

How Education Able to Support Productivity in Indonesia

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Abstract : This research is a qualitative descriptive study by observing the behavior of data from education, work participation as a representation of work productivity which is strengthened by Gross Domestic Product. So that in aggregate it can be seen the role of education on work productivity which is represented by community work participation and gross domestic product. This study uses a threshold autoregressive mode. We found that education and work participation play a role in encouraging gross domestic product which is an indicator of national work productivity. Along with the increase in work participation which is an indicator of the increasing number of economically productive people, education plays a role not only in encouraging work participation. However, also gross domestic product. This indicates that education has a major role in work productivity. Through improving the quality of human resources.

Keywords:: Human Capital, Work Productivity, Indonesia

JEL Classification : C01,E24,J24, J43

1 INTRODUCTION

In mid-November 2019 the Coronavirus or this new virus appeared in China (Abramson,2020), settled in the Wuhan area. The Coronavirus has spread widely throughout the world from one country to another (Pandemic). This virus spreads rapidly by spreading from infected humans to other humans by spreading through the air so that this virus is easy to spread and easily enters the human body. In Indonesia, the Corona Virus first appeared in mid-February 2020 in the Depok area, with 2 women being infected with the virus after having contact with a Japanese citizen who lives in Malaysia who previously met in Indonesia (Maulia, 2020). With the Coronavirus, the Indonesian state itself is very difficult to handle this virus, even though the Indonesian government has handled Corona cases optimally, both in terms of health and in terms of policy (social distancing), so that the Coronavirus does not spread widely in Indonesia. However, when we look at the data above, cases exposed

to the Coronavirus are increasing day by day so it is rather difficult to immediately eliminate this virus. When the Coronavirus is getting more and more cases, we can see its impact in the economic, social, political, and even in the field of education. The impact of the coronavirus in the field of education is very negative, because Indonesian people, especially students (students) from kindergarten, elementary, junior high, high school, and even college levels are forced to study at home or often referred to online. The implementation of the learning system in educational units has undergone a change in the operational form which is generalized through learning policies and following social policies, namely social distancing instructions, leading to an appeal for lockdown. The public's response to the policy was very varied, at first it was limited to sensitization conditions.

The Indonesian state is still not ready to carry out education properly, there are still many Indonesian people, especially students and students who cannot learn online. Because of the cellphone and internet factors which are very difficult to obtain. Especially when we talk about students living in villages or remote areas of this country, we all know that in remote villages it is difficult to get an internet network because of an inadequate signal. The negative side of online education itself will not find an emotional approach education directly with the teacher, because students and teachers do not meet face to face, even when kindergarten and elementary school children as young regeneration who should get a good lesson from beginning to end, on the contrary, they cannot learn well because the education system implemented in the midst of the coronavirus must be online. So when the education system in Indonesia must continue to be run online, it will have an impact on the psychology of children, especially kindergarten and elementary school students because they do not receive ethical and moral education from their teachers directly. Massive social restriction movements occur from the smallest community (family) to the largest community (society). Each individual is required to be aware of the existence of a role for other individuals to continue to walk on independent rails adhering to the jargon "starting from self for mutual safety". This jargon can be found in various information, both oral and written. Oral delivery is usually in small communities and written delivery is more familiarly consumed by large communities through social media, such as statuses on Facebook and Whatsapp, hashtags on Instagram, and wise sentences on appeal banners. The jargon coincides with an appeal to work from home which is popularly known as Work from Home (WFH) and is interpreted as a representation of a safe working style during the prevention of the spread of

Covid 19 (Afrianty et al,2021). Social distancing imposes space and time restrictions on all routine activities in the learning system at every level of education, from pre-school, primary, and secondary schools to higher education. Many things can be seen clearly after listening to the changes in the learning system at each of these levels. Traditional learning takes place in classrooms with a certain schedule, turning into learning in their respective rooms with an impractical time according to the learning schedule. This is what was born as a result of the call for social restrictions, which in turn created operational restrictions on education. This condition is more popular with the term "online" learning (learning in the network) which was previously very familiar and often done, but as an alternative among several forms of learning that are more effective.

"Online" learning as the sole option in the context of preventing the spread of COVID-19 gives a special color to the struggle against this virus. Even this form of learning can also be interpreted as limiting access to education. Ordinary education that takes place with direct interaction between elements (educators and education staff and students) turns into indirect interaction learning. Restrictions on direct interaction in education sometimes occur in certain situations but not in the context of social restrictions such as what people live in in an effort to prevent the spread of the virus. This limitation has a positive and negative impact on the achievement of learning objectives. Social restrictions have an impact on education policy, learning must be pursued with various consequences. This is very influential on the adaptation period due to changes in the learning mechanism and system. WFH makes every individual who carries out his activities more independent in maximizing the use of technology and information. Previously, not all individuals had the habit of working based on IT, but this condition made them more accustomed and skilled in completing work with IT. Why not, education practitioners are bumped into conditions that force and require them to become proficient instantly. Several acknowledgments of the practitioners' relief show that this moment of social distancing has resulted in increased creativity and competence in carrying out their respective duties. Educators of all age levels can fuse themselves to get to know the ease of IT-based teaching. Education staff complete and tidy up administrative matters with the help of IT. The students who are generally the millennial generation are increasingly compounding their skills in completing IT-based learning activities and tasks. This wisdom is an unplanned and unexpected step as an effort to develop the skills and knowledge of every element of education practitioners relevant to the times. In addition

to these positive impacts, there are also negative impacts on the limitations of educational practitioners in responding to conditions, personal readiness requires assistance, and even special guidelines to understand IT as a preferred path to work. Unfortunately, the basic abilities are very diverse, resulting in non-uniform responses and the potential to create gaps in the achievement of learning goals or targets (Clark et al,2021).

2 LITERATURE REVIEW

Teachers are the main pillar of education, pedagogic competence, professional competence, personality competence, and social competence are a necessity. During the COVID-19 pandemic, it is a challenge to carry out the responsibilities of these four competencies. Teachers should be more prepared to adapt to all conditions. The teacher has a dual role, namely being responsible for the education of his students, on the other hand, the teacher is the head of the family. Teachers are faced with various problems, ranging from the difficulty of adapting to online learning techniques, the decline in students' learning motivation, the lack of cooperation between parents, and the increasing quota costs. Although in the crush of the problems faced, teachers are required to remain professional, teacher competence must continue to be improved for the sustainability of the learning process and the achievement of the learning objectives themselves. Of course, this is a big challenge for teachers. The teacher's role in education is very strategic. Teachers are the spearhead of the implementation of education to be able to print superior human resources. Teachers have a very heavy burden. The teacher also has a dual role which is not only responsible for the development of intelligence but the moral development of students is also imposed on a teacher. The heavy responsibility is often not in accordance with the appreciation given. Therefore, it is not surprising that many incompetent teachers are still employed. The teacher's role as conservator or custodian refers to the norms of maturity in society. Maturity norms are maintained and transferred by the teacher to students, to be followed and lived in such away. The teacher acts as a reformer in learning. Can develop new strategies and methods to optimize learning. Teachers have a role in passing on a value system to students. This is so that the value system can continue to run continuously (Jogezai et al,2021).

The world of education is very significant in the process of educating the life of the nation and state. Any nation in this world will never progress if it does not pay attention to the world of education. Indeed, the first priority that

must be built in the education sector. In order to become a developed country like the nations that really care about the infrastructure of the world of education. Education has a strategic role, especially in the development of human resources (HR). The quality of human resources is very necessary so that our world of education is successful in the field of science and technology. So as to be able to face the current globalization competition. Indeed, education should focus more on providing expertise or life skills. The education mechanism, of course, will provide opportunities for everyone to enrich science and technology. Learning, both theoretical and practical lessons, will be beneficial in individual development in non-formal and informal environments. Learning obtained not only from one educational environment but educational institutions or organizations also have an important role. The focus of the school's attention should be on changing people for the better. In addition, schools must also be a place for humans to change their personalities. Educational leaders must welcome, appreciate, promote, and even initiate these changes themselves. The change will easily happen where there is a change that is valued not traditional. The effectiveness of change comes, from people who want to grow and develop from the learning process. The role of education is to change the social, cultural, economic, and political order. From the point of view of education as a national resource, it is essential in the competition for the globalization of learning flows. Education is directed towards the adjustment of priorities, goals, and objectives. Adjustment of patterns, functions, and educational needs is a challenge to the substance, process, and objectives of learning. Educational pressure appears in the community so that the quantity of education is balanced with quality. Schools should be a benchmark for the survival of the nation. Due to pressure from the community, it encourages critical efforts to identify student potential, curriculum development. Teachers, as providers of effective tools and techniques in the teaching process. The application of learning methods is more flexible and efficient in developing the quality of the teaching and learning process. Improving the quality of educational institutions that are able to produce a generation of superior and intelligent nation's children. Although not an absolute requirement, education has a big enough impact on one's success. Success is meant here means an increase in the welfare of life. So it can be said that the role of education in one's life is to improve the standard of living. Moreover, nowadays the demands of human resources are also getting higher, namely mastery of expertise in related fields to face stiff competition. Education even has a deeper meaning than just improving the standard of living. It is education that can

guide students to achieve safety and happiness in life as whole humans in society (Sato et al,2021).

Education, both formal and non-formal, can broaden the horizons and knowledge of the community. That way the rationality of their reasoning will increase. This means that the person concerned becomes more able to make more logical and rational decisions or steps related to his life. Mastery of technical knowledge is also obtained, one of which is by taking the highest formal education. In the era of technology that is developing very rapidly as it is today, these competencies are needed to carry out modern work activities. This includes running or even leading companies that involve advanced technology-based devices. With these skills, a person has the opportunity to work and start a career at a leading company so that he can earn a large income. Automatically the standard of living and welfare also increases. This is the most important role of education in society. Education is a means to gain knowledge and further stimulate research activities by experts. The result is an innovative invention or breakthrough in various fields, ranging from engineering, economics, medical and so on. Human resource development is carried out with education with the aim of making uneducated human resources become educated. For the country, this is an investment in human resources which will gradually lead to increased economic growth. This is because educated human resources can encourage community productivity and fertility. The problem of labor shortages in terms of quantity or quality is mainly caused by the low quality of education. This is an obstacle faced by almost all developing countries. Educational institutions are actually the spearhead to improve the quality of human resources in a country. Educational institutions or institutions play an important role in equipping students with the knowledge and competencies needed. Schools are also one of the means to grow other skills needed in the current era of globalization. These include skills in communication, collaboration, developing critical analysis skills, problem-solving, innovation, and so on. These competencies are the triggers for productivity. Educational institutions should also be providers of highly competitive trained personnel. To fulfill this role ideally, vocational education institutions, both vocational schools, and universities need to be strengthened (Adejumo et al,2021).

3 RESEARCH OBJECTIVE AND METHODOLOGY

This research is a qualitative descriptive study by observing the behavior of data from education, work participation as a representation of work productivity which is strengthened by Gross Domestic Product. So that

in aggregate it can be seen the role of education on work productivity which is represented by community work participation and gross domestic product. This study uses a threshold autoregressive model with the following autoregressive equation model:

$$GDP = (C(1)*PARTICIPATION + C(2)*EDUCATION + C(3)) + (C(4)*PARTICIPATION + C(5)*EDUCATION + C(6))*@LOGIT(C(7) *(GDP(-3)-C(8)))$$

Information :

PARTICIPATION is work participation

EDUCATION is education

GDP is Gross Domestic Product

C is Constanta

4 RESULTS AND DISCUSSION

The following is the estimation result of the autoregression threshold:

$$GDP = (24787.2656011*PARTICIPATION - 25.3961297392*EDUCATION - 2.17110240493e+12) + (-33997.2536743*PARTICIPATION + 50.6331398229*EDUCATION + 3.40999309621e+12)*@LOGIT(1.45268976142e-11*(GDP(-3)-221212127881))$$

The results of the estimation can be clarified from table 1.

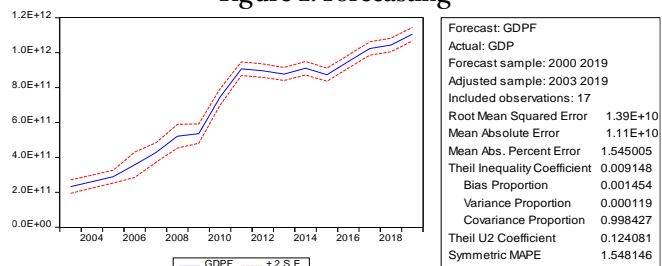
Table 1. Estimation Result

Variable	Coefficien t	Std. Error	t-Statistic	Prob.
Threshold Variables (linear part)				
PARTICIPATION	24787.27	19386.65	1.278574	0.233
EDUCATION	-25.39613	48.41652	-0.524534	0.6126
C	-2.17E+12	1.77E+12	-1.229616	0.25
Threshold Variables (nonlinear part)				
PARTICIPATION	-33997.25	20434.25	-1.663739	0.1305
EDUCATION	50.63314	48.66418	1.04046	0.3253
C	3.41E+12	1.88E+12	1.815849	0.1028
Slopes				
SLOPE	1.45E-11	4.55E-12	3.192806	0.011
Thresholds				
THRESHOLD	2.21E+11	8.30E+10	2.666401	0.0258

R-squared	0.997848	Mean dependent var	7.04E+11
Adjusted R-squared	0.996175	S.D. dependent var	3.03E+11
S.E. of regression	1.88E+10	Akaike info criterion	50.45273
Sum squared resid	3.17E+21	Schwarz criterion	50.84483
Log likelihood	-420.8482	Hannan-Quinn criter.	50.4917
F-statistic	596.2106	Durbin-Watson stat	1.808823
Prob(F-statistic)	0		

From the estimation results, it can be seen that education and work participation influence each other in encouraging economic growth. This proves that education plays an important role in increasing national work productivity. This can be clarified from the results of forecasting economic growth which is processed by estimating the influence and behavior of data from education and work participation in encouraging economic growth in Figure 1.

Figure 1. Forecasting



From Figure 1. It can be seen that the encouragement from the combination of education and work participation pushed the gross domestic product so that there was a very significant trend of increasing GDP. This illustrates that gross domestic product which is an indicator of national productivity can be encouraged through education and work participation.

5 CONCLUSION

Education and work participation play a role in encouraging gross domestic product which is an indicator of national work productivity. Along with the increase in work participation which is an indicator of the increasing number of economically productive people, education plays a role not only in encouraging work participation. However, also gross domestic product. This indicates that education has a major role in work productivity. Through improving the quality of human resources.

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