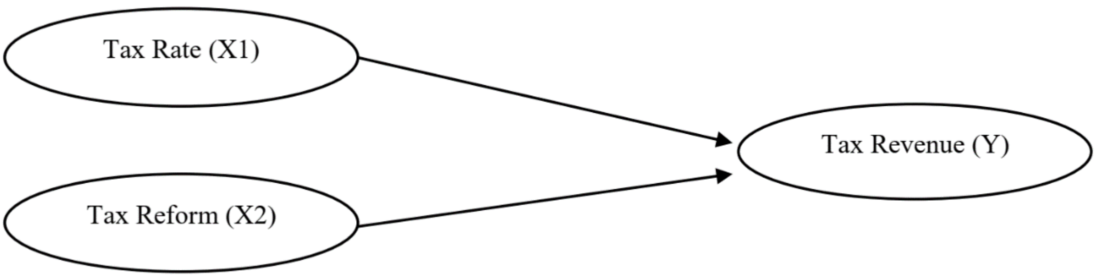
b) Second, good tax administration is good policy, meaning that there is a good administrative capacity from the government in carrying out every policy, to avoid public suspicion of corrupt administrative processes.
c) Third, the first-best policy, meaning that every policy must be carried out efficiently or at a reasonable cost in its collection. Even though taxpayers do not receive direct contra-achievements or provide perfect social justice.
d) Fourth, systematic, meaning that any changes made are not instantaneous, but with due observance of economic and community conditions when the rules are enforced or enforced gradually.
e) Fifth, pay attention to policies in other countries, meaning that in wider international trade, attention must be paid to the impacts, both directly and indirectly, on the economy and political situation of other countries.
f) Sixth, institutional aspects must be supported by a solid organization and clear rule of law, and the involvement of human resources with integrity.

Important and basic indicators used in carrying out reforms in the field of taxation consist of Tax Law Tax Administration, and Tax Basis, as follows :

1) Tax Law
Tax policy is the overall regulation and authority of the government in taking one's wealth and handing it back to the public through the state treasury. This Taxation Policy which includes regulations and their implementation is an important initial process in the taxation system. Because in this process, the type of levy is determined and what the tariff is in the collection.
2) Tax Administration
Tax Administration covers aspects of the organization, human resources, equipment, and procedures in taxation. Which is then used to improve taxpayer compliance and procedures to obtain optimal tax revenue in a country. Tax Administration in each country is different according to the economic capacity and government support for developed countries. Tax administration is better and more efficient than developing countries so that optimal revenue also differs in line with the level of compliance.
3) International Tax
Tax reform has also been carried out by many countries in the world as part of their sovereignty to optimize their economic development, the important reason for developing countries to carry out tax reform is as a condition to enter the international competition. So that in measuring the success of achieving tax reforms carried out by a country, it can be measured by comparison with tax reforms carried out in other countries.

The Conceptual Framework of this research can be seen in Figure 1 below.

Figure 1 : Conceptual Framework



The Effect of Tax Rate on Tax Revenue

Every country that uses taxes as the main source of state revenue, of course, the wheels of government and development depend on how effectively the state maximizes its revenue. Research on the effect of tax rates on tax revenues has been carried out by previous researchers such as those conducted by (Nurchamid et al., 2011) using the GST tax structure variable and the political will variable finding the results that tax rates have a positive and significant effect on tax revenue. Likewise, what was done by (Setiawan, 2015) using the tax rate indicator in the form of personal taxes, corporate taxes, social contribution taxes, property taxes, value-added taxes, and other taxes found the results that tax rates affect state revenue. (Stoilova, 2017), Pabilona (2017), (Gashi et al., 2018) that tax rates are significant to tax revenues.

H_1 : Tax rate has a significant impact on tax revenue

The Effect of Tax Reform on Tax Revenue

Tax reform includes efforts to intensify tax administration and tax extensification in terms of base expansion and tax rate adjustments. Almost all countries have carried out reforms in their tax systems, the goal is to make improvements and adaptations to the global economy with different models and ways. Research conducted by (Castro & Camarillo, 2014) found that tax reform affects tax revenue by using the Tax Ranking indicator in OECD member countries. Similarly, research conducted by (Wijayanto&Vidyattama, 2018) using the micro-simulation method of Income Tax Reform Analysis found that tax reform has a significant positive effect on tax revenue, (Castro & Camarillo, 2014), (Suska& Effendi, 2015), (Loganathan et al., 2017) that Tax Reform is significant to tax revenue

H_2: Tax reform has a significant impact on tax revenue

1.3 Research Methodology and Data Analysis

The type of data used in this research is panel data, which is a combination of cross-section data with time-series data in 10 ASEAN countries for 20 years between 1999-2019. The data used in this study is secondary data collected from the World Bank, Asia Development Bank, ASEAN Secretariat, Tax Authorities which include Total Tax Revenue, Tax Rates, and Tax Reform which are proxied using the Tax Ranking Index. The equations of the model formed in this study are as follows:

$$\mathbf{Y_{it} = \alpha + \beta_{it}X1_{it} + \beta_{it}X2_{it} + E_{it}}$$

dimana :

Y_{it} = State Tax Revenue i year t
α = Constant
β_{it} = State Regression Coefficient i year t
$X1_{it}$ = State tax rate i year t
$X2_{it}$ = State Tax Reform i year t
E_{it} = Error term

The study was tested at the 95 percent confidence level and the 5 percent significance level. If the significance number found is smaller than the critical value (0.05), then the conclusion is that the model is significant in explaining objective research.Data processing in this research is using econometric tools with computer software program E-views 10. The data used in this research is panel data (pooled data). Panel data is a combination of time series and cross section data.

To select the best model, several panel data model tests were carried out, while three tests were carried out, namely Hausman Test, Chow Test, LM Test, after which it was determined that the best model was the Fix Effect Model. The tests in this study have passed the classical assumption test, namely the multicollinearity test, and the heteroscedasticity test.

Descriptive Results

The average ASEAN tax rate is competitive. There are four ASEAN countries with tax rates above 20% compared to other ASEAN countries, namely Indonesia, the Philippines, Malaysia, and Myanmar. Meanwhile, four countries are below the 20% corporate tax rate, namely Laos, Vietnam, Brunei, Singapore, Thailand, and Cambodia.

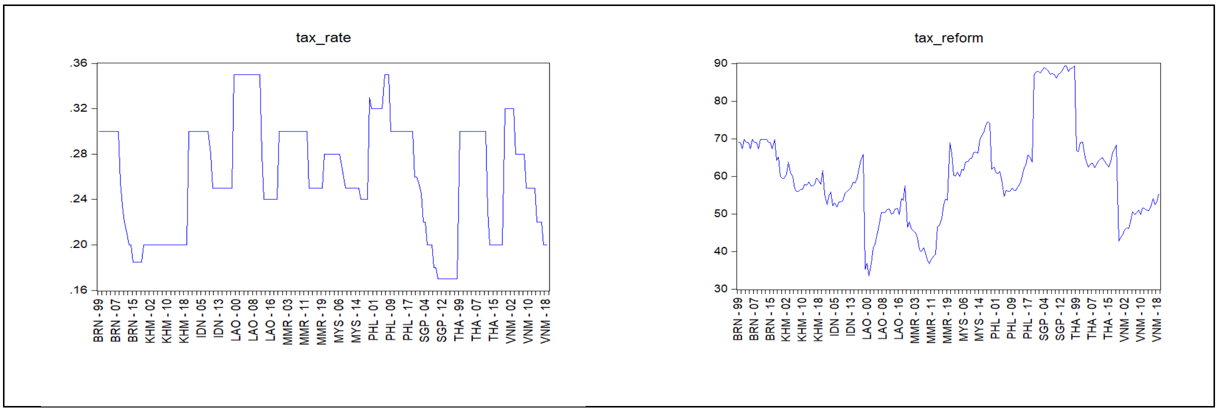
Tax Reform through the Tax Ranking Index proxy Tax Ranking Index as a Tax Reform proxy carried out in ASEAN Countries has the highest position occupied by Singapore with a score of 88.0. Followed by Brunei 68.5, Malaysia 66.2, and Thailand 65.0. Meanwhile, Indonesia and Cambodia are still considered moderate (mid) with a relatively competitive level.

Table 1: ASEAN Tax Rates and Tax Reform 1999 - 2019

Tax Rate (X1)										
Nama	BRN	KHM	IDN	LAO	MMR	MYS	PHL	SGP	THA	VNM
Average	25	20	28	31	28	26	31	20	26	26
Max	30	20	30	35	30	28	35	26	30	32
Min	19	20	25	24	25	24	30	17	20	20
Std.Dev.	5.06	0.00	2.44	5.16	2.36	1.63	1.76	3.28	4.71	4.14
Tax Reform Proxy Tax Ranking Index (X2)										
Name	BRN	KHM	IDN	LAO	MMR	MYS	PHL	SGP	THA	VNM
Average	68.51	58.51	56.63	47.05	44.17	66.18	59.70	87.96	64.98	49.50
Max	70	64	66	57	54	75	66	89	69	55
Min	64	56	52	34	37	60	55	86	62	43
Std.Dev.	2	2	4	7	5	5	3	1	2	3

Source: Processed Secondary Data, 2021.

Figure 2 :Graph of Tax Rates and Tax Reform of ASEAN Countries 1999 - 2019



Source: Processed Secondary Data, 2021

Based on World Bank data, the average state corporate tax rate in the ASEAN Region for the 1999-2019 period is 23%. There are four ASEAN countries with tax rates above 20% compared to other ASEAN countries, namely Indonesia, the Philippines, Malaysia, and Myanmar. Meanwhile, four countries are below the 20% corporate tax rate, namely Laos, Vietnam, Brunei, Singapore, Thailand, and Cambodia. Overall, the level of corporate tax between ASEAN countries is relatively competitive. while the Tax Ranking Index data as a proxy for tax reform in which ASEAN countries have the highest position is occupied by Singapore with a score of 88.0. Followed by Brunei 68.5, Malaysia 66.2, and Thailand 65.0. Meanwhile, Indonesia and Cambodia are still considered moderate (mid) with a relatively competitive level

One theory that can link the structure of tax rates and government revenues is Laffer's theory (1974) which states in the curve, the relationship between tax rates and government revenues, that a reduction in tax rates can encourage economic growth. This can be proven because the decrease in tax rates causes individuals or companies to have reserves or excess money that is not spent paying taxes can be reinvested in business development and increase the number of workers, thus encouraging economic activity which in the long run will increase revenue against government tax.

Table 2 :Average Tax Revenue of ASEAN Countries 1999-2019 (in US Dollars)

Name	BRN	KHM	IDN	LAO	MMR	MYS	PHL	SGP	THA	VNM
Rata2	388,759	218,993	88,759	146,660	63,350	433,890	288,571	401,090	522,459	289,359
Max	1,026,656	681,746	143,869	294,643	82,724	670,645	568,799	763,841	939,032	674,348
Min	89,645	48,368	23,112	28,310	45,341	155,263	112,336	183,678	186,755	55,899
Std.Dev.	256,331	177,822	43,369	103,868	10,932	174,465	152,518	174,897	244,233	193,342

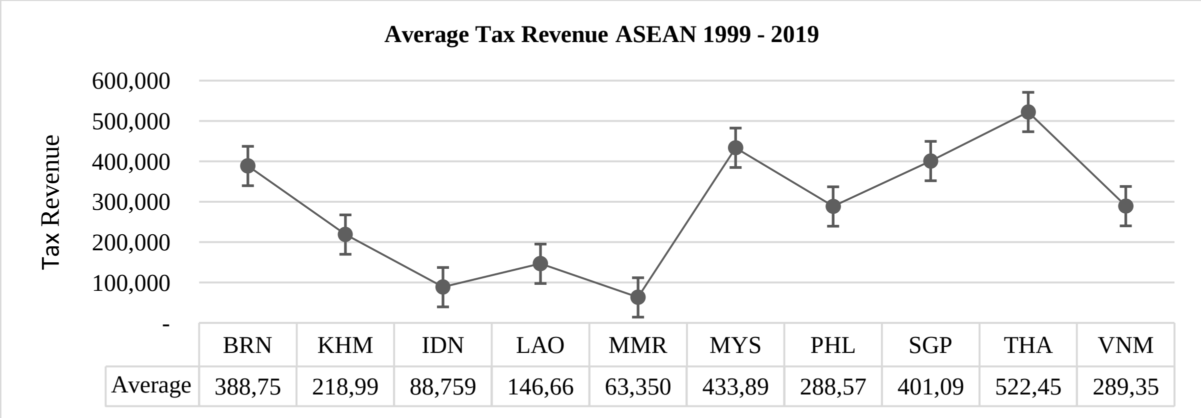
Source: Processed Secondary Data, 2021

The results of descriptive statistical analysis show that the lowest realization of tax revenue is Myanmar (63,350 billion US$) and the highest is Thailand (522,459 billion USUS $) with a standard deviation of (153,178 billion US$). This shows that the realization of tax revenue in ASEAN countries has inequality in income distribution, as well as the indicators for tax rates and tax reform with an average standard deviation of 3 indicating a distribution with a rather wide range.

Looking at the distribution pattern between tax rates and tax revenues, statistically it is found that there is a unidirectional or negative relationship, while tax reform and tax revenues are found to have a unidirectional or positive relationship.

The results of this study are following the results of research by Macek, R (2014) which found that the tax rate variable has a significant negative effect on tax revenue, this finding also supports the results of the research of Wibowo, D (2013), which found tax rates were negatively and significantly correlated on tax revenue because in this study it was found that if the tax rate increased by 1% (one percent) it would reduce tax revenue by 1.2% (one point two percent), further research by McNabb, K (2018) that tax rates have a negative effect and significant to tax revenue

The effective reforms as intended are carried out to increase compliance, convenience, and public confidence in paying taxes as well as avoiding tax leakage. The results of this study are in line with research conducted by Suska, S (2015), Castro, G. (2014), and Wijayanto, B (2018) which found that tax reform has a positive and significant effect on tax revenue, meaning that when the tax reform has been effectively carried out by the state will increase the welfare of the country by optimizing state revenues in financing development. This research is not in line with the research of Gale W. (2014), Farida A, E (2018), and Dong Y (2019).



Estimation Test Results and Hypotheses

Table 2 :Regression Estimation Test Results

Variabel	Coefficient	Std. Error	t-Statistic	Prob.
C	7.130544	0.605686	11.77268	0.0000
TAX_RATE	-0.012096	0.000865	-13.98837	0.0000
TAX_REFORM	0.002176	0.000770	2.824643	0.0052
R-squared	0.840641			
Adjusted R-squared	0.830934			
Prob (F-statistic)	0.000000			
Intersection				
_BRUNEI	-0.166020			
_KAMBOJA	-0.897502			
_INDONESIA	-0.686900			
_LAOS	0.303540			
_MYANMAR	-0.479591			
_MALAYSIA	0.585670			
_PHILIPINA	0.909176			
_SINGAPURA	-0.750025			
_THAILAND	0.787823			
_VIETNAM	0.393829			

Source: Processed Secondary Data, 2021

The regression results show that there is a significant effect of the Tax Rates variable on Tax Revenue. The coefficient of tax rates on tax revenues is 0.012096 with a negative direction. This means that the effect of tax rates will reduce tax revenues, H0 is rejected and Ha is accepted.

While the regression results on the Tax Reform Coefficient of Tax Revenue is 0.002176 with a positive direction. This means that the effect of Tax Reform will increase Tax Revenue, each increase will increase tax revenue, H0 is rejected and Ha is accepted.

The relationship between research variables is quite strong, as evidenced by the R-Square value of 83%. The coefficient of determination (*Goodness of Fit*) informs that the regression model estimated by looking at the R-Square presentation is proven to be strong.

II. CONCLUSION

1. Tax rates that have a negative and significant effect on tax revenues in ASEAN countries have been appropriately enforced and consistently implemented by taking into account the community's ability or level of tolerance in paying so that there is no significant fluctuation.
2. Tax reform has a positive and significant impact on tax revenue in ASEAN countries, as long as the 20-year period is with different state policies according to the conditions of each country. However, these reforms have been well integrated. Relations between countries have carried out information exchanges and the Double Taxation Avoidance Agreement (P3B) or Tax Treaty which divides taxation rights on income, expansion of the tax base, adjustment of tax rates, and various tax incentives, improvements to the administration system and tax law.

REFERENCES

[1]. ASEAN. (2019). ASEAN *Economic Integration Brief* (2019). Out of Ashes
[2]. Castro, G. Á., & Camarillo, D. B. R. (2014). Determinants of tax revenue in OECD countries over the period 2001-2011. *Contaduria y Administracion*, *59*(3), 35–59. https://doi.org/10.1016/s0186-1042(14)71265-3

[3]. Darussalam, &Ngantung, Y. W. (2017). Beneficial Owner dalamPerjanjianPenghindaranPajakBerganda. In *PerjanjianPenghindaranPajakBerganda: Panduan, Interpretasi, dan Aplikasi* (Vol. 148). https://bit.ly/3imtV5p
[4]. Darussalam. (2019) Era BaruHubunganOtoritasPajakdenganWajibPajak, e-book. DDTC
[5]. Gale, W. G., &Samwick, A. A. (2014). Effects of Income Tax Changes on Economic Growth. *SSRN Electronic Journal*, *September*. https://doi.org/10.2139/ssrn.2494468
[6]. Gashi, B., Asllani, G., &Boqolli, L. (2018). The effect of tax structure in economic growth. *International Journal of Economics and Business Administration*, *6*(2), 56–67. https://doi.org/10.35808/ijeba/157
[7]. Gozali, Imam, 2009. AplikasiAnalisisMultivariatdengan Program SPSS, Badan Penerbit Universitas Diponegoro. Semarang
[8]. Habib Saragih, A. (2018). PengaruhPenerimaanPajakTerhadapPertumbuhanEkonomiDi Indonesia the Effect of Tax Revenue on the Economic Growth in Indonesia. *Sikap*, *3*(1), 17–27. http://jurnal.usbypkp.ac.id/index.php/sikap
[9]. IMF. (2018). Association of the South East Asian Nations: Progress Towards Sustainable Development Goals and the Role of International Monetary Fund. Asean Progress Towards the Sustainable Development Goals International Monetary Fund, 3, 46.
[10]. Iswahyudi, H. (2019). Do Tax Structures Affect Indonesia Economic Growth? *Journal of Indonesian Economy and Business*, *33*(3), 216. https://doi.org/10.22146/jieb.29033
[11]. Loganathan, N., Ismail, S., Streimikiene, D., Hassan, A. A. G., Zavadskas, E. K., &Mardani, A. (2017). Tax reform, inflation, financial development, and economic growth in Malaysia. *Romanian Journal of Economic Forecasting*, *20*(4), 152–165.
[12]. Macek, R. (2014). The impact of taxation on economic growth: A case study of OECD countries. *Review of Economic Perspectives*, *14*(4), 309–328. https://doi.org/10.1515/revecp-2015-0002
[13]. Nurchamid, T., Setyowati, M. S., &Jati, W. (2011). HarmonisasiPajakTidakLangsungatasKonsumsi di Negara-Negara Anggota ASEAN. *JurnalIlmuAdministrasi Dan Birokrasi*, *17*(2), 127–137.
[14]. OECD/ERIA. (2018). SME Policy Index: ASEAN 2018: Boosting Competitiveness and Inclusive Growth, Growth Economic and Enterprise Trends in Southeast Asia.
[15]. Setiawan, L. (2015). *PerbandinganKomponen dan StrukturPajak OECD dan Government Finance Statistic Manual dan PengaruhnyaatasPendefinisian Tax Ratio di Indonesia*. 1–27. https://bit.ly/30Lt2ZV
[16]. Stoilova, D. (2017). Sistema fiscal y el crecimientoeconómico: evidencia de la Unión Europea. *Contaduria y Administracion*, *62*(3), 1041–1057. https://doi.org/10.1016/j.cya.2017.04.006
[17]. Sukirno, Sadono, 2010. Makro EkonomiTeoriPengantar, EdisiKetiga, Rajawali Pers, Jakarta
[18]. Sunyoto, Erni Umi Hasanah, Danang, 2014. PengantarIlmuEkonomi.Yogyakarta: CAPS.
[19]. Suska, S., & Effendi, Y. (2015). Tax Harmonization AseanMelaluiAsean Tax Forum -Pembelajaran Dari Proses Tax Harmonization Uni Eropa-. *Kajian Ekonomi Dan Keuangan*, *15*(1), 33. https://doi.org/10.31685/kek.v15i1.85
[20]. Tarigan, Robinnson, 2008. Perencanaan Pembangunan Wilayah, EdisiRevisiKedua, PT. BumiAksara, Jakarta
[21]. The ASEAN Secretariat. (2019). Integration Report 2019.
[22]. Todaro, 2004. Pembangunan Ekonomi di Dunia Ketiga. PenerbitErlangga. EdisiKedepalan.
[23]. Wijayanto, B., &Vidyattama, Y. (2018). Revenue and Distributional Impact Analysis of Indonesian Personal Income Tax Reform in 2008. *Economics and Finance in Indonesia*, *63*(2), 97. https://doi.org/10.7454/efi.v63i2.570
[24]. Williamson, J. (2004). The Washington Consensus as Policy Prescription for Development. *Practitioners of Development*, *2002*, 1–22. https://www.piie.com/publications/papers/williamson0204.pdf
[25]. Yilimon, N. (2015). *Munich Personal RePEc Archive Taxation and Economic Growth : An Empirical Analysis on Dynamic Panel Data of WAEMU Countries Taxation and Economic Growth : An Empirical Analysis on Dynamic Panel Data of WAEMU Countries * 1. 61370*.