# ECONOMIC IMPACT ON PUBLIC AWARENESS OF HEALTH PROTOCOLS IMPLEMENTATION DURING COVID-19 PANDEMIC IN HUTA MANCUK, NORTH SUMATERA, INDONESIA

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#### **ABSTRACT**

**Background:** Coronavirus curbs on the economy and society continue to have a shocking impact on human development. A pandemic can cause economic disruption in different ways. It is also caused human behavioral changes, such as fear-induced aversion to places of work and public gatherings and implementation of COVID-19 prevention behavior. This study aimed to investigate the economic impact on public awareness of health protocols implementation during the covid-19 pandemic.

**Subjects and Method:** This cross-sectional study was conducted at Huta Mancuk in North Sumatera, Indonesia. A number of 83 study subjects was selected by systematic random sampling. The dependent variable was public awareness. The independent variable was economic impact. The data were collected by questionnaire and analyzed by t-test.

**Results:** Economic condiction during the COVID-19 pandemic was significantly affected public awareness in implementing health protocols (p= 0.003). Conclusion: Economic condiction during the COVID-19 pandemic is significantly affected public awareness in implementing health protocols.

**Keywords:** COVID-19, economic impact, public awareness, health protocol

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#### **BACKGROUND**

Coronaviruses are a group of viruses that can cause disease in animals and humans. A new type of coronavirus discovered, Severe Acute Respiratory Syndrome Corona Virus (SARS-COV-2), caused COVID-19. The World Health Organization (WHO) has declared the coronavirus outbreak (covid-19) as a public health emergency troubling the world. Then COVID-19 was declared a global pandemic by WHO. The rapid and widespread spread caused the determination of this pandemic status to areas far from the outbreak's center (WHO, 2020).

The economy is the most important factor in human life. Economic needs are closely related to everyday life. To meet their needs such as eating, drinking, clothing, shelter, and others require a strong economy. The state is required to regulate policies regarding the Indonesian economy. It is required to guarantee the economy of the Indonesian people because economic factors are very important factors in human life. Besides the economy is the most important factor in human life, these economic factors are also a supporting factor for national development because the economic growth of a good country can increase national development (Hanoatubun, 2020).

The economy in the Asia Pacific will experience a prolonged decline due to the wider spread of this pandemic in various parts of the world. Countries threatened with a recession due to this pandemic include Australia, Hong Kong, Singapore, Japan, South Korea, and Thailand. In 2020, economic growth in China was predicted to decline to 4.8%, from 5.7% initially. Tourism sector countries such as Hong Kong, Singapore, Thailand, and Vietnam, which are countries that contribute 10% of Gross Domestic Product (GDP), will certainly experience economic impacts due to this pandemic (Burhanuddin & Abdi, 2020)

The economic impact of this pandemic has occurred in several countries significantly. Apart from China, South Korea will also experience countries affected by the economy. The Ginseng State's economic growth, originally projected to grow in the first quarter of 2.1%, will experience a decline of about 0.4 percentage points. The economic growth of Thailand and Taiwan is also predicted to experience the lowest economic growth in almost half a decade which reached 0.2% and 1.3% in the current quarter. Meanwhile, the Director of the World Bank predicts that the Indonesian economy is expected to weaken below 5% in the first quarter of 2020.

In 2020, COVID-19 became a very big concern for the Indonesian people. Many losses caused by this pandemic have impacted the Indonesian economy. After experiencing a rapid increase in cases, the government made a policy to deal with the COVID-19 pandemic, enacting the PSBB as stated in Government Regulation No. 21 of 2020. With the PSBB. all activities normally carried out were forced to stop. All industrial and office sectors activities were forced to stop operating temporarily. In addition, the education sector, public services, all places of worship, shopping centers, restaurants, and tourism places also experience the same thing (Misno et al., 2020). This social or physical distancing influences a decrease in overall economic activity (Iskandar et al., 2020).

This significant increase in sufferers is associated with community non-compliance and undiscipline. A number of studies show that community compliance with the prevention and control of COVID-19 is still low. There is an assumption that the disease is a common cold were factors of age influence the non-compliance, education, work status, and psychological aspects that play a role in noncompliance, which include personal traits, stress reactions, psychological well-being (Sari and Atigoh, 2020; Trivaningsih, 2020; Fadli et al., 2020; Wulandari et al., 2020; Abdul et al., 2020).

Public awareness is the main key in breaking the chain of spreading this deadly infectious disease. Whatever the concept is carried out, such as wearing masks, social distancing, and others. If people cannot be disciplined and have high awareness, it will never work. The local government must have a firm strategy so that the local community can obey the appeals issued. So

that there is a public awareness and they understand the dangers of COVID-19, it is necessary to carry out continuous socialization in all regions (Syafrida, 2020).

#### SUBJECTS AND METHOD

### 1. Study Design

This research design is quantitative research with a cross-sectional approach, where the measurement, observation, and observation of independent and dependent variable data are carried out only once and simultaneously.

# 2. Population and Sample

The population is aged 18-50 years, totaling 503 people in Huta Mancuk. The researcher uses a systematic random sampling technique, a statistical method that involves selecting elements from a sampling frame. The most common form of systematic sampling is the probability-equal method. Each k element in the frame is selected, where k, the sampling interval (sometimes known as a jump is calculated as k = N/n. The number of samples required is 83 of 503 people in the study's target population.

#### 3. Study Variables

The dependent variable was public awareness. The independent variable was economic impact.

#### 4. Study Instruments

The questionnaire is a data collection instrument in this study by circulating a list of questions to respondents to obtain information on responses or things known in writing.

# 5. Data Analysis

The data were collected by questionnaire and analyzed by t-test.

#### 6. Research Ethics

In this study, research ethics have been considered: informed consent, anonymity, and confidentiality.

#### **RESULTS**

Nagori Mancuk is about 2,491 people, consisting of 1,291 male residents and 1200 female residents. All of these residents are included in 799 families. With the following details

Table 1. Population Distribution by Gender in Nagori Mancuk

Gender	Frequence	Percentage
Male	1,291	50.4%
Female	1,200	49.6%

Source: Nagori Mancuk Data, 2021 Based on the data in table 1. above, the total male population is 1,291 people, and the female population is 1,200.

The most widely held belief in

Islam and the second-largest community belief in the Christian community, followed by Catholicism and other religions.

Table 2. Population Distribution by Belief in Nagori Mancuk

Religion	Frequence	Percentage
Islam	2,247	89.9
Kristen	233	9.6
Katolik	11	0.45
Buddha	O	0
Hindu	O	0
Kong Hu Cu	0	0

Based on table 2. above, the distribution of the population based on belief in Nagori Mancuk is indeed the most dominant religion is Islam with 2,247 people, Christianity with 233 people, and Catholicism with 11 people.

Judging from the type of livelyhood of the people of Nagori Mancuk, most of the people live as farmers. Apart from farming rice, Nagori Mancuk also farms corn, sweet and other potatoes, hard crops. Perennials planted are candlenut, rubber, coconut, and oil palm. Usually, many people who grow rice also grow other perennials or other food crops. The people's livelyhood as farmers too influenced by the natural conditions of Nagori Mancuk, whose land is very suitable for agricultural activities. In addition to soil fertility, the availability of a large land area is also a factor why most Nagori Mancuk residents work as farmers.

Apart from farming, the people of Nagori Mancuk work as farmers. The livestock business carried out by the residents of Nagori Mancuk is raising cattle, goats, poultry, and pigs. Similar to the above, the residents of Nagori Mancuk also have a dual profession besides farming. The residents also have pets as a backup source of income.

Table 3. Population Distribution by Type of Work in Nagori Mancuk

Profession	Frequence	Percentage
Farmer	403	76.7
Entrepreneur	82	15.6
Civil Servant	5	0.95
Trader	22	4.19
Indonesian national army	1	0.19
Private Midwife	2	0.38
BUMN Retirees	10	1.90

Based on table 3, the distribution of the population based on livelyhoods in Nagori Mancuk is indeed the most dominant population who work as farmers. In addition, the second largest livelihood is self-employment, followed by Traders, BUMN Retirees, Civil Servants, Private Midwives, and Indonesian national army.

The economy is the most important factor in human life. Economic needs are closely related to everyday life. Meeting their needs such as eating, drinking, clothing, housing, and others requires a strong economy. The impact of COVID-19 has affected the people's economy in Huta Mancuk. Rural communities live in a subsystem

economy, namely an economy where the community meets their needs based on the production and services they develop and produce themselves, which generally come from rice fields, plantations. fields. and ponds. Farmers Huta Mancuk in experiencing a decline in yields and are finding it difficult to buy increasingly expensive fertilizers and pesticides. Farmers carry out the process of planting rice until harvest takes three months. So that people in Huta Mancuk look for side jobs such as looking for palm oil seeds brooms, selling online, and selling fried foods to meet their daily needs. In Huta Mancuk, an oyster mushroom business is produced by the Nagori-Owned Enterprise (Bumnag) to generate income. In addition, during the economic downturn, Huta Mancuk received social assistance from the government through the village head intermediary.

Table 4. Distribution by Variable

Variable	Mean	SD	Minimum	Maximum
Economic impact	3.33	0.83	0	5
Public awareness	8.88	1.59	5	10

Based on Table 4, from the results of the five items of the economic impact questionnaire and ten items of public awareness that have been distributed with a rating scale if the answer is Yes= 1 and No= o. It is known that the 83 economic impact respondents had an average of 3.33% and public awareness had an average value of 8.88%.

Table 5. Testing of Health Protocol Characteristics in Huta Mancuk

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Health Protocol	Frequence	Percentage
Wearing a Mask	77	92.8
Washing hands	8	94.0
Keep the distance	73	88.o
Not Traveling	72	86.7
Reduced Mobility	77	92.8

Based on Table 5, the health protocol for wearing masks has 92.8%, washing hands is 94.0%, keeping distance 88.0%, not traveling 86.7%, and reducing mobility 92.8%. Thus, the health protocol in Huta Mancuk is good.

Characteristics of respondents are a variety of backgrounds owned by the respondents themselves. This characteristic is to see the respondent's background in this study. The respondent's background is focused on gender, age, and occupation. The results obtained are:

#### a. Sample Characteristics

Table 6. Testing of Gender Characteristics in Huta Mancuk

Gender	Frequency	Percent
Male	44	53
Female	39	47

Based on Table 6, this study used 83 samples from the Huta Mancuk community. From the selected sample, when viewed in terms of gender, the

overall sample was male as much as 53% and the rest female as much 47%. This shows that women mostly do it among the people of Huta Mancuk.

Table 7. Testing of Age Characteristics in Huta Mancuk

Age (years)	Frequence	Percentage
18-25	23	27.7
26-35	19	22.9
36-50	41	49.4

The results of the analysis in Table 7 illustrate that from the sample taken as many as 83 respondents in the Huta Mancuk community, it turns out that in terms of age, there are three

groupings and the most taken care at the age of 36-50 years as much as 49.4%, then 18-25 years as much as 27.7% and the last one from the age of 26-35 years as much as 22.9%.

**Table 8. Testing of Job Characteristics in Huta Mancuk** 

Profession	Frequence	Percentage
Does not work	15	18.1
Farmer	21	25.3
entrepreneur	14	16.9
Housewife	21	25.3
College student	12	145

The results of the analysis in Table 8 illustrate that from the sample taken as many as 83 respondents in the Huta Mancuk community, it turns out that in terms of work, there are five groupings, and the most taken are the work of Farmers and Housewives as much as 25.3%, then those who do not 18.1% work, 16.9% self-employed and 14.5% students.

#### **Classic Assumption Test**

This test is carried out to see if the data used has deviation from the

classical assumptions or not. In the assumption test, three tests are used, namely normality test, linearity test, and heteroscedasticity test. The results of the three tests used are:

# Normality test

The normality test is used to test whether, in the regression model, the confounding or residual variables have a normal distribution. The normality test method that can be used to test residual normality is the Kolmogorov-Smirnov (KS).

**Table 9. Normality Test Test** 

Kolmogorov e- Smirnov	p	Description
0.259	<0.001	< 0.05 Not normally distributed

Table 9 shows that the data is not normally distributed (p<0.001).

#### 1. Linearity Test

The linearity test aims to determine whether two variables have a linear relationship or not significantly. Table 10 showed that the relationship between economic impact and public awareness is linear.

# **Table 10. Linearity Test Test**

Sum of squares	Mean square	p	F
15.82	3.95	0.137	1.803

Table 11. Heteroscedasticity Test Test

Variable	T	p	Description
economic impact	-2.74	0.008	Heteroscedasticity
Public awareness	-9.13	<0.00	Heteroscedasticity

Table 11 was the result of Glejser test. It found that the economic impact and public awareness had heteroscedasticity.

This test aims to determine the effect of the independent variables individually in explaining the variation of the dependent variable.

# Significant test (t-Test) Table 12. Testing t-test

R	р	Criteria	Description
3.115	0.003	< 0.05	Have effect

Based on table 12, it can be reported that the economic impact has a positive and significant effect on public awareness.

# **Simultaneous Test (F Test)**

Simultaneous test (F test) shows that all independent variables consisting of economic impact have a simultaneous effect on the public awareness.

Table 13. Simultaneous Test Test (Test F)

F	р	Criteria	Description
9.71	0.003	< 0.05	Have effect

Table 13 shows that economic impact has a significant simultaneous effect on public awareness.

# a. Coefficient of Determination (R<sup>2</sup>)

The determinant coefficient (R<sup>2</sup>) value is used to measure how far the model can explain the dependent variables, namely public awareness.

**Table 14. Coefficient of Correlation and Coefficient of Determination** 

R	R square	Adjusted R Square	SE
0.327a	0.11	9.6%	1.15

Table 14 it can be seen that the results of the calculation obtained a value of  $R^2 = 0.096$  which means 9.6% of public awareness is affected by the economic impact. While the remaining 90.4% is influenced by other variables outside the model studied.

#### DISCUSSION

COVID-19 has had many impacts in various sectors, one of which is the economic sector. The increasingly widespread spread of COVID-19 will prolong the period of the fall of the Southeast Asian economy, including Indonesia (Estro, 2020).

Economic activity is one of the population activities driven by certain motives to meet the needs of life for themselves and their families by utilizing the environment (biotic, abiotic, and social). Objects used to meet human needs are divided into goods and services. Goods are all objects in physical form that are useful for meeting human needs, while services are objects in non-physical forms useful for meeting human needs. In general, economic activities are grouped into the main activities of production, distribution, and consumption. (Crayonpedia, 2009 in Lubis, 2014). The economic impact

has a very large influence on the decline in income from work, and it is difficult to finance daily needs.

Public awareness is a feeling of knowing and understanding what has been done or owned by someone to make community life that runs according to existing norms to achieve a change for the better during the COVID-19 pandemic. The government issues regulations in implementing health protocols such as (wearing masks, washing hands, maintaining a distance of 1 meter, not traveling, and reducing mobilety). To implement and implement health protocols, public awareness is needed in dealing with the spread of the COVID-19 virus.

Measurement of the economic impact and public awareness can be done through interviews or questionnaires asking about the material's content to be measured from research subjects or respondents (Notoatmodjo, 2012).

Based on the questionnaire results with 83 respondents, the rating scale is answering Yes= 1 and No= 0. The economic impact has an average value of 3.33%. It can be seen that the answers to the questionnaire results are still relatively low because the results of the questionnaires answered are in accordance with the actual situation during the COVID-19 pandemic, which has an impact on the decline in the community's economy.

Based on the questionnaire results with 83 respondents, the rating scale is answering Yes = 1 and No = 0. Public awareness has an average value of 8.88%. It can be seen that

the answers to the questionnaire results are still relatively high because the results of the questionnaires answered are in accordance with the understanding of the theory of health protocols. However, the action/action of implementing health protocols in daily life does not exist during the COVID-19 pandemic. The health protocol of wearing masks had 92.8%, washing hands 94.0%, keeping distance 88.0%, not traveling 86.7%, and reducing mobility 92.8%. Thus, the health protocol in Huta Mancuk is very good.

Based on the SPSS test, it is known that the value (p= 0.003; 0.050), Ha (alternative hypothesis), is accepted because the p-value is 0.05, so Ho is rejected. Thus, this conclusion is the economic impact on public awareness in the application of health protocols at Huta Mancuk in 2021.

This is the same as the previous research by Rosiady in his research on the Impact of the COVID-19 Pandemic on the Community Economy in West Nusa Tenggara where based on the results obtained. This study shows that this pandemic significantly affects people's lives, both those with civil servants and civil servants backgrounds: non-civil servants and those who live in rural and urban areas.

In Arnaz Anggoro Saputro's research, his research on Analysis of the Impact of the Covid-19 Pandemic on Public Awareness in the Application of Health Protocols was based on the results obtained that most of the people have implemented health

protocols such as wearing masks, implementing social distancing or physical distancing and applying to cough and sneezing etiquette. Well. The research data results obtained that 52.3 percent of participants did not wash their hands, and 56.9 percent did not bring hand sanitizer when traveling.

The same is true for the current research on the community in Huta Mancuk, Huta Bayu Raja District, Simalungun Regency. The study results resulted in a p-value of 0.05 so that these results had a statistically significant impact on the economic impact of public awareness in the application of health protocols. This is the same as the previous research by Rosiady in his research on the Impact of the COVID-19 Pandemic on the Community Economy in West Nusa Tenggara where based on the results obtained. This study shows that this pandemic significantly affects people's lives, both those with civil servants and civil servants backgrounds: non-civil servants and those who live in rural and urban areas.

Based on research conducted on the impact economics on public awareness in the application health protocol in Huta Mancuk in 2021 then, can concluded that the state of the COVID-19 pandemic gave influence on the decline in the economy of the community, around 8.88% of those who implement health protocols in their daily life did not exist during the COVID-19 pandemic, the impact of the economic impact on public awareness in implementing health protocols in Huta Mancuk in 2021. Thus, it is expected to provide

broad education and knowledge to the public regarding the analysis of the economic impact on public awareness in the application of health protocols in Huta Mancuk Year 2021.

#### **AUTHOR CONTRIBUTION**

Conduct research, enter journals, and revise journals.

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#### **CONFLICT OF INTEREST**

No conflict of interest was found.

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