Advances in Economics and Business Management (AEBM)
p-ISSN: 2394-1545; e-ISSN: 2394-1553; Volume 5, Issue 2; January-March, 2018, pp. 71-76

http://www.krishisanskriti.org/Publication.html

An Analysis of Rostow's Model of Development

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Abstract—*Hitherto, arguments, intellectual cold wars, pen strife have existed among scholars, countries, and students as to 'which country is developed, developing, underdeveloped, or (not) undeveloped? The unsatisfied party dismisses his presumed rival's yards stick as a mere ideology (their opinion). The Less Developed Economies (LDEs) seem to put up a fight against intellectual colonialism by the so-called Developed Economies (DEs) who try to measure them by their theorems. Rostow's Development model didn't just show the gradual route from primitive to technological advancement of nations but also attempted though unplanned by Rostow, to implicitly give definitions to who is developed or not by its stages' characteristics. It is not to forget the immediate fall back of the unsatisfied party by way of dismissal thus the load of criticism. Nevertheless, this model remains one of the most sited development models among scholars giving it an opportunity to survive- an advantage among which is helping nations and world policy makers know where each nation fall until a 'better' universally accepted model is propounded; it will be our joy if it comes from a "third world scholar"*

Keywords*: Model, Ideology, Technological, Developed Economy, Less Developed Economy, Primitive Sector.*

1. INTRODUCTION

Since the beginning of the twentieth century, those involved with the vast field of development studies and geographers have sought to answer the question of what it means for a country to be developed, why some countries are developed and others are not. In a bid to provide answers to the question, different models were developed to explain the phenomenon.

An American, W.W. Rostow, created the Rostow Model of Development in 1960. He based the Model, which represents economic development, on 15 countries - most of which were European - and suggested that it was possible for all countries to break the vicious cycle of poverty and develop through the 5 linear stages that construct his model. He was one of the key thinkers in twentieth century Development Studies, an American economist and government official. Prior to Rostow, approaches to development had been based on the assumption that "modernization" was characterized by the Western world (wealthier, more powerful countries at the time), which were able to advance from the initial stages of underdevelopment. Accordingly, other countries should model themselves after the West, aspiring to a "modern" state of capitalism and a liberal democracy. Using these ideas, Rostow penned his classic *Stages of Economic Growth* in 1960, which presented five steps through which all countries must pass to become developed: traditional society, preconditions to take-off, take-off, drive to maturity, and age of high mass consumption.

The model asserted that all countries exist somewhere on this linear spectrum, and climb upward through each stage in the development process.

Approaches to development had been based on the assumption that modernization was characterized by the western world, which was able to advance from the initial stages of underdevelopment; apparently, other country should aspire a modern state of capitalism and a liberal democracy. Based on these ideas, one of the key thinkers in the twentieth century development studies, by name, Walt Whitman Rostow, in the year 1960, penned his classic stages of economic growth, which presented five stages through which all countries must pass to become developed.

However, the Rostow & Stages of Growth model is one of the most influential development theories of the twentieth century. It was, however, also grounded in the historical and political context in which he wrote. Stages of Economic Growth was published in 1960, at the height of the Cold War, and with the subtitle "A Non-Communist Manifesto", it was overtly political. Rostow was fiercely anti-communist and right wing; he modeled his theory after western capitalist countries, which had industrialized and urbanized. As a staff member in President John F. Kennedy & apposes administration, Rostow promoted his development model as part of U.S. foreign policy. Rostow & apposes model illustrates a desire not only to assist lower income countries in the development process, but also to assert the Unites States' influence over that of communist Russia.

Furthermore, industrialization, urbanization, and trade in the vein of Rostow & apos; s model is still seen by many as a roadmap for a country & apos; s development. Singapore is one of the best examples of a country that grew in this way and is now a notable player in the global economy. Singapore is a Southeast Asian country with a population over five million, and when it became independent in 1965, it did not seem to have any exceptional prospects for growth. However, it industrialized early, developing profitable manufacturing and high-tech industries. Singapore is now highly urbanized, with 100% of the population considered "urban". It is one of the most sought-after trade partners in the international market, with a higher per-capita income than many European countries.

In conclusion, having noted these key points above, this term paper was arranged on five pivotal chapters. Beginning with an insight into the man Rostow and what shaped his thought trend. His widely used five stage developmental model was analytically dissected and a new stage of "Beyond Consumption" was uncovered. Finally, benefits, practical implications and advice for Less Developed Countries (LDCs) from the model, were also uncovered and of course criticisms showered.

2. ROSTOW'S DEVELOPMENT MODEL

There are six types of Rostow's Model of Development:-

1. Traditional society
2. Transitional society or Preconditions for take-off
3. Take-off
4. Drive to maturity
5. Age of High mass consumption
6. *Beyond Consumption* (New).

2.1 TRADITIONAL SOCIETY

The traditional society has been defined "as one whose structure is developed with limited production functions based on pre- Newtonian science and technology and as pre-Newtonian attitudes towards the physical world". This according to W.W. Rostow is the first stage a country will find her as she begins to grow. Just like a baby who crawls not because she loves to crawl, but must count one before two (walking). A little child cannot drive a car for example, or use sophisticated gadgets just because it is still far from what he/she can handle for the time being. So is a traditional society or economy who lacks the wherewithal (mentally and otherwise) to engage in technologically driven activities until it grows from the little she *can* handle to what *should be* handled.

Furthermore, it refers to a country where a larger number of their populations are involved in agriculture. These kinds of societies still hang on to fetish belief system that gods or spirits facilitate the procurement of goods, rather than man and his own ability. Therefore below are the prevalent characteristics of this kind of economy.

2.1.1 Characteristics of the Traditional Society.

Primary sector economy is prevalent. The economic system is stationary & dominated by agriculture with traditional cultivating forms- hunting and gathering.

1. Exchange system is clearly trade by barter (goods exchanged for goods) because of undeveloped monetary system.
2. There is the existence of limited technology causing a cog in the wheel of growth for the manufacturing sector.
3. There is low social mobility i.e. the society is obviously rigid and static
4. Scholars call this society a pre Newtonian society because its production function is based on the pre Newtonian science and technology.
5. Feudalism exists where landowners ruled the society and had a long chain of servants and soldiers. Thus, the social structure was generally feudalistic in nature.
6. Investment share never exceeds 5% of total economic production.
7. Volume fluctuations in trade due to political instability are frequent.
8. Trading is subject to great risk and the transport of goods and raw materials are expensive, difficult, slow, and unreliable.

2.2 TRANSITIONAL SOCIETY OR PRE CONDITIONS FOR TAKE OFF

This second stage is called the transitional society because the economy seems to move or transit from the purely primitive state to a touch of technology. Here the conditions required for the smooth *take off* the economy to her desired dreamland of development is conceived, nurtured, and worked on. Furthermore, this stage of economic growth undergoes a process of change for building up of conditions for growth and takes off. These changes in society and the economy had to be of a fundamental nature in the socio political structure and production techniques. In addition, it is a stage of transition where the conditions for takeoff are developed.

2.2.1 The Pre conditions for takeoff are:

i. Engagement in secular education
ii. Establishment of bank and currency
iii. Emerging of the entrepreneurial class
iv. Investment should be above 5% of National Income
v. Change in attitude of people towards risk taking, changes in working environment and openness to change in social and political organization and structure is required.
vi. The high population percentage on agriculture should be shifted to industry, trade and commerce
vii. Perspective of high child bearing should be replaced with less children
viii. Income should be shifted from the feudal to those who will spend it on productive ventures.

2.2.2 Three Important Dimensions to This Transition

i. Shift from agrarian to an Industrial or manufacturing society begins
ii. Trade and other commercial activities of the nation broaden the market's reach not only to neighboring areas but also to far-flung regions, creating international markets.
iii. The surplus should not be wasted on the frivolous extravagance of feudal lords or the state, but should be spent on boosting infrastructure, industries thus preparing for self-sustained growth of the economy later on.

2.2.2 Characteristics of the Transitional Society.

i. Investments get higher and they invite a dynamic development.
ii. There manifests change in social attitudes, expectation, structure and value of society.
iii. Increase in spread for technology
iv. Economic progress is possible
v. Population increases
vi. This stage is finds its base on industrial revolution i.e. it closely tracks the historic stages of the initially British Industrial Revolution
vii. Increase in agricultural productivity also leads to expansion of the domestic markets for manufactured goods and processed commodities, which adds to the growth of investment in the industrial sector.

2.3 TAKE OFF STAGE

This represents the breakthrough stage in the history of the society. The economy transforms itself in such a way that the economic growth subsequently takes place more or less automatically in this crucial stage. The take off is defined as the interval during which rate of investment increases in such a way that real output per capita rises. This stage takes about 2 to 3 decades duration (i.e. 20 – 30 years). For this stage to be successful, three main conditions must be fulfilled among others.

Requirements for Take off

- The rate of investment must rise from Pre condition for take off is 5% to 10% of Gross National Product (GNP).
- There must be a development of one or more substantial manufacturing sector with high growth rate.
- There should be the existence of social, political, and institutional framework, which could give impulses to modern sector expansion.
- Take off requires furthermore, a large and sufficient amount of loanable fund for the expansion of the industrial sector.
- Take off occurs when sector led growth becomes common and society is driven more by economic processes than traditions.

2.3.1 Characteristics of Take off Stage

a. Rapid self sustained growth.
b. There exist a shift in income flows by way of taxation, implementation of land reforms and various other fiscal measures.
c. Industrialization becomes a crucial phenomenon as it helps to pre [are the basic structure for structural change on a massive scale.
d. Introduction of new productive technologies and techniques in various sectors.
e. Existence of enlarged, sustained effective demand for the product of key sectors.
f. Re investment of profits earned from foreign trade.

It is important to note that Rostow grouped the different sectors of the economy in this stage into:

2.3.2 Different Sectors of the Economy.

Sector 1: Primary Growth Sectors

This is where possibilities for innovation in unexplored resources yield a higher growth rate.

Sector 2: Supplementary Growth Sectors

This is where these sectors supplement. Example iron, coal, and engineering industry in relation to railroad.

Sector 3: The Derived Growth Sectors

Advances in these sectors occur in relation to growth of total real income, population, and industrial production. Historically, these sectors range from cotton textile, heavy industrial complex and dairy products. There are also two types of take off models as postulated by Rostow.

2.3.3 Two Types of Take off Models

Domestically Based Take off: This is the form of take off based on rapidly increasing demand for domestically produced goods for sale in domestic market. The US, Canada, Russia et cetera experienced this kind of take off.

Export Based Take off: This is the exact opposite of the above whereby there is rapid increase in demand for locally made goods abroad. More countries have followed this kind of take off model in recent past.

2.4 DRIVE TO MATURITY STAGE

Drive to maturity can be defined in so many ways but for the purpose of this discourse, it is defined as the period when a society has successfully and effectively applied the range of modern technology to the bulk of its resources. During this period, industrial process is differentiated with new leading sectors gathering momentum to supplant the older leading sectors of the take off era where deceleration has increasingly decreased the rate of expansion. Some sixty years after take-off begins (say, forty years after the end of take-off) what may be called maturity is generally attained.

2.4.1 Characteristics of Drive to Maturity

- Some 10-20% of the national income is steadily invested, permitting outstrip the increase in population.
- The make –up of the economy changes unceasingly as technique improves, new industries accelerate older industries level off.
- The economy finds its place in the international economy goods formerly imported are produced at home.
- New import requirements develop, and new export commodities to match them.
- The leading sectors will in an economy be determined by the nature of resource endowments and not only by technology.
- The structural changes in the society occur in three ways:
- Work force composition in agriculture shifts from 75% of the working population to 20%. The workers acquire greater skill and their wages increase in real terms.
- The character of leadership changes significantly in the industries and a high degree of professionalism is introduced.
- Environmental and health cost of industrialization is recognized and policy changes are thus made.
- It is developing an excellent infrastructure including a modern transport network, widely available energy, and sophisticated telecommunications facilities.
- This diversity leads to reduction in poverty rate and increasing standards of living, as the society no longer needs to sacrifice its comfort in order to build up certain sectors.

2.5 AGE OF HIGH MASS CONSUMPTION

In this stage, the balance of attention of the society is shifted from *supply to demand, from problems of production to the problems of consumption* and of welfare in the widest sense. However, three forces are clear in boosting welfare in this post maturity stage. ***First,*** the pursuit of national policy to enhance power and influence beyond national frontiers. ***Second,*** to have a welfare state by a more equitable distribution of national income by progressive taxation increased social security and leisure to the work force. ***Last,*** decisions to create new commercial centers and leading sectors like cheap automobiles, houses, and innumerable electrically operated household devices.

Historically, the United States of America were the first to reach the age of mass consumption in the 1920's followed by Great Britain in the 1930's, Japan and Western Europe in the 1950's et cetera.

2.5.1 Characteristics of Age of High Mass Consumption

a. Migration to the suburbia, extensive use of automobiles, durable consumer goods and household gadgets
b. The first generation is interested in economic development, the second in its position in society. The third, already having money and prestige, concerns itself with the arts and music, worrying little about those previous earthly concerns.
c. There is a desire to develop an egalitarian society and measures are taken to reach this goal.
d. It tries to determine country uniqueness.

2.6 BEYOND CONSUMPTION (New)

While Western Europe (and to a degree, Japan) were entering the era of high mass consumption, an important ***new element*** entered the world economic system in the form of "*a quite unexpected tendency of birth rates to **rise** in rich societies"*. This tendency though noticeable among countries but was most remarkable in United States. During the years of the Second World War, the American birth rate rose from 18 to about 22 per 1000. In the post war years, however, it moved up and has remained in 25 per 1000. Human motivations and social processes had led to this; this can be explained by the need/urge to have more children since there is high rate of prosperity prevalent in this stage. Furthermore, in a situation where personal income is far above disposable income, the excesses must be channeled somewhere.

3. ASSUMPTIONS OF THE MODEL

- Development or, modernization
- Path to development is only through capitalism and industrialization.
- Development is essentially an irreversible process (linear process).
- Development process involves stage by stage.
- Either "internal dynamics or external forces" can stimulate development.
- Economic growth is both the means and end in this process.
- Development is measurable through the increase in GDP.
- Assumes all countries follow the same route to development

4. CRITICISMS, BENEFITS AND HINDRANCES OF THE MODEL

Rostow's stages of economic growth are the most widely circulated and highly commented piece of economic literature in recent years. It is against Marx's stages of feudalism, bourgeoisie, capitalism, socialism, and communism. However, there are doubts by economists in the authenticity of the division of economic history into five stages of growth as presented by Rostow. To maintain that every economy follows the same course of development with a common past and the same future is to over-schematize the complex forces of development and to give the sequence of stages a generality that is unwarranted. The under-listed are some criticisms leveled against Rostow's five stages of economic growth:

1. Traditional society not essential for growth that a country will pass through the first stage since countries like

United States, Canada, New Zealand and Australia were born free of traditional societies and they derive the preconditions from an already advanced country; Britain.

2. Not all countries develop in linear fashion: the critics of Rostow's model have cited that all countries do not really develop in linear fashion; some skipped steps or took different paths. Rostow also assumed that all countries have a desire to develop in the same way, with the end goal of mass consumption, disregarding the diversity of priorities that each society holds and different measures of development.
3. Stage making idea is misleading: Rostow says that all the nations have passed through these stages. However, it is quite incorrect to say that all the nations have followed this route, when they are having different environment and resources.
4. Preconditions may not precede the take-off: critics have argued that preconditions do not necessarily precede take off. For instance, there is no reason to believe that an agricultural revolution and accumulation of social overhead capital in transport must take place before the take off.
5. Disregard of the most fundamental geographical principal; site and situation: Rostow assumes that all countries have an equal chance to develop without regard to population size, natural resources, or location. For instance, Singapore has one of the world's busiest trading port but this would not be possible without its advantageous geography as an island nation between Indonesia and Malaysia
6. Overlapping in the stages: in fact, the experience of most countries has shown that development in agriculture continued even in the take off stage. The take-off in the case of New Zealand and Denmark is attributed to agricultural development. Similarly, social overhead capital in transport especially in railways has been off the leading sectors in the take-off as Rostow himself asserts. This shows that there is considerable overlapping in the different stages.
7. The take-off dates are doubtful: Economic historians are skeptical about the take-off dates suggested by Rostow. The take-off dates suggested by Rostow. The dates also vary from publication to publication. In fact, it will take many years of research to determine the correctness or otherwise of the dates suggested by Rostow. Furthermore, possibilities of failure are not considered since Rostov ignored the bump downs and crash landings. The analysis of take-off also neglects those effects of historical heritage, time of entry into the process of modern economic growth, degree of backwardness and other relevant factors on the characteristics of the early phases of modern economic growth in the different countries.
8. The stage of Drive to maturity puzzling and misleading it contains all the features of the take-off rate of net investment over 10% of national income, development of new production techniques, leading sectors and institutions. Then where lays the need for a separate stage, where the growth processes becomes self-sustained. It can be self-sustained even in the take-off stage. In fact, as observed by Kuznets, "no growth is purely self-sustaining or self-limiting". The characterization of one stage of growth as self-sustained and of others by implication, as lacking that property, requires substantive evidence and analysis not provided by Rostow.
9. The stages, of high mass consumption not chronological: the age of high mass consumption is so defined that certain countries like Australia and Canada have entered this stage before even reaching maturity. According to one critic, "the period of mass-consumption is nothing else but minus its ideological overtone".
10. Idea of increase in investment is not new: Rostow presented the idea that increase in investment from 5% to 10% will take the economy into take-off stage. However, caironcross says that it is not a new idea. It is also available in Lewis thinking. He further says when the saving habits will change, whether in pre-conditions or in take-off stage.

4.1 BENEFITS

Notwithstanding, the fact that Rostow's model has its critics' which is their ideology (their opinion) the less developed economies seems to put up a fight against intellectual colonialism by the so called developed economies who try to measure them by their theorems.

Rostow's development model did not just show the gradual route from primitive to technological advancement of nations but also attempted though unplanned by Rostow the following are the benefits of the model.

i. Rostow's model still sheds light on a successful path to economic development for some countries
ii. Rostow's model is still one of the most widely cited development theories, and is a primary example of the intersection of geography, economics, and politics.

4.2 HINDRANCES OF THE MODEL TO LESS DEVELOPED COUNTRIES (LDCS)

(1) Attitudes and arrangements in underdeveloped countries (UDCs): The capital was effectively used to get higher levels of output the same like conditions, attitudes and arrangements are not available in the underdeveloped countries like Pakistan they lack the managerial experience, skilled labor and the ability to plan and administer a wide variety of development projects.

(2) Removal of unemployment: The conditions regarding take-off as presented by Rostow do not entertain the case of those countries, which have abundance of population, and unemployment is increasing there.

(3) Value of COR is not constant: In Rostow and H-D models of growth the value of COR has been kept constant.

(4) Spontaneous and Automatic Growth: Rostow's take offstage- shows that here the growth is automatic and spontaneous.

(5) Integration with world economy: Now a days the UDCs are well integrated with the world economy. The external factors, which are beyond their control, can nullify the best strategies followed by UDCs.

5. SUMMARY AND CONCLUSION

The history of modern societies is of the view that advanced countries had passed the stage of take off into self-sustaining growth. While the underdeveloped countries are still passing through traditional society or the pre-condition to take, off. It is important to note that take off is ideally suited for the industrialization of underdeveloped countries.

Notwithstanding, according to Dasgupta "the term lacks precision and yet it is suggestive and can be given interpretation which is useful for an understanding of the process of economic development of an underdeveloped countries. For a country, that is developing, development of one or more leading sectors are helpful in the process of industrialization. Although, the leading sectors can be in agriculture or in the production of primary products for exports.

Having noted, that underdeveloped economies are characterized by the predominance of agriculture and primary production. These under developing countries are least expected to pass through those stages of economic growth in order to achieve its goals.

In conclusion, underdeveloped countries must learn a lesson from the economic history of advanced nations. They should follow the rules of development to take-off and then to self-sustaining economic growth. In this note, the underdeveloped countries should mobilize domestic and foreign savings in order to generate sufficient investment to accelerate economic growth this in no small way will lead the country in achieving sustainable development because accumulated growth surely leads to development.

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