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Research Paper

The Role of Tax Incentives as A Fiscal Stimulus to The Tax Base and Income Tax Revenue Realization

Ilhamsyah Ilhamsyah[1*], Lela Nurlela Wati[2], Etty Puji Lestari[3]
[1,3] Universitas Terbuka, Indonesia
[2] Universitas Teknologi Muhammadiyah Jakarta

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Abstract

The government's tax incentives can act as a fiscal stimulus to overcome and accelerate national economic recovery by allocating a tax-spending budget. However, it can lead to the impact of losing the tax base and decreasing the income from tax revenues. This study aims to analyze the effect of tax incentives on the tax base and the realization of income tax revenue. The sample comprised 142 taxpayers who applied for tax incentives due to the COVID-19 outbreak at Kantor Pelayanan Pajak (KPP) Pratama Pangkalan Kerinci, Riau, Indonesia, in 2020 and 2021. The data were analyzed using path analysis techniques. The analysis concludes that the tax base can mediate the tax incentive with the realization of income tax revenue, where tax incentives have a direct negative and significant relationship to the realization of income tax revenue through the tax base. If the government increases the value of the tax incentives, it will directly result in a decrease in the realization of income tax revenue due to taxes paid on the tax base. The research findings implicate that providing tax incentives can increase the tax base in several business sectors, such as health services and plantations. Tax incentives can also increase the aggregate utility of the economy, marked by a large consumption of goods or services. Previous researchers have never conducted this research and provided references regarding tax incentive policies and their impact on tax bases and the realization of tax revenues.

Keywords: *Tax Incentives; Fiscal Stimulus; Tax Base; Realization of Income Tax Revenue*

INTRODUCTION

The economic downturn hit as the Covid-19 pandemic rapidly spread from China globally. No countries in the world, including Indonesia, are immune to this effect. COVID-19 quickly prompted a health, economic, and geopolitical crisis as the tourism, aviation, and travel sectors almost stopped (Ridzuan & Abd Rahman, 2021). It affected economic activities and government budgets, resulting in a reduction in tax revenues and a growth decline in tax revenues in various countries, both developed and developing countries. The effect of the COVID-19 pandemic has been a decline in the growth of tax revenue in New York and the United States of America (Lahiri & Yang, 2022). Obando and Aguilar (2020) noted the COVID-19 pandemic brought about global uncertainty, leading to long-term effects due to budget constraints, increasing foreign debt, and a decline in tax revenues from disrupted economic flows. A low share of state revenue to Gross Domestic Product (GDP) restricted government spending on social protection and economic stimulus (Olivia et al., 2020). Iswahyudi (2021) revealed that the shock of the COVID-19 pandemic could have a perpetual effect on Indonesia's economy and fiscal capacity, which was marked by a decline in income tax revenue, value-added tax (VAT) revenue, the ratio of income tax revenue to GDP, and the ratio of VAT revenue to GDP due to the high dependency of tax revenue on economic conditions. The COVID-19 pandemic has weighed the revenues and expenditures of national and subnational governments, so there is a possibility that there will be a decrease in potential revenue from conventional tax instruments (Harman et al., 2021). Tibulca (2022) concluded that most European Union (EU) member states would not be able to achieve the same level of economic indicators as in 2019 before the health crisis, which was marked by a decline in tax revenues. This statement is also supported by James (2020), who stated that tax revenues showed a significant

Corresponding author's email: lela@utmj.ac.id

decline as an impact of COVID-19 from 45 countries on the World Bank's monthly revenue database.

The government changed the posture and details of the State Revenue and Expenditure Budget (APBN) to become a deficit of 6.34% of GDP in 2020 in accordance with Presidential Regulation Number 72 of 2020 (Government of Indonesia, 2020). It was to support the recovery of economic acceleration. The government's policy to respond and overcome the impact of the COVID-19 pandemic comprised four categories, i.e., monetary, fiscal, emergency liquidity, and macroprudential policies. In fiscal policy, the government prioritized assistance to the household and labor sectors consisting of tax relaxation, unemployment insurance, direct cash payments, and job retention schemes (Suksmonohadi & Indira, 2020). The regulation stipulated the relaxation of deficit in the State Budget until 2023, which was allowed above 3% of GDP. The fiscal policy was strategic in the APBN, requiring the role and commitment of each Ministry/institution and local government as the budget users (Ministry of Finance of the Republic of Indonesia, 2021). The Directorate General of Taxes (DGT), which is mandated by the government as the fiscal authority, issued various policies in tax incentives for taxpayers affected by the COVID-19 pandemic. The tax revenue targets that have been set in the APBN will then be distributed to each tax office. The DGT is trying to achieve this target by increasing the level of compliance, expanding the tax base, and other strategies. Even though the strategies have been implemented, the reality based on the realization of tax revenues for three consecutive years since 2018 has never been achieved, which can be seen in the following table.

Table 1. A comparison between target and realization of tax revenue

Year	**2018 (in trillion IDR)**	**2019 (in trillion IDR)**	**2020 (in trillion IDR)**
Target	1,424.00	1,577.56	1,198.82
Realization	1,315.51	1,332.06	1,069.98
Achievement (%)	92.23%	84.44	89.25

Source: Directorate General of Taxes, 2021

The Keynesian theory approach assumes the existence of access capacity and price rigidity; thus, output can be determined by aggregate demand (demand-driven). Keyness reveals that in recession conditions, an economy with a market mechanism cannot survive without support or intervention from the government (Feranika & Haryati, 2020). Frida (2020) argues that in the capacity theory, the collection of taxes must be adjusted by taking into account the magnitude of income, wealth, and expenses as the paying power of the taxpayer. From these two theories, the government is required to adopt policies in the framework to overcome the impact of COVID-19, which is expected to bring about a better economy by providing fiscal stimulus. On the other hand, this fiscal stimulus provision may have an impact on changes in the tax base and the realization of tax revenues.

Optimal Tax Theory was initiated by Mirrlees in 1971 and aims to implement a better tax system so that it is expected to achieve the desired tax revenue and increase the aggregate utility of individuals requiring principles used as a tax policy. In this theory, the implementation of tax incentive policies will lead to tax revenue targets. If there are tax incentives, it is likely that the realization of the tax revenue target cannot be attained. The previous studies discussing the correlation between tax incentives and the realization of tax revenue, including (Mudara, 2021), revealed that at the Large Tax Office Two, the provision of tax incentives has driven a decline in tax revenue during the COVID-19 pandemic. This finding is also supported by (Robertson & Bredar, 2021; Steel & Harris, 2020; Siahaan, 2021; Ginting & Irawan, 2022; Sitohang & Sinabutar, 2020;

Widodo & Krisnayanie, 2021; Sasmita, 2021; Wantasen et al., 2021; Sari et al., 2021). Meanwhile, other authors (Indahsari & Fitriandi, 2021) concluded that the tax incentive policy of income tax article 21 and VAT on VAT revenue did not have a significant effect. Furthermore, (Saputra, 2021) attested that tax incentives with tax revenues did not have a significant effect. Suwandi, 2022; Ermanis et al., 2021 concluded that tax incentives on tax revenue during the COVID-19 pandemic had a positive and significant effect.

The Service Theory states that every member of society has an absolute obligation to pay taxes due to his service to the state (Frida, 2020). This theory implies that the state has an absolute right to collect taxes, for instance, with regard to tax incentive policies; thus, taxpayers must pay taxes based on the basis of taxation. The implementation of tax incentives can reduce or remove objects from the tax base. According to the Deputy Minister of Finance of the Republic of Indonesia, Suahasil Nazera, the government has lost a tax base of IDR 230 – 270 trillion annually since 2017 because of the provision of several tax incentives (Dewi, 2021). Another research discussing the relationship between tax incentives and the tax base was conducted by (Zolt, 2015), concluding that the implementation of tax incentives could reduce the tax base even though it is expected to protect the tax base in an effort to increase investment. This statement is also supported by (Jun 2017), which examined developing countries in dealing with the pressures related to tax revenues.

Principally, several factors affect tax revenue, such as tax rate, the number of taxpayers, the tax base, and so on. The higher tax rate or income as the basis for the tax base is expected to mean that greater tax revenue will be earned. Furthermore, there is a relationship between tax base and tax revenues, such as examined by (Wolswijk, 2009; Chaudhry & Munir 2010; Nur & Mustagfaran, 2016). They revealed that increasing the tax base would have a positive impact on tax revenues. Other authors also came to the same conclusion, such as (Alimuddin, 2020), who examined property tax. However, other authors, such as (Fadli, 2017), examined VAT and sales tax on luxury goods (STLGs) and revealed that the tax base has a negative effect on VAT and STLGs revenues.

Based on the elaboration above, there is still a lack of comprehensive research that tests either the direct or indirect effect of tax incentives on the tax base and the realization of income tax revenue. The testing method of this study differs in term of concept to fill in the gaps from the previous research (Riyanto & Mudara, 2021; Robertson & Bredar, 2021; Steel & Harris, 2020; Siahaan, 2021; Ginting & Irawan, 2022; Sitohang & Sinabutar, 2020; Widodo & Krisnayanie, 2021; Sasmita, 2021; Wantasen et al., 2021; Sari et al., 2021; Indahsari & Fitriandi, 2021; Saputra, 2021; Suwandi, 2022; Ermanis et al., 2021). Previous studies were focused on the effect of tax incentives on the realization of tax revenue. Meanwhile, (Zolt, 2015; Jun 2017) only examined the effect of tax incentives on the tax base, and (Wolswijk, 2009; Chaudhry & Munir, 2010; Nur & Mustagfaran, 2016; Alimuddin, 2020; Fadli, 2017) only examined the effect of the tax base on the realization of tax revenue. These previous research studies generally used statistical methods and literature studies. Thus, this aspect is the novelty of this research. This study aims to analyze the effect of tax incentives on the tax base and realization of income tax revenues..

LITERATURE REVIEW

Theoretical Background

Keynesian Theory

There are three principles in the Keynesian theory of how the economy works: 1) Aggregate demand is influenced by many economic decisions and private; 2) Prices, and especially wages, respond slowly to changes in supply and demand; and 3) Changes in aggregate demand, whether anticipated or unanticipated, have their greatest short-run effect on real output and employment, not on prices (Jahan et al., 2014). Greenwald & Stiglitz (1987) revealed that theoretical explanations in the Keynesian include unemployment, investment-concentrated business cycles, rigid prices, and the effectiveness of monetary and fiscal policy interventions. So, government policies can be used to increase demand at the macro level to reduce unemployment and deflation. If the government increases spending, the money circulating in society will increase, so people will be encouraged to spend and increase their demand so that aggregate demand increases.

The government can increase government spending or reduce taxes so that it can increase private consumption spending during depression and economic recession (Mariati et al., 2022). Many countries are implementing deficit spending "stimulus," such as tax cuts that encourage consumption spending. As the years go by, reduced tax rates will increase annual spending and lead to high fiscal deficits despite private forces acting to reduce the deficit. Thus, the public debt will surge above its growth trend while the large fiscal deficit continues (Phelps, 2022). One of the fiscal policies is that the government provides tax incentives to be used to increase purchasing power and help liquidity and business continuity for the people and companies.

Capacity Theory

Tax collection must be in accordance with the ability to pay the taxpayer by taking into account the amount of income, wealth, and spending (Frida, 2020). This implies that taxes must be paid in accordance with the burden of each individual. The ability to pay taxes to the regions only exists if the primary needs for life are fulfilled. In this theory, it is difficult to determine exactly the carrying capacity of a person because it will be different and change. The basis for fairness in tax collection lies in the services provided by the state to its citizens, such as protecting their lives and property. For this purpose, it is necessary to pay taxes to everyone who enjoys its protection in taxes.

Optimal Tax Theory

The Optimal Tax theory was initiated by Ramsey in 1927 and Mirrlees in 1971, which raises the problem of maximizing the integral of the social population and individual utility depending on individual consumption and labor. Ramsey argued that taxation authority, i.e., the government, must increase tax revenues only through the tax imposition on commodities. In his model, taxes should be levied in inverse proportion to customer demand for goods or services; thus, the commodities with more inelastic demand can be taxed more highly. Meanwhile, Mirrlees suggested the optimal tax, in which tax authorities could observe individual income, depending on ability and effort. If the government imposes high-income taxes, individuals will exert a lot of effort to earn income. However, from an economic point of view, the optimal tax theory aims to obtain a better tax system.

Furthermore, according to Mansskiw et al. (2009) and Slemrod (1990) argued that the optimal tax theory produced insights related to a set of tax instruments available to the government, economic structure, and tax regulations in achieving goals. Josheski and Boshkov (2019) concluded that the Optimal Tax theory is a study of the design and implementation of a tax system that maximizes social welfare functions that are subject to several economic constraints. The impact of the declining economy during the COVID-19 pandemic resulted in worsened economic conditions for the country. It drove the government to implement incentives or relaxation as a tax system in its fiscal policy; thus, several affected sectors can survive. However, from a tax revenue perspective, it is expected to decrease.

Service Theory

The service theory argues that the function of tax collection is as a "pump" that takes purchasing power from public households for national households and then channels it back to the public with the intention of maintaining people's lives and bringing prosperity (Frida, 2020). On theory states that the implementation of public interests is the basis of justice in tax collection that applies throughout all time both in a free economy and a guided economy. This theory is called the absolute obligation theory. This can be said to be an agreement in society to form a state and hand over some of its power to the state to lead society. Because of the trust given to the state by the public, the payment of taxes is a service from society to the state because it is the state that is in charge of carrying out the interests of its people. Basic tax law lies in the relationship between the people and the state so that the state has the absolute right to collect taxes.

Tax Incentives

The policy of tax incentives is a tool that aims to attract greater investment in certain sectors, countries, or locations intended to achieve economic growth, high-wage jobs, and efficiency gains (Robertson & Bredar, 2021). Furthermore, according to Easson and Zolt (2002), the tax incentives characteristics include 1) objectives of tax incentives in which a country can provide privileges to taxes to attract investment; 2) targeting of incentives that can be broadly applied to new investments; 3) tax incentives can manifest in various forms after fulfilling the requirements for the type of investment; and 4) economic effects of tax incentives may vary with different results. Tax incentives are tax rates chosen based on heterogeneity among companies and tax relief in the form of reduced tax rates (Glaeser, 2001). Tax incentives will create a tax system and network of international tax treaties that would function not only as a tool to attract foreign direct investment but also as a consistent element of tax policy (Brodzka, 2013). Research conducted by (Mujennah et al., 2021) stated that incentives tax consists of tax planning, deferred tax expense, current tax expense, and number of shares paid.

Based on the Minister of Finance Regulation Number 86/PMK.03/2020 concerning Tax Incentives for Taxpayers Affected by the Covid-19 Pandemic, effective from 1 April 2020, several types of incentives to taxpayers inflicted by Covid-19 outbreak include: 1) personal income tax Article 21 is borne by the government for the workers with annual gross income of not more than 200 million rupiahs; 2) income tax for micro, small and medium enterprises (MSMEs) is borne by the government for the tax period up to December 2020; 3) final income tax of construction services companies is borne by the government for the recipient of Irrigation Water Utilization Improvement Acceleration Program (P3-TGAI) taxpayers; 4) Article 22 on import income tax exemption; 5) reduction of Article 25 income tax installments of 50%; and 6) preliminary VAT refund. The incentives are provisioned for the range of taxable objects, such as vaccines, medicines, detection kits, laboratory equipment, patient care facilities, personal protective equipment, and other equipment used for handling COVID-19 provided to certain parties such as hospitals, government agencies, or other appointed parties, as well as third parties in this context.

Tax Base

In Law No. 42 of 2009 concerning VAT and STLGs Article 1 Number 17, it is stated that the tax base is the amount of the selling price, replacement, import value, export value, or other value used as the basis for calculating the tax payable. The calculation of the tax base can be derived from gross income, sales value, and gross circulation value with tax rates in accordance with applicable tax regulations. According to Kawano & Slemrod (2016), there is a change in the tax base, which is categorized into several aspects, including 1) the research and development tax credit, 2) credits for foreign taxes paid, 3) the tax treatment of foreign companies; 4) policies that target evasion or avoidance by companies; 5) investment credits or other tax incentives to promote investment; 6) accelerated depreciation or other depreciation allowances; 7) other tax rates that may affect the corporate tax base, e.g., net worth tax on corporations or extraordinary profits tax; 8) loss carry-forward rules and loss carry-back rules; 9) thin capitalization rules; and 10) controlled foreign company legislation.

Tax Revenue

In developed countries, it is common that tax administration is based on the achievement of a number of other aspects, such as efficiency, cost saving, and service quality. In such conditions, the performance of tax administration is not solely measured by the attainment of revenue. On the other hand, in Indonesia, the performance measurement of tax administration has entirely relied on revenue-based performance. The acceptance performance has mastered practice and discourse, even playing a role in shaping organizational capacity and culture. From several other revenue-based performance benchmarks, such as tax ratio and tax gap, DGT's performance is assessed based on the realization of the targeted tax revenue plan.

Subroto (2020) stated that Indonesia is regarded as a country that has a 'target' tax system, in which the target achievement (allocated to each work unit on a top-down basis) is the ultimate goal. Referring to Subroto (2020), the annual tax revenue target is set as part of the State budget (APBN) established by the government together with the People's Representative Council (DPR). At the commencement of each year, the national tax revenue plan that has been determined in the APBN is automatically used as a tax performance target. Furthermore, the DGT headquarters internally distributes the revenue plan to each regional office. Similarly, the regional offices divide it for each unit at the Tax Office.

Theoretical Model and Hypotheses

Therefore, the theoretical model of this study is formed, as shown in Figure 1. This is reflected in the relationship between the variables of tax incentives, the tax base, and the realization of income tax revenues. In the literature review, there is an explanation and definition of each variable.

In the service theory, a state has indirect absolute rights to collect taxes, for example, with regard to tax incentive policies; thus, taxpayers must pay based on the tax base. The implementation of tax incentives can reduce or remove objects from the tax base. For instance, taxpayers affected by Covid-19 have provisioned tax incentives to survive their business activities. The tax incentives will affect the tax base on the tax types and object of tax a taxpayer must report on the annual tax return *(SPT)*. Zolt (2015) and Jun (2017) Conducted a study in which they concluded that the implementation of tax incentives could protect the tax base by encouraging domestic and foreign investment. The benefits and costs of tax incentives depend on the designed program, policy implementation, and evaluation. However, tax incentive policies can lead to a loss of the tax base. Based on the description of the theory and previous research, the first hypothesis is formulated as follows:

H1: The tax incentives as a fiscal stimulus affect the tax base during the COVID-19 pandemic.

In the Optimal Tax Theory, it is stated that the implementation of a tax incentive policy will affect the target of tax revenue. In numerous studies, tax incentives have been empirically proven to have had an effect on reducing tax revenue during the Covid-19 pandemic (Riyanto & Mudara, 2021; Robertson & Bredar, 2021; Steel & Harris, 2020; Siahaan, 2021; Ginting & Irawan, 2022; Sitohang & Sinabutar, 2020; Widodo & Krisnayanie, 2021; Sasmita, 2021; Wantasen et al., 2021; Sari et al., 2021). Meanwhile, other authors, such as (Indahsari & Fitriandi 2021; Saputra, 2021), revealed that tax incentives had no effect on tax revenues. On the other hand, (Suwandi, 2022;

Ermanis et al., 2021) suggested that tax incentives during the Covid-19 pandemic had a positive and significant influence on tax revenue. Based on the elaboration of the theory and previous studies, the second hypothesis is formulated as follows:

H2: The role of tax incentives as a fiscal stimulus affects the realization of income tax revenue during the COVID-19 pandemic.

The Capacity theory states that the collection or payment of taxes must be proportionate by taking into account the capacity of taxpayers in regard to their income, assets, and expenses or spending. Thus, the greater the income or wealth they possess, the greater the tax must be paid. The state, through banks or other parties, appoints in the context of the tax payment process. Due to tax incentives, the tax base on the types and objects reported during the Covid-19 pandemic was reduced. As such, it would lead to underachievement of the target of tax revenue even though the tax base reported had increased in number. The relationship between tax bases and tax revenues was examined by (Wolswijk, 2009; Chaudhry & Munir, 2010; Nur & Mustagfaran, 2016; Alimuddin, 2020), who suggested that the tax base would have a positive impact on tax revenues. Meanwhile, other authors, such as (Fadli, 2017) revealed that the tax base on VAT and STLGs tax revenues had a negative effect. Given these disparate findings on the theory and previous research, the authors formulate the third hypothesis as follows:

H3: The tax base affects the realization of income tax revenue during the Covid-19 pandemic.

Overall, based on the studies conducted by (Iswahyudi, 2021; James, 2020; Harman et al., 2021), it is revealed that the unprecedented shocks during the Covid-19 pandemic had a perpetual effect on the economy and fiscal capacity, notably marked by reduced tax revenues. In addition, the tax base on the types as tax objects, which are subsequently reported by taxpayers, changed either to increase or decline. This change influences the tax payable as a result of tax incentives. The authors, therefore, hypothesize:

H4: The tax base mediates the effect of tax incentives on the realization of income tax revenue during the COVID-19 pandemic.

The theoretical model for the hypotheses testing of this study is depicted below:

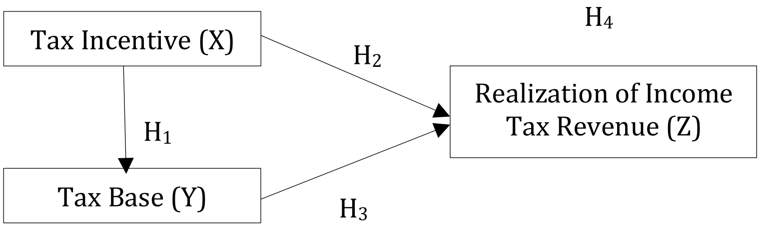

Figure 1. The Theoretical Model for The Hypotheses Testin

RESEARCH METHOD

This type of study is a quantitative method. The secondary data used in this study are data on taxpayers who receive tax incentives, the tax base, and the realization of income tax revenue. Only one tax office was selected for the research location, namely KPP Pratama Pangkalan Kerinci, Riau, Indonesia. Based on data from the Central Bureau of Statistics, it is known that in 2020, during the Covid-19 pandemic, the highest source of GDP growth came from the agriculture, forestry, and fisheries sectors, including plantations at 0,22 percent per year (Central Bureau of Statistics, 2020). Furthermore, Riau Province was the province with the largest area of oil palm plantations 2.,853,80 thousand hectares or 19,2 percent of the total area of oil palm plantations in Indonesia (Central Bureau of Statistics, 2021). Pratinda & Harta (2021) concluded that export performance in the plantation sector was able to survive with positive performance, as seen from its contribution to GDP during the pandemic. That's why the author tries to answer questions and analyze limitations in order to be more focused and make solutions in the process of implementing tax incentives and efforts to increase tax revenue at one of the tax offices in Riau province, which relies on tax revenues in the plantation and forestry sector. Out of the sample data in 2020, 59 taxpayers applied for income tax incentives, reaching 407 applications. Furthermore, in the samples in 2021, 83 taxpayers applied for income tax incentives with 603 applications. So, the total is 142 taxpayers who applied for the income tax incentives with 1.010 applications. The data was obtained from the DGT's information system for taxpayers registered at KPP Pratama Pangkalan Kerinci. This research is a census research where the population and sample size are the same. Meanwhile, the study covered the variables depicted in the following table.

Table 2. Operational Variables

Variable	Indicator	Unit	Reference
Tax incentive	Taxpayers receive income tax incentives	Nominal in IDR (Rp)	Klemm (2009), Zolt (2015)
Tax base	Tax base in the current year	Nominal in IDR (Rp)	Law No. 42 Year 2009
Realization of income tax revenue	Realization of an income tax revenue plan that has been set	Nominal in IDR (Rp)	Subroto (2020)

Source: Authors' elaboration

The hypotheses were tested using path analysis as the analytical technique, i.e., by observing the influence of an intervening variable to view the direct and indirect relationship between a dependent and independent variable. The application of analytical techniques to path analysis is used to test the causal relationship between two or more variables based on a linear system (Kadir, 2017). To get the model equation, data from the research sample is included in the SPSS version 27.0 application so that the results obtained can be analyzed further. The path analysis model is described as follows:

a. The model equation for the relationship between tax incentives and the tax base:

$Y = \alpha + \beta 1\ X + \varepsilon 1$ ……….. (equation 1)

b. The equation of the relationship model of tax incentives, the tax base on the realization of income tax revenue:

$Z = \alpha + \beta 2\ X + \beta 3\ Y + \varepsilon 2$ ……….. (equation 2).

FINDINGS AND DISCUSSION

Based on the administrative data at KPP Pratama Pangkalan Kerinci, the amount of tax incentive accounted for IDR 14,917,024,212 and 18,397,387,658 in 2020 and 2021, respectively. Meanwhile, the realization of income tax revenue was IDR 570,585,388,569 or reaching 90.82% of the target in 2020 and IDR 706,920,574,072 or 75.24% of the target in 2021 as in the table below.

Table 3. Tax Incentives and Realization of Income Tax Revenue

Tax Year	Incentive Receiving Taxpayers			Income tax revenue target (in million IDR)	Realization of income tax revenue (in million IDR)	Achievement (%)
	Taxpayers	Taxpayers applied	Amount of tax incentive (in million IDR)			
2020	59	407	14.917,02	628.263,05	570.585,39	90,82%
2021	83	603	18.397,39	939.564,42	706.920,57	75,24%

Based on the descriptive statistical data below, the minimum and maximum value of tax incentives account for IDR 29,908 and IDR 7,737,985,454, while the average value of tax incentives is IDR 234,608,534.30. Tax incentives are provided only for income tax, excluding VAT and other taxes. Regarding the tax base values, they range from IDR 84,487,160 (minimum) to 8,677,522,843,654 (maximum), while the average value accounts for 57,896,611,091.55. Overall, the tax base has increased compared to the period prior to the implementation of tax incentives for taxpayers affected by the COVID-19 pandemic. The realization of income tax revenue for taxpayers who applied for their tax incentive rights ranges from IDR 300,000 (minimum) to IDR 208,861,208,634 (maximum) and IDR 7,821,747,437.68 (average). The realization of tax revenues among taxpayers is not the same and is usually influenced by company performance, business competition, tax planning, and tax evasion.

Table 4. Descriptive Statistics

Statistics	Variable		
	Tax incentive (in million IDR)	Tax Base (in million IDR)	Realization of income tax revenue (in million IDR)
Minimum	0,03	84,4	0,3
Maximum	7.737,9	8.677.522,8	208.861,2
Mean	234,6	57.896,6	7.821,74
Std. Deviation	907,59	134.779	25.882,89
N (Sample)	142	142	142

Source: Authors' calculation

Path Analysis and Hypothesis Testing

Using path analysis with the SPSS software, the structural model equation 1 is as follows:

$$Y = 5.035 + 0.687X$$

Meanwhile, the structural model equation 2 is described below:

$$Z = 0.925 - 0.042X - 0.038Y$$

The results of hypothesis testing through path analysis to determine the direct effect between variables, i.e., tax incentives, tax base, and realization of income tax revenue, are outlined in Table 5 below.

Table 5. Result Summary of Direct Effect Regression Analysis

Hypothesis	Variable	Prediction	Coefficient	t-statistics	Prob.	Conclusion
Model of the tax base						
H1	Tax Incentives	β+/-	0.687	16.775	0.000	Accepted
	R-squared	0.668				
	Adjusted R-squared	0.665				

Hypothesis	Variable	Prediction	Coefficient	t-statistics	Prob.	Conclusion
	F-Statistik	281.398***				
Model of realization of income tax revenue						
H2	Tax Incentives	β+/-	-0.042	-3.009	0.003	Accepted
H3	Tax Base	β+/-	-0.038	-2.253	0.026	Accepted
H4	Tax Incentives*Tax Base	β+/-	-0.026	-37.794	0.000	Accepted
	R-squared	0.353				
	Adjusted R-squared	0.344				
	F-statistics	37.939***				

Source: Authors' calculation

Mediation Variable Testing

Based on the analysis results of the Sobel test, the value of the t count is 12.33. When compared with the t table of 1.6558 with a significance level of 5%, the t count value is greater than the t table (12.33 > 1.6558). Hence, we conclude that the tax base variable is able to mediate the variable of tax incentive on the realization of income tax revenue. Thus, the tax base variable has an indirect effect on these two variables.

Furthermore, the mediating role, as proposed by Baron and Kenny, states that the mediating variable functions to mediate or influence the relationship between the independent variables and the dependent variable.

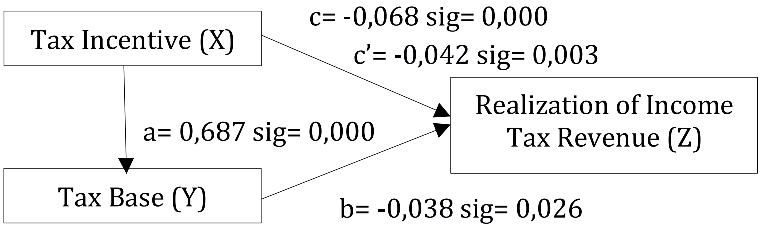

Figure 2. Causal Relationship Between Variables

The results of the mediation role can be seen in the figure above. The relationship between variables c, a, and b is significant, and the coefficient value of c to c decreases from -0.068 (significant) to -0.042 (significant). Thus, it can be concluded that the variable of the tax base partially mediates the causal relationship between the variables of tax incentive and the realization of income tax revenue.

The Effect of Tax Incentives as a Fiscal Stimulus on The Tax Base

The results of the first hypothesis testing in Table 5 show that tax incentives have a positive and significant effect on the tax base (H1). It means that if the value of tax incentives initiated by the government increases, it will have an effect on an increasingly large basis of taxation.

Based on the data obtained from KPP Pratama Pangkalan Kerinci, the tax incentive provided by the government accounted for IDR 33,314,411,870 from 142 taxpayers who applied for income tax incentives in 2020 and 2021 with an average change in taxation basis of 117.76%. There were 82 taxpayers experiencing positive growth, while 50 taxpayers experienced negative growth. Meanwhile, the rest were newly registered taxpayers when applying for tax incentives. It reveals that the program of tax incentives has a greater effect on changes in the taxation basis.

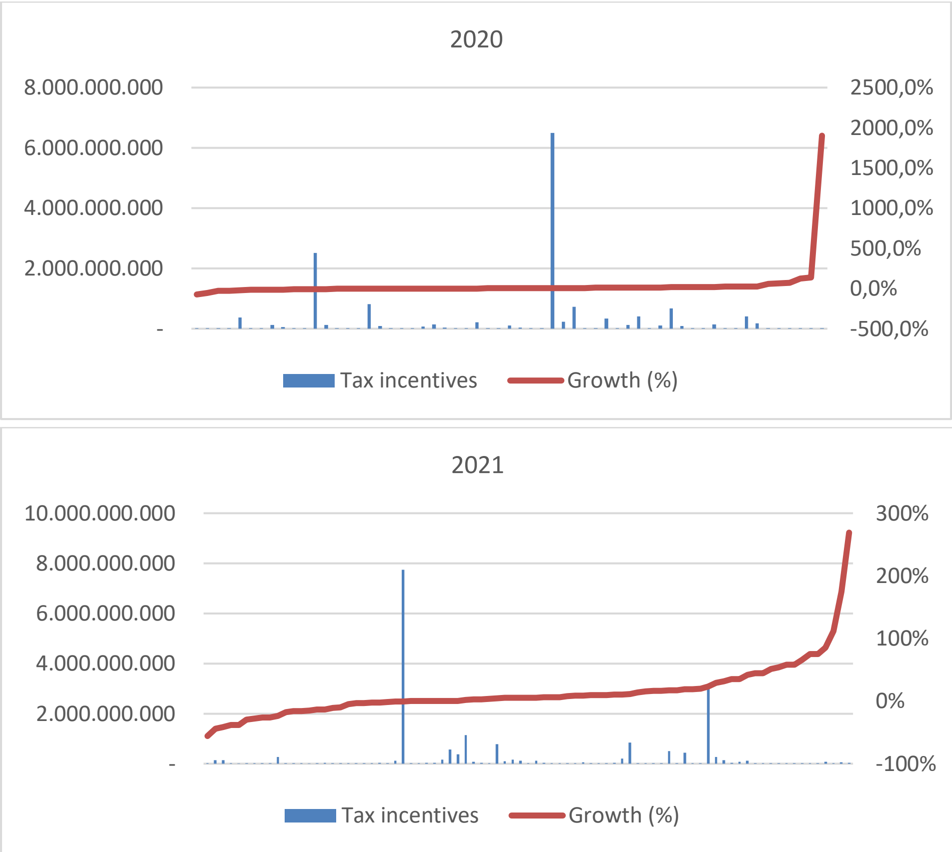

Figure 3. Changes in The Basis of Taxation
Source: Authors' calculation

The figure above shows the change in the basis of taxation with two comparisons, i.e., for 2019 before the COVID-19 pandemic and for 2020 and 2021, when the COVID-19 pandemic broke out. Most of the taxpayers who applied for tax incentives had experienced positive growth. It indicates that tax incentives had a positive effect on changes in the tax base, although there were also taxpayers who experienced negative growth.

However, the study results differ from research conducted by Zolt (2015) and Jun (2017), which revealed that the implementation of tax incentives could reduce the tax base, although it was regarded as a protective instrument to encourage investment. According to the statement of the Deputy Minister of Finance, several tax incentives provided by the government resulted in a loss of the tax base (Dewi, 2021). Most of the changes in tax bases indicated positive growth or increase compared to the previous period.

These study results agree with the proposed hypothesis, i.e., tax incentives affect the tax base. In general, the tax base refers to the net income, gross circulation value, or tax costs of the taxpayers. It is likely to occur because the secondary data used in this study mostly came from taxpayers who paid taxes with a large amount of income tax at KPP Pratama Pangkalan Kerinci in 2020 and 2021, classified into industrial, plantation, forestry, labor supply services, and health services. These sectors tended to be unaffected during the COVID-19 pandemic, indicating that no losses were suffered despite the inflated operational costs among taxpayers applying for the tax incentives.

With regard to tax incentive policies as a fiscal stimulus to drive the economy, according to the Service Theory, the state has the absolute right to collect taxes to carry out public services; thus, taxpayers pay taxes to the state for their service. During the COVID-19 pandemic, economic activity did not perform well, inflicting people's income and reducing purchasing power, and so did companies that carry out business activities. It caused changes in the tax base to decrease, marked by a decline in people's income and purchasing power, as well as the large number of companies suffering losses. In contrast to the several business sectors not affected during the COVID-19 pandemic, as previously described, changes in the basis of taxation increased.

The Effect of Tax Incentives as A Fiscal Stimulus on The Realization of Income Tax Revenue

The results of the second hypothesis testing presented in Table 5 reveal that tax incentives have a negative and significant effect on the realization of income tax revenue (H2). If the variable of tax incentive increases, the realization of income tax revenue decreases. On the contrary, if the government decreases the value of the tax incentives, it will directly result in an increase in the realization of income tax revenue.

This study proves the same results as previously proposed hypothesis, at the same time, it strengthens the previous research, such as those conducted by Riyanto & Mudara (2021), Robertson & Bredar (2021), Steel & Harris (2020), Siahaan (2021), Ginting & Irawan (2022), Sitohang & Sinabutar (2020), Widodo & Krisnayanie (2021), Sasmita (2021), Wantasen et al. (2021), Sari et al. (2021), which revealed that tax incentives had a negative impact, i.e., decreased income tax revenue. In contrast to other authors, Suwandi (2022) and Ermanis et al. (2021) concluded that the government's provision of tax incentives to tax revenues had a positive and significant effect during the COVID-19 pandemic. Meanwhile, authors such as Indahsari & Fitriandi (2021) and Saputra (2021) revealed that tax incentives had no effect on tax revenues.

The table below depicts a comparison of the target with the realization of income tax revenue during the period of 2017 to 2021 at KPP Pratama Pangkalan Kerinci. It shows that the realization of the target has never been achieved more than 100%.

Table 6. Target and Realization of Income Tax Revenue for 2017 – 2021 (in billion IDR)

Year	2017	2018	2019	2020	2021
Target (IDR)	694,61	814,40	849,72	628,26	939,56
Realization (IDR)	581,94	639,81	585,55	570,58	706,92
Percentage	83,78%	78,56%	68,91%	90,82%	75,24%

Source: Directorate General of Taxes, 2022

The tax incentive program in 2020 and 2021, addressed to the taxpayers affected by the COVID-19 pandemic, influenced the realization of income tax revenue with the percentage of respective achievement of 90.82% and 75.24%. The evaluation at KPP Pratama Pangkalan Kerinci revealed several factors causing the target of realization of tax revenue both from the external and internal aspects of the tax authorities themselves could not be achieved. These include 1) the decrease in commodity prices and international trade values for several trade sectors, 2) tax holidays and tax allowances as tax incentives and other government policies that affected the tax base, and 3) ineffective use of data and information.

In the national context, the implementation of the Optimal Tax Theory aims to promote a better taxation system during the Covid-19 pandemic, which is considered very effective by reducing the tax revenue target in 2020 to IDR 1,198.8 trillion from the target previously set for the 2020 State Budget, i.e., IDR 1,642.6 trillion based on Presidential Decree 72/2020. In the 2021 State

Budget, the government set a tax revenue target of IDR 1,229.6 trillion. The government expected to achieve tax revenue as previously desired. The realization of tax revenue in 2020 and 2021 was 89.42% and 103.98%, vis a vis the target of Rp. 1,072 trillion and Rp. 1,278.6 trillion for 2020 and 2021, respectively. The implementation of tax incentives was regarded to increase aggregate utility, i.e., the sum of consumption of goods or services as the community's satisfaction and fulfillment of needs.

The Effect of The Tax Base on Realization of Income Tax Revenue

The results of the third hypothesis testing in Table 5 show that the tax base has a negative and significant effect on the realization of income tax revenue (H3). It means that if the tax base increases, the realization of income tax revenue decreases, and vice versa; if the tax base decreases, the realization of income tax revenue increases. Thus, this study proves the results are in accordance with the hypothesis that the tax base affects the realization of income tax revenue.

However, the results of this study are not in line with those of other researchers, such as Wolswijk (2009), Chaudhry & Munir (2010), Nur & Mustagfaran (2016), and Alimuddin (2020), which found that tax base had a positive effect on tax revenue by increasing the tax base. Thus, the results of this study are in accordance with other authors, although with different objects, such as (Fadli, 2017), who examined the VAT and STLGs and revealed that the tax base with VAT and STLGs tax revenue had a negative effect.

The government determines the annual target of tax revenue, while the DGT is assigned as the tax authority and plays an important role in efforts to collect the tax revenue. Its efforts include improving the tax base and determining a new tax base. According to the Capacity Theory, the collection or tax payment must take into account the income, wealth, and expenses of the taxpayer. The tax base can be calculated based on income, sales value, and gross turnover value with tax rates stipulated in the tax regulations. The addition of the tax base will create a greater potential for tax revenue.

Based on the data analysis, the average tax base of 142 taxpayers had positive growth or increased, while the realization of income tax revenue for 2020 and 2021 was not achieved. It indicates that the increase in tax base or positive growth is not necessarily followed by an increase in income tax payments. One of the reasons is that there are tax objects or tax bases that are subject to tax incentives, ranging from tax exemptions, taxes borne by the government, or tax reductions (discounts) in greater amounts, while the taxes paid were less than those in the previous year.

During the Covid-19 pandemic, many taxpayers incurred losses of their income. Thus, they would report income tax objects, including the basis for the tax base on the annual tax return (SPT), which tended to decrease compared to the period of pre-pandemic of Covid-19, followed by less payable tax paid and, in the end, the target of income tax revenue was not achieved.

The Tax Base Mediates The Effect of Tax Incentives on The Realization of Income Tax Revenue

The test results of the path analysis show that there is a direct relationship between tax incentives and the realization of income tax revenue by -0.042 in Table 5. Furthermore, the indirect effect of tax incentives on the realization of income tax revenue through the tax base is the multiplication of the path coefficient value X to Y of 0.687 with the path coefficient value of Y to Z of -0.038 to -0.026. Then, the total relationship between the direct effect and the indirect effect, the tax incentive variable with the realization of income tax revenue through the tax base, is -0.042 plus -0.026 or -0.068. Thus, the tax base can be used as a mediating variable based on mediation variable testing, and there is a direct and significant effect between the variable of tax incentive and the realization of income tax revenue.

The results of this study prove that tax incentives indirectly have a negative and significant effect on the realization of income tax revenue through tax bases. The statement from the Keynesian theory about total spending in the economy and its effect on output, inflation, and the employment situation. So, government intervention is needed to boost spending and lower tax rates to stimulate public demand and, ultimately, escape an economic recession. The government needs to manage its aggregate demand so that it does not experience an economic downturn and can encourage even more optimal economic growth. The government intervention, such as the government's provision of tax incentives to taxpayers during the COVID-19 pandemic in 2020 and 2021, based on Article 21, Income Tax for employees whose income is less than two hundred million rupiahs, Article 25, Income Tax that is subject to a 50% reduction, final Income Tax for MSMEs, and accelerated VAT pre-refunds. The income tax that taxpayers should pay becomes the government's tax expenditure. The government also budgeted tax funds in the 2020 and 2021 tax expenditure reports and provided relief for taxpayers on their tax payable. Therefore, the effect of tax incentives intended for taxpayers decreases the income tax revenue because most of the tax incentives were proposed by large taxpayers at KPP Pratama Pangkalan Kerinci.

CONCLUSIONS

Based on the study results taking place during the outbreak of COVID-19 at KPP Pratama Pangkalan Kerinci, the hypothesis testing showed that the tax incentive as a fiscal stimulus has a direct positive and significant effect on the tax base. Furthermore, the tax incentive has a negative and significant effect on the realization of income tax revenue. Likewise, the tax base has a negative and significant effect on the realization of income tax revenue. The tax base is also able to mediate the tax incentive variable with the realization of income tax revenue. The results of this study indicate that tax incentives directly have a negative and significant relationship to the realization of income tax revenues through the tax bases. There has been no previous research that examines the three variables, namely, tax incentives, tax base, and income tax revenue realization. This finding has implications during the COVID-19 pandemic, which causes shocks to a country's economy and fiscal capacity so that productivity decreases. On the other hand, tax revenues are very dependent on economic conditions and growth. The government needs to be careful in implementing fiscal policy to be able to survive amidst economic uncertainty.

Implementation of the Optimal Tax Theory aims to promote a better taxation system during the COVID-19 pandemic, which can be seen in changes in the target of tax revenues. It is considered appropriate to apply tax incentives to the business sectors affected by the COVID-19 pandemic, such as several types of taxes borne by the government and relaxation of investment in the provision of medical equipment. However, the Ministry of Finance and the DGT, as the tax authorities, are required to review the regulations related to tax incentives with respect to the realization of tax revenues in the current year. The tax authorities can apply rules, such as adjustments to set the limits on the value of net income or gross circulation, instead of providing tax incentives to sectors not affected by the COVID-19 pandemic and determining taxable goods or services not related to the COVID-19 pandemic for the tax exemption. The provision of tax incentives will reduce the tax payable to the taxpayers. For this reason, the tax authority can implement policies in accordance with applicable regulations in a selective, targeted, and fair manner based on reliable and valid data with transparency. Supervision and evaluation in the provision of the tax incentive needs to be carried out with the aim of risk mitigation of abuse in tax incentives.

Tax incentives as a fiscal stimulus to overcome and accelerate national economic recovery by allocating the tax-spending budget is considered effective. On the other hand, it leads to the consequence that the realization of tax revenues is not achieved. These study results indicate that tax incentives lead to decreased income tax revenue. For workers as taxpayers, the tax incentives provision can strengthen their economic capacity and purchasing power to overcome economic constraints due to the COVID-19 pandemic. Compliance with tax obligations to taxpayers with tax incentives should also be taken into consideration. It is expected that the continual extension and tax services will provide awareness and knowledge to enhance compliance with tax obligations, which in turn can contribute to taxation improvement.

LIMITATION & FURTHER RESEARCH

This study only examined the realization of income tax revenue variable instead of all components of tax revenue, such as VAT and STLGs, property tax, and other taxes. There were some constraints when the research was conducted during the period in 2020 and 2021 since it had not been declared free from the COVID-19 pandemic. Meanwhile, it was still likely that a similar pandemic might have recurred, and policies regarding tax incentives could still change depending on economic, social, and political conditions. Thus, future studies are expected to expand the research area to more than one tax office to gather better results and clearer figures.

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