

paraf test 22okt 1.3

by Danang Dwi Gusti

Submission date: 22-Oct-2022 12:41PM (UTC+0900)

Submission ID: 1932110227

File name: paraf_test_22okt_1.3.docx (36.68K)

Word count: 3798

Character count: 22473

Investment In Human Capital In Promoting Economic Growth And The Importance Of Financial Inclusion In The Russian Economy

Abstract

This study aims to investigate human development and financial inclusion in Russia. The global bank provided the secondary data for this study, which covered the years 1990 to 2021. This study uses vector analysis. We found that the development of human capital in Russia not only promotes financial inclusion that drives the economy, but also provides a direct impetus to the growth of the Russian economy. The role of human capital is very important in today's modern human development. It is proven that human development through human capital investment provides awareness of the importance of financial inclusion and provides productive human qualities so as to be able to provide an impetus for growth in the economy. This research contributes to adding references related to financial studies and human development including human capital. This research contributes to providing a simulation and an overview of the importance of human capital investment in promoting economic growth and financial inclusion.

Keywords:

JEL Classification: C10,E04,E44

Introduction

The Russia-Ukraine war in 2022, has an impact on the Russian economy by rising world oil prices (Mbah & Wasum, 2022). However, The restrictions on Russia's global financial transactions by the west also have a significant impact on the Russian economy (Prohorovs, 2022). Western sanctions against Russia failed to become one of the most discussed topics in the Russia-Ukraine war era (Azarieva, Brudny, & Finkel, 2022). The western sanctions policy against Russia has reached its limit, and its further expansion threatens to cause too much damage worldwide and to the West itself but at the same time, it probably won't change Russia (Sturm, 2022). But in Russia too, the idea of the generally insignificant impact of sanctions has become almost dominant. In addition to the official optimism of officials and heads of large companies, a positive attitude is widespread among the population and a large part of the business community in Russia (Spell & Bezrukova, 2022). The purpose of this study is to provide a more complete picture of how economic sanctions in general and sanctions on the Russian economy in particular work and not work and the resilience of the Russian economy in the past from a financial and human capital point of view.

The fact that the sanctions, as a rule, "do not work" is well known to specialists. However, this implies that the goals set by the sanctioning state are not achieved with the help of sanctions it is impossible to change the decisions made or the specific policies of the sanctioned state, and, very rarely, it is possible to provoke the collapse of the regime (Biersteker, & Hudáková, 2021). At the same time, there is a relative consensus that non-unilateral (imposed by a broad coalition) and targeted sanctions ultimately cause huge and long-term harm to the economy and society (Bull & Rosales, 2020). If the planned effect is not achieved, long-term broad sanctions reinforce the entire spectrum of negative trends in the social development of the sanctioned country (McDonald, Wilson, Veríssimo, Twohey, Clemence, Apistar, Box, Butler, Cadiz, Campbell, Cox, Effron, Gaines, Jakub, Mancao, Rojas, Tirona, & Vianna, 2020).

The idea of a limited impact of sanctions on the Russian economy is associated with a misjudgment of the inertia nature of the economic system (Li, 2020), and the success of the Central Bank in fighting the first wave of crises, creating an “illusion of normality”, will be and will be a source of trouble in the future (Cante & Lima, 2019). At the same time, different parts of the sanctions package have different timing and horizons of consequences for the economy (Chien, Sadiq, Kamran, Nawaz, Hussain, & Raza, 2021). Financial sanctions have proven to have little effect in the short term, but the medium and long-term effects will still be visible in the future (Dabrowski, 2019). The effect of trade and logistics sanctions can be fully assessed only months after introduction (Orhan, 2022). Sanctions on technology imports have so far been barely noticeable but will have the most severe consequences in the medium and long term (Teece, 2022).

The authorities' plans to uproot decades of ties between Russian businesses and Western suppliers and replace them with partners from Asian countries are not feasible due to the lack of suitable infrastructure and motivation for these partners to consider non-Russian resources (Mostafa & Mahmood, 2018). The adaptation of the Russian economy to new conditions will depend on the extent to which this process will be based on the free redistribution of resources in the economy and market incentives, and the extent of political priorities, restrictions, and coercive pressures (Aganbegyan, Klepach, Porfiryev, Uzyakov, & Shirov, 2020). The impact of the crisis differed between industries, while some felt relatively normal or even showed growth, others experienced an all-out collapse (Vogt Isaksen, 2019). The decline in population income is the second factor in the dynamics of the economic crisis experiencing restrictions on both the supply and demand sides (Sukharev, 2020).

The crisis associated with the imposition of sanctions is structural in nature and will cause major changes in the economy, which can be defined essentially as technologically regressive import substitution (Li & Li, 2022). Having lost access to Western technologies and components, the economy will replace suitable products in cooperation with less developed countries, receiving from them lower quality and modern technologies and components at higher prices (Zafar, Sinha, Ahmed, Qin, & Zaidi, 2021). However, even after this setback in development, the Russian economy will most likely not enter a new trajectory but will enter a conservation mode typical for countries that have been under sanctions for a long time, losing the competition for profits and markets due to limited access to technology imports and social stagnation (Steblyakova, Vechkinzova, Khussainova, Zhartay, & Gordeyeva, 2022).

Sanctions are becoming increasingly common in international relations and US foreign policy, and evidence of their effectiveness is dwindling but about partial success (Early & Cilizoglu, 2020). However, some calculations show that the effectiveness of such sanctions was typical for the 1980s-1990s when the economic and political power of the West was at its peak (Yakovlev, 2021), and in 2016 the average level of sanctions effectiveness fell below 20% (Korhonen, Simola, & Solanko, 2018).

The main reason why sanctions don't work is related to two effects. Sanctions are usually imposed on authoritarian states, which are better able to resist external pressures than democracies (Early & Peksen, 2020). Authoritarian rulers have the ability to redistribute the costs of sanctions by rewarding loyal groups at the expense of the disloyal and supporting repressive forces (Wintrobe, 2018). The logic of sanctions in a sense contradicts the logic of globalization. Over the past thirty years, barriers to the flow of goods, technology, and capital have been consistently lowered, and the new barriers created by even a fairly broad coalition of countries cannot offset the overarching effect of the modern world's economic infrastructure (Cohen, 2020). The same effect leads to the fact that sanctions against a particular economy have more side effects the damage caused by it is transmitted ("overflow") along the chain to other countries and the world economy as a whole (Kholodilin & Netšunajev, 2019).

The number of side effects of sanctions is important to understand the main effects. Sanctions have a negative impact on democratic development in the sanctioned countries, i.e. they become less democratic, both immediately after the sanctions and in the long term, and the stronger the sanctions, the stronger the effect (Early & Peksen, 2020). In the short term, sanctions often help dictators consolidate their regimes, take advantage of the “gathering around the flag” effect, and mobilize support groups (Gomza, 2022). A similar effect is observed in the area of human rights, if sanctions fail to weaken the power apparatus of the sanctioned regime, the sanctions lead to consolidation and increased repression (Peksen, 2021).

Sanctions in fact often lead to regime change the effect was stronger during the classic Cold War era, especially in countries with personalist autocracies (Weyland, 2018). However, even in this case, the more likely transition is not to democracy, but to a new autocracy, and sanctions are less likely to destabilize the leaders of the oil nations. However, there is no doubt that the sanctions have a broad negative effect on the economy of the country where they are imposed. The assessment is considered quite authoritative, as a result of the sanctions that only apply (Chen, Fu, Zhao, Yuan, & Chang, 2019). From 2011-2014, Iran lost 17% of its potential GDP from the sanctions Iran received (Ghomi, 2021). Sanctions imposed on Russia in 2014-2015 led to a loss of 16% of potential GDP by 2021 (Andermo & Kragh, 2021). However, the growing perception of the ineffectiveness of sanctions (based on a broad panel of data) is to some extent a statistical artifact (Bělin & Hanousek, 2021). In fact, the sanctions policy consists of two parts, namely the threat of sanctions and the actual imposition of sanctions if the threat does not lead to a change in the policy of the target country (Weber & Schneider, 2020). However, in many cases, the threat of sanctions has a significant effect, forcing governments to adjust their policies, limiting the suppression of opposition, respecting minimum standards of human rights, and refraining from external aggression or hostile actions in politics and the economy (Park & Choi, 2022). But practically no work has quantified the preventive effect of this threat of sanctions. And those who are and who calculate the impact of the sanctions that have been imposed, therefore, only handle a part of the total panel of cases (Dai, Felbermayr, Kirilakha, Syropoulos, Yalcin, & Yotov, 2021).

Underestimating the same "sanction threat" factor, according to some researchers, leads to an underestimation of its economic effects. Most likely, countries, where the economic impact of sanctions looks too significant, are less likely to implement the situation, while "persistent" countries, on the other hand, tend to prepare their economies for sanctions in advance to minimize the effects (Weber & Schneider, 2022). So, in general, the sanctions policy is an important instrument in international relations, which has a significant effect, but more through the "threat" of sanctions than through the sanctions themselves. As a general rule, if a country considers the possible economic impact of sanctions to be significant, and the government assumes that these effects will have political consequences, it will try to adjust policies to avoid sanctions (Seyfi & Hall, 2019). If it is believed that this damage will not be so significant or will have no political consequences for the government, then the policy will not change, and the sanctions imposed will also not have a positive impact in terms of changing direction. And only if the initial calculations of these consequences turn out to be wrong, the sanctions "work", that is, is considered politically successful (Blais & Achen, 2019).

The sanctions imposed in the end against the state do not function in the sense that they are unlikely to lead to a change in the policy of the sanctioned state or the downfall of the regime in it (Morgan, Bapat, & Kobayashi, 2021). At the same time, if sanctions were imposed by a sufficiently broad coalition, they would deal a heavy blow to the sanctioned economy and almost certainly reduce its long-term competitiveness significantly (Aggarwal & Reddie, 2020). Paradoxically, a country's ability to resist broad international sanctions causes far greater harm to that country in the long run (Dumas, 2019).

Two things that are important in maintaining the economy internally are the human and financial development sectors (Widarni & Bawono, 2022). Human and financial capital are important for countries receiving economic sanctions in maintaining the economy (Priyanto, Widarni, & Bawono, 2022). This study examines the resilience of the Russian economy from the point of view of human capital and financial inclusion.

Research Method

This study aims to investigate human development and financial inclusion in Russia. The global bank provided the secondary data for this study, which covered the years 1990 to 2021. This study uses vector analysis with the following equation:

$$Fin_t = \beta_1 Fin_{t-1} + \beta_2 Fin_{t-2} + \beta_3 Hdev_{t-3} + \beta_4 Hdev_{t-4} + \beta_5 Egrow_{t-5} + \beta_6 Egrow_{t-6} + e_t \quad (\text{equation 1})$$

$$Hdev_t = \beta_1 Fin_{t-1} + \beta_2 Fin_{t-2} + \beta_3 Hdev_{t-3} + \beta_4 Hdev_{t-4} + \beta_5 Egrow_{t-5} + \beta_6 Egrow_{t-6} + e_t \quad (\text{equation 2})$$

$$Grow_t = \beta_1 Fin_{t-1} + \beta_2 Fin_{t-2} + \beta_3 Hdev_{t-3} + \beta_4 Hdev_{t-4} + \beta_5 Egrow_{t-5} + \beta_6 Egrow_{t-6} + e_t \quad (\text{equation 3})$$

Fin is financial inclusion, HDev is human development with human capital index indicator, Egrow is economic growth with GDP growth indicator. The variables used in this study are presented in table 1.

Table 1. Description of Variable

No	Variable	Describe	Unit
1	Hdev	human development with human capital index indicator	Index
2	Fin	financial inclusion with indicators of total domestic savings and total credit in percent of GDP	Percent
3	Egrow	economic growth with GDP growth indicator	Percent

Result and Discussion

In table 2, the results of the test to see if the data are stationer, which is necessary for autoregressive estimate, are presented.

Table 2. Stationarity test

Method			Stat.	Prob.**
ADF - Fisher			1.21345	0.0112
ADF - Choi			-1.11232	0.0114
Series	Prob.	Lag	Max Lag	Obs
D(Fin)	0.0121	0	4	31
D(Egrow)	0.0131	0	4	31
D(Hdev)	0.0141	0	4	31

All data are stationary, according to the findings of the data stationarity test, with a value of the ADF Fisher statistic larger than alpha (0.05). Table 3 displays the outcomes of the autoregressive vector estimation.

Table 3. VAR Estimation

	Fin	Egrow	Hdev
Fin	0.810023	0.221134	1.311121

	-0.21412	-0.0112	-2.1123
	[1.11213]	[0.08112]	[0.41211]
Egrow	1.211321	0.411213	0.016312
	-0.11748	-0.21211	-0.0024
	[0.92231]	[0.07221]	[0.21324]
Hdev	0.321142	0.711214	0.811231
	-0.12321	-0.06221	-0.21141
	[0.09241]	[0.06221]	[0.73282]
R-squared	0.712421	0.811231	0.812411
Adj. R-squared	0.691237	0.79152	0.791215

13

Financial inclusion in Russia has a significant positive effect on economic growth and human resource development. However, economic growth is not significantly positively related to Russian financial inclusion and human resource development in Russia. And human resource development has a significant positive relationship to financial inclusion and economic growth. This shows that economic growth in Russia is driven from the financial side and human development in Russia. Based on the estimation results, financial inclusion has a direct impact on the Russian economy and is an important factor in driving the growth of the Russian economy. A very significant impetus comes from the development of human resources which not only provides a growth impetus for economic growth, but also provides a growth impetus for financial inclusion. This shows that the higher the quality of human resources, the more aware they are of financial inclusion and the more productive they are so that they can encourage economic growth.

Conclusion

The development of human capital in Russia not only promotes financial inclusion that drives the economy, but also provides a direct impetus to the growth of the Russian economy. The role of human capital is very important in today's modern human development. It is proven that human development through human capital investment provides awareness of the importance of financial inclusion and provides productive human qualities so as to be able to provide an impetus for growth in the economy. And, in this study is Russia.

Research Limitation

This study was limited by the availability of data, the limited time of researchers and the research locus in only one country, namely Russia.

Research Contribution

This research contributes to adding references related to financial studies and human development including human capital. This research contributes to providing a simulation and an overview of the importance of human capital investment in promoting economic growth and financial inclusion

References

- Aggarwal, V. K., & Reddie, A. W. (2020). New economic statecraft: Industrial policy in an era of strategic competition. *Issues & Studies*, 56(2), 1-12. <https://doi.org/10.1142/S1013251120400068>
- Andermo, E., & Kragh, M. (2021). Sanctions and dollar dependency in Russia: resilience, vulnerability, and financial integration. *Post-Soviet Affairs*, 37(3), 276-301. <https://doi.org/10.1080/1060586X.2021.1913932>
- Aganbegyan, A. G., Klepach, A. N., Porfiryev, B. N., Uzyakov, M. N., & Shirov, A. A. (2020). Post-pandemic recovery: The Russian economy and the transition to sustainable social

- and economic development. *Studies on Russian Economic Development*, 31(6), 599-605. <https://doi.org/10.1134/S1075700720060027>
- Azarieva, J., Brudny, Y. M., & Finkel, E. (2022). Bread and Autocracy in Putin's Russia. *Journal of Democracy*, 33(3), 100-114. <https://doi.org/10.1353/jod.2022.0043>
- Bělin, M., & Hanousek, J. (2021). Which sanctions matter? Analysis of the EU/Russian sanctions of 2014. *Journal of Comparative Economics*, 49(1), 244-257. <https://doi.org/10.1016/j.jce.2020.07.001>
- Biersteker, T. J., & Hudáková, Z. (2021). UN targeted sanctions: Historical development and current challenges. In *Research Handbook on Economic Sanctions*. Cheltenham : Edward Elgar Publishing.
- Blais, A., & Achen, C. H. (2019). Civic duty and voter turnout. *Political Behavior*, 41(2), 473-497. <https://doi.org/10.1007/s11109-018-9459-3>
- Bull, B., & Rosales, A. (2020). Into the shadows. *European Review of Latin American and Caribbean Studies/Revista Europea de Estudios Latinoamericanos y del Caribe*, (109), 107-133. <http://doi.org/10.32992/erlacs.10556>
- Cante, F., & Lima, L. F. (2019). Introduction: Nonviolent political economy: a research and teaching agenda. In *Nonviolent Political Economy* (pp. 1-24). London : Routledge.
- Chen, Y. E., Fu, Q., Zhao, X., Yuan, X., & Chang, C. P. (2019). International sanctions' impact on energy efficiency in target states. *Economic Modelling*, 82(1), 21-34. <https://doi.org/10.1016/j.econmod.2019.07.022>
- Chien, F., Sadiq, M., Kamran, H. W., Nawaz, M. A., Hussain, M. S., & Raza, M. (2021). Comovement of energy prices and stock market return: environmental wavelet nexus of COVID-19 pandemic from the USA, Europe, and China. *Environmental Science and Pollution Research*, 28(25), 32359-32373.
- Cohen, H. G. (2020). Nations and markets. *Journal of International Economic Law*, 23(4), 793-815. <https://doi.org/10.1093/jiel/jgaa032>
- Dabrowski, M. (2019). Factors determining Russia's long-term growth rate. *Russian Journal of Economics*, 5(4), 328-353. <https://doi.org/10.32609/j.ruje.5.49417>
- Dai, M., Felbermayr, G. J., Kirilakha, A., Syropoulos, C., Yalcin, E., & Yotov, Y. V. (2021). Timing the impact of sanctions on trade. In *Research Handbook on Economic Sanctions*. Cheltenham : Edward Elgar Publishing.
- Dumas, L. J. (2019). Economics and alternative security: Toward a peacekeeping international economy. In *Alternative Security* (pp. 137-175). London : Routledge.
- Early, B. R., & Cilizoglu, M. (2020). Economic sanctions in flux: Enduring challenges, new policies, and defining the future research agenda. *International Studies Perspectives*, 21(4), 438-477. <https://doi.org/10.1093/isp/ekaa002>
- Early, B. R., & Peksen, D. (2020). Shadow economies and the success of economic sanctions: Explaining why democratic targets are disadvantaged. *Foreign Policy Analysis*, 16(3), 353-372. <https://doi.org/10.1093/fpa/oraa005>
- Ghomi, M. (2021). Who is afraid of sanctions? The macroeconomic and distributional effects of the sanctions against Iran. *Economics & Politics* [Online], <https://doi.org/10.1111/ecpo.12203>
- Gomza, I. (2022). The War in Ukraine: Putin's Inevitable Invasion. *Journal of Democracy*, 33(3), 23-30. <https://doi.org/10.1353/jod.2022.0036>
- Kholodilin, K. A., & Netšunajev, A. (2019). Crimea and punishment: the impact of sanctions on Russian economy and economies of the euro area. *Baltic Journal of Economics*, 19(1), 39-51. <https://doi.org/10.1080/1406099X.2018.1547566>
- Korhonen, I., Simola, H., & Solanko, L. (2018). Sanctions, counter-sanctions and Russia- Effects on economy, trade and finance. *BOFIT Policy Brief*, 4(1).1-23.

- Li, W. (2020). Why do we need to revisit the Cold War?. *China International Strategy Review*, 2(1), 86-98. <https://doi.org/10.1007/s42533-020-00047-7>
- Li, Z., & Li, T. (2022). Economic Sanctions and Regional Differences: Evidence from Sanctions on Russia. *Sustainability*, 14(10), 1-23. <https://doi.org/10.3390/su14106112>
- Mbah, R. E., & Wasum, D. F. (2022). Russian-Ukraine 2022 War: A review of the economic impact of Russian-Ukraine crisis on the USA, UK, Canada, and Europe. *Advances in Social Sciences Research Journal*, 9(3), 144-153. <https://doi.org/10.14738/assrj.93.12005>.
- McDonald, G., Wilson, M., Veríssimo, D., Twohey, R., Clemence, M., Apistar, D., Box, S., Butler, P., Cadiz, C. F., Campbell, S. J., Cox, C., Effron, M., Gaines, S., Jakub, R., Mancao, R. H., Rojas, P. T., Tirona, R. S., & Vianna, G. (2020). Catalyzing sustainable fisheries management through behavior change interventions. *Conservation Biology*, 34(5), 1176-1189. <https://doi.org/10.1111/cobi.13475>
- Morgan, T. C., Bapat, N. A., & Kobayashi, Y. (2021). The Threat and Imposition of Economic Sanctions data project: a retrospective. In *Research Handbook on Economic Sanctions* (pp. 44-61). Cheltenham : Edward Elgar Publishing.
- Mostafa, G., & Mahmood, M. (2018). Eurasian Economic Union: Evolution, challenges and possible future directions. *Journal of Eurasian studies*, 9(2), 163-172. <https://doi.org/10.1016/j.euras.2018.05.001>
- Orhan, E. (2022). The Effects of the Russia-Ukraine War on Global Trade. *Journal of International Trade, Logistics and Law*, 8(1), 141-146.
- Park, J., & Choi, H. J. (2022). Are smart sanctions smart enough? An inquiry into when leaders oppress civilians under UN targeted sanctions. *International Political Science Review*, 43(3), 433-449. <https://doi.org/10.1177/0192512120931957>
- Peksen, D. (2021). Economic sanctions and political stability and violence in target countries. In *Research Handbook on Economic Sanctions*. Cheltenham : Edward Elgar Publishing.
- Priyanto, E., Widarni, E. L., & Bawono, S. (2022). The Effect of Internet Inclusion on Financial Inclusion in P2P Lending in Indonesia Based on Human Capital Point of View. In *Modeling Economic Growth in Contemporary Indonesia* (pp. 107-121). Emerald Publishing Limited.
- Prohorovs, A. (2022). Russia's war in Ukraine: Consequences for European countries' businesses and economies. *Journal of Risk and Financial Management*, 15(7), 1-15. <https://doi.org/10.3390/jrfm15070295>
- Seyfi, S., & Hall, C. M. (2019). International sanctions, tourism destinations and resistive economy. *Journal of Policy Research in Tourism, Leisure and Events*, 11(1), 159-169. <https://doi.org/10.1080/19407963.2018.1482305>
- Spell, C., & Bezrukova, K. (2022). What management history can tell us about the postpandemic workplace, and other useful things?. *Journal of Management History*, [Online]. <https://doi.org/10.1108/JMH-06-2022-0017>
- Steblyakova, L. P., Vechkinzova, E., Khussainova, Z., Zhartay, Z., & Gordeyeva, Y. (2022). Green Energy: New Opportunities or Challenges to Energy Security for the Common Electricity Market of the Eurasian Economic Union Countries. *Energies*, 15(14), 1-26. <https://doi.org/10.3390/en15145091>
- Sturm, C. (2022). Between a rock and a hard place: European energy policy and complexity in the wake of the Ukraine war. *Journal of Industrial and Business Economics*, [Online]. <https://doi.org/10.1007/s40812-022-00233-1>
- Sukharev, O. S. (2020). Economic crisis as a consequence COVID-19 virus attack: risk and damage assessment. *Quantitative Finance and Economics*, 4(2), 274-293. <https://doi.org/10.3934/QFE.2020013/>

- Teece, D. J. (2022). A wider-aperture lens for global strategic management: The multinational enterprise in a bifurcated global economy. *Global Strategy Journal* [Online], <https://doi.org/10.1002/gsj.1462>
- Vogt Isaksen, J. (2019). The impact of the financial crisis on European attitudes toward immigration. *Comparative Migration Studies*, 7(1), 1-20. <https://doi.org/10.1186/s40878-019-0127-5>
- Weber, P. M., & Schneider, G. (2020). How many hands to make sanctions work? Comparing EU and US sanctioning efforts. *European Economic Review*, 130(1), 1-13. <https://doi.org/10.1016/j.euroecorev.2020.103595>
- Weber, P. M., & Schneider, G. (2022). Post-Cold War Sanctioning by the EU, the UN, and the US: Introducing the EUSANCT Dataset. *Conflict management and peace science*, 39(1), 97-114. <https://doi.org/10.1177/0738894220948729>
- Weyland, K. (2018). Limits of US influence: The promotion of regime change in Latin America. *Journal of Politics in Latin America*, 10(3), 135-164. <https://doi.org/10.1177/1866802X1801000305>
- Widarni, E. L., & Bawono, S. (2022). The Impact of Combination of Human Capital and Financial Literacy in Encouraging Economic Growth in Indonesia. In 6th INTERNATIONAL CONFERENCE OF GRADUATE SCHOOL ON SUSTAINABILITY (ICGSS) 2021.
- Wintrobe, R. (2018). An economic theory of a hybrid (competitive authoritarian or illiberal) regime. *Public Choice*, 177(3), 217-233. <https://doi.org/10.1007/s11127-018-0574-9>
- Yakovlev, A. (2021). Composition of the ruling elite, incentives for productive usage of rents, and prospects for Russia's limited access order. *Post-Soviet Affairs*, 37(5), 417-434. <https://doi.org/10.1080/1060586X.2021.1966988>
- Zafar, M. W., Sinha, A., Ahmed, Z., Qin, Q., & Zaidi, S. A. H. (2021). Effects of biomass energy consumption on environmental quality: the role of education and technology in Asia-Pacific Economic Cooperation countries. *Renewable and Sustainable Energy Reviews*, 142(1), 1-8. <https://doi.org/10.1016/j.rser.2021.110868>

paraf test 22okt 1.3

ORIGINALITY REPORT

4%

SIMILARITY INDEX

4%

INTERNET SOURCES

1%

PUBLICATIONS

0%

STUDENT PAPERS

PRIMARY SOURCES

1

www.econstor.eu

Internet Source

1%

2

link.springer.com

Internet Source

<1%

3

Jun Wen, Xinxin Zhao, Chun - Ping Chang.
"The impact of international sanctions on
innovation of target countries", Economics &
Politics, 2022

Publication

<1%

4

www.econorus.org

Internet Source

<1%

5

www.sciencegate.app

Internet Source

<1%

6

Brian Jason H. Ponce, Yolanda T. Garcia,
Agham C. Cuevas, Gideon P. Carnaje.
"Analyzing Pollution Emissions and Economic
Growth in Asia Through the Lens of the
Environmental Kuznets Curve", Research
Square Platform LLC, 2022

Publication

<1%

7	dokumen.pub Internet Source	<1 %
8	innovation-entrepreneurship.springeropen.com Internet Source	<1 %
9	opendocs.ids.ac.uk Internet Source	<1 %
10	sobiad.org Internet Source	<1 %
11	www.dakamconferences.org Internet Source	<1 %
12	www.mdpi.com Internet Source	<1 %
13	www.researchgate.net Internet Source	<1 %

Exclude quotes Off
Exclude bibliography On

Exclude matches Off