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## The COVID-19 Vaccination Impact on Household Consumption and Investment

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### Abstract

The COVID-19 pandemic has penetrated all corners of the world, including Indonesia and Gorontalo Province. The impact is directly on public health and indirectly on the regional economy of Gorontalo Province. The presence of the COVID-19 vaccination as one of the solutions programmed by the government to deal with the pandemic is important and should be supported by all components of the nation and regions. For this reason, it is important to study the issue of COVID-19 vaccination with household consumption and investment to analyze and describe the impact of COVID-19 vaccination on household consumption and investment in Gorontalo Province. Meanwhile, the method used to collect data on COVID-19 vaccination, household consumption, and investment is the documentation method. The results of the study show that the COVID-19 vaccination has no significant impact on household consumption but has a significant impact on investment in Gorontalo Province. Therefore, the COVID-19 vaccination program initiated by the government needs to be fully supported by all national and regional components so that the accelerated economic development of the nation and state in general and the Gorontalo Province region, in particular, can grow well.

**Keywords:** COVID-19 vaccination, household consumption, investment

## 62 Introduction

The COVID-19 pandemic has become a global issue at this time and has even spread throughout the world. In Indonesia, COVID-19 has also spread to 34 provinces. Although various efforts have been made, the COVID-19 pandemic in Indonesia has not yet been eradicated. Every day, the number of positive confirmations of COVID-19 is still increasing. Until the end of December 2020, the Indonesian government has officially reported positive cases of COVID-19, totaling 719,219 cases, ranking first in positive cases of COVID-19 in Southeast Asia. In terms of deaths due to COVID-19, Indonesia ranks third in Asia, with cases of death reaching 21,452.

The government has taken various measures to prevent the spread of the COVID-19 pandemic, including implementing large-scale social restrictions (PSBB) in regions, working from home, studying from home, or shopping from home (shop from home) further reduces the movement of people. In fact, gatherings, which incidentally are friendly gatherings with relatives or neighbors, are also recommended to be carried out online (Fahlef, Ahmad, & Rizal, 2020). As a result, it has an impact on people's lives in all sectors including the economy, namely household consumption or purchasing power falls quite deeply, prolonged uncertainty arises so that investment also weakens and has implications for business aspects that stop, commodity prices decline, and Indonesian exports go abroad. The country also stopped because all countries in the world experienced an economic downturn (Zuraya, 2020)

To recover from this economic turmoil, the government made a vaccination program policy as one of the efforts to break the chain of transmission of COVID 19. Vaccination is giving a vaccine to someone in order to actively increase the body's immunity against a disease. The aim is to reduce the transmission of COVID-19, reduce morbidity and mortality due to COVID-19, achieve herd immunity in the community, and protect the community from COVID-19 so that they remain socially and economically productive. Therefore, public trust in the vaccination program needs to be built and developed. Economically, the success of vaccination will have an impact on economic recovery and an increase in household consumption and investment.

The government's belief in the existence of the COVID-19 vaccination can regenerate Indonesia's economic conditions in a positive direction. With the vaccination program, people can get up to work, transact, and carry out economic activities as usual during normal periods so that the consumption of the middle class will continue to increase (Prakoso, 2020). Because the COVID-19 pandemic was still happening, people in the middle and upper economic strata refrained from shopping. They are afraid of or don't dare shop at malls until they go on vacation.

Currently, the development of the Coronavirus Vaccine 19 by the Indonesian government has reached 12,385,886 people. This increase is due to the additional daily vaccine recipients of 105,121 people. Meanwhile, those who received the second vaccination increased to 7,629,859 people. The target population for vaccination is 40,349,049 people (KPC PEN, April 30, 2021).

Based on the above phenomenon, the coronavirus disease 2019 vaccination program that was implemented was able to reduce the spread of the disease, which in the end, besides having an impact on increasing household consumption, also had an impact on investment. To prove and see the impact of COVID-19 vaccination on household consumption and investment, researchers conducted a study in Gorontalo Province by placing the COVID-19 vaccination construct as an independent variable and household consumption and investment as the dependent variables. Thus, the formulation of the problem posed is: Does the COVID-19 vaccination have an impact on household consumption and investment? And what is the relationship between household consumption and investment?

## 2. Literatur Review

This section will describe theories that are relevant to the research problem, namely the COVID-19 vaccination theory, household consumption theory, investment theory, and relevant previous

research studies.

### 2.1 The Vaccination Code Theory

Vaccination comes from the word vaccine, which is a substance that can stimulate the emergence of active immunity (Sunarti, 2012). Vaccination is the administration of a vaccine that is specifically given in order to actively cause or increase a person's immunity to a disease, so that if one day they are exposed to the disease, they will not get sick or only experience a mild illness and not become a source of transmission (PMK No. 84 of 2020). COVID-19 vaccination aims to reduce the transmission of COVID-19, reduce morbidity and mortality from COVID-19, achieve herd immunity in the community, and protect the community from COVID-19 so that they remain socially and economically productive. The availability of the COVID-19 vaccine will help handle the COVID-19 pandemic more quickly. Vaccines are biological products that contain antigens in the form of dead or still-alive microorganisms that are attenuated, intact, or parts of them, or in the form of microorganism toxins that have been processed into toxoids or recombinant proteins, which are added with other substances and, when given to someone, will cause active specific immunity against certain diseases (PMK No. 84 of 2020).

### 2.2 The Household Consumption Theory

Keynes argued that the amount of household consumption depends on the income generated. This theory states that the amount of consumption expenditure is closely related to state income, which can affect fluctuations in the country's economy, where this can be measured based on constant prices. Consumption is defined as the use of goods and services that will directly meet human needs. Consumption, or more precisely personal consumption expenditure, is spending by households on final goods and services (Rosyidi, 2011). Meanwhile, household consumption expenditure is expenditure made by households to purchase goods and services for daily living needs during a certain period (Halim, 2018). So, consumption is the expenditure incurred by households or communities to obtain goods and services in a certain period with the aim of meeting needs.

### 2.3 Investment Theory

The concept of investment in Neo-Classical Theory emphasizes the importance of savings as a source of investment. Investment is seen as one of the main drivers of economic growth and development. The faster investment grows than the rate of population growth, the faster the volume of average capital stock per worker grows. The higher the ratio of capital per worker, the higher the production capacity per worker. (Arsyad, 2010). While the Harrod-Domar Theory views capital formation as an expenditure that will increase the ability of an economy to produce goods and or services, as well as an expenditure that will increase the effective demand of the whole society. If at a certain period a certain number of capital formations are carried out, then in the next period the economy will have the ability to produce greater goods and services (Sukirno, 2009).

Economic theory interprets or defines investment as expenditures to purchase capital goods and production equipment with the aim of replacing and especially adding to the amount of capital goods in the economy that will be used to produce goods and services in the future. In other words, investment means shopping activities to increase the production capacity of an economy (Sukirno, 2009). According to Samuelson (2011), investment includes adding capital stock goods in a country, such as building production equipment and inventory items within one year. Investment is a step toward sacrificing consumption in the future.

#### 2.4 Previous research studies

Fahlefi, Ahmad, and Rizal (2020) with the research title, *The Impact of the COVID-19 Pandemic on the Community's Economy in the Informal Sector*. This research investigates the impact of COVID-19 on the economy of the informal sector, especially the public transportation and motorcycle taxi transportation sub-sector in Tanah Datar District, West Sumatra Province. The results of this study explain that the COVID-19 pandemic has an impact on the economy of people who work in the informal sector, especially the transportation sub-sector. The income of workers in this sub-sector decreased by 56 percent, causing some workers to leave this job or move on to other jobs. This condition resulted in household needs not being met, so they had to use existing savings, make savings, and rely on special assistance for handling COVID-19; even some wives were also forced to work to help the family's economy.

A number of studies have proven that the spread of the virus can have an impact on the economy. Dixon, McDonald, & Roberts (2002) have studied the impact of the HIV/AIDS virus on economic development in Africa, as have Elci (2006), who examined the impact of the avian influenza virus (H5N1) on the economies of countries in Southeast Asia. Qiu, Chu, Mao, & Wu (2018) compared the impact of the SARS virus in 2003 and the impact of the H7N9 virus in 2013 on health, social issues, and economics in China. Meanwhile, Smith, Machalaba, Seifman, Feferholtz, & Karesh (2019) examined the impact of infectious diseases on the economy in various sectors.

A number of studies have also been conducted regarding the impact of COVID-19 on the economy. Uzimma K., Ifeanyi E., and Clara (2020) investigate the impact of the COVID-19 pandemic on Nigeria's economic prospects in the informal sector and propose strategies to support the sector. Taufik and Ayuningtyas (2020) have also researched the impact of the COVID-19 pandemic on business and the existence of online platforms in Jakarta. In addition, a number of literature reviews have also been carried out regarding the impact of COVID-19 on the economy, such as the study conducted by Nicola et al. (2020) regarding the socio-economic impacts caused by the COVID-19 pandemic; Ozili & Arun (2020) regarding the impact of social distancing on economic activity and stock market indices; Ahmad, Haroon, Baig, & Hui (2020) regarding the impact of the COVID-19 pandemic on the economy; and Susilawati, Falefi, & Purwoko (2020) investigated the impact of Covid-19 on the Indonesian economy.

Based on previous research studies, there appears to be a difference in the research that has been carried out by previous researchers. Previous research has discussed more about the impact of COVID-19 on the economy of people working in the informal sector, especially in the transportation and business sub-sectors, and the impact of social distancing on economic activity. Meanwhile, this research discusses the impact of the COVID-19 vaccination on household consumption and investment. Meanwhile, in terms of similarities, it lies in the big theme, which is about the economy, and COVID 19.

#### 24 Research Methods

This research was designed according to its type, paradigm, approach, and research design. This type of research is quantitative research with a positivism paradigm and an explanatory approach, namely finding and providing a causal relationship between the COVID-19 vaccination variables and household consumption and investment through hypothesis testing. To explain the relationship between these variables, data was collected from the Gorontalo provincial health office, Gorontalo district, Pohuwato, Bone Bolango, Bualemo, North Gorontalo, Gorontalo City, Gorontalo Provincial BPS Office, and Bank Indonesia Gorontalo Province using documentation techniques.

The collected data was processed and analyzed using the Spearman rank correlation method. This method is needed to measure the closeness of the relationship or the strength of the impact between two variables. Evidence of the strength of the relationship is guided by the provisions of the values 0.00–0.25 (very low relationship), 0.26–0.50 (moderate relationship), 0.51–0.75 (strong

relationship), 0.76–0.99 (very strong relationship), and 1 (perfect relationship). The direction of the correlation can be seen in the results, where the correlation coefficient is in the range of -1 to 1. When the correlation coefficient has a negative value, the relationship is not unidirectional (negative impact), while when it is positive, the relationship is unidirectional (positive impact).

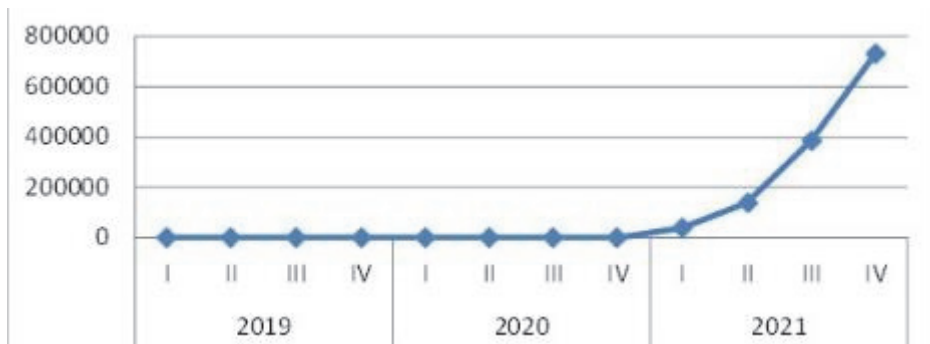
Proving the hypothesis is done by giving a statement for each hypothesis to be tested; for example,  $H_0$  states that there is no relationship between the two variables.  $H_1$  states that there is a relationship between the two variables. The decision criterion is If  $r_s > r_{st}$ , then  $H_0$  is rejected and  $H_1$  is accepted. If  $r_s \leq r_{st}$ ,  $H_0$  is accepted,  $H_1$  is rejected. (RS = spearman rank correlation coefficient)

#### 4. Research Result

This section describes the results of processed research data, which includes a description of the COVID-19 vaccination, household consumption, investment, and the Spearman rank correlation coefficient.

##### 4.1 The Variable Description of Vaccination Code 19

Data shows that the COVID-19 vaccination in Gorontalo Province has progressed from the I, II, III, and IV quarters of 2021 to reach 39,030 people, 138,679 people, 385,578 people, and 71,115 people, respectively.

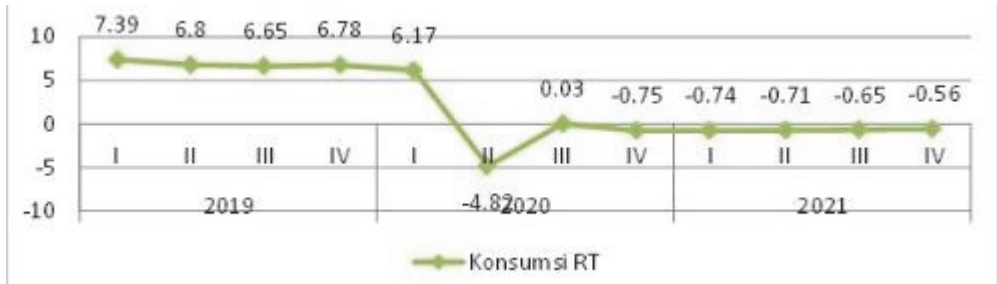


**Graph 1:** Development of Covid 19 Vaccination in Prov. Gorontalo

**Source:** Each Provincial Health Service As of January 2022 (processed)

##### 4.2 The Variables Description of Household Consumption

Data shows that household consumption in Gorontalo Province during the COVID-19 vaccination to date (December 2021) has increased. This can be seen in graph 2. In the first quarter of 2021, there was an increase in household consumption from -0.75 to -0.74, then increased again in a row to -0.71, -0.65, and -0.56 in quarters II, III, and IV in 2021. This means that there has been an increase in household consumption since the start of the COVID-19 vaccination in early 2021.



**Graph 2:** Development of Household Consumption during the Covid 19 Vaccination Period in Gorontalo Province

**Source:** Bank Indonesia (processed 2022)

4.3 The variables described in the description of investment

The data shows that the investment value in Gorontalo Province has increased, as shown in Graph 3. In the first quarter of 2021, with an investment value of 18.46 billion, an increase from the investment value in the fourth quarter of 2020, it is then estimated that it will continue to increase by 65.59\*, 182.36\*, and 359.05\* in quarters II, III, and IV in 2020 and 2021.



**Graph 3:** Investment Development for the Covid 19 Vaccination Period

**Source:** Bank Indonesia Gorontalo Province (processed January 2022).

**Note:** \*estimated increase based on calculations using the Interpolation formula.

4.4 Spearman Rank Correlation Analysis Between Variables

To determine the impact of vaccination on household consumption and investment, it is calculated based on the Spearman rank correlation formula. This formula was chosen as an analytical instrument because the amount of data is below 30. Table 1 shows that the Spearman rank correlation coefficient (rs) of the COVID-19 vaccination variable to the household consumption variable is -0.358. This coefficient shows the negative direction. This means that the COVID-19 vaccination variable has a negative impact on household consumption, it's just that this impact is not significant. Because hypothetically, H0 is accepted and H1 is rejected (0.253 > 0.05). This means that there is no significant impact of the COVID-19 vaccination on household consumption. Meanwhile, the Spearman rank

correlation coefficient (rs) for the COVID-19 vaccination variable for investment is 0.786. This coefficient shows the positive direction. This means that the COVID-19 vaccination variable has a positive impact on investment. Hypothetically,  $H_0$  is rejected and  $H_1$  is accepted ( $0.002 < 0.05$ ). This means that there is a significant relationship or impact between the COVID-19 vaccination and investment.

**Table 1:** The Relationship between COVID-19 Vaccination and Household Consumption and Investment

			COVID 19 Vaccination	Household Consumption	Investment
Spearman's rho	Covid 19 Vaccination	Correlation Coefficient Sig. (2-tailed) N	1.000 . 12	-.358 .253 12	.786** .002 12
	Household Consumption	Correlation Coefficient Sig. (2-tailed) N	-.358 .253 12	1.000 . 12	-.039 .905 12
	Investment	Correlation Coefficient Sig. (2-tailed) N	.786** .002 12	-.039 .905 12	1.000 . 12

Correlation is significant at the 0.001 level (2-tailed)

Meanwhile, Table 1 also shows that the coefficient of Spearman rank (rs) of the household consumption variable on investment is -0.039. This coefficient shows the negative direction. That is, the household consumption variable has a negative impact on investment; it's just that the impact is not significant. Because hypothetically,  $H_0$  is accepted and  $H_1$  is rejected ( $0.905 > 0.05$ ). This means that there is no significant relationship or impact between household consumption and investment.

## 5. Discussion

As the description of the data presented in the research results above indicates, this section will discuss the impact of the COVID-19 vaccination on household consumption and investment, and household consumption on investment.

### 5.1 The COVID-19 Vaccination Impact on Household Consumption

Discussing the impact of the COVID-19 vaccination on household consumption cannot be separated from the discussion on the impact of the COVID-19 pandemic on household consumption. As it is known, the COVID-19 pandemic is a contagious and deadly disease. Gorontalo Province initially entered the COVID-19 pandemic recorded on April 8, 2020. Cases in this province, as well as a sign that the COVID-19 pandemic has occurred in all provinces in Indonesia (Modjo, 2020). With this case, the Provincial Government of Gorontalo issued Governor of Gorontalo Decree Number 118/32/III/2020 concerning the establishment of emergency alert status for non-natural disasters due to the Corona virus in Gorontalo Province in 2020 and also issued Governor of Gorontalo Regulation Number 15 of 2020 concerning Guidelines for Implementing Social Restrictions on a Large Scale (PSBB) in Handling COVID-19 in the Province of Gorontalo on May 4, 2020, which then continued with the establishment of PSBB stages II and III until June 14, 2020 (Modjo, 2020). The implementation of the PSBB and lockdown at first looked good; the COVID-19 case seemed to be decreasing, but the effect on society was that economic actors experienced disruptions, terminations of employment (PHK) began to occur, and various foreign and domestic tourists experienced a decline, so that the workforce working in the sector of tourism also experienced layoffs (PHK).



To overcome the economic problems experienced by the community, the Gorontalo Provincial Government adopted a policy in the form of an assistance program to help community members affected by COVID-19. The program is in the form of an economic stimulus for MSMEs so they can revive after being forged by COVID-19, especially in the tourism and service sectors. In addition, the Gorontalo Provincial Government provides assistance to the poor and affected communities with a charging pattern of 60% borne by the Provincial Government (APBD) and 40% borne by the District or City Government (Modjo, 2020).

The program provided was not necessarily able to revive the regional economy. The economy experienced various problems so that GDP experienced a significant decline (graph 45), namely from 4.00 in the fourth quarter of 2019 to -3.56 in the fourth quarter of 2020. This means that the COVID-19 pandemic had a significant impact on the economic growth of Gorontalo province; the result was a decrease in household consumption (62.50% share) and government consumption (28.69% share).



**Graph 4:** Quarterly GRDP and GDP Development  
**Source:** BPS (BI Prov. Gorontalo, 2022)

The economic recovery efforts currently being pursued by the government are closely related to the COVID-19 vaccination program. During a pandemic, the demand and supply sides run separately. Restrictions on economic activities have an impact on production and distribution. On the other hand, the consumption of the lower class has decreased significantly, and the middle class and upper class have largely withheld consumption. The presence of vaccines and vaccination programs will give hope for economic recovery. The demand and supply sides will meet again if the vaccination program is successful and running well. The vaccination program will encourage the recovery of household consumption.

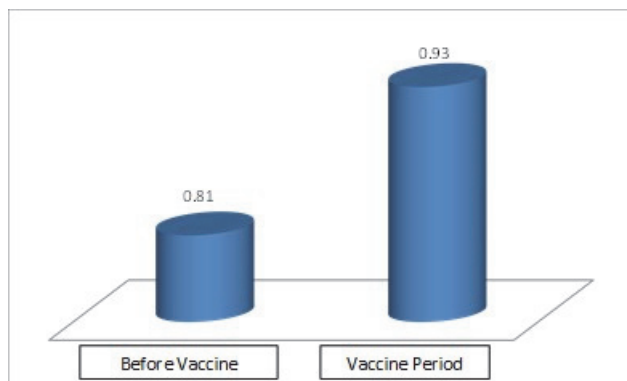
Descriptively, the COVID-19 vaccination, as shown in Graph 1, has increased significantly. This is because the local government continues to socialize and advocate for the implementation of vaccinations targeting public services, the elderly, and the community in Gorontalo Province. The success of the COVID-19 vaccination in Gorontalo Province is an indicator of the Gorontalo people's compliance with all government appeals, both central and regional. The target of 75 percent of the COVID-19 vaccinations for Gorontalo Province was achieved and even exceeded, namely reaching 77.24 percent.

In relation to household consumption, the data shows that, descriptively, household consumption has increased during the COVID-19 vaccination. It's just that the increase is still in a negative position, so when it is linked to the COVID-19 vaccination, the relationship is not significant and has a negative direction (Table 1). This means that the COVID-19 vaccination does not have a direct and significant impact on household consumption. However, referring to graph 4, it can be

seen that in 2020 (during the COVID-19 pandemic), economic growth reached a value of -3.56 (quarter IV of 2020), and during the COVID-19 vaccination period, economic growth began to increase to a value of -1.98 (quarter I of 2021). This means household consumption is starting to improve or increase. At the beginning of 2021, strengthening pandemic control, one of which was through the COVID-19 vaccination, succeeded in pushing the Gorontalo Province economy to grow. Government consumption continues to play an important role in boosting economic growth during the pandemic. This effort can encourage an increase in household consumption and investment components. So the increase in COVID-19 vaccination does not directly have an impact on increasing household consumption but rather is a result of economic growth. It was further explained that the impact of vaccination is not only important for handling COVID-19 but is also a determining factor in the success of economic recovery. Economic recovery is created by the formation of herd immunity through vaccination. The success of the vaccination program will be able to suppress the effects of the pandemic so that it can be minimized as much as possible so that people's activities can slowly recover while still paying attention to health protocols as a culture and adapting to new habits. The success of vaccination is also the main key to encouraging the recovery of household consumption, which is the backbone of the economy. During a pandemic, the demand and supply sides run separately. Restrictions on economic activities have an impact on production and distribution. On the other hand, the consumption of the lower class has decreased significantly, and the middle class and upper class have largely withheld consumption.

### 5.2 The COVID-19 vaccination's impact on investment

The COVID-19 vaccination program not only encourages the recovery of household consumption but also investment and economic growth. Most of the upper- and middle-class people who become businessmen or investors also play a very important role in the formation of gross fixed capital (PMTB). The results of the study show (graph 3) that during the COVID-19 vaccination period there was an increase in investment. This increase is closely related to the COVID-19 vaccination. The results show that there is a significant relationship between the COVID-19 vaccination and investment (table 1). This means that the COVID-19 vaccination has a positive impact on investment. This is also reinforced by data showing that MSME investment loans before the COVID-19 vaccination amounted to 0.81 trillion in 2020 and after the COVID-19 vaccination in 2021 increased to 0.93 trillion (Graph 5).



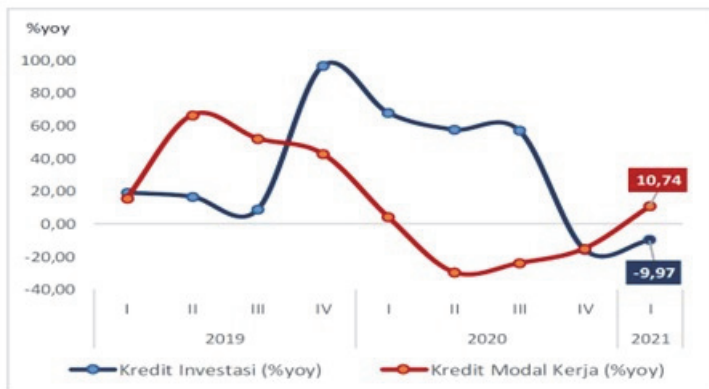
**Graph 5 :** Development of MSME Investment in Gorontalo Province before and during the Covid 19 vaccination period

**Source:** BI Prov. Gorontalo (processed 2022)

It was further explained that, based on Graph 6, although investment still contracted by -9.43% (yoy) in the first quarter of 2021, it was deeper than the previous quarter, which grew by -6.30% (yoy). Nevertheless, nominal investment showed improvement compared to the previous quarter. The improvement in investment performance was confirmed by the disbursement of investment loans and working capital loans, which experienced improvements. Investment credit in the first quarter of 2021 grew by -10.92% (yoy), an increase compared to the previous quarter, which grew by -15.71% (yoy). Meanwhile, working capital loans in the first quarter of 2021 grew 5.03% (yoy), an improvement compared to the previous quarter, which grew by -15.15% (yoy) (Graph 7).



**Graph 6:** GRDP Investment and Investment Growth  
**Source:** BPS (BI Prov. Gorontalo, 2022)



**Graph 7:** Investment and Working Capital Growth (% yoy)  
**Source:** BI Prov. Gorontalo, 2021

### 5.3 The Household Consumption Impact on Investment

Discussion of household consumption means discussing the extent to which these households spend their income for their needs. The income he earns will be used to buy things he needs, such as food, clothes, paying for children’s education, paying rent for houses, buying vehicles, financing transportation services, and so on. Spending on these goods is called consumption. It should also be understood that not all transactions made by households are classified as consumption. For example,

a household that buys a house is categorized as an investment. Insurance payments and sending money to parents (or children who are currently in school) are not classified as consumption because they are not expenditures on goods and services produced in the economy (Sukirno, 2008).

So the amount of expenditure made by households to buy goods and types of family needs in a certain year is called household consumption expenditure, or in macroeconomic analysis, it is more commonly referred to as household consumption.

Meanwhile, investment can be interpreted as the expenditure of investors or companies to purchase capital goods and production equipment to increase the ability to produce goods and services in the economy. In other words, in economic theory, investment means engaging in shopping activities to increase the capacity to produce something in the economy (Sukirno, 2008). In the world of practice, investment is classified as an expense in the form of: first, the purchase of various types of capital goods, namely machines and other production equipment, to set up various types of industries and companies. Second, expenses for constructing residential houses, office buildings, factory buildings, and other buildings. Third, the added value of stocks of goods that have not been sold, raw materials, and goods that are still in the production process at the end of the national income calculation year.

So the relationship between household consumption and investment can be understood as conceptualized by Mankiw (2003) in the macro analysis of a country's measurement of the Gross Domestic Product (GDP). GDP measures the flow of income and expenditure in the economy over a certain period. In a two-sector economy, the flow of economic expenditure consists of two components of aggregate expenditure, namely household consumption and investment. Economic growth is related to the process of increasing the production of goods and services in the economic activities of society. To measure economic growth, the GDP value used is GDP based on constant prices (real GDP), so that the resulting growth rate is real growth that occurs due to additional production. The existence of a balance in an economy is one of the targets in order to improve the economy of a country. This can be achieved through the involvement of economic variables that affect the balance.

Thus, an increase in consumption, investment, government spending, and net exports will lead to an increase in the production of goods and services. The increase in the production of goods and services will lead to an increase in GDP. An increase in GDP will lead to an increase in economic growth. Vice versa, a decline in consumption, investment, government spending, and net exports will lead to a decrease in the production of goods and services. The decline in the production of goods and services will cause a decrease in GDP. Declining GDP will lead to a decline in economic growth.

In connection with the results of this study, based on data analysis as shown in Table 1, household consumption did not have a significant impact on investment. This happened because, first, household consumption had a relatively less significant development during the COVID-19 vaccination period, even though its development was still at -0,74. Second, economic growth in Gorontalo Province was still recorded at -1.98% (yoy) in the first quarter of 2021. This growth was lower than the national economic growth, which grew 0.74% year over year, and Sulampua's growth of 3.26% year over year. Third, on the demand side, it was recorded that it was still experiencing contractions, with government consumption recording a contraction of -1.12% (yoy), while household consumption in the first quarter of 2021 experienced a relatively limited contraction of -0.74% (yoy). Fourth, on the aggregate supply side, the economy recorded an economic contraction in the first quarter of 2021 due to a decline in the performance of main business fields such as agriculture, wholesale and retail trade, and government administration.

## 6. Conclusion

Based on the results and discussion of the research above, it is concluded that the COVID-19 pandemic has not only had an impact on public health but has also had an impact on the regional economy of Gorontalo Province, as can be seen in the decline in economic growth, household

consumption, and investment. For this reason, the local government is taking strategic steps to tackle the pandemic. One of them is the implementation of the COVID-19 vaccination in the community with the intention of forming a person's immunity or endurance, reducing the risk of transmission, reducing the heavy impact of the virus, and achieving herd immunity.

In relation to these vaccinations, it turns out that the COVID-19 vaccination has had an impact on household consumption and investment. Where household consumption increased after the COVID-19 vaccination. However, statistically, the correlation was not significant. In contrast to investment, besides experiencing an increase during the COVID-19 vaccination period, it also has a statistically significant correlation. Thus, it can be said that public trust in the COVID-19 vaccination has an impact on household consumption and investment in Gorontalo Province.

In terms of household consumption and investment, it does not have a significant impact. This happened because, firstly, household consumption had a relatively less significant development during the COVID-19 vaccination period. Second, economic growth in Gorontalo Province was still recorded as negative in the first quarter of 2021. Third, on the demand side, it experienced a contraction with government consumption in a negative position. Fourth, on the aggregate supply side the economy recorded an economic contraction in the first quarter of 2021.

Based on the results of this research, it turns out that the COVID-19 vaccination has an impact on household consumption and investment. For this reason, it is suggested that the public, investors, and the government unite to make the COVID-19 vaccination program successful so that the nation and state can get out of the COVID-19 pandemic and, in the end, the nation's or regional economy can grow and return to normal for the welfare of the people, nation, and state.

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