

Financing Green Economy Impact on Sustainable Development

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Abstract

This study aimed at clarifying the Green Economy financing roll in achieving sustainable development in the light of the of the goals by the UN program for environment which are represented by increasing the economic growth, and its impact on the global environmental system.

To achieve the aim of the study, an analytical descriptive approach is used to acquaint with the Green Economy, measuring indexes as well as the challenges faced by countries and international organizations which have pioneer experiences in the field, to recognize the Green Economy impact on the sustainable development, a survey of 80 countries both developed and developing countries has been used depending on Global Green Economy Index (GGEI).

In the light of the econometric analysis, previous studies and many successful experiences of some countries in applying the Green Economy, recommendations are raised to adopt the Green Economy system in some countries like Palestinian territories especially after disproving the Palestinian government fears of negative impact of Green Economy on the economic growth.

Green economy should be fastened dialectically with the process of economic growth, job creation, and poverty reduction which are the dialectical relations of different that are economically, socially and environmentally dimensions, and are reflected in the following major question:

Can a green economy become a new motive for economic growth?

Keywords: GDP green, investment, unemployment, GDP growth rate per capita, perception index, poverty, unemployment indices and sustainable development

1. Introduction

Due to the problems faced by many countries and international organizations worldwide, in developing solutions to the problems of sustainable development, and the process of transformation from traditional economic growth to sustainable economic growth that may balances the economic dimensions, and social, environment and integration across development strategies, guaranteeing the rights of future generations to live decent lives, many ideas and visions are adopted by States to achieve sustainable development and connecting it either green economy.

Green economy form the latest strategy for achieving sustainable development, strongly emerged after the global financial crisis 2008, to develop practical tools for achieving sustainable development away from generalities, and offers practical solutions to the problems of poverty, unemployment, and the depletion of resources while maintaining growth levels Economic survey aims to find out how the green economy can solve those problems for developing countries, and examines the possibility to achieve a green economy initiatives.

2. Hypotheses

- 1). Positive relationship between the States performance towards the green economy and the economic growth rate.
- 2). Negative relationship between green investment and unemployment.
- 3). Green economy improves the efficiency of economic sectors and economic performance.
- 4). Green economy contributes to improve economic indicators.

3. Importance

The importance of this study lays in determining the relationship between the green economy and sustainable development of some countries to guide the policy makers towards the possibility of going to sustainable development through the green economy process for worthy standard of living and to clarify the concept of green economy and its aspects and relation with new promoter for economic growth such as, investment and unemployment, GDP growth rate, DP per capita, perception index and some eco-social variables, poverty, and unemployment indices.

4. Objectives of the Study

- 1). To determine the impact of green economy in GDP growth rate, GDP per capita.
- 2). To identify the negative impact of traditional economic practices on the ecosystem.
- 3). To analyze the role of good governance and digital economy on support of green economy.

5. Methodology

Secondary data have been collected from World Bank publications where the data considered as cross-sectional data. The collected data for 53 countries around the world. Person correlation has been used to test the relationships between the different variables.

6. Study Variables

The variables are selected in according to the factors affecting the sustainable economic growth and the green economy depending on published data by the World Bank.

7. Literature Review

The Eco-union & Et al, 2016 , Towards a Green Economy in the Mediterranean, Assessment of National Green Economy and Sustainable Development Strategies in Mediterranean Countries. (Arévalo, C., & Lázaro Marín, L. 2016)

The study analyzed and evaluated the strategies developed by the Mediterranean countries towards green economy by analyzing and evaluating development strategies in these countries including Palestine.

The study concluded that although weak of merging sustainable development strategy in some strategic goals. Moreover, the study concluded that the Mediterranean countries still have a long way to mainstream the principles of green economy in their economies, although some of these countries have achieved progress towards a green economy and this is evidenced by their strategies (such as France, Italy, Morocco, Portugal and Tunisia) though they lacked of concrete implementation mechanisms, many countries have developed national strategies and policies considering the green economy. LUKAS in ,2015, (Lukas, E. N. 2015) studied Green Economy for Sustainable Development and Poverty Eradication, his study aimed at clarifying the role of green economy to achieve further economic growth, employment and reduction of unemployment, poverty. He used the econometric approach to examine the relationship between the dependent and different GDP growth rate, and per capita income level, unemployment rate, poverty rate, while independent variables is global green economy index GGEI), which measures the states' performance in the green economy, and applied the study on a sample of 60 States, the researcher found the importance of green economy in increasing incomes and reducing poverty, and it has no important effect on unemployment.

Moreover, in 2015 UNEP and UNDP, in their study, towards green and inclusive prosperity – building green economies that deliver on poverty reduction: Their study was prepared to clarify the role of green economy in poverty reduction, and to provide a practical proposal for policy makers to help in designing and implementing green economic initiatives. The study found that there is a need to empower the private sector to innovate and deploy green production methods, and building the capacity of poor people and protect them from the negative impacts of climate changes and shocks as well as building their assets. Furthermore, the study also confirmed that the green economy initiatives linking policy and poverty reduction is not necessarily automatic teak of to a green economy can exacerbate poverty and inequality if not managed correctly.

In 2015 another study was prepared by Zarzoso & Grunewald, titled a comparative study of green growth in Mexico, Brazil and Chile. (Grunewald, N., & Martínez-Zarzoso,2015).They aimed at identifying key strategies that can contribute in a three Latin America countries, these economies are Brazil, Chile and Mexico toward a green economy. A descriptive analytical comparison between green growth strategies and achievements in these three States. The study concluded that these countries had made remarkable progress through the identification of organizations and

systems necessary to pave the way towards a green economy, however it is still too early to assess whether the initiatives and policies on green economy had been fully implemented or put into progress to increase prosperity with environmental preservation.

Evi Susanti Tasri, Syafruddin Karimi and Hefrizal. (Tasri, E. S., Karimi, S., & Handra, H. 2016).investigated a conventional model of economic growth in addition to the green economic growth model adopted from Talberth and Bahora's model. Economic growth model was tested for inter-country panel data while the green model for GDP consisted of the effect of Age Dependency Ratio (ADR) variable, OPENNESS and Gross Fixed Capital Formation (GFCF) on the formation of a green GDP value. They ascertained that the value of GDP was conventional and that the green GDP had been affected by GFCF and Employment in the Gap model.

Governance, vulnerability to climate change, and green growth: international evidence. (Thai-Ha Le, Youngho Chang, and Donghyun Park) The authors tested the role of governance and vulnerability to climate change in green growth using a global panel dataset. They concluded that governance has a positive effect on environmental performance and vulnerability to climate change has a negative effect. Promoting good governance and reducing climate change vulnerability can thus contribute to a cleaner environment. That's for high- income countries, but governance has an insignificant effect for the subsamples of upper-middle-income, and lower-middle-and-low-income countries.

Green finance is essential for economic development and sustainability. (Tasnim Uddin Chowdhury) The author aimed to describe green financing in some details. As an investment related to environment, so that finance the establishment of green projects become necessary for the sustainability. The author stressed in green agriculture, green buildings, green banking, green marketing and some other green projects.

Government and non-government should be started implementing green finance in the society for the sustainability of the future generation.

Human forms the span of all different definitions of sustainable development, which includes a list of human development to improve health care, education and social welfare. The report of the World Commission on environment and development, "Brundtland"1987, stated that "sustainable development is the development meets the needs of the present without compromising the ability of future generations to meet their own needs". The term sustainable development means a pattern of development does not overuse the natural resources investment, underpinning this development, or screw it up, any development work on renewing and recycling all resources and wealth to ensure a clean environmental life for present and future generations.

The strong interdependence between human security and development, made the right of human development a reality for everyone in a sustainable future and presence, Amartya Sen argued the international organizations and the economic and Social Council to adoption a new development index, (Sen, A. 2001). which takes into account the social, health and human rights in addition to environmental economic dimension, through the eradication of poverty, preventing crises and conflicts, promotion of democracy, emphasize women's effectiveness, social change, promote culture and defending human rights as well as through access to social services and humanitarian food, health care and education, promoting for gender equality and women empowerment, good governance, expand access to information and communication technologies, and fighting drugs, Though we can put the green economy in a frame of conceptually as a sustainable income which will not reduce the future generation consumption.

8. Quantitative Analyses

1) There is a relationship between green economy performance index and some economic variables:

There is a positive relationship between green economy indices and GDP.

There is a positive relationship between green economy indices and GDP growth rate.

There is a positive relationship between green economy indices and GDP per capita.

2) There is a relation between green economy perception index and some eco-social variables:

There is a negative relationship between green economy indices and poverty.

There is a negative relationship between green economy indices and unemployment.

Covariance Analysis: Ordinary
 Date: 11/12/17 Time: 20:18
 Sample: 1 53
 Included observations: 52
 Balanced sample (listwise missing value deletion)

Correlation Probability	PERFORMA	GDP_IN MI	GDP_GROW	GDP_PER C	EFFICIENCY	ENVIRONM	LEADERSHI	MARKET
PERFORMANCE_I	1.000000 ----							
GDP_IN_MIO_	-0.042795 0.7632	1.000000 ----						
GDP_GROWTH_	-0.465390 0.0005	-0.073495 0.6046	1.000000 ----					
GDP_PER_CAPITA	0.468558 0.0005	0.155617 0.2706	-0.518476 0.0001	1.000000 ----				
EFFICIENCY_SEC	0.596862 0.0000	0.308203 0.0262	-0.476920 0.0004	0.661670 0.0000	1.000000 ----			
ENVIRONMENT_	0.393195 0.0039	-0.170697 0.2263	-0.403907 0.0030	0.451322 0.0008	0.228301 0.1036	1.000000 ----		
LEADERSHIP__C	0.349003 0.0112	-0.278241 0.0458	0.286298 0.0396	-0.218592 0.1195	-0.054529 0.7010	-0.228573 0.1031	1.000000 ----	
MARKET__INVES	0.292408 0.0354	0.632915 0.0000	-0.201881 0.1512	0.391679 0.0041	0.713199 0.0000	-0.028976 0.8384	-0.197944 0.1595	1.000000 ----

The above table shows several relations that test the hypotheses listed under the numbers 1, 1.1, 1.2, 1.3.

To test the hypothesis number 1; GDP in millions, GDP growth rate, GDP per capita are used as indices for Economic variables as independent variables, since the green economy performance index considered as a dependent variable at 0.05% level if significance.

The following hypotheses are set to test person correlation between the given variables.

H_0 : There is no relationship between green economy performance index and GDP in millions.

H_1 : There is a relationship between green economy performance index and GDP in millions.

Since the p-value = 0.7632 which is greater than 0.05 then we accept the null hypotheses and reject the alternative hypotheses.

As we are going to explain later, the insignificant relationship between Environment & Natural Capital and GDP in Millions lead to insignificant relationship between green economy performance index and GDP in millions.

H_0 : There is no relationship between green economy performance index and GDP growth rate.

H_1 : There is a relationship between green economy performance index and GDP growth rate.

Since the p-value = 0.0005 which is smaller than 0.05 then we reject the null hypotheses and accept the alternative hypotheses. So the relationship is a negative relation with person correlation of -0.0465.

The existence of a relationship between Leadership & Climate Change, Environment & Natural Capital and Efficiency Sector index in one hand and the GDP growth rate on the other hand enforce the relation between green economy performance index and GDP growth rate.

H_0 : There is no relationship between green economy performance index and GDP per capita.

H_1 : There is a relationship between green economy performance index and GDP per capita.

Since the p-value = 0.0005 which is smaller than 0.05 then we reject the null hypotheses and accept the alternative hypotheses. So the relationship is a positive relation with person correlation of 0.4686.

To test hypothesis number 1.1; GDP in millions, GDP growth rate, GDP per capita are used as indices for Economic variables as independent variables, since Efficiency Sector, Environment & Natural Capital, Leadership & Climate

Change, and Market & Investment variables which represent the Green Economy performance indices as dependent variables.

The following hypotheses are set to test person correlation between the given variables.

H_0 : There is no relationship between Efficiency Sector index and GDP in millions.

H_1 : There is a relationship between Efficiency Sector index and GDP in millions.

Since the p-value = 0.0262 which is smaller than 0.05 then we reject the null hypotheses and accept the alternative hypotheses. So the relationship is a positive relation with person correlation of 0.3082.

H_0 : There is no relationship between Environment & Natural Capital index and GDP in millions.

H_1 : There is a relationship between Environment & Natural Capital index and GDP in millions.

Since the p-value = 0.2263 which is greater than 0.05 then we accept the null hypotheses and reject the alternative hypotheses.

H_0 : There is no relationship between Leadership & Climate Change index and GDP in millions.

H_1 : There is a relationship between Leadership & Climate Change index and GDP in millions.

Since the p-value = 0.0458 which is smaller than 0.05 then we reject the null hypotheses and accept the alternative hypotheses. So the relationship is a negative relation with person correlation of -0.2782. The relationship exists due to several concerns such as the presidential support for green economy efforts, press coverage and the international conferences about climate change.

H_0 : There is no relationship between Market & Investment index and GDP in millions.

H_1 : There is a relationship between Market & Investment index and GDP in millions.

Since the p-value = 0.0004 which is smaller than 0.05 then we reject the null hypotheses and accept the alternative hypotheses. So the relationship is a positive relation with person correlation of 0.3082.

H_0 : There is no relationship between Efficiency Sector index and GDP growth rate.

H_1 : There is a relationship between Efficiency Sector index and GDP growth rate.

Since the p-value = 0.0030 which is smaller than 0.05 then we reject the null hypotheses and accept the alternative hypotheses. So the relationship is a negative relation with person correlation of -0.4769.

Since Efficiency Sector index measured by the following sectors, buildings, power, tourism, transportation and the efficient utilization of resources; we can conclude that it is accepted to miss match a relationship between Efficiency Sector index and GDP growth rate as there are no clear persistent commitment in empowering green economy.

H_0 : There is no relationship between Environment & Natural Capital index and GDP growth rate.

H_1 : There is a relationship between Environment & Natural Capital index and GDP growth rate.

Since the p-value = 0.0030 is less than 0.05 then we reject the null hypotheses and accept the alternative hypotheses which state a negative relationship between Environment & Natural Capital index and GDP growth rate.

Since this index mainly focus on water, air, see, and other environmental areas which considered as unproductive sector, the negative relationship existed with person correlation of -0.403.

H_0 : There is no relationship between Leadership & Climate Change index and GDP growth rate.

H_1 : There is a relationship between Leadership & Climate Change index and GDP growth rate.

Since the p-value = 0.0396 which is smaller than 0.05 then we reject the null hypotheses and accept the alternative hypotheses. So the relationship is a positive relation with person correlation of 0.2862.

Since there is a positive relationship between Leadership & Climate Change index and GDP in millions so this also explain the existence of a positive relationship between the same indicator and the GDP growth rate.

H_0 : There is no relationship between Market & Investment index and GDP growth rate.

H_1 : There is a relationship between Market & Investment index and GDP growth rate.

Since the p-value = 0.1512 which is greater than 0.05 then we accept the null hypotheses and reject the alternative hypotheses.

The absence of a relation here can be analyzed as investments in green economy considered as a long term investment and the results may not exist on the short run.

9. Concluding Remark

The adoption of green economy has a positive impact on the States' performance which will improve the green economy indicators as well. This will lead to an improvement in the economic growth rate. This relation may not be established in the first steps of adoption due to the high investment cost in the implementation of green economy strategies, this conclusion goes with the first hypotheses.

There is a relationship between green investment and unemployment under the process of green economy changes. Green economy improves the efficiency of economic sectors and economic performance in the society, so it will create more jobs and increase the efficiency in different economic sectors and will contribute to improve economic added value.

Finally, we can say that the green economy offers practical solutions to the problems of poverty, unemployment, and the depletion of resources while maintaining growth levels. The green economy may solve these problems for developing countries, and guarantees the rights of future generations to live in decent lives. The ideas and visions connecting sustainable development to green economy is correct.

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