The Key to Sustainable Economic Development

Subjects: Others

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Concerns about improving social, environmental, and economic living standards are the basis of the triple bottom line (TBL) link to economic development (ED). The social dimension of TBL boosts ED, the environmental dimension of TBL slows down ED, and the economic dimension of TBL contains conflicting synergies in ED. The Human Development Index (HDI) should now include indicators of environmental wellbeing. Governments should adopt policies to improve social wellbeing to boost ED, work to coordinate the objectives of environmental protection and ED, and combat vulnerabilities arising from public debt.

Keywords: triple bottom line ; economic development ; Human Development Index

1. Introduction

The global COVID-19 pandemic, in addition to political and economic uncertainty, has brought social and economic costs that will be felt in the coming years ^[1]. It also brought fluctuation in the prices of natural resources commodities ^[2]. Price instability, limited availability of natural resources, and the pandemic have caused many countries to face an energy crisis ^[3]. This has made it even more evident that the development of sustainable initiatives is vital for sustainable economic development ^[4]. Thus, it is extremely important to understand the role that sustainability plays in economic development (ED).

This study assumes that sustainability must be perceived according to the triple bottom line (TBL) construct. TBL, outlined by Elkington in 1996, assumes that value creation results from three dimensions, social, environmental, and economic, which must be accounted for [5][6][2]. It has at its core the support and management of activities that privilege development [8]. It has gained traction at all levels of government and in business [9]. Economic development (ED) is created by the process of creative destruction [10] and translates into an organic system of successive qualitative changes [11]. It is responsible for sustainable development, at country level, in the long term [12]. It is also at the country level that there is an obligation of harmony in the management of resources, be they social, environmental, or economic [13][14]. These are concepts that share particularities in their very nature. With the aim of improving understanding and effective action in relation to sustainable development, the United Nations announced the 2030 Agenda of Sustainable Development Goals [15]. The integrative nature of these objectives revealed the need to study the relationship between the adopted actions and the results obtained [16]. Therefore, it is essential to monitor and evaluate the sustainable development of countries [13]. Furthermore, the development of TBL has highlighted the need for studies that approach it in a more holistic way [2][12] [13][19]. However, despite recognising the importance of TBL in ED, it has been given little attention in this scientific field [12].

2. Development and Findings

Human wellbeing encompasses categories that consider the satisfaction of the population's basic needs, personal development, and the health and balance of society. Therefore, it is easy to understand that this dimension has a positive influence on HDI, as found in the study, as activities that provide the attainment of satisfaction of these categories are themselves drivers of economic development. Statements from studies prior to this stated that food insecurity is higher in low-income countries ^{[20][21]}. Cultural characteristics have the power to affect ED through the activity of institutions ^[22]. Moreover, the integration of girls into education ^[23], female empowerment ^[24], and education ^[25] have a positive outcome on the generation of ED. Health efforts also promote a healthy and productive population ^[26].

Environmental wellbeing consists of two categories, natural resources and climate and energy. Environmental protection has been perceived as an obstacle to ED ^[27], which is not a consensual idea ^[28]. The results indicate no positive effect on HDI when environmental wellbeing increases. This finding is in line with the study of Lai et al. ^[29], in which ED suffered negative effects from environmental protection. Furthermore, Peng et al. ^[28] concluded that environmental protection

could slow down ED in the short run. However, there is a growing awareness on the part of governments that ED can be negatively affected by climate change ^[30].

The effect of economic wellbeing on HDI was not statistically significant, which may be explained by the conflict that its indicators carry and that translate into the conflicts between economic growth and economic development. The economic dimension denotes the concern with profit to the detriment of environmental and social concerns ^[31]. When analysed, it can be seen that it represents growth measures whose nature is quantitative and that it does not translate the level of the quality of life in society ^[32]. Furthermore, the improvement of economic indicators is not achieved without costs to the environment ^[33]. There are a series of problems resulting from economic growth ^[34].

Turning to the categories that make up each of the SSI dimensions, these categories were analysed in different models. Starting with the categories that make up human wellbeing (basic needs, personal development and health, and a wellbalanced society), through this study, it was found that their influence on ED was positive. This was the case whether they were analysed together with the other SSI categories (model 2) or when they were chosen as the elements that make up model 3, reflecting the social dimension of TBL. Thus, the basic needs category, encompassing the indicators of sufficient food, sufficient to drink, and safe sanitation, had a positive influence on the ED. The possibility of access to safe water provides enormous opportunities for ED [35]. Safe sanitation is elementary for ED, and its implementation is a good investment [36][37]. The personal development and health category had similar behaviour, influencing ED positively in both models. This category was composed of the indicator's education, healthy life, and gender equality, and it had a positive influence on ED. In fact, the results reinforce the results of Pan [38], stating that ED can be stimulated by the government through the expansion of its investment in education. Education is a basic condition for rapid ED [39]. An increase in life expectancy brings a higher return ^{[40][41][42]}. ED can be promoted by gender equality, and accounting for its multiple dimensions is vital for ED [43]. The well-balanced society category aggregated income distribution, population growth, and good governance indicators. It also had a positive influence on ED in both models, corroborating previous findings. In line with these reflections are those of Tian and Li [44], who considered income distribution as a crucial element that influences welfare and social stability, as well as of Dutt and Tsetlin [45], who saw high degrees of inequality as having a corrosive influence on ED. The population growth indicator reflected that for resources, nature, and food supply, a decrease in population would be positive. Its positive influence on ED is in line with the claims of Bloom et al. [42], who argued that a decrease in the number of children leads to an increase in income in the short and long term, and Baldanzi [46], according to whom a lower rate of population growth is related to faster economic growth. There is also empirical evidence that the quality of political institutions highlights ED $\frac{[47]}{}$ and promotes it $\frac{[48]}{}$.

Attention is now given to the categories that make up environmental wellbeing. Here again, they were analysed from two perspectives: together with all other SSI categories (model 2) and as representatives of the environmental dimension of TBL (model 4). These categories were as follows: natural resources (with the indicators biodiversity, renewable water resources and consumption) and climate and energy (energy use, energy savings, greenhouse gases, and renewable energy). The results of these categories had a negative influence on ED. Natural capital puts pressure on human capital and reduces the speed of ED ^[39]. Lai et al. ^[29] concluded that ED suffers negative effects from environmental protection, and Duan et al. ^[49] assumed that protected environmental areas have a negative effect on income and increase inequality.

Lastly, the economic wellbeing dimension encompassed two categories: transition and economy. Model 2 encompassed a study considering all categories and their positive influence on ED. In the model in which they were considered isolated and as representatives of the economic part of the TBL (model 5), the transition category had a positive influence, while the economy category is not statistically significant. The transition category consisted of the indicators organic farming and genuine savings. Earlier evidence that organic farming may constitute an opportunity for ED was found ^[50], and its adoption is subject to monetary considerations ^[51]. On a national level, genuine savings represents a key indicator for ED ^{[52][53]}, and, when underpinned by environmental quality and natural capital assets, it results in increased wealth ^[54]. In certain circumstances, it precedes economic growth ^[55]. The economy category considered in model 2 had a positive influence on ED; however, when considered in model 5, it was not statistically significant. Bear in mind that this dimension mirrors the indicators GDP, employment, and public debt; thus, it is easy to agree with Schumpeter's view that finance has great importance for ED and improves economic efficiency ^[56], and that, in relation to employment, when there is a qualitative increase in the production of employment, economic complexity also increases and the countries which achieve this have a favourable ED ^[57]. In relation to public debt, there is a discussion about whether or not it is an obstacle to economic development since it may limit or condition the actions of governments, because, when public debt is high, it constitutes a restriction to economic development ^[58].

Reflections of Zapf ^[59] should also be considered because, although this study was longitudinal, it could be assumed that a link between the ED and the variables adopted as representatives of the TBL may exist. In this case, it is possible that ED itself influences the behaviour of the TBL dimensions and the studied categories. In addition to this, there may be other variables that can influence the dependent and independent variables, which will produce a relationship between them.

References

- 1. Cooke, F.L.; Dickmann, M.; Parry, E. Building sustainable societies through human-centred human resource managem ent: Emerging issues and research opportunities. Int. J. Hum. Resour. Manag. 2022, 33, 1–15.
- 2. Liu, W.; Chen, X. Natural resources commodity prices volatility and economic uncertainty: Evaluating the role of oil and gas rents in COVID-19. Resour. Policy 2022, 76, 102581.
- 3. Chofreh, A.G.; Goni, F.A.; Klemeš, J.J.; Seyed Moosavi, S.M.; Davoudi, M.; Zeinalnezhad, M. Covid-19 shock: Develop ment of strategic management framework for global energy. Renew. Sustain. Energy Rev. 2021, 139, 110643.
- 4. Polcyn, J.; Us, Y.; Lyulyov, O.; Pimonenko, T.; Kwilinski, A. Factors influencing the renewable energy consumption in sel ected european countries. Energies 2022, 15, 108.
- 5. Elkington, J. Governance for sustainability. Corp. Gov. Int. Rev. 2006, 14, 522-529.
- Farooq, Q.; Fu, P.H.; Liu, X.; Hao, Y.H. Basics of macro to microlevel corporate social responsibility and advancement i n triple bottom line theory. Corp. Soc. Responsib. Environ. Manag. 2021, 28, 969–979.
- Solaimani, S.; Sedighi, M. Toward a holistic view on lean sustainable construction: A literature review. J. Clean. Prod. 2 020, 248, 119213.
- Ranjbari, M.; Shams Esfandabadi, Z.; Zanetti, M.C.; Scagnelli, S.D.; Siebers, P.O.; Aghbashlo, M.; Peng, W.; Quatraro, F.; Tabatabaei, M. Three pillars of sustainability in the wake of COVID-19: A systematic review and future research age nda for sustainable development. J. Clean. Prod. 2021, 297, 126660.
- 9. Lederwasch, A.; Mukheibir, P. The triple bottom line and progress toward ecological sustainable development: Australi a's coal mining industry as a case study. Resources 2013, 2, 26–38.
- 10. Schumpeter, J. The Theory of Economic Development; Harvard University Press: Cambridge, UK, 1934.
- 11. Schumpeter, J. Capitalism, Socialism and Democracy; Harper & Brothers Publishers: New York, NY, USA, 1947.
- 12. Porter, M.E. Location, competition, and economic development: Local clusters in a global economy. Econ. Dev. Q. 200 0, 14, 15–34.
- Ahmad, N.; Derrible, S.; Managi, S. A network-based frequency analysis of Inclusive Wealth to track sustainable develo pment in world countries. J. Environ. Manag. 2018, 218, 348–354.
- 14. Manzhynski, S.; Figge, F.; Hassel, L. Sustainable Value creation of nine countries of the Baltic region. Value, changes a nd drivers. J. Clean. Prod. 2015, 108, 637–646.
- 15. Tseng, M.L.; Chang, C.H.; Lin, C.W.R.; Wu, K.J.; Chen, Q.; Xia, L.; Xue, B. Future trends and guidance for the triple bot tom line and sustainability: A data driven bibliometric analysis. Environ. Sci. Pollut. Res. 2020, 27, 33543–33567.
- Collste, D.; Pedercini, M.; Cornell, S.E. Policy coherence to achieve the SDGs: Using integrated simulation models to a ssess effective policies. Sustain. Sci. 2017, 12, 921–931.
- 17. Hammer, J.; Pivo, G. The Triple Bottom Line and Sustainable Economic Development Theory and Practice. Econ. Dev. Q. 2017, 31, 25–36.
- Isil, O.; Hernke, M.T. The Triple Bottom Line: A Critical Review from a Transdisciplinary Perspective. Bus. Strateg. Envir on. 2017, 26, 1235–1251.
- 19. Walker, K.; Yu, X.; Zhang, Z. All for one or all for three: Empirical evidence of paradox theory in the triple-bottom-line. J. Clean. Prod. 2020, 275, 122881.
- 20. Smith, M.D.; Rabbitt, M.P.; Coleman-Jensen, A. Who are the World's Food Insecure? New Evidence from the Food and Agriculture Organization's Food Insecurity Experience Scale. World Dev. 2017, 93, 402–412.
- Dudek, H. Households' food insecurity in the V4 countries: Microeconometric analysis. Amfiteatru Econ. 2019, 21, 377– 392.
- 22. Tabellini, G. Culture and institutions: Economic development in the regions of europe. J. Eur. Econ. Assoc. 2010, 8, 677 –716.

- 23. Sommer, J.M.; Fallon, K.M. The pathway to improving human and economic development: Girls' secondary education, governance, and education expenditures. Soc. Forces 2020, 99, 205–229.
- 24. Wyndow, P.; Li, J.; Mattes, E. Female Empowerment as a Core Driver of Democratic Development: A Dynamic Panel M odel from 1980 to 2005. World Dev. 2013, 52, 34–54.
- 25. Cui, Y.; Martins, P.S. What drives social returns to education? A meta-analysis. World Dev. 2021, 148, 105651.
- 26. Gupta, S.; Verhoeven, M.; Tiongson, E.R. The effectiveness of government spending on education and health care in d eveloping and transition economies. Eur. J. Polit. Econ. 2002, 18, 717–737.
- 27. Wang, Q.; Zhao, Z.; Shen, N.; Liu, T. Have Chinese cities achieved the win-win between environmental protection and economic development? from the perspective of environmental efficiency. Ecol. Indic. 2015, 51, 151–158.
- Peng, B.; Sheng, X.; Wei, G. Does environmental protection promote economic development? From the perspective of coupling coordination between environmental protection and economic development. Environ. Sci. Pollut. Res. 2020, 2 7, 39135–39148.
- 29. Lai, Z.Z.; Ge, D.M.; Xia, H.B.; Yue, Y.L.; Wang, Z. Coupling coordination between environment, economy and tourism: A case study of China. PLoS ONE 2020, 15, e0228426.
- Carraro, C. Climate change: Scenarios, impacts, policy, and development opportunities. Agric. Econ. 2016, 47, 149–15
 7.
- Busse, C. Doing Well by Doing Good? The Self-interest of Buying Firms and Sustainable Supply Chain Management. J. Supply Chain Manag. 2016, 52, 28–47.
- Abad-Segura, E.; González-Zamar, M.D. Sustainable economic development in higher education institutions: A global a nalysis within the SDGs framework. J. Clean. Prod. 2021, 294, 126133.
- Charfeddine, L.; Mrabet, Z. The impact of economic development and social-political factors on ecological footprint: A p anel data analysis for 15 MENA countries. Renew. Sustain. Energy Rev. 2017, 76, 138–154.
- 34. Brueckner, M.; Lederman, D. Inequality and economic growth: The role of initial income. J. Econ. Growth 2018, 23, 341 –366.
- 35. Wydra, K.; Becker, P.; Aulich, H.K.; Wydra, P.; Becker, H.A. Sustainable solutions for solar energy driven drinking water supply for rural settings in Sub-Saharan Africa: A case study of Nigeria. J. Photonics Energy 2019, 9, 043106.
- 36. Hutton, G.; Patil, S.; Kumar, A.; Osbert, N.; Odhiambo, F. Comparison of the costs and benefits of the Clean India Missi on. World Dev. 2020, 134, 105052.
- 37. Van Minh, H.; Hung, N.V. Economic Aspects of Sanitation in Developing Countries Environ. Health Insights 2011, 5, 63 –70.
- 38. Pan, L. The impacts of education investment on skilled–unskilled wage inequality and economic development in develo ping countries. Econ. Model. 2014, 39, 174–181.
- 39. Gylfason, T. Natural resources, education, and economic development. Eur. Econ. Rev. 2001, 45, 847–859.
- 40. Kalemli-ozcan, S. A stochastic model of mortality, fertility, and human capital investment. J. Dev. Econ. 2003, 70, 103–1 18.
- 41. Turan, B. Life expectancy and economic development: Evidence from microdata. Rev. Dev. Econ. 2020, 24, 949–972.
- 42. Bloom, D.E.; Khoury, A.; Kufenko, V.; Prettner, K. Spurring Economic Growth through Human Development: Research Results and Guidance for Policymakers. Popul. Dev. Rev. 2021, 47, 377–409.
- 43. Perrin, F. Can the historical gender gap index deepen our understanding of economic development? J. Demogr. Econ. 2021, 1–39.
- 44. Tian, G.; Li, J. How Does Infrastructure Construction Affect Economic Development along the "Belt and Road": By Pro moting Growth or Improving Distribution? Emerg. Mark. Financ. Trade 2019, 55, 3332–3348.
- 45. Dutt, P.; Tsetlin, I. Income distribution and economic development: Insights from machine learning. Econ. Polit. 2021, 3 3, 1–36.
- 46. Baldanzi, A.; Bucci, A.; Prettner, K. Children's health, human capital accumulation, and r&d-based economic growth. M acroecon. Dyn. 2021, 25, 651–668.
- 47. Holmberg, S.; Rothstein, B.; Nasiritousi, N. Quality of government: What you get. Annu. Rev. Polit. Sci. 2009, 12, 135–1 61.
- 48. Bergh, A. What are the Policy Lessons from Sweden? On the Rise, Fall and Revival of a Capitalist Welfare State. New Polit. Econ. 2014, 19, 662–694.

- 49. Duan, W.; Hogarth, N.J.; Shen, J.Y. Impacts of Protected Areas on Income Inequality: Evidence from the Giant Panda Biosphere Reserves in Sichuan Province, China. J. For. Econ. 2021, 36, 27–51.
- 50. Qiao, Y.H.; Halberg, N.; Vaheesan, S.; Scott, S. Assessing the social and economic benefits of organic and fair trade te a production for small-scale farmers in Asia: A comparative case study of China and Sri Lanka. Renew. Agric. Food Sys t. 2016, 31, 246–257.
- Mzoughi, N. Farmers adoption of integrated crop protection and organic farming: Do moral and social concerns matter? Ecol. Econ. 2011, 70, 1536–1545.
- 52. McGrath, L.; Hynes, S.; McHale, J. The Air we Breathe: Estimates of Air Pollution Extended Genuine Savings for Europ e. Rev. Income Wealth 2022, 68, 161–188.
- 53. Hanley, N.; Dupuy, L.; McLaughlin, E. Genuine savings and sustainability. J. Econ. Surv. 2015, 29, 779–806.
- Banerjee, O.; Cicowiez, M.; Vargas, R.; Obstd, C.; Cala, J.R.; Alvarez-Espinosa, A.C.; Melo, S.; Riveros, L.; Romero, G.; Meneses, D.S. Gross domestic product alone provides misleading policy guidance for post-conflict land use trajecto ries in Colombia. Ecol. Econ. 2021, 182, 106929.
- 55. Lindmark, M.; Acar, S. Sustainability in the making? A historical estimate of Swedish sustainable and unsustainable dev elopment 1850–2000. Ecol. Econ. 2013, 86, 176–187.
- 56. King, R.G.; Levine, R. Finance and growth: Schumpeter might be right. Q. J. Econ. 1993, 108, 717-737.
- 57. Gala, P.; Camargo, J.; Magacho, G.; Rocha, I. Sophisticated jobs matter for economic complexity: An empirical analysis based on input-output matrices and employment data. Struct. Change Econ. Dyn. 2018, 45, 1–8.
- Awdeh, A.; Hamadi, H. Factors hindering economic development: Evidence from the MENA countries. Int. J. Emerg. M ark. 2019, 14, 281–299.
- 59. Zapf, D.; Dormann, C.; Frese, M. Longitudinal studies in organizational stress research: A review of the literature with r eference to methodological issues. J. Occup. Health Psychol. 1996, 1, 145–169.

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