Sustainable Development and World General Equilibrium Model- A Holistic View

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Abstract

World economy has experienced many shocks and change over past 10 years, such as Japan economy bubbled, stock market failed, company lost competitive advantage, Asia financial crisis, and recent human crisis- 911 attack New York World Trade Center incident, has clearly point out the new century is facing many sudden and unavoidable crises such as: financial crisis, human crisis, and ecology crisis and it is important for us to concern about maintain world sustainable development, create value and generate future world equilibrium model for the 21st century.
To ensure socio–economical, ecological and technical development for sustainable future generation, a new system view linking global economic flow and financial market system and socio-economic function and business environmental management is considered to open a new dimension to build this dynamic holistic general equilibrium model.
This paper proposed a global view and a general equilibrium model to interpret how world economic system interacts with business communities, social public and private citizen. How wealth, and financial market play the role for redistribute wealth through business operations and it’s impact.
Second, from tangible, intangible, value system and business operations, competitiveness, eco-efficiency, green products, electronic-economy-commerce, cyber economy... etc. how we resolve future equilibrium model.
Third, suggests some critical successful factors to manage the future sustainable development from business sector, public sector, ecology sector to avoid crises and future shock under this fast growing economy and technology sphere.
Forth, how knowledge or wisdom of many business executives, investors, knowledgeable persons can identify value for 21st century most valuable assets of human capital, vision, innovation, value creators to achieve equilibrium and avoid crisis.
Finally, we will discuss special issues on business innovation, environmental management, electronic-ecology commerce, competitiveness, knowledge and wisdom management, creating business value, assessment intangibles assets and human capital, new concept and views to achieve sustainable development-financially, global business operations, and quality of human livings.
First stage: 18th Century

Adam Smith (1776) published the first edition of the Wealth of Nations. He is the one first put into an inquiry into the nature and causes of the wealth of nations. He found one of the causes of improvement in the productive powers of labor and the order to which its produce is distributed among the different ranks of the people, and it is limited by the extent of the market. The real and nominal price of commodities, and their price in labor and their price in money are put into consideration. In his finding concludes balance of trade is a way to enrich the country.
Second stage: 19th & 20th Century

Technological change has been especially dramatic in agriculture and has contributed to “Green Revolution” in American agriculture. In order to stimulate and maintain supply and demand, growth of economy, policy on agriculture products, farm price supports and minimum wages was considered to subsidies the living standard of the farmer and low wages workers (social welfare) to maintain vital economic growth and function.
In 20th century model, economic factors such as demand, supply, price, quantity, wages are considered in the modeling. The law of demand states that: the quantity of a good that consumers would be willing and able to buy depends upon a number of things: price of the good, prices of other goods, consumers’ incomes, tastes, purchasing power, exchange rate, custom and tradition, and legal regulations, among others. From microeconomics aspect: the quantity of a good supplied by sellers depends on a number of things—the price they can get for the good, the prices of resources used to produce it, and the state of production technology. Research studies focus on equilibrium price where the price at which the quantity demanded by buyers equals the quantity supplied by sellers.
Third Stage:

In the 21st Century, industries production technologies went through major changes—such as factory automation, computerization, globalization and communication has changed way of running business. Organizations concern production efficiency, energy efficiency, ecology efficiency, sustainable growth and global sustainable development.
In many critical areas of business and to our lives are the negative aspects of risk, such as financial, human and natural gaps, which are increasing faster than the positive aspects of response. A more comprehensive and creative approach to global business development and management, will help bring world together, through transfer technology to improve world productivity and reducing imbalance of wealth, improve purchasing power, stimulate demand and supply function worldwide, improve earth environment, reduce economic disparity, and bring the cultural integrity of our various civilizations.
Simple Circular Flows in a Money Economy

Markets for goods and services

Firms Sector

Government

Households Sector

Labor Capita (resource markets)
Households

Expenditure

Goods

Use of Resources

Factor Payments

Firms
\[ E = C + I + G + X - M \]

- Consumption (C)
- Disposable Income (Y-T)
- Money market
- Real GNP (Y)
- Net Exports (X-M)
- International Sector
- Planned Expenditure (E)
- Planned Investment (I)
- Government Purchases (G)
- Public sector
- Net Taxes (T)
- Factor Payments (Y)
- Factor Market
New Model: World General Equilibrium Model (WGEM)

New world business model require understanding how financial market throughout the world function as an agent to bring the fund in the right industries to create the proper products to improve the quality of life to people. Second, we need to study the human behavior, which respect to profit gaining and the both private and institution investors. Third, the distribution of private and institution investors and the affect to the financial market fluctuation.
For sustainable development, we need to concern technology, capability, and level of efficiency, material technology, product prices, design and manufacturing, in order to achieve better environmental protection, eco-efficiency and preserved natural for next generation. Sustainable development needs to consider future and quality of life.
Thoughts on Sustainable development
1. Opportunity Management System concepts for Firms’ Operations
2. Knowledge Management
3. International Joint Venture and Technology Transfer
4. Propose mathematical for Stock Market
   (1) Dynamic Vortices
   (2) Chaotic analysis
Conclusion

Sustainable development both economically and environmentally determines the wealth and the quality of life for next generation. It is our responsibility today as a person, corporation, as well as a world citizen we need to participate to save the world and keep the economy growth and welfare throughout the world. We need the knowledge and wisdom on WGEM to make archive effective technology transfers, reduces the imbalance of the wealth, improve productivity, eco-efficiency, energy effectiveness, and preserve the natural. International joint venture and global business corporation is an effective way to archive sustainable development for the future. We as a world citizen, we need the care, compassion, and wisdom to fulfill our goal for next generation.