

An Innovation Searching for Boosting GDP Increase with European Union & China GDP comparison and Wind Turbine Generator's Research & Development on Scientist Sustainably

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Copyright © 2026 The Author(s): This is an open-access article distributed under the terms of the Creative Commons Attribution 4.0 International License (CC BY-NC) which permits unrestricted use, distribution, and reproduction in any medium for non-commercial use provided the original author and source are credited.	
<p>Citation: Run Xu, Wanhao Wu, & Guanghui Yu. (2026). An innovation searching for boosting GDP increase with European Union & China GDP comparison and wind turbine generator's research & development on scientist sustainably. <i>UKR Journal of Economics, Business and Management (UKRJEBM)</i>, 2(2), 16–20.</p>	<p><i>The education course will affect the futural industries development on the views of affording more competitive talent like scientist who would be completing his expertise drill in university for the sake of acquiring good job after he graduates from university. With meeting the futural industries development they need to be educated the high-tech knowledge so that he will utilize the relevant one to proceed his research and development work independently and collaboratively. Thereby he need to communicate with others fluently and skillfully or he will meet the autism that affects him to complete the task smoothly. Our teacher can find that fact and help him to conquer the difficulty for the declining sacrifice early so that he may continue to graduate from university and enter society and find good job for him to burden a new task in R & D department dedicated to the society responsibility. So that our society can make the continual development from easy to difficulty and from zero to 1,000 attained a complicate situation and create the new-high-tech product continuously with artificial intelligence algorism under big-language modal environment. Therefore, we need more qualified scientist to participate the innovation product research and development sustainably for the sake of commonly progressing our new products to be exhibit in market like cafe & restaurant to move the coffee & cuisine conveniently. We can only order the cuisine through touching small ordering screen to choose what to need, so simple. Thereby the comfortable service will be provided by that artificial intelligence moving robot according to the demand of customers. If they can speak simple greet language it is so good with language model to assemble it for paying attention to their coming. So that there is so much robot etc. innovation product exhibition to make our life level step a higher hierarchical structure. We also join the robot making work and invent more their equipment to be convenient to others through our continually research work. We should aware we are to experience a new era working with robot, so we should also learn it and make some advice for improving their enhancement property. At the end the high-technology product like robot etc innovative ones will change the life mode ultimately that may be beneficial to improve the GDP value in some degree. Thereby we should continuously study and search for its futural widely usefulness with our scientist talents together who will put-in the commanding order into chip for it that will change the world through lately exhibiting robot heat. On the other side, the computer skill and technology will help to develop the live convenience and comfortability with plugging chip etc. integrated circuit designed through editing the computer language's function.</i></p> <p>Keywords: boosting GDP value increase; European Union & China; innovation research; sustainably; wind turbine generator</p>

1. Introduction

The GDP which indicates national economic status has provided an important role in every aspect in the world. So that the population increasing rate would be maintained for the sake of raising high-technique product with the entire industrial chain constantly which might enhance our new-quality-productivity. Hence we should consider the effective factors for example the population quantity, new quality productivity with high-technique etc. like big plane electric vehicle battery AI robot quantum computer medicine making disease diagnosis AI (artificial intelligence) ocean source space exploration nuclear generator etc. other ones. Low population is enable to offer high life & quality with improving GDP per capita value. Meanwhile, it can enhance the national whole GDP value and help us to boost the economic recovery and many things to do. So the certain population is about to improve our national confidence some degree and make us to become priority one as early as possible even the super-country to lead the world to leadership right.

In contrast, the GDP increasing rate may play a significant role with regulating population increasing rate mutually and cooperatively. Hence the two aspects may be emphasized and paid attention to in thriving the whole national economic developed degree through enough wielding our generations positively and efficiently by our government institution endeavor and evaluation. For the sake of making relevant policies and allocating capital into the necessary industries the corresponding strategic plan needs to be made under various background and entities. Then the according monitor and estimation will be followed and estimated periodically and frequently by the observer in government's institution. At last as to the developed speed in one nation the corresponding population increasing quantity and high-technique product producing will be discussed and considered more preciously and correctly according to the near past years experience and variation.

Therefore, the high-technique products will be completed through wielding our scientist & senior Engineers coordination tightly for the sake of reviving the industrial and tertiary modernization. We should constantly look for and seek the new quality productivity sustainably so as to take place of our traditional industry becoming modernity. An innovation industry like new energy electric generator will be in front of our path forwards, so that the corresponding tactic must be put up and seek the opportunity and fortune in order to burden our responsibility quickly and not to forget recommend the fitting one to appoint new occupation. Like the Bole identified horse or Maosui self-recommended the recommendation will be represent one aspect for our human resource department to consider and evaluate the

recommended included a full research room with a set of computer high-technique instrument & device, subordinate, subsidiary staff, salary, house, welfare etc. a series of work so as to appoint his new occupation reasonably and willingly. [1~20]

2. Discussions

For the sake of welcoming the demand we should educate a lot of scientist and experts candidates from university department to college & institution one to take the high scholar degree for them to grasp one foreign language and skill to apply to futural requirement and practice. In university, the class with taking more practice education and experience and good teacher proceed the more competition teaching and theoretical and practical combination class to prepare for using after their graduate from college. [21~22]

2.1 European Union & China GDP comparison

The European Union & China GDP in 2015~2020 would show 16.67 & 14.2 trillion dollars accordingly in terms of Figure 1 in 2020 explained their stronger economy entity. The y-y value indicated 5% & 3% by them respectively recorded their more modest step.

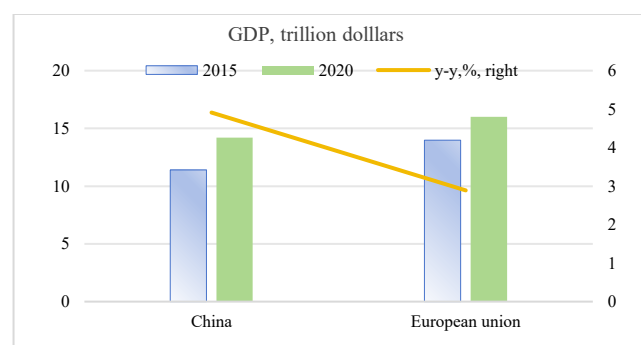


Figure 1. The European Union & China GDP change. [1]

The European Union & China GDP in 2009~2010 would show 15 & 9 trillion dollars accordingly in terms of Figure 2 in 2020 explained their stronger economy entity. The y-y value indicated 2% & 62% by them respectively recorded the China fastest step.

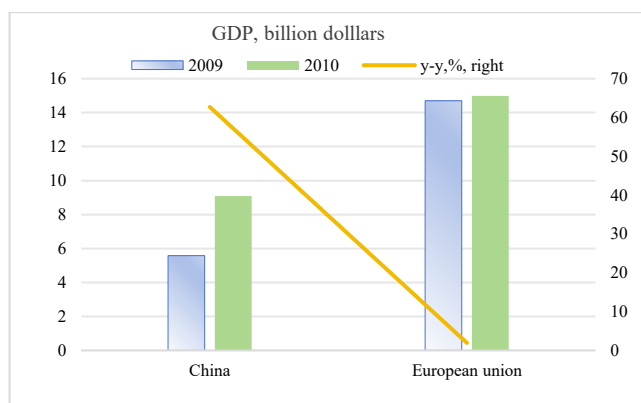


Figure 2. The European Union & China GDP change in 2009~2010. [1]

2.2 China top cities & Africa top nations GDP comparison

The Africa top nations in 1979~1981 would show 156~45 billion dollars by Nigeria~Algeria accordingly in terms of Figure 3 in 1981 explained the European Union stronger economy entity. The y-y value indicated 95% & 11% by them respectively recorded the Nigeria fastest step.

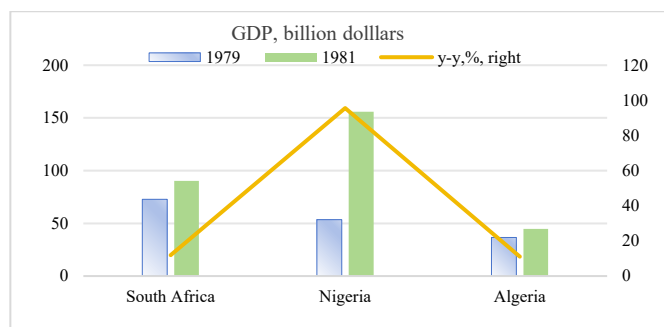


Figure 3 The Africa top ten nations GDP comparison [2]

The Africa top nations in 1979~1981 would show 156~45 billion dollars by Egypt~Ivory Coast accordingly in terms of Figure 4 in 1981 explained the Egypt stronger economy entity. The y-y value indicated 13% & -7.5% by them respectively recorded the Egypt fastest step and the Morocco speed with minus growth -1%.

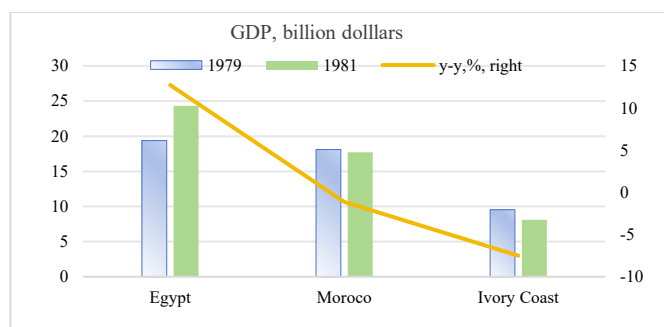


Figure 4 The Africa top ten nations GDP comparison I [2]

The Africa top nations & Beijing city in 1979~1981 would show 6.6~2 billion dollars by Kenya~Beijing city accordingly in terms of Figure 5 in 1981 explained the Kenya stronger economy entity. The y-y value indicated 174% & 0.76% by Angola & Kenya nations respectively recorded the Kenya fastest step and the Beijing speed with up-modest growth 7.2%.

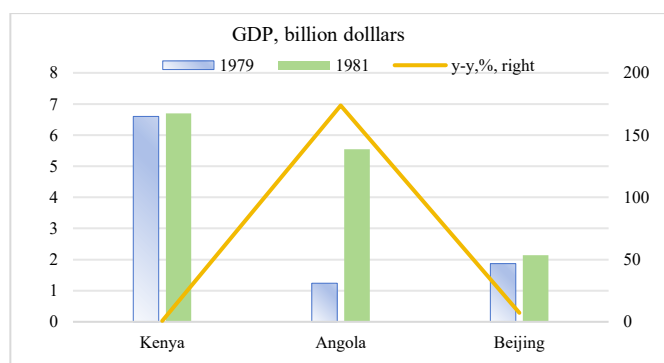


Figure 5 The China top ten cities & Africa top ten nations GDP comparison II [2]

2.3 Research object theoretical basis & Research progress for wind turbine

This research aims to conduct a systematic analysis of the working principle of wind turbines, revealing the core mechanism of energy conversion and the operational characteristics of key components, thereby providing theoretical support for the optimization and innovation of wind power technology. At the same time, by considering the application requirements in both land-based and offshore settings as well as in special scenarios, it explores the diverse application modes of wind turbines and assesses their adaptability and economic viability under different environmental conditions. Through this research, it is expected to provide reference basis for the technological progress and strategic development of the wind power industry, promote the increase of clean energy in the global energy structure, and contribute to achieving the carbon neutrality goal.

The research achievements of scholars both at home and abroad in the field of wind turbine principles and applications are rich and diverse. Early research mainly focused on the basic structural design of wind turbines and the improvement of energy conversion efficiency. With the advancement of technology, the research focus gradually shifted to intelligent control technology, offshore wind power development, and adaptive research in specific scenarios. For instance, in recent years, significant progress has been made in the research on doubly-fed asynchronous wind turbines and direct-drive permanent magnet wind turbines at home and abroad. These two technologies have become the mainstream development directions due to their efficiency and stability. Meanwhile, in the field of intelligent control technology, new control methods such as neural network control and fuzzy control have been widely applied in the operation optimization of wind turbine generators, significantly improving the automation level and fault handling capability of the power generation system. Additionally, foreign countries have accumulated rich experience in the construction and operation of offshore wind farms, while domestic countries have rapidly caught up through policy support and technological research, gradually forming a wind power generation technology system with independent intellectual property rights. Wind power generation is a comprehensive engineering technology, and its core principle involves two fundamental theories: electromagnetic induction and aerodynamics. The electromagnetic induction principle is the key scientific basis for converting mechanical energy into electrical energy in wind turbines. This principle states that when a conductor moves in a magnetic field, an induced electromotive force is generated within the conductor, thereby forming an electric current. This process

is achieved through the relative motion between the rotor and the stator in the wind turbine. The rotor rotates and cuts the magnetic lines of force under the influence of wind, thereby generating electrical energy output. The aerodynamics principle is mainly applied to the design and optimization of wind turbine blades. By analyzing parameters such as the speed and pressure distribution of the airflow on the blade surface, it ensures that the blade can efficiently capture wind energy and convert it into mechanical energy. Additionally, the wind power generation involves interdisciplinary theories such as mechanics and materials science, which together form the basic theoretical framework for the operation of wind turbines. [2]

3. Conclusions

The education course will affect the futural industries development on the views of affording more competitive talent like scientist who would be completing his expertise drill in university for the sake of acquiring good job after he graduates from university. With meeting the futural industries development they need to be educated the high-tech knowledge so that he will utilize the relevant one to proceed his research and development work independently and collaboratively. Thereby he need to communicate with others fluently and skillfully or he will meet the autism that affects him to complete the task smoothly. Our teacher can find that fact and help him to conquer the difficulty for the declining sacrifice early so that he may continue to graduate from university and enter society and find good job for him to burden a new task in R &D department dedicated to the society responsibility. So that our society can make the continual development from easy to difficulty and from zero to 1,000 attained a complicate situation and create the new-high-tech product continuously with artificial intelligence algorithm under big-language model environment. Therefore, we need more qualified scientist to participate the innovation product research and development sustainably for the sake of commonly progressing our new products to be exhibit in market like cafe & restaurant to move the coffee & cuisine conveniently. We can only order the cuisine through touching small ordering screen to choose what to need, so simple. Thereby the comfortable service will be provided by that artificial intelligence moving robot according to the demand of customers. If they can speak simple greet language it is so good with language model to assemble it for paying attention to their coming. So that there is so much robot etc. innovation product exhibition to make our life level step a higher hierarchical structure. We also join the robot making work and invent more their equipment to be convenient to others through our continually research work. We should aware we are to experience a new era working with robot,

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Ethic Declarations

The authors declared that there were not conflicts of interest.

References

1. European Union & China GDP change, Jan. 30, 2026
2. Wind turbine research, Feb., 2, 2026
3. Run Xu, Zhiqing Chen, The Study on Simulation of Resistance in Stall Motor [J], Journal of Electronic & Information Systems, 2020, April 02 (1):18~20, DOI: <http://doi.org/10.30564/jeis.v2i1.2045> **Google Scholar, CrossRef, Scilit, Cnki**
4. Run Xu, An Innovation Searching for Prospering Economy GDP Enhancement with Osaka & Shanghai and Hong Kong Cities & Shandong and Fujian Provinces on Scientists' Analysizing Behavior and Judgement by Sustainability, UKR Journal of Economics, Business and Management, Volume 1, Issue 10, 2025, 303~307 **Impact factor 4.33**
5. Run Xu, An Innovation Searching for Prospering Financial Reformation e.g. ETF and Economy GDP Enhancement with Indian Cities & Shandong and Fujian Provinces on Scientists' Analysizing Behavior and Judgement by Sustainability, UKR Journal of Economics, Business and Management, Volume 1, Issue 10, 2025, 308~313
6. Run Xu, An Innovation Searching for Prospering Financial Reformation e.g. ETF and Economy GDP Enhancement with G20 Group etc. on

- Scientists' Behavior and Judgement with Sustainability, UKR Journal of Economics, Business and Management, Volume 1, Issue 10, 2025, 184~188 **Impact factor 4.33**
7. Run Xu, Sugun Lim, Discussions to African Development of Technology and Innovation in its Industry, Scholars International Journal of Chemistry and Material Sciences, 2021, 4 (11): 314~317
 8. Run Xu, Sugun Lim, Younwook Kim, African Mechanism Involving in Transgenic product & Hydrogen Fuel in its Industry, Cross Current International Journal of Economics, Management and Media Studies, 2022, 4(1): 1~4
 9. Run Xu, Convergence Proving of the Theoretical & True Elongation Inequalities by Derivation and Analogy[J], Journal of Metallic Material Research, 2020, April 3(1): 15~19, DOI: <https://doi.org/10.30564/jmmr.v3i1.1757> **Scopus, Google Scholar, CrossRef, Cnki**
 10. Run Xu, An Innovation Searching for Prospering Financial Reformation e.g. ETF and Economy GDP Enhancement with Hubei & Hunan Provinces on Scientists' Published Behavior and Judgement by Sustainability, UKR Journal of Economics, Business and Management, Volume 1, Issue 10, 2025, 204~208 **Impact factor 4.33**
 11. Run Xu, The Relationship of Properties with Variable Mass of Block on Crank Linkage Mechanism in Multibody System, (American) SunText Review of Material Science, 2021, S1: 105 **Crossref, Goolge scholar Impact factor 2.6**
 12. Run Xu, Boyong Hur, A Simulation between Torque and Angle with Speed on Five Freedoms of Robot Mechanical Arm in Multibody Systems, Saudi Journal of Civil Engineering, 2021, 5(5): 91~93 **Impact factor 1.2**
 13. Run Xu, Boyong Hur, The Relationship between Force and Time with Lagrange Equation by Regulating Piston Mass on Crankshaft of Vehicle, Saudi Journal of Engineering and Technology, 2021, 6(4): 73-76 **Impact factor 1.2**
 14. Run Xu, Jiaguang Liu, The Kinematics Model Establishment of Crank and Linkage with Time under Low Speed in Vehicle, 2021, 6(4): 67~72, Saudi Journal of Engineering and Technology, 2021, 6(4): 57~61, DOI: 10.36348/sjet, 2021, v06i04, 004 **Impact factor 1.2**
 15. Run Xu, The Kinematic Models of Crank with Angle and Time in Motor Housing Process, (American) SunText Review of Material Science, 2021, S1: 104, DOI: <https://doi.org/10.51737/2766-5100,2021,S1,004> **Impact factor 2.6, Scilit, Crossref, Google Scholar**
 16. Run Xu, The Modelling between Force & Torque and Crank Angle on Crank Linkage of Engine in Vehicle by Lagrange Formula I, Scholars International Journal of Chemistry and Material Sciences, 2021, 4(4): 36-39, DOI: 10.36348/sijcms, 2021, v04i04, 005
 17. Run Xu, An Innovation Searching for Prospering Economy GDP Enhancement with Different Regions on Scientists with Sustainability, UKR Journal of Economics, Business and Management, Volume 1, Issue 10, 2025, 148~152 **Impact factor 4.33**
 18. Run Xu, An Innovation Searching for Prospering Financial Reformation like ETF and Economy GDP Enhancement on Scientists by Sustainability, UKR Journal of Economics, Business and Management, Volume 1, Issue 10, 2025, 143~147
 19. Run Xu, Changfu Jin, An Innovation Searching for Prospering Financial Reformation like ETF and Economy GDP with Different Regions Enhancement on Scientists by Sustainability, UKR Journal of Economics, Business and Management, Volume 1, Issue 10, 2025, 139~142
 20. Run Xu, The Dynamic Modelling of Vortex Axis Blade between Speed, Force and Rotation under Variable Angle & Power in Helicopter, (American) SunText Review of Material Science, 2021, S1: 103