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## Global and Planet Development Models: Theories, Models, Evaluation, and Vision

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### Abstract

The transformation of global development models from industrialization, technocratic, scientific, and information to economic and free trade models are emerging in the globalization era. Fundamentally, theories of development explore reasons for poor countries and their strategies towards development, which rich and poor countries adopt in order to alleviate the poorest. Many thinkers, economists, philosophers, and scientists are unable to confirm the best models for global development models. This paper focuses on analyzing models, theories, and rationales to find out about the global and planet development models. The study period is from 1944 to 2020. Theories of development originate from modernist model, dependency model, and post development model. According to modernization theory, a number of internal barriers are the reasons why 'third world' countries are poor. Dependent theory states that poverty in developing countries is due to a 400-year history of colonialism and slavery. World systems theory argues that countries are underdeveloped due to history of extractive institutions. Neoliberalism philosophy, as a path of development, involves free trade, less government interference, and fewer restrictions on business. As per post development theory principles, development must have social justice, inclusivity, and sustainability. UN model for sustainable development is achieving economic and social development without environmental damage. Globalization theory is a process whereby the world becomes more

interconnected. The role and models of international organizations adopted for global development are TNC's western capitalist-industrialist development model, WTO facilitating free trade based on US-led capitalist model, World Bank funds development in poor countries and adopted neo-liberalism model in third world countries, IMF- global sustainable economic growth and stability model, and UNO-Worldwide cooperation and coordination model to solve international economic, social, cultural, and humanitarian problems. Although man journeys to planets because of abundant economic resources floating up in space, Mars's colonization interest is because of its similarities to earth. The moon industrialization rationality comprises of building materials, water, fuel, oxygen, and other useful resources. The results show planet development model such as planet agriculture model, space economy model, colonization of mars and industrialization of moon, and global multilateral initiations. The UN, World Bank, IMF, WTO, and TNCs should also use the prophecy of "Think Universally and Act regionally and locally". The future global and planet development model includes transformation from industrialization, technocratic, scientific, free trade, information, and economic models to knowledge intensive, space economy (network and solar energy), mars colonization, and moon industrialization which are the new future models.

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**Keywords:** Development models, theories, approaches, evaluation, vision

## **I. Introduction**

The transformation of global development models from industrialization, technocratic, scientific, information, and economic models are evolving in the globalization era.

Development theorists have investigated two fundamental issues on reasons why some countries are rich and many poor countries are poor despite the many decades and solutions provided for the development of poor countries. An important question to ask is on what do rich and poor countries do and what strategies do they adopt to alleviate the poorest? Also, is it possible for humanity to face global challenges? In the Bretton Woods Conference (1944), experts of international leaders concluded that economic cooperation is the only approach to achieve peace and prosperity in the nation and abroad. Their prophecy is that democracy, global institutions, and free trade are ways of bringing peace and collective welfare to the world. Brian Duignan (2021) reported that UN is adopting worldwide cooperation and coordination to solve social, cultural, humanitarian, and economic problems by practicing principle of equal rights and upholding human rights.

Ruger (2005) and Sharma (2013) reported that new economic theories and models investigated the World Bank's models, policies for world

development, and they found that after 1960, the bank changed the new global development model resulting to poverty reduction in low-income countries. In 2012, Lessy conferred that the World Bank legitimately implemented in third world countries “neoliberalism” (economic liberalization, free trade, open markets, privatization, deregulation, ‘globalization’). As per IMF brief, the IMF focused on sustainable economic growth, financial stability, employment promotion, poverty reduction, and promotion of international trade across the world (Lillian Karabaic and Michael Kincaid, IMF brief).

MB Dastagiri (2017) research suggested new global agriculture vision in order to protect food security, hunger, poverty, and climate change. The new vision and approach is on agriculture as a global agenda, and global leaders have to adopt catalyzing action partnerships at global level in general and Asia, Africa, and Latin America in particular. In the future world, the new vision of agriculture by the World Economic Forum (2009) demands must be achieved through sustainable agriculture for food security, environmental sustainability, and economic opportunities.

Achieving peace and prosperity for people and the planet is at the heart of the 2030 Agenda for Sustainable Development, which was adopted by all United Nations Member States in 2015. Food and agriculture, which is the primary link between people and planet, can assist in achieving a number of the Sustainable Development Goals (SDGs). The 17 SDGs focus on five key elements: people, planet, peace, prosperity, and partnership. Global agriculture was the first to benefit SDGs to people, prosperity, peace, and planet. Hence, sustainable agricultural systems may boost the global economy by generating good jobs and sustaining the incomes of billions of people.

WTO is facilitating free trade thus promoting development and US-led capitalist model through multilateral agreements. The Bretton Woods Leaders prophecy is that democracy, global institutions, and free trade are the ways to bring peace and collective welfare to the world. Many theorists, economists, thinkers, development philosophers, and scientists are unable to confirm the exact models for global development process. Hence, this paper focuses on analyzing the history of historians, sociologists, economists, philosophers, scientists, cosmologists and research evidences, theories, prophecies, insights, and rationales to find out about the global and planet development models. In addition, there are some global problems which require global co-ordination to tackle such as global warming, space, and planets issues.

## **Objectives**

1. To analyze the classical and modern theories, models of global development and their success and failures, empirical relevance, perspectives, and vision.
2. To analyze global and planet developmental models adopted by UNO, IMF, World Bank, WTO, TNCs, and MNCs.
3. To analyze the geopolitics of big player's influence on these developmental models and theories.
4. To suggest strategies, policies, and new models for future global and planet development models.

## **II. Research methodology**

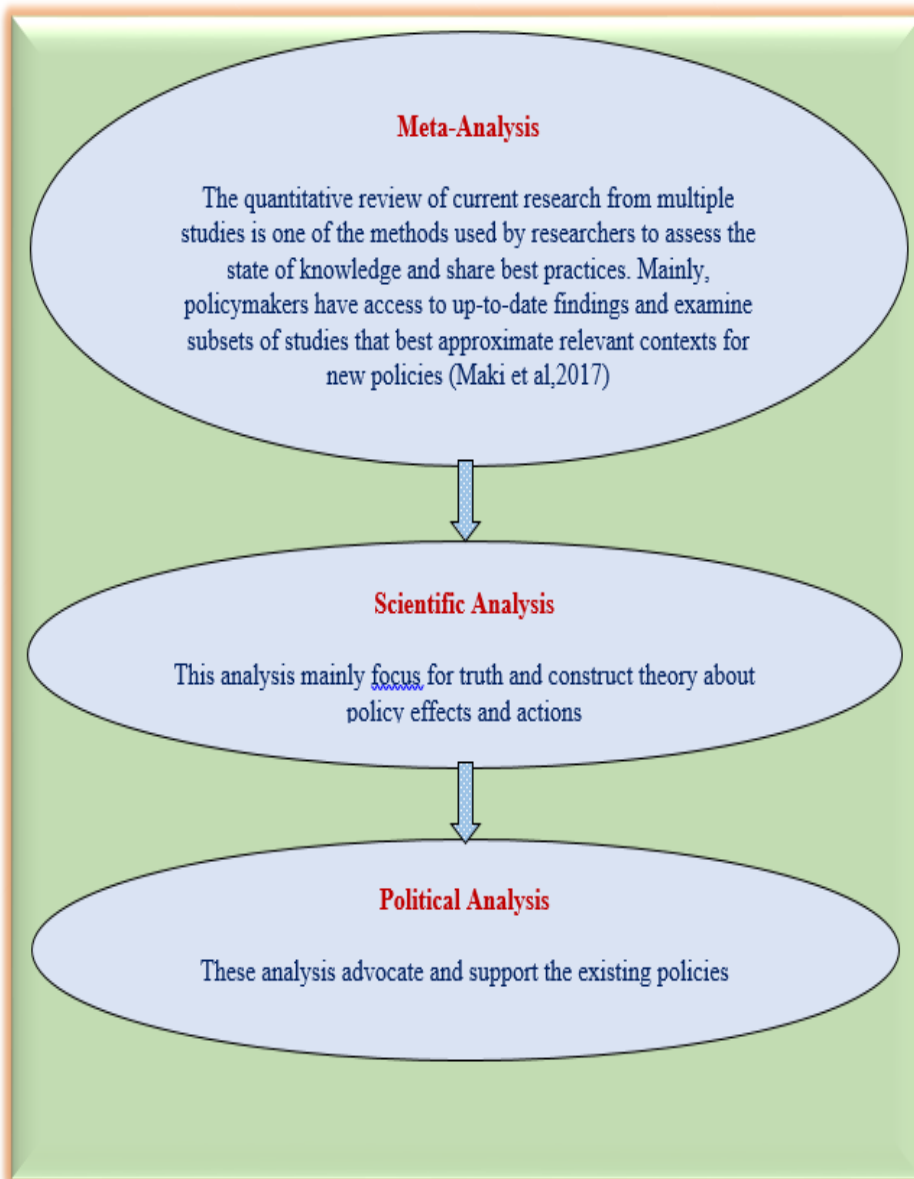
This study uses an explorative, perspective, vision-based geoeconomics, and political and planet development models evaluation research. The review, synthesis, meta-analysis, perspectives, vision tools, scientific, and political policy approach was employed to evaluate global and planet developmental models and their success, relevance, failures, and vision. Geopolitical influence on global institutions such as UNO, IMF, World Bank, WTO, TNCs, and global and planet developmental models were critically analyzed. The classical and modern theories (models of global development) collected and analyzed their empirical relevance, perspectives, and vision from the review of great economists, historians, philosophers, politicians, sociologists, environmentalists, cosmologists, astronauts, mythology, etc. The theories and development strategies of global multilateral institutions and NGO's, foundations agencies which monitor global development, were gotten from UNO, IMF, World Bank, WTO websites, and review on studies conducted by authors, global development monitor agencies links, such as UNO, World Bank, and a whole range of Non-Government Organizations and development thinkers. The assumptions, paradigms, success, failures, geopolitical influence, and future roles of these development models were critically analyzed. The study is based on secondary data and the study period ranges from 1944 to 2020. Finally, the study suggests the modern new developments models, strategies, and policy measures for global and planet development.

## **Policy Analysis**

Policy analysis is a process of identifying viable policy options and its benefits to solve the major problems (Cairney, 2020). The three (3) most important methodological approaches used to achieve the study research objectives are: (1) Meta-analysis, (2) Scientific analysis, and (3) Political analysis.

Meta-analysis is a statistical quantitative analysis of studied phenomena and it directs the most suitable and viable issues of global and planet developments models. Researchers use scientific policy analysis power tool to find truth and build theory, models, and policy options for different countries in the world. Political decisions have tremendous effects on programs, plans, and policies. International politicians use game theory in multilateral negotiations. In this study, political analysis was used to advocate preferred policies and models useful to global multilateral institutions.

**Figure 1.** Policy analysis used in the current study



### **III. Results and Discussions**

#### **a) Global Development Models: An Overview**

##### **i) Defining Globalization and Development: Theories of Globalization**

Globalization is one of the most debatable words. As a result, sociologists tried to define it using different concepts. During the early 16<sup>th</sup> to 19<sup>th</sup> Century British colonization and 19<sup>th</sup> century onwards ‘Americanisation’ and ‘Corporate-Colonisation’, the major factors that contributed to globalization are economic, technological, and cultural factors.

Cultural globalization includes the cultural aspects of migration, the globalization of food, sport and consumption, as well as the globalization of risk. Economic globalization include international trade and transnational institutions growth such as World Bank and WTO, IMF, and transnational corporations. UN political globalization is the institutions emergence and it passes on liberal democracy around the world.

##### **Optimists, Pessimists, and Transformationalist Views on Globalization**

The Optimist View: Here, their view denotes that increasing globalization is highly beneficial to majority of people in most countries.

The Pessimist View: The perspective of Marxism and dependency theory pessimists shows that globalization is a tool for the rich to exploit the poor and become richer. Their view of globalization is for high exploitation of poor countries and to increase inequality.

The Transformationalist View: Their view is more pragmatic and states that globalization is a two-way process that affects both winners and losers, thereby resulting to a new emerging culture and transformation.

##### **ii) Defining and Measuring Development**

Defining Development: The concept of development is commonly used to categorize countries such as least developed, industrialized, and more developed countries. This is based on cold war origin concept classified as third, second, and first world countries respectively.

Economic Development Indicators: Although the conventional indicator is Gross National Income, United Nations uses Human Development Index (HDI), Millennium Development Goals (MDGs), and Global Peace Index (GPI).

##### **iii) An Overview of Global Development Models**

Historically, latest transformative development models, growth models, and economic models are shown in Table 1. The six development models include rapid industrialization, modernization, technological advancement, full employment, liberalization of society, and economy and

polity. The development goals are achievable based on free markets, competitiveness, and individual all-round development. The four (4) approaches of economic development consist of nationalism, linear growth model, structural change theory, and mercantilism. Also, the four (4) main development theories are dependency, world-systems, modernization, and globalization. These theories originate from three (3) foundational models such as dependency model, modernist model, and post development model. Different models of growth include Solow-Swan model in macroeconomics, Endogenous growth theory, Fei-Ranis model of economic growth, Kaldor's growth model, W.A Lewis growth model, Harrod-Domar model, and Rostow's stages of growth. The Solow growth model is a basic growth model, and it analyzes changes in an economy's output over time due to changes in population growth rate, technological progress rate, and savings rate. The four (4) economic theories are new classical economics, Keynesian economics, supply side economics, and monetarism.

**Table 1.** Latest transformative development models, growth models, and economic models

Sl no	Development Models	Growth Models	Economic Models
1	<p>Six development models</p> <ol style="list-style-type: none"> <li>1. Fast industrialization,</li> <li>2. Technological progress,</li> <li>3. Modernization,</li> <li>4. Full employment,</li> <li>5. Liberalisation of society,</li> <li>6. Economy and polity.</li> </ol> <p>The development goals are achievable based on free markets, competitiveness, and individual all-round development.</p> <ul style="list-style-type: none"> <li>- The four (4) approaches of economic development consist of structural change theory, nationalism, linear growth model, and mercantilism.</li> <li>- The four (4) main development theories are dependency, world-systems, modernization, and globalization.</li> <li>-What are the three models of development?</li> </ul> <p>Scholarly studies found that Development theories originate from three (3) foundational models, namely: dependency model, modernist model, and post development model.</p>	<ul style="list-style-type: none"> <li>. Solow–Swan model in macroeconomics.</li> <li>. Fei-Ranis model of economic growth.</li> <li>. Endogenous growth theory.</li> <li>. W. A Lewis growth model.</li> <li>. Rostow's stages of growth.</li> <li>. Kaldor's growth model.</li> <li>. Harrod-Domar model.</li> </ul>	<ul style="list-style-type: none"> <li>. Supply side economics,</li> <li>. Monetarism,</li> <li>. New classical economics,</li> <li>. Keynesian economics.</li> </ul>

## b) Theories of Development

Development theories address two indispensable issues that outlines why poor countries are poor and the plans and policies these countries adopt to enhance development. Economists and policy makers must understand



certain development theories such as dependency and world systems theory, modernization theory, people centred development, neoliberalism, and post development.

Furthermore, theories of international development are shown in Table 2. According to modernization theory, 'third world countries' are poor due to many internal restrictions and the absence of free trade for development. Dependent theory states that poverty in developing countries exist because of 400 years history rule of colonialism, slavery, and neocolonialism imposed on the world by European powers. The world systems theory divides the world into core, semi, and periphery. It argues that periphery countries are locked into a chain of exploitation due to global capitalist system of production. Neoliberalism philosophy, as a path of development, emphasizes on more free trade, fewer restrictions, and minimal government involvement. It argues that government aid plays a significant role in development. Post development theory postulates that social justice, inclusivity, and sustainability should have components of development. Paul Collier argues that the poorest 50 countries remain poor because they are caught up in 'economic traps' due to their history of extractive institutions. Thus, United Nations main agenda is sustainable development and its core principle focuses on social and economic development, as well as environmental safety. The eight (8) globalization theories include liberalism, political realism, constructivism, Marxism, postmodernism, Transformationalism, feminism, and eclecticism. Globalization theory is a process that involves the global society and makes the world more interconnected.


Different theorists have different perspectives on development. Although modernisation theorists debate that industrialisation is an essential part of development, people center theorists argue that it is not necessary. World systems, dependency, and neoliberal theorists have different levels of perspectives. Based on modernisation perspective, gender empowerment has strong correlation with economic development. In developing world, high volume of trade and development are strongly correlated. This means that general trade is meant for natural resources extraction. However, exploitation of labour with low wages and pollution caused by MNCs affects the system. The double standard agreements of developed countries are unfavorable for developing countries. As a result, the Fair Trade Foundation emerged as trade work which is beneficial for workers in developing countries. The study of Naomi Klein shows that WTO neoliberal free-trade policies causes global warming and thus suggests that governments should regulate transnational corporations to safeguard the environment.



**Table 2.** Theories of International Development

Sl no.	Theories	Features	Positive and Negative Arguments
1	Modernization Theory,	In 1940s in America, modernization theory began. It claims that 3 <sup>rd</sup> world countries development is poor due to many barriers for free trade. Thus, they need support from western business and governments for industrialization to stimulate economic growth and development.	<p>Development and Industrialisation: Modernisation theorists debate that based on Rostow's 5 stages of growth, industrialisation is an essential part of development. However, people center theorists argue that it is not essential. World Systems, dependency, and neoliberal theorists have different views.</p> <p>The Industrial Capitalist Model of Development: Capitalists investment in industrialization moto is profit oriented and efficient production leads to development.</p> <p>Gender and Development: According to modernization theory, gender empowerment has strong correlation with economic development.</p> <p>Development and Urbanisation: In the modern world, population migration from rural to urban area leads to urban development but it has some limitations.</p> <p>International Development and Education as a Strategy: Western countries believe that human intellectual capital is the model for development. In developing countries, education has limitations.</p>
2	Dependency Theory	This theory was popular in 1970s and is identified as Marxists theory of development. Dependent theory states that poverty in developing countries exists because of 400 years history rule of colonialism, slavery, neocolonialism imposed on the world by European powers. Marx argued that rich countries often exploit poor countries. Hence, he suggested that poor countries should not establish relations with rich countries in order to develop their own revolutionary paths for development by following socialism and nationalism	<p>Dependency Theory argument on Development and Gender: It argues that business corporations will give less wages to women compare to men. Hence, economic development is not promoting gender inequality.</p>

3	World Systems Theory	This theory divided the world into core, semi, and periphery. It argues that periphery countries are locked into a chain of exploitation due to global capitalist system of production.	
4	Neoliberalism Theory	<u>Neoliberalism:</u> This theory was popular in 1970s and 1980s. Neoliberalism philosophy, as a path of development, encourages more free trade, fewer restrictions, and minimal government involvement. It argues that government aid plays a significant role in development. Paul Collier argues that the poorest 50 countries remain poor because they are caught up in ‘economic traps’ due to their history of extractive institutions.	
5	Post-development Theory	<u>People Centred Development:</u> Post development theory postulates that social justice, inclusivity, and sustainability should have components of development.	<u>Post-Development Perspectives:</u> Western countries branded as ‘less developed countries’ are essential for all-round development.  Paul Collier debates that the poorest 50 countries remain poor because they are caught up in ‘Economic traps’ due to their history of extractive institutions.
6	UNO Sustainable Development Model	United Nations main agenda is sustainable development and its core principle focuses on achieving social and economic development, as well as environment safety.	This model principle changes from ‘technocentric models’ of development to more ‘Ecocentric Models’, which emphasizes consumption reduction to live traditionally.
7	Globalization Theories  When did globalization begin? World historians confer that globalization began after Columbus discovered America in 1492 when searching for spices. Subsequently, Vasco Da Gama went round Africa in 1498, and snatched monopoly	8 Globalization Theories: Liberalism, political realism, constructivism, Marxism, postmodernism, Trans-formationalism, feminism, and eclecticism.  - Based on Marxism theory, economic is a result of global expansion of capitalism.	Globalization theory is defined as a process that involves the global society whereby the world is becomes more interconnected  Globalization Characteristics: It includes cross-border connectivity, free trade environment, and interdependency of nations.  What is the biggest issue with globalization?  The major issue is job loss, especially in developing countries because of technological transfer. As a result of labor migration, job loss in developed countries is seen particularly in USA.  Important globalization types: <ul style="list-style-type: none"> <li>• Social globalization.</li> <li>• Cultural globalization.</li> <li>• Economic globalization.</li> <li>• Political globalization.</li> <li>• Technological globalization.</li> <li>• Financial globalization.</li> <li>• Geographical globalization.</li> <li>• Environmental globalization.</li> </ul>

<p>rents from spice traders of Arab and Venetian.</p>		<p style="text-align: center;"><b>Globalization Benefits:</b></p> <ul style="list-style-type: none"> <li>• Access to new foreign culture, including food, movies, music, and art.</li> <li>• Technology and innovation transfer to different countries.</li> <li>• Less products costs.</li> <li>• Higher standards of living across the Globe.</li> <li>• New markets accessibility.</li> <li>• New talent accessibility.</li> </ul> <p>Factors affecting globalization: Economic, Social, Political, Technological, and Financial.</p> <p>Globalization challenges:</p> <ul style="list-style-type: none"> <li>• Employees immigration.</li> <li>• Payroll &amp; Compliance challenges.</li> <li>• Exploitation of Foreign workers</li> <li>• Employee Legal compliance.</li> <li>• Tariffs &amp; Export fees.</li> <li>• International employees recruitment.</li> </ul> <p style="text-align: center;"><b>Globalization in the Future:</b></p>  <p>A more rapid flow of goods, services, people, and capital will continue across global borders.</p>
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**c) Role and Models of International Organizations in Global Development**

International organization’s role and models practiced in global development are shown in Table 3.

**Transnational Corporations**

MNCs and TNCs have economic and technological power to influence global economics and they play a significant role to improve the capacity of developing countries economic and social development. Neoliberals and some dependent theorists are optimistic about their role because they have money to invest and establish factories in developing countries in order to enhance

economic growth and development of developing countries. However, some argue that these large companies exploit the natural resources of developing countries. TNCs and MNCs adopt western capitalist industrial development model.

### World Trade Organization

WTO frame world trade rules, standards, and agreements. Also, they execute free trade for the benefit of development. There is evidence that reveals high volume of trade and development. Nonetheless, trade involves winners and losers. Dependency theorists argue that WTO works more in favor of developed countries. In the West, WTO spread the US-led capitalist model through free trade multilateral agreements.

### The World Bank

The World Bank funds and provide loans for the development of developing countries and monitors the progress of development. Some argue that the World Bank funds countries which adopt neoliberal policies so that western corporates exploit these countries resources and labor. Furthermore, the World Bank adopts neo-liberalism model in third-world countries.

### UNO

The role of the UNO is to develop friendly cooperation and coordination among world countries to solve international, economic, social, and cultural problems. The implementation of United Nations world liberal democracy is an example of political globalization. UN adopts worldwide cooperation and coordination model to solve international, social, cultural, economic, and humanitarian problems.

### IMF

The main role of IMF is to establish “global macroeconomic and financial stability”. IMF adopts global sustainable economic growth and stability model.

**Table 3.** The role and models of international organizations in global development

SI no.	Organizations	Success	Failures	Model adopted
1.	TNCs MNCs and TNCs have economic and technological power to influence global economics,	Positive Arguments: Neoliberals and some dependent theorists are optimistic about their role because they	Negative Argument: Some argue that these large TNC’s companies exploit the resources of developing	Business model connects the globe by making scientific and technological revolution.

	and they play a significant role to improve the capacity of economic and social development of developing countries.	have money to invest and establish factories in developing countries in order to enhance economic growth and development of developing countries.	countries and make maximum profit resulting to pollution.	-Western capitalist industrial development model
2	<p><b>WTO</b>                  The Role of World Trade Organization in Development:</p> <p>WTO frame world trade rules, standards, and agreements. They also execute free trade for the benefit of development. However, trade involves winners and losers.</p>	<p>Positive Arguments :</p> <p>There is evidence that reveals high volume of trade and development, resulting to more cash inflow for social development</p> <p>Fair Trade and Development:</p> <p>Fair Trade foundation started in order to protect exploitation of labor in developing countries.</p> <p>The work of Naomi Klein shows that WTO neo liberal free trade policies causes global warming and thus suggested that the local and national government should control TNCs.</p>	<p>Negative Argument:</p> <p>Dependency theorists argue that WTO works more in favor of developed countries by making trade rules. It argues exploitation of developing countries natural resources.</p> <p>Double standard free trade rules are not implemented in developed countries.</p> <p>They give subsidies to local farmers and dump their products in developing countries, and they also fight against developing countries to stop subsidies.</p>	<p>In the West, WTO spread the US-led capitalist model through free trade multilateral agreements.</p>

			<p>Arguments for Official Development Aid:                  Many development professionals and governments believe the West has obligation to provide aid to poorer countries to lift them out of poverty traps.</p>	
<b>3</b>	<p><b>World Bank</b>                  The World Bank funds and provide loans for the development of developing countries and monitors the progress of such development. Some argue that the World Bank funds countries which adopt neoliberal policies so that western corporates exploit these countries resources and labor.</p>	<p>In third world countries, the World Bank implemented neoliberalism fairly,</p>	<p>Some argue that the World Bank funds countries which adopt neoliberal policies so that western corporates exploit these countries resources and labor.</p>	<p>Neo-liberalism model in third world countries (Free trade, Economic Liberalization, Open markets, Privatization, Deregulation, Globalization)</p>
<b>4</b>	<p><b>IMF</b>                  IMF (188 countries) stimulate global sustainable economic</p>	<p>The IMF's role is global macroeconomic and financial stability.</p>		<p>Global sustainable economic growth and stability model</p>

	<p>growth, monetary cooperation, facilitate international trade, financial stability, high employment, and reduce poverty.</p>			
5	<p><b>UNO</b>                      -UN aims to sanction and protect fundamental human rights, protect generations from wars, and promote better standards of life and social progress so as to maintain peace and security.                      - UN develops friendly relations among countries to achieve worldwide cooperation in order to solve social, cultural, and international economic problems.                      UN brings the nations together and coordinate their actions and activities.</p>	<p>The implementation of United Nations world liberal democracy is an example of political globalization.</p>	<p>UN focuses on worldwide cooperation and coordination model to solve international, economic, social, cultural, and humanitarian problems by following principles of equal rights.</p>	



<b>6</b>	<p><b>Deglobalization:</b> During the 19th Century and 20<sup>th</sup> century, UK and USA were super powers, respectively. However, in the 21st century, China and India are emerging as super powers. The growth of China and India has not only weakened Russia but has reduced American hegemony signs of a new multi-polar world. The power is shifting from the west to the east, thus indicating that the world is in transition. After many decades of globalization, the world is fragmented again. Protectionism, the unilateral sanctions in force, economic and military bullying, change in geopolitics, withdrawal of treaties, etc. are clear indicators of world fragmentation. The emerging super power countries including US, Old Russia, and China challenge the multilateral system foundation norms and operating mechanism (Graduate Institute, Geneva 2020).</p> <ul style="list-style-type: none"><li>• Reasons: The geopolitical competition that existed earlier on between USA and Russia but is now between China and US; Lack of confidence in multilateral institutions because of slow reforms, rules, and implementation; Establishment of bilateral, regional blocks, and protectionisms; Not able to deal with poverty, inequality, subsidy, crony capitalism, terrorism, migration, etc. Thus, UN, WTO, WB, and IMF are more inclined to developed countries rather than poor, low, and developing countries.</li></ul> <p>Recently, deindustrialization, decolonization, depolarization, and de-dollarization are new emerging issues.</p>	
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Source: Dastagiri MB (2022). Some facts from **Texas A&M International University**, 26th Annual Western Hemispheric Trade Conference Proceedings, held on April 6-8, 2022 in Laredo, Texas, USA.

#### **d) Future Global and Planet Development Models**

##### **i) Global Development Model**

The Global development model is shown in Figure 1. It throws more light on defining and measuring the following: development, theories of development, the main factors for global development such as aid and trade, the role of organizations such as WTO, NGOs, TNCs, UNO, World Bank, IMF, Nation and States, industrialization and urbanization, education employment and health, gender, war and conflict, the environment, and globalization. It also provides details about these important factors, including how theories, models perspectives, and limitations, affect global development.

The western global development model is transforming from industrialization and urbanization to education, employment and health, peace and security, population reduction and mass consumption, and environment improvement to free trade.



**Figure 1.** Global development model in the globalization era

Source: Globalization and Global Development. <https://revisesociology.com/globalisation-global-development/>

**ii) Planet Development Theories and Models**

Man has accomplished new cosmic peaks because of space and rocket scientific revolution. Therefore, man’s new task is the colonization of mars and the industrialization of the moon. The economic theory of the extraterrestrial life of man reveals that abundant resources float in space. As a result, man is considering mar’s colonization because of its similarities to earth. Planetary economics mars–earth trade is interdependent in terms of investment and resource transfer rationale for settlement (Dastagiri, 2017). Robotic systems would prepare the path to human colonization. According to

NASA rover data, the temperature of Mars is similar to Antarctica at low latitudes.

### **Moon Industrialization**

In theory, the presence of abundant resources on the moon is the economic rationale necessary for the industrialization of the moon. Metals, solar power, oxygen, and abundant resources float on the moon. Also, uranium and thorium are both present on the Moon. In 1997, prices less than a mile of an asteroid holds more than \$20 trillion in industrial and precious metals.

The moon is the earth's only permanent natural satellite. The moon also makes the earth a more livable planet. It is a natural resource that could be used for mining resources, as well as for constructing habitats or settlements. The presence of water, fuel, oxygen and other useful resources on the moon is an excellent source of building materials.

### **Economic Prospects and Development**

- Space-based materials are processed. In the long run, these materials supply construction facilities with raw materials.
- Moon to earth exporting.
- Lunar water exporting propellant to earth.
- Solar power satellites.

Metals such as uranium, thorium, solar power, oxygen, and metals are abundant resources on the Moon (<https://en.wikipedia.org>).

### **Settlements Locations**

#### **Polar Regions**

Mars Odyssey discovered the largest concentration of water near the north pole. Also, by using telescope from earth, it was discovered that suitable places to settle are north and south poles because of the varying polar ice caps (Elon Musk, 2016).

#### **Equatorial Regions**

Elon Musk (2016) further reported the possibility of geothermal energy in the equatorial region. Mars Odyssey found that natural caves are closer to the volcano Arsia Mons and settlers could benefit from the shelter. The successful process of colonization of Mars and industrialization of the moon are shown in Figure 2.

## **Planet Agriculture, Space Model, and Prophecy**

Planet agriculture, space model, and prophecy are identified in four strands: **Food for peace: UN, FAO, and CGIAR** research should prevent future conflict on scarce resources including food, land, and water among nations. **Food for growth:** Increased rural prosperity is fundamental to national economic growth. **Food for planet:** UN sustainable development food systems is important for planet food security. **Food for health:** Nutritional Food and health go hand in hand. **Food for Economic opportunities:** Globally, farmers' economic opportunities are primary within tropical and low-income countries (Dastagiri & Bhavnaga, 2019). Dastagiri (2018) also reported that the universe is full of mystical things. Furthermore, the economy of global space contributed \$366 Billion in 2019 (Dastagiri & Naga Sindhuja, 2021).

## **The Theory and Model of Planet Development**

Planet development theories and models are shown in Figure 2.

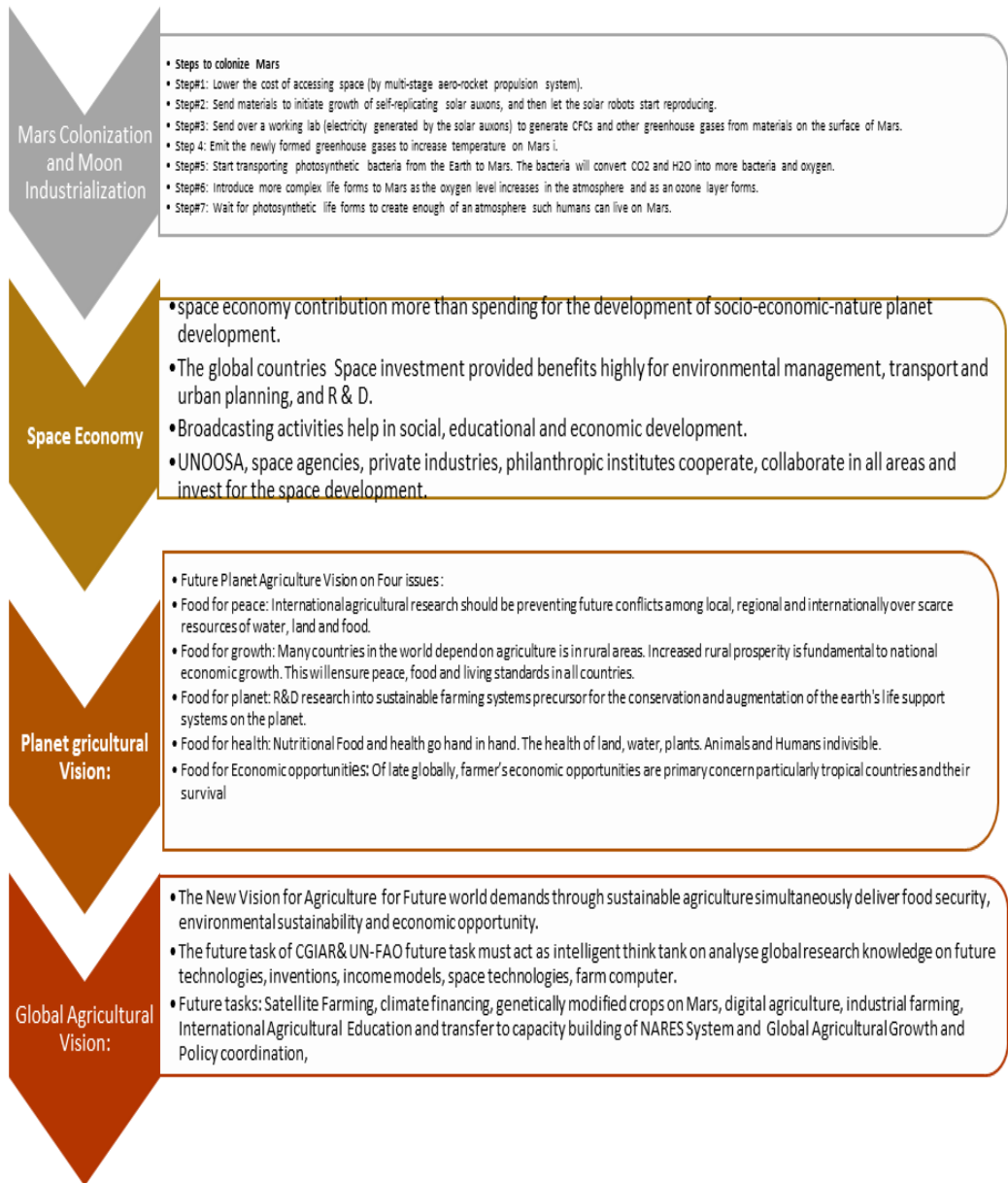
**Theory:** The presence of abundant economic resources in space compels man to explore the planets. Planets such as mars and the moon are important planets that can be successfully explored. Thus, mar's colonization is possible because of its similarities to earth. Mars–earth trade is an economic rationale for planet settlement.

**Moon Industrialization:** In theory, the presence of abundant resources such as uranium, thorium metals, solar power, and oxygen on the moon is the economic rationale necessary for the industrialization of the moon.

## **Development Model**

The planet development model is shown in Figure 2. The results show that planet development model can adopt planet agriculture model, space economy model, colonization of mars, industrialization of the moon, and “Think Universally and Act regionally and locally” prophecy of global multilateral initiations (The UN, World Bank, IMF, WTO, TNCs) in global governance and solving economic, environmental, and social problems.

Global development models have transformed from industrialization, technocratic, scientific, information, and economic models to planet model, knowledge intensive, and space economy (network and solar energy). Mars colonization and moon industrialization are future models in the globalization era.



**Figure 2.** The theory and model of planet development

Source: Dastagiri M.B. (2017) “The Theory and Economics of MARS and MOON Colonization

Dastagiri, M.B. Bhavigna L. (2019) “Planet Agriculture Dastagiri. MB and Naga Sindhuja PV (2021) “Space economy.

## Conclusion

The transformation of global development models from industrialization, technocratic, scientific, and information to economic models are emerging in the globalization era. Development theorists investigated two

fundamental issues to identify the reasons why some countries are rich and many poor countries still exist, especially after many decades. This paper focuses on analyzing the development theories, models, insights, rationales, and research evidences of philosophers, economists, sociologists, scientists, and cosmologists in order to discover the global and planet development models.

The findings revealed the six development models which include fast rapid industrialization, technological advancement, modernization, liberalization of society, economy and polity, and full employment. The four (4) approaches of economic development include nationalism, linear growth model, structural change theory, and mercantilism. Dependency, world-systems, modernization, and globalization are four main theories of development. Seven (7) different models of growth are Solow-Swan model in macroeconomics, Endogenous growth theory, Fei-Ranis model of economic growth, Kaldor's growth model, W.A Lewis growth model, Harrod-Domar model, and Rostow's stages of growth. Thus, the supply side economics, new classical economics, Keynesian, and economics monetarism are four (4) economic theories.

According to modernization theorists, 'third world' countries are poor due to many internal barriers to development. Dependent theorists however argue that the poverty in developing countries is due to 400 years of colonialism, slavery, and imposition of neocolonialism by European countries. World systems theorist further claim that developing countries are poor because of chain of exploitation and global capitalist system of production. The neoliberalism philosophy emphasizes free trade, minimal government intervention, and less business restrictions, which creates pathway for development. A summary of 'standard' theories of underdevelopment establishes that developing countries are poor due to history of extractive institutions. Post development theory claims that social justice, inclusivity, and sustainability are the principles of development. United Nations sustainable development aims to achieve social and economic development, including environmental safety. Globalization theory is a process that involves the global society whereby the world becomes more interconnected.

In addition, modernization theorists debate that industrialization is an essential part of development. However, people center theorists argue that it is not necessary. Dependency, world systems, and neoliberal theorists have different levels of perspectives. Based on modernization perspective, gender empowerment has strong correlation with economic development. In developing world, high volume of trade and development are strongly correlated. In general, trade meant for natural resources extraction has resulted to exploitation of labour with low wages and pollution by MNCs. The double standards of developed countries in 'free' trade agreements work against

developing countries. The fair trade foundation emerged for trade work more efficiently for developing countries workers. WTO neoliberal free-trade policies cause global warming. Therefore, governments need to regulate Transnational Corporations at the national and local level in order to protect the environment.

They are arguments about the role of international organizations in global development. TNCs and MNCs have significance influence. Specifically, neoliberals are optimistic about the positive role of TNCs, which promote economic growth and social development. Neoliberals claims that World Trade Organisation frame rules and facilitate free trade, thus promoting development. Dependency theorists argue that WTO are more inclined towards developed countries. The World Bank funds development in poorer countries. Nonetheless, there are criticism that the World Bank sanctions loans depending on countries that adopt neoliberal policies, which makes it easier for Western corporations.

UNO role is to develop friendly cooperation and coordination among world countries in order to solve international, economic, social, and cultural problems. The main role of IMF is “global macroeconomic and financial stability”. IMF also adopts global sustainable economic growth and stability model. The role and models of international organizations adopted for global development are TNC’s western capitalist-industrialist models of ‘development’, WTO facilitating free trade thus promoting development and US-led capitalist model through multilateral agreements, World Bank funds development in poor countries and adopted neo-liberalism model in third-world countries, IMF global sustainable economic growth and stability model, and UN worldwide cooperation and coordination model to solve international economic, social, cultural, and humanitarian problems.

The western global development model transformed from industrialization and urbanization to education, employment and health, peace and security, population reduction and mass consumption, and environment improvement to free trade.

Planet development theory is the presence of abundant economic resources in space that compels man to explore the planets. Mars’s colonization is possible because of its similarities to earth. Mars–earth trade is an economic rationale for planet settlement. In theory, the presence of abundant resources such as uranium and thorium metals, solar power, and oxygen on the moon is the economic rationale necessary for the industrialization of the moon.

The results show that planet development model can adopt planet agriculture model, space economy model, colonization of mars and industrialization of the moon, and “Think Universally and Act regionally and locally” prophecy of global multilateral initiations (The UN, World Bank,



IMF, WTO, TNCs) in global governance and solving economic, environmental, and social problems.

The future global and planet development model is transforming from industrialization, technocratic, scientific, information, and economic models to planet develop model, knowledge intensive, and space economy (network and solar energy). Thus, mars colonization and moon industrialization are future emerging global and planet development models.

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