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# THE ROLE OF ENERGY CONSUMPTION IN GREEN BUSINESS AND GREEN ECONOMIES IN 5GO-GREEN COUNTRIES

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**Abstract:**
The issue to be addressed in this study is how economic policies and other outside variables affect the supply and consumption of energy, as well as how to develop efficient supply and consumption strategies for the economy. Simultaneous regression is used in the data analysis process. Green technology and green business have a good but not statistically significant association, according to the simultaneity research results. Green business and green investment are positively and significantly correlated. There is a strong and positive correlation between green building and green business. There is a strong and positive correlation between green business and the green economy. It is known from the simultaneity analysis results that emission and the green economy have a positive but not statistically significant link. There is a slight but favorable correlation between green finance and the green economy. There is a strong and positive correlation between energy usage and the green economy. There is a slight but positive correlation between green building and the green economy.

**Keywords:** Green Economy, Green Finance, Green Building, Green Business, Co2 Emissions

## INTRODUCTION

This law's initial interpretation holds that the government controls the energy market and regulates its activities in the oil market. Government price guarantees and the underwhelming performance of government-owned enterprises are indicators of a nation's failed policies. Second, the industry that produces energy from natural resources is the one with the largest market failure, according to the rationale behind this regulation. Therefore, rather of being governed by market forces, price decisions for natural resources are decided by government action. Consequently, market competitiveness is not ideal in general (Alan 2011, and Kilian 2012).

In contrast to the perfect competition market mechanism that economists generally assume, Sugiyono (2004) claims that the government exercises control by enforcing set pricing. Tambunan (2006) went on to say that the country can only execute the cheap energy policy to enhance the welfare of the poor if there is an excess of income. There are more ramifications than society realizes when monopoly status and low oil prices are combined. Making the use of fossil fuels more appropriate.

Energy is the primary catalyst for economic expansion in addition to being a vital component of civilization. Energy does, however, contribute to global environmental issues and will eventually stand in the way of sustainable economic growth, even if it is the engine of economic expansion.

Limited energy source exploration technology and investment are the two main issues facing the energy supply component, according to Hermawati et al. (2016) and Singerda et al. (2018). Owing to a lack of technological expertise, foreign oil company contractors handle the majority of Indonesia's oil exploration efforts. These contractors use the production sharing contract (KPS) system, which divides government shares at 15% and the central government at 85%. contractor. This situation demonstrates that not all of the products of petroleum exploration may be used for domestic requirements; some are exported by contractors in order to increase their profits because the price of oil is higher internationally than it is domestically.

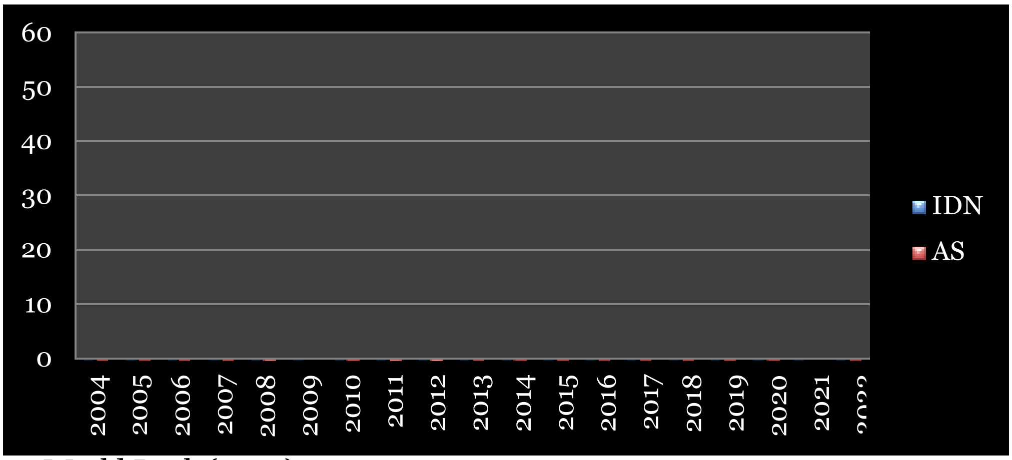
Energy prices tend to rise in tandem with the pace at which the domestic economy grows and the energy consumption of different sectors. Domestic energy price hikes are also frequently influenced by global economic trends and developments in the home economy. Despite the fact that many nations, including Indonesia, saw their economies contract as a result of the trade war between the US and China in 2018, which caused the IDR to lose value relative to other currencies, particularly the US dollar, by an average of 70%, Indonesia's fundamentals remained comparatively stable (Zweig, 2018). To stimulate growth in the real sector, which includes the energy industry, the Indonesian government has put in place a strategy of tax incentives to draw in more investors, particularly in the energy sector.

Articles by Herring and Sorrell (2009), Stern and Kander (2012), Bhattacharya et al. (2016), and others provide a very clear explanation of the importance of energy in economic growth. They essentially clarified the critical function that energy plays in propelling the economic expansion of a nation. The relationship between energy and economic growth as well as the function of energy in economic production are discussed in the article by Stern and Kander (2012). While financial and business scientists pay major attention to the impact of oil prices and other energy prices on economic activity, neoclassical economic growth theory pays little consideration to the role of energy or natural energy sources in affecting economic growth.

While other models explain that the growth process does not work in a neoclassical economy, the results of empirical investigations reveal the involvement of energy in the growth process (Stern and Kander 2012). The key findings suggest that energy use per unit of economic production is falling, but there is a huge shift in energy from the direct use of fossil fuels for example coal to the use of higher quality fuels, mainly electricity (Armaroli and Balzani 2007). When there is a change in the final energy usage composition based on the energy balance and economic activity level, two issues arise. The likelihood of lowering energy use in economic activity is low when these and other tendencies are considered (Stern and Cleveland).

There are two primary components to an economics analysis of the energy and economic growth relationship. First, energy is a necessary component of economic progress. Thus, it is impossible to separate energy from economic progress. Second, the degree and scale of energy opening and consumption is determined on economic growth conditions. By identifying the energy consumption turning point and examining the regularity of economic growth and energy consumption, it addresses the relationship between energy consumption and economic growth and describes the energy Kuznets curve.

It is evident from examining the link between energy consumption and economic growth that energy consumption is what primarily propels economic expansion. In addition to promoting economic expansion, energy consumption also contributes to global environmental pollution, which is progressively becoming a significant issue impeding the advancement of sustainable economic growth. This research provides a theoretical foundation for coordinating energy consumption and economic growth by identifying the innate laws of economic growth and energy consumption, identifying the turning points in energy consumption, and resolving the internal contradiction between the two.




Source: World Bank (2023)

**Figure 1:** Energy Consumption in the United States and Indonesia from 2004-2022

The availability of energy is a critical issue for Indonesia, since it affects not only family consumption but also a variety of other economic activities, such as those in the processing, mining, building, transportation, and agricultural sectors. Put another way, one of the requirements for achieving more advanced economic development is that there will always be a need to maintain a balance between economic expansion and energy supply.

There are a number of issues with prices and usage when one looks at the most recent changes in Indonesia's energy market. The degree of elasticity of energy use relative to economic growth indicates that, when considering consumption and price, the primary issue is the wasteful use of energy. The government is enacting energy price policies in response to the fact that there are still impoverished individuals with insufficient purchasing power to meet their needs. One of the factors contributing to Indonesia's excessive energy use is the policies that the government has put in place thus far. The widespread smuggling of fuel oil, particularly overseas, is another unfavorable effect of this energy price regime. Smuggling goods overseas persists because, despite the government's recent increase in fuel costs, global oil prices still outpace them.

Energy costs are relatively low in Indonesia and have not yet risen to economically viable levels. The reason for Indonesia's low energy prices is that the government continues to subsidize energy costs. According to Tambunan (2006), and Akhmad and Amir (2018) said that reduced fuel prices have a detrimental influence.

In the US, wood energy makes up the majority of energy use. Following it, the usage of energy changed from wood to coal, and then from coal to oil. Up until the latter part of the 20th century, coal, oil, and natural gas accounted for over 80% of the energy consumed in the US. As the US economy and technology advance, energy consumption becomes more prevalent in the country's energy structure. Sustainable use of energy consumption helps to cut down on the use of coal, natural gas, and oil. One may argue that the United States' energy consumption has shifted progressively to renewable energy due to technical advancement, which has also directly synchronized the expansion of the economy with traditional energy use.

## RESEARCH METHODS

The data analysis method in this research uses 2SLS, namely the Simultaneous Regression method (Strutural Regression) with two simultaneous equations, namely Green Business and Green Economy as follows:

MODEL EQUATIONS:

EQUATION 1: Green Business=f(Green Technology, Green Investment and Green Building)

EQUATION 2: Green Economy=f(Co2 Emissions, Green Finance and Energy Consumption)

The two model equations are transformed into econometric equations as follows:

ECONOMETRIC EQUATIONS:

Equation 1:
LogGBS= a0+a1log(GT)+a2log(GI)+a3log(GBG)+e1
Where:
Y1 : GBS = Green Business
X1: GT = Green Technology
X2 : GI = Green Investment
X3 : GBG = Green Building
Y2: GE = Green Economy
a: constanta
e: error term

Equation 2:
LogGE = a0+a1log(Co2Emissions)+a2log(GF)+ a3log(CE)+ e2
Where
Y2: GE = Green Economy
X1 : EMS = Co2 Emissions
X2 : GF = Green Finnace
X3 : CE = Energy Consumption
Y1: GBS = Green Business
a: constanta
e: error term

The data analysis method used is a simultaneous equation system with the eviews 7 program as follows:

EQUATION 1
Log(GB)=C(10)+C(11)*log(GT)+C(12)*log(GI)+C(13)*log(GBg)+C(14)*log(GE)
EQUATION 2
Log(GE)=C(20)+C(21)*log(EMS)+C(22)*log(GF)+C(23)*log(CE)+C(24)*log(GB
Next, create a reduced form equation as follows

REDUCTION EQUATION:
Equation 1: Y: (GT, GI, GBG)
Equation 2: X: (EmissionsCo2, GF, CE)

Next, simultaneity identification is carried out which aims to find out whether the equation is in an under identified, exact identified and over identified condition.
According to Kautsayiannis in (Rusiadi, 2016) states that in order for the 2SLS method to be applied to a system of equations, the identification equation must meet the exact criteria (exact identified) or over identified.
The identification of simultaneity in this equation is as follows:

SIMULTANITY IDENTIFICATION:
Equation 1:
K = 5
m = 3
k = 2

$$C = K - k = 5 - 2 = 3 \qquad C = m - 1 = 4 - 1 = 3$$

GBS = K – k = m – 1, Exactly identification
Equation 2 :
K = 5
m = 4
k = 2

C =K – k        C = m -1
= 5 -2          = 3- 1
= 3             = 2
GE = K – k > m – 1, Over identification

Once it is known that the identification of simultaneity equations in this research is in the condition of over identified and exactly identified, 2SLS simultaneity analysis can be carried out.

## RESULTS AND DISCUSSION

### Simultaneous equation regression

Estimates to find out which variables influence each other in the two equations are carried out by the following TSLS model:

Table 1. TSLS Model Output

| | Coefficient | t-Statistic | Prob. |
|---|---|---|---|
| C(10) | -0.244654 | 0.197694 | 0.8435 |
| C(11) | 2.271959 | 0.620544 | 0.5357 |
| C(12) | 0.426304 | 1.998954 | 0.0421 |
| C(13) | 0.241025 | 7.393611 | 0.0230 |
| C(14) | 1.067809 | 4.469892 | 0.0150 |
| | R-squared | 0.384896 | |
| | Coefficient | t-Statistic | Prob. |
| C(20) | 0.051666 | 0.029460 | 0.9765 |
| C(21) | 0.555670 | 1.081941 | 0.2807 |
| C(22) | 0.224174 | 0.707748 | 0.4800 |
| C(23) | 0.305295 | 3.026283 | 0.0028 |
| C(24) | 0.302449 | 1.114544 | 0.2665 |
| | R-squared | 0.347442 | |

It is evident from the structural equation output results that there are two equations. The following are the justifications for each of the two equations:

Equation test outcomes 1

Green Business and Green Economy are simultaneously determined using the first equation, which yields the following equation:

The following equation, which is used to simultaneously calculate GB and GE, is the first equation:

GB is made up of C(10)+C(11)*GT+C(12)*GI+C(13)*GBD+C(14)*GE

The following are the output results of eviews using the Two-State Least Square model, based on this equation:

GB = -0.245654 + 2.271959 * GT + 0.426304 * GI + 0.241025 * GBD + 1.067809 * EN+ R^2 = 0.384896, as indicated by the preceding estimation results, indicates that the variables GT, GI, GBD, and GE can account for 38.48% of GB, with other variables outside the model's estimates influencing the remaining 61.52% of GB.

Following the estimation findings, it was determined that the t-count value included three factors (GI, GBD, and GE) with alpha = 5% that significantly impacted the GB variable. GI had a considerable impact on the variable GB, with a probability value of 0.0421 <0.05. Prob values for GE and GBD are 0.0150<0.05 and 0.0230<0.05, respectively. Meanwhile, GT is 0.5357>0.05, indicating GT has no meaningful effect on GB.

Second Equation Test Outcomes

The second equation uses the following formula to determine green economy and green business at the same time:

GE = C(20)+C(21)*EMS+C(22)*GF+C(23)*CE+C(24)*GB+

The following are the eviews output findings using the Two-Stage Least Square model, based on this equation:

GE = 0.051666+0.555670*EMS+0.224174*GF + 1.480295*CE + 0.302449*GB\+

R^2= 0.347442, as indicated by the estimation findings above, indicates that the variables EMS, GF, GC, and GB can explain 34.74% of the Green Economy, with other variables outside the model's estimates influencing the remaining 65.26%.

One variable—namely, green consumption—is said to have a considerable impact on the green economy, according to the estimation findings produced by the t-calculated value, with a prob value less than the five percent alpha value. GC has a significant effect on GE when the CE prob value is 0.0028<0.05 from the alpha value, however EMS is 0.2807>0.05, indicating EMS has no significant effect on GE. Similarly, GF is 0.4800>0.05 and GB is 0.2665>0.05, indicating GF and GB have no significant effect on GE.

The analysis of Simultanitas Emisi Co2 with respect to Green Business and Green Economy includes Green Finance, Green Technology, Green Investment, Green Consumption, and Green Building.

In order to determine the impact on green business, the simultaneous influence involves taking into account the following factors: carbon emissions, green finance, green technology, green investment, green consumption, and green building. For the first equation, these factors are green technology, green investment, and green building. Furthermore, the impact of Co2 emissions, green finance, and green consumption on the green economy—the three components of equation 2—can be stated as follows: (a) Analysis of Green Building, Green Investment, Green Technology, and Green Economy Concurrently Towards Green Business It is known from the regression results that there is a positive but negligible association between GT and GB for the regression coefficient. The coefficient value of the GT variable is 2.27, indicating a positive sign. This implies that GB will see a 2.27 percent increase in data for every 1 percent increase in GT. In five countries that have adopted Go Green, this implies that GB will increase if the GT value increases by 1%. GB and the GI variable are positively and significantly correlated. GB will see an increase of 0.42 percent of the data for every 1 percent increase in GI, according to the positive coefficient value of 0.42 for the GI variable. That is to say, in five countries that have gone green, GB will go up if the GI value goes up by 1%. GB and the GBD variable are positively and significantly correlated. The coefficient value of the GBD variable is positive, at 0.24. This indicates that GB will see a 0.24 percent increase in data for every 1 percent increase in GBD. This means that if the GBD value increases by 1%, the GBD will increase in the 5 nations that have implemented Go Green.

There is a strong and positive correlation between the GE and GB variables. The GE variable's coefficient value is 1.06, indicating a positive sign. This indicates that GB will see an increase in data of 1.06 percent for every 1 percent increase in GE. This means that if the GE value improves by 1%, GB will increase in the 5 countries that have implemented Go Green. (b) Analyzing CO2 Emissions, Green Finance, Green Consumption, and Green Business at the Same Time on the Green Economy

The EMS variable and GE have a positive but negligible relationship. The coefficient value of the EMS variable indicates a positive sign, specifically 0.55, which suggests that for every 1 percent increase in EMS, GE will experience an increase of 0.55 percent of the data. Accordingly, in the five nations that have adopted Go Green, a 1% increase in the EMS value will result in a corresponding increase in GE. The GF variable and GE have a positive but negligible relationship. The GF variable's coefficient value, which is 0.22 and indicates a positive sign, indicates that GE will see an increase in data of 0.22 percent for every 1 percent increase in GF. In other words, in the five countries that have adopted Go Green, GE will rise if the GF value increases by 1%. GE and the GC variable are positively and significantly correlated. The GC variable's coefficient value is 1.30, indicating a positive sign. This indicates that GE will see a 1.30 percent increase in data for every 1 percent increase in GC. Accordingly, in the five nations that have adopted Go Green, a 1% increase in the GC value will result in a corresponding increase in GE. A positive but negligible correlation exists between the GB variable and GE. The GB variable's coefficient value, which is 0.30, indicates a positive sign. This means that for every 1% increase in GB, GE will see a 0.30 percent increase in data. Accordingly, in the five nations that have adopted Go Green, a 1% increase in the GB value will result in a corresponding increase in GE.

## CONCLUSION

Green technology and green business have a good but not statistically significant association, according to the simultaneity research results. There is a strong and positive correlation between green business and the green investment variable. There is a strong and positive correlation between green business and the green building variable. Furthermore, green business and the green economy variable are positively and significantly correlated.

It is known from the simultaneity analysis results that emission and the green economy have a positive but not statistically significant link. The green economy and the green finance variable are positively correlated, though not significantly. The green economy and the energy consumption variable are positively and significantly correlated. Additionally, there is a slight but positive correlation between the green economy and the green building variable.

## REFERENCES


Abbas, J. (2020). Impact of total quality management on corporate green performance through the mediating role of corporate social responsibility. *Journal of Cleaner Production*, *242*, 118458. https://doi.org/10.1016/j.jclepro.2019.118458

Ashton, W., Russell, S., & Futch, E. (2017). The adoption of green business practices among small US Midwestern manufacturing enterprises. *Journal of Environmental Planning and Management*, *60*(12), 2133–2149. https://doi.org/10.1080/09640568.2017.1281107

Awatara, I. G. P. D., & Hamdani, A. (2019). Implementasi Investasi Hijau dan Strategi daya Saing Hijau Terhadap Green Banking di Kota Surakarta. *Jurnal Presipitasi : Media Komunikasi Dan Pengembangan Teknik Lingkungan*, *16*(2), 53. https://doi.org/10.14710/presipitasi.v16i2.53-57

Bıçakcıoğlu, N., Theoharakis, V., & Tanyeri, M. (2020). Green business strategy and export performance: An examination of boundary conditions from an emerging economy. *International Marketing Review*, *37*(1), 56–75. https://doi.org/10.1108/IMR-11-2018-0317

Cato, M. S. (2012). Green economics: Putting the planet and politics back into economics. *Cambridge Journal of Economics*, *36*(5), 1033–1049. https://doi.org/10.1093/cje/bes022

Cui, L., Chan, H. K., Zhou, Y., Dai, J., & Lim, J. J. (2019). Exploring critical factors of green business failure based on Grey-Decision Making Trial and Evaluation Laboratory (DEMATEL). *Journal of Business Research*, *98*(June 2017), 450–461. https://doi.org/10.1016/j.jbusres.2018.03.031

Darko, A., Chan, A. P. C., Huo, X., & Owusu-Manu, D. G. (2019). A scientometric analysis

and visualization of global green building research. *Building and Environment*, *149*(November 2018), 501–511. https://doi.org/10.1016/j.buildenv.2018.12.059
Efendi, B., Arifin, D., & Zebua, A. (2023). Analysis of the Application for Inflation Monetary Variables on the Income of Corn Farmers in Medan Krio Village. World Journal of Advanced Research and Reviews, 17(3), 780-786.
Fadlan, A., & Pratama, A. (2024). The Analysis of Tilapia Exports on Regional Original Revenue (ROR) of Dairi Regency, North Sumatra. Lead Journal of Economy and Administration, 2(3), 114-124.
Faried, A. I., Hasanah, U., & Sembiring, R. (2023). Impact of Arabica Coffee Production on Social Welfare: A Comprehensive Analysis. International Journal of Management, Economic and Accounting, 1(2), 310-320.
Gao, X., & Zheng, H. (2017). Environmental concerns, environmental policy and green investment. *International Journal of Environmental Research and Public Health*, *14*(12). https://doi.org/10.3390/ijerph14121570
Handoko, S. R. I. (2012). Model Pengembangan Green Bussiness melalui Corporate Social Responsibility pada Perusahaan Go Public di Bursa Efek Indonesia. *Aset*, *14*(1), 75–82.
Hasan, M. M., Nekmahmud, M., Yajuan, L., & Patwary, M. A. (2019). Green business value chain: a systematic review. *Sustainable Production and Consumption*, *20*, 326–339. https://doi.org/10.1016/j.spc.2019.08.003
Hasanah, N., & Hariyono, S. (2022). Analisis Implementasi Green Financing Dan Kinerja Keuangan Terhadap Profitabilitas Perbankan Umum Di Indonesia. *Jurnal Ekobis : Ekonomi Bisnis & Manajemen*, *12*(1), 149–157. https://doi.org/10.37932/j.e.v12i1.444
Hasanah, U., Fadlan, A., Sabilayana, S., & Monica, S. (2023). Affecting Rice Production On The Income And Welfare Of Rice Farmers In Desa Mangga. Prosiding Universitas Dharmawangsa, 3(1), 636-648.
Henderson, H. (2007). Growing the green economy - Globally. *International Journal of Green Economics*, *1*(3–4), 276–298. https://doi.org/10.1504/IJGE.2007.013060
Hou, H., Bai, H., Ji, Y., Wang, Y., & Xu, H. (2020). A historical time series for inter-industrial embodied carbon transfers within China. *Journal of Cleaner Production*, *264*. https://doi.org/10.1016/j.jclepro.2020.121738
Husni Yatie, S., & Tandika, D. (2019). Pengaruh Indeks Green Investment terhadap Kinerja Keuangan Perusahaan Serta Dampaknya Pada Return Saham Perusahaan. *Prosiding Manajemen*, *5*(1).
Karagülle, A. Ö. (2012). Green business for sustainable development and competitiveness: an overview of Turkish logistics industry. *Procedia - Social and Behavioral Sciences*, *41*, 456–460. https://doi.org/10.1016/j.sbspro.2012.04.055
Karche, T., & Singh, M. R. (2019). The application of hemp Cannabis sativa l. for a green economy: A review. *Turkish Journal of Botany*, *43*(6), 710–723. https://doi.org/10.3906/bot-1907-15
Kebijakan, P., Economy, G., & Sektor, P. (2021). *KECIL & MENENGAH DI JAWA TIMUR Fakultas Ekonomi dan Bisnis Universitas Trunojoyo Madura Jalan Raya Telang , Kamal – Bangkalan , 69162*. *25*(1), 1–13.
Kennet, M., & Heinemann, V. (2006). Green Economics: Setting the scene. Aims, context, and philosophical underpinning of the distinctive new solutions offered by Green Economics. *International Journal of Green Economics*, *1*(1–2), 68–102. https://doi.org/10.1504/IJGE.2006.009338
Khan, I. S., Ahmad, M. O., & Majava, J. (2021). Industry 4.0 and sustainable development: A systematic mapping of triple bottom line, Circular Economy and Sustainable Business Models perspectives. *Journal of Cleaner Production*, *297*, 126655. https://doi.org/10.1016/j.jclepro.2021.126655
Law, A., De Lacy, T., Lipman, G., & Jiang, M. (2016). Transitioning to a green economy: The case of tourism in Bali, Indonesia. *Journal of Cleaner Production*, *111*, 295–305. https://doi.org/10.1016/j.jclepro.2014.12.070
Nasution, L. N., Siregar, A., & Rangkuty, D. M. (2023, September). Integration of Financial Capability and The Economy of North Sumatra (Panel Regression Model). In The International Conference on Education, Social Sciences and Technology (ICESST) (Vol. 2, No. 2, pp. 182-190).
Pan, S. Y., Gao, M., Kim, H., Shah, K. J., Pei, S. L., & Chiang, P. C. (2018). Advances and challenges in sustainable tourism toward a green economy. *Science of the Total Environment*, *635*, 452–469. https://doi.org/10.1016/j.scitotenv.2018.04.134
Pan, W., Pan, W., Hu, C., Tu, H., Zhao, C., Yu, D., Xiong, J., & Zheng, G. (2019). Assessing the green economy in China: An improved framework. *Journal of Cleaner Production*, *209*, 680–691. https://doi.org/10.1016/j.jclepro.2018.10.267

Rangkuty, D. M., Nasution, L. N., Hasyyati, Z., Siregar, S. D., Firmansyah, D., & Rusiadi, R. (2024, February). How Is The Monetary And Fiscal Policy Related To International Trade?. In International Conference on Humanity Education and Society (ICHES) (Vol. 3, No. 1).

Rangkuty, D. M., & Hidayat, M. (2021). Does Foreign Debt have an Impact on Indonesia's Foreign Exchange Reserves?. Ekuilibrium: Jurnal Ilmiah Bidang Ilmu Ekonomi, 16(1), 85-93.

Rusiadi, R., Yusuf, M., & Adivia, A. (2024). Mampuh Circular-Economy Mendukung Green Building dan Green Sustainable Development di ABRIC Coutries?. Jurnal Ilmiah Mahasiswa Perbankan Syariah (JIMPA), 4(1), 81-90.

Rusiadi, Hidayat, M., Rangkuty, D. M., Ferine, K. F., & Saputra, J. (2024). The Influence of Natural Resources, Energy Consumption, and Renewable Energy on Economic Growth in ASEAN Region Countries. International Journal of Energy Economics and Policy, 14(3), 332-338.

Sari, A. M., Wijaya, A. F., & Wachid, A. (2012). Penerapan Konsep Green Economy Mewujudkan Pembangunan Berwawasan Lingkungan Studi pada Dusun Kungkuk , Desa Punten Kota Batu. *Jurnal Administrasi Publik*, *2*(4), 765–770.

Shuai, S., & Fan, Z. (2020). Modeling the role of environmental regulations in regional green economy efficiency of China: Empirical evidence from super efficiency DEA-Tobit model. *Journal of Environmental Management*, *261*(November 2019), 110227. https://doi.org/10.1016/j.jenvman.2020.110227

Škare, M., Tomić, D., & Stjepanović, S. (2020). Green business cycle: An analysis on China and France. *Acta Montanistica Slovaca*, *25*(4), 563–576.

Sari, W. I., Sanny, A., & Yanti, E. D. (2023, March). Analysis Of Digital Economic Transformation In Improving The Economy Of Home Industries In Kota Pari Village. In Proceeding of The International Conference on Economics and Business (Vol. 2, No. 1, pp. 01-16).

Siregar, K. H. (2023, December). Analysis of Efficiency Islamic Banking In Indonesia: Stochastic Frontier Approach. In International Conference On Islamic Community Studies (Vol. 1, pp. 199-206).

Suhendi, S. (2023). Analisis Pembentukan Bumdes Dalam Mendukung Pembangunan Desa Mandiri Di Desa Lae Gambir Kecamatan Simpang Kanan Kabupaten Aceh Singkil. NUSANTARA: Jurnal Ilmu Pengetahuan Sosial, 10(6), 3136-3147. https://doi.org/10.46544/AMS.v25i4.10

St Nur Rahma, & Siradjuddin, S. (2022). Inovasi Hijau sebagai Strategi Pengembangan Usaha Kecil Mikro Syariah. *NUKHBATUL 'ULUM: Jurnal Bidang Kajian Islam*, *8*(1), 35–48. https://doi.org/10.36701/nukhbah.v8i1.522

Sutikno, B., Pudyaningsih, A. R., & Hastari, S. (2021). Pengaruh Potensi Ekonomi terhadap Pembangunan Ekonomi Hijau Melalui Kearifan Lokal dan Peran Koperasi Susu di Kabupaten Pasuruan. *Jurnal Penelitian Ilmu Manajemen (JPIM)*, *6*(1), 19–34. http://dx.doi.org/10.30736%2Fjpim.v1i2.28

Trapp, C. T. C., & Kanbach, D. K. (2021). Green entrepreneurship and business models: Deriving green technology business model archetypes. *Journal of Cleaner Production*, *297*, 126694. https://doi.org/10.1016/j.jclepro.2021.126694

Unay-Gailhard, İ., & Bojnec, Š. (2019). The impact of green economy measures on rural employment: Green jobs in farms. *Journal of Cleaner Production*, *208*, 541–551. https://doi.org/10.1016/j.jclepro.2018.10.160

Utomo, M. N., & Pratiwi, S. R. (2021). Analisis Penerapan Green Business Terhadap Kinerja Ukm Di Kota Tarakan. *Jurnal Akuntansi, Keuangan, Pajak Dan Informasi (JAKPI)*, *1*(1), 113–121. https://journal.moestopo.ac.id/index.php/jakpi/article/view/1348

Weber, G., & Cabras, I. (2017). The transition of Germany's energy production, green economy, low-carbon economy, socio-environmental conflicts, and equitable society. *Journal of Cleaner Production*, *167*, 1222–1231. https://doi.org/10.1016/j.jclepro.2017.07.223

Wu, D., Wang, Y., & Qian, W. (2020). Efficiency evaluation and dynamic evolution of China's regional green economy: A method based on the Super-PEBM model and DEA window analysis. *Journal of Cleaner Production*, *264*, 121630. https://doi.org/10.1016/j.jclepro.2020.121630

Xie, X., Huo, J., & Zou, H. (2019). Green process innovation, green product innovation, and corporate financial performance: A content analysis method. *Journal of Business Research*, *101*(January), 697–706. https://doi.org/10.1016/j.jbusres.2019.01.010

Xiea, X., Huob, J., & Zouc, H. (2019). *Machine Translated by Google Jurnal Riset Bisnis*

*Inovasi proses hijau , inovasi produk hijau , dan keuangan perusahaan kinerja : Metode analisis kontenÿ*. *101*, 697–706.
Yasir, M., Majid, A., & Qudratullah, H. (2020). Promoting environmental performance in manufacturing industry of developing countries through environmental orientation and green business strategies. *Journal of Cleaner Production*, *275*, 123003. https://doi.org/10.1016/j.jclepro.2020.123003