The Decode of Hecksher- Ohlin Modern Theory of Growth; A view on genre.

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Abstract- No man can live on an Island, we can't produce all our wants and desire which are limitless; human intention and desire are numerous one after another. The Intra - national trade taking place within the domestic territory for instance Assam trade with west Bengal, Punjab with Uttar Pradesh and Delhi the story goes by. When it comes to inter-national trade it can be classified such as Bilateral Trade, Multi-lateral trade viz. Absolute Theory of Adam Smith and Comparative theory of Ricardo, grooming up and gave us an insight of benefits and profits to both countries, but in case of Multi-Lateral Trade. Those countries getting involves are benefitted in greater dimension in the Short Run as well as in the Long Run'. When Balance of Trade i.e. X – M = 0, X = M; Balance of Trade are said to be occurred. When X > M, then the country who have more exports than imports are said to get more benefits and profits. And when X < M, in such a condition. The country that are heavily importing's goods and services from foreign country shows a sign of decode that takes places in the economy. To push up the economy of our country we do need import substitution industries and promotes exports sectors to earned foreign exchange. We need Foreign Direct Investment and Multi-national Corporation and vice-versa. The investment structures are such as Information Technology (Info-Tech). Investment in heavy industries which needs capital by way of capital endowments and the other way round labour intensive industries need to be encouraged. The Balance of Payments is another concepts giving full boost to let away poverty and unemployment and lead us to have a giant's leap to project and attained the name and fame as developed country sooner or later. The Balance of Payments talks about the double book-keepings formats that contains credits and debits account. If credits are more than debits; then BOP is said to be profitable and brought in more foreign exchange. But when the transaction i.e. debits side more than credits; we face decode from rich economy to poorer economy.

Index Terms- Factor Endowments, Empirical Evidence, Limitless want, Balance of Trade, Balance of Payment, Foreign Direct Investment and Multi-National Corporations

I. INTRODUCTION

No man can live on an Island, we cannot produce all our wants and desire which are limitless; human intention and desire. The Intra - national trade taking place within the domestic territory for instance Assam trade with west Bengal, Punjab and Uttar Pradesh and Delhi. When it comes to inter-national trade it can be classified such as Bilateral Trade, Multi-lateral trade viz. Absolute Theory of Adam Smith and Comparative theory of Ricardo, grooming and gave us an insight of benefits and profits to both countries, but in case of Multi-Lateral Trade. Those countries getting involves are benefitted in greater dimension in the Short Run as well as in the Long Run'. When Balance of Trade i.e. X – M = 0, X = M; Balance of Trade are said to be occurred. When X > M, then the country who have more exports than imports are said to get more benefits and profits. And when X < M, in such a condition. [i]The country that are heavily importing's goods and services from foreign country shows a sign of decode that takes places in the economy. To push up the economy of our country we do need import substitution industries and promotes exports sectors to earned foreign exchange. We need Foreign Direct Investment and Multi-national Corporation and vice-versa. The investment structures are such as Information Technology (Info-Tech). Investment in heavy industries which needs capital by way of capital endowments and the other way round labour intensive industries need to be encouraged. The Balance of Payments is another concepts giving big boost to do away with poverty and unemployment and to takes us to have a giant's leap to project and attained the name and fame as developed country sooner or later. The Balance of Payments talks about the double book-keepings formats that contains credits and debits account. If credits are more than debits; then BOP is said to be profitable and brought in more foreign exchange. But when the transaction i.e. debits side more than credits; we face decode from rich economy to poorer economy.

<u>Assumptions:- on Hecksher-Ohlin Factors Endowment model of International trade[Modern Trade Theory of International trade]</u>

- We presumed to undergo two commodities (X, Y), two nations (A, B) and two factors of production (labor, Capital) as the superficial model that set right to come up with factors endowment model. In another way round, we can considered as 2*2*2 Model of labor intensive and capital intensive which remained as major objectives for the Trade Model.

- The most important assumption was those two nations who are engaged in trade relationship should have same technology and to be in uniformed.
- Let country A shall be Labor Intensive and Country B shall be capital Intensive to start up the dynamics decode of International Trade.
- The commodities X and Y are produced in search away that, it is formulated on the principles of constant returned to scale using production function [$\alpha+\beta = 1$].
- We can see incomplete specialization in the production of Goods X and Goods Y in both of the countries, due to limits of factors of productions.
- The taste, like and dislike are same in both nations involves in Bilateral Trade.
- The model assumed that perfect competition is under way in production of both goods (X-goods, Y-goods) and factors market [labor and capital] in both nations.
- An assumption of perfect mobility within each nation and no existence of perfect mobility in International Trade.
- [ii]There is a policy based which are no transportation cost, tariffs, or others obstructions to the free flow of international Trade.
- We must keep in mind that the nature of International Trade between the two nations is balance. Balance of Trade [BOT] as well as Balance of Payment [BOP].

<u>Factor Intensity, Factor Abundance and the shape of the production frontier: -</u>

The factors endowments such as Labour and Capital as the basic fundamental variables that was the point of centre. We are familiar with 2*2*2 models that indicates two nations, two goods X and Y, and two factors of productions. The Authors wanted to represent the models in two dimensional figure. At the same time, they like to extend the models beyond two countries and beyond two goods and so do with more than two factors of inputs i.e. Labor and Capital. Secondly, the two countries who are engaging themselves for trade which are said to have same level of Technology. If we are to talk about factor intensity; we try to project on what factors i.e. either labor or capital are used in production function in short run as well as long run.

The factor abundance meaning to say one country is endowed with labor intensive having a surplus labors and the other country endowed with capitals intensive which have surplus capital that production of goods like parts of aircraft industries can exchange with countries that are involved in having trade relationship. The shape of the production frontier might shift outward or backward. It also tells us relations in consumption of goods X and Goods Y. The opportunity cost crept in that is consumption of goods X gave rise to forgo consumption of Y goods and vice-versa. The Marginal Rate of Transformation (MRT) are given as:-

$$MRT_{XY} = \text{minus } [\Delta Y / \Delta X]$$

$$MRT_{YX} = \text{Minus } [\Delta X / \Delta y].$$

[iii]Here, when the outputs of goods was from factors of productions i.e. Land, Labor, capital and entrepreneur. We had factors pricing for the use of factors. Labor needs wages and capital needs interests. Nevertheless, every producer tries to minimize the cost. Lastly, we assume that there are two goods Viz. Goods X and Goods Y, to go further, Goods X is considered as labor intensive goods while goods Y is considered as capital intensive goods in both nations. The anatomy of Hecksher- Ohlin by decodes of capital abundant country and labor abundant country in pushing up growth momentum through a bilateral trade in both trading countries. As per the dictum of Hecksher-Ohlin trade take places due to the differences of relatives' prices of Goods X and Goods Y. the insight of the theory is supply of Goods which are determined by the demand for the Goods. Another, factors to be reflected are based on Factors of Production and factor pricing of the economy. Further, the theory take into account Cost Minimization Approached. This is because poor peoples are greater than the rich people. Now to get the substance of the model, the principles of the theory revolves around factors endowment i.e. Labor surplus country would invested in those sectors, where human skills are involved; Labor force are of two types:- (1) unskilled labour (2) skilled labor. When we say unskilled farmers who are in rural India remained Illiterate, do not know any know-how and to use modern gadgets. Whereas skilled labors are being imparted training such as doctors, engineers, pilots, and to engage in Industries and tertiary sectors like Information, Communication and Technology. (ICT).

<u>The 'Decode of Hecksher-Ohlin' theory:-</u>

<u>Factor Intensity:-</u>

There are two nations, A and B, two goods and two factor of production. When we consider K/L, is said to be capital intensive meaning to state that it is highly capital endowment country in reverse when L/K is said to be labour intensive, when more people are engaged in labour intensive sectors like primary sector and allied sector. In other word, if K/L represent country B with capital intensive technique produces more of capitals intensive goods whereas when L/K is labor intensive goods. For instance, if 2 units of goods Y and 2 units of goods X, the exchange rate is 2K/2L = K/L, when two in numerators and denominators are got cancelled out. When there is 'k' in numerator divided by labor that shows to us that it is capital intensive products. Similarly when labor 'L' was placed on numerator and capital K on denominator that signify labor intensive products.[iv]

Fig.1.0 Factor intensities for commodities X and Y in nations 1 and 2.

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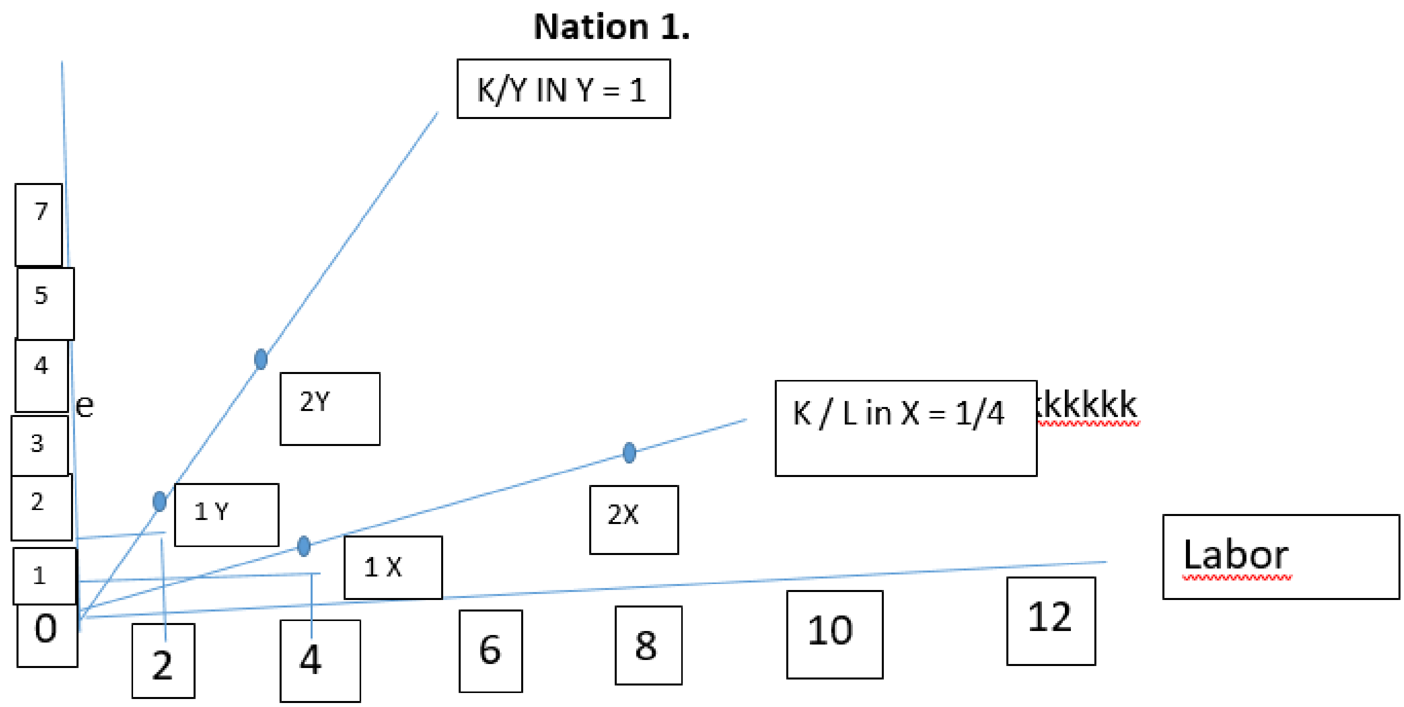

Explanation of nation 1 from the graph given above:-

As seen from the figure horizontal line from origin to infinity place labor endowment and continuous supply of Labor and the vertical line indicates the placement of Capital endowment or utilisation of machines, tools and equipment in the process of productions of capital intensive goods. There are two bisectors line one i.e. **K / L in X = 1/4,** the fraction becomes **0.25** out of **100** in percentage. This represent production of goods X that is labour intensive goods and meagre output because labour are less efficiency while compare with the capital intensive goods. While looking at the vertical line indicates Y and are capital intensive goods or highly capitals endowment countries, capital when utilised in the process of production, it is faster, the goods are durable. The bisector that represent y goods which are capital intensive is expressed as **K/L in Y = 1, e.g. 2k/2L = k/L.** The results **K/Y = 1 signified 100 percent worth when capital are being utilized in the process of production. (100% =100/100 =1).**

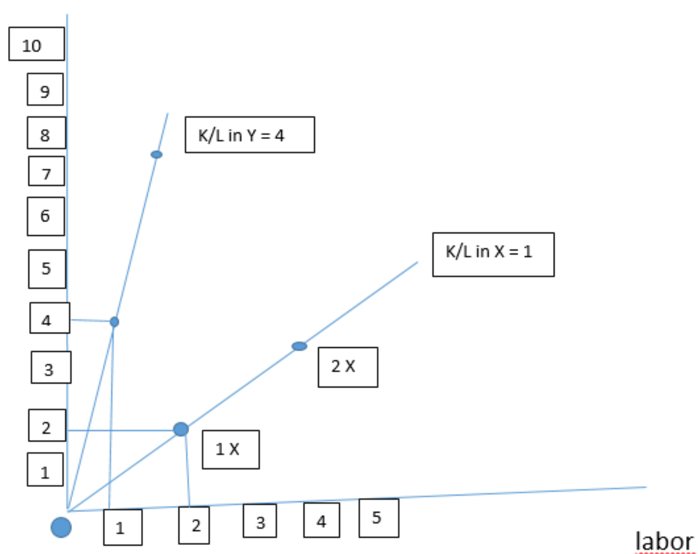

Fig.1.0 Nation 2

The y-axis measured capitals and the X-axis measured Labor. From the figure, we can say that Labor intensive goods and Capital intensive are two units of labour and two units of capital are the capacity of Nation 2 in the process of production of capital intensive goods and labour intensive goods. The mathematics equation is 2/2 = 1, production is same when moves from line joining origin and infinity. i.e. 1X to 2X and further the line represent K/L in X = 1, which mean the ratio of k/L all along the line will give the unity fig.

II. Factor Abundance

Factor abundance is about Y- goods that are assumed to be Factor Intensive goods and by nature endowed heavily as well as because of Industrial Revolution that had been started in the western and European country. [v]On the other hand labour intensive goods is considered as X-goods which are heavily endowed to a nation due to population explosion that constitutes of skill and unskilled labour.

If nation 2 is having both capital intensive and labor intensive goods there can be an Internation trade like that of Absolute Advantage theory of International Trade by Adam Smith.

Mathematics interpretation, when the nation 2 is better off than that of nation 1, in terms of both TK/TL and TL/Tk than the counterpart nation 1, international trade is feasible. On the other angles when y is capital Intensive goods it is necessary to produces Y-goods by developed country i.e. Nation 2. And in case of X-goods which are labor intensive is feasible for production in the developing country i.e. nation 1. When we see the factor pricing of capitals and labor, interest for utilization of Capital and wages for labor. The more the investment on capital for the production of goods Y income and output are generated providing employment to the countrymen. Similarly Labor intensive goods X needs more investment to feed the huge population of Nation 1 which is endowed with labor and are considered for production of goods X.

The Explanation with modern trade theory of Hecksher-Ohlin by Production Possibility Frontiers.

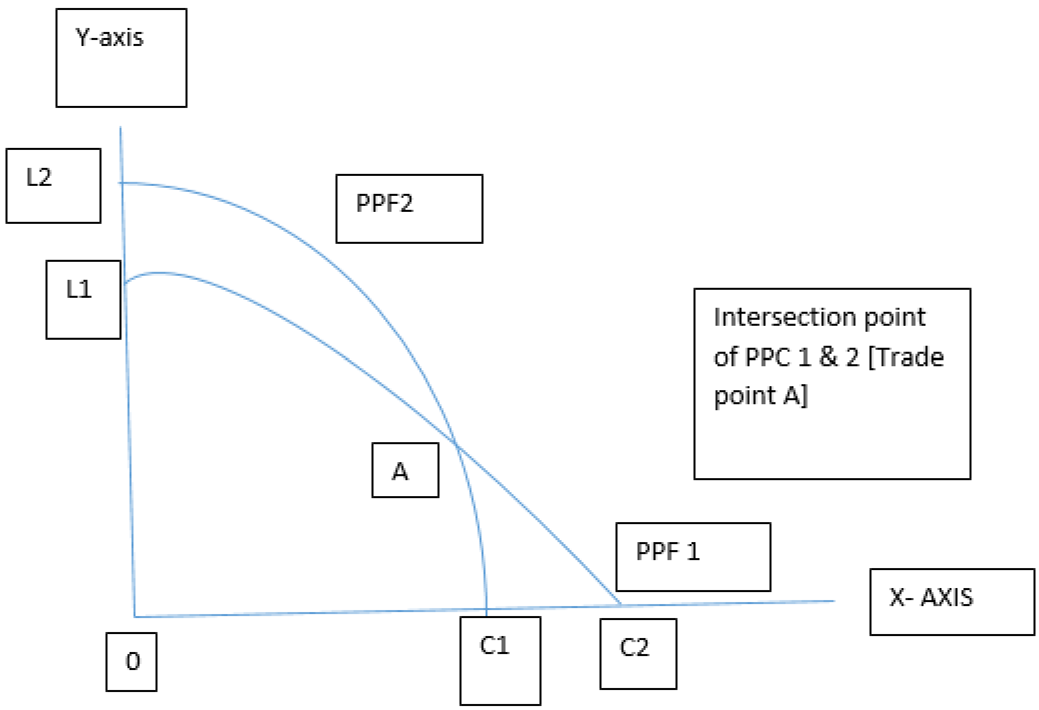

Fig. Production Possibility Frontiers of Hecksher-Ohlin trade theory
*** L1 & L2, labor intensive goods and services [Labor Endowment]
*** C1 & C2, capital intensives goods and services [Capital Endowment]

[vi]The figure elaborately stated vividly that production of capital intensive goods are flatter than labors intensive goods. Which symbolised nation C2 played a leading role than C1 of nation L1. And this modern theory of international trade took place by 2*2*2 [two nations, two goods or services and two factor of productions [Labor, Capital].

The trade point is represented by the intersections of two Production Possibility Frontier. [Concave curve]

Production Possibility Frontier PPF concave curve at A. The horizontal axis represent capital intensive goods and vertical axis for labor intensive goods. At point A the capital goods are heavily produced by country with capital endowment whereas the labor intensive goods are being used scarcely. Nation L1 production possibility frontiers concave curve is skewed toward the vertical – axis. [vii]The difference in shapes is the final touch of the main theme of decode of modern theory of international trade,

We must know PPF concave curves gives us an ideas of opportunity cost when capital intensive goods are produced a nation as to forego production of labor intensive goods that are said to be opportunity cost. A.P. Thirlwall(2011). "Economics of Development "published by Palgrave Macmillan, U.S., New York, NY-10010.
Mathematical expression for marginal rate of trade for C1 goods by L1 goods are expressed below:-

$$MRT_{C1\ L1} = -[\Delta L1/\Delta C1].$$

$$MRT_{L1\ C1} = -[\Delta C1\ /\Delta L1].$$

III. Conclusion

This modern trade modern 2*2*2 fundamental conclusion are crystal clear and play an importance role till todays if the assumptions were not broken in anyway. The developing usually accompany their business and trade carried on in international arena with labors intensive goods. On the other hand the developed economy withstand the production with capitals intensive based technology to produce goods by capital intensive technology and making a deliberate and cooperatives bilateral trade to benefits both nations. The start-up India lies indirectly on this export and import so does with balance of trade and balance of payment trying to raise growth rate from 7% to 7.5% and to be standstill at this or to further move up depends on policy formation and implementation.

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[i] A.P. Thirlwal (2011) 'Economics of Development '. Palgrave Macmillan Publications, UK, Macmillan Publishers Limited.
[ii] D.N. Dwivedi(2013) 'International Economics'. Theory and Policy, Vikas Publishing House Pvt. Ltd.

[iii] Dominick Salvator(2017), 'International Economics' Trade and Finance, Published by Wiley India Pvt Ltd., Ansari Road, Daryaganj, New Delhi-110002.

[iv] D.M. Mithani(2001), 'Money, Banking, International Trade and Public Finance' Published by Himalaya Publicing House, Ramdoot.

[v] M.L. Jhingan(36th Revised Edition), 'The Economics of Development and Planning' Pubished by Vrinda Publications Pvt. Ltd, Ashish Complex, Delhi.

[vi] R.K. Lekhi, Joginder Singh(2018). 'The Economics of Development and Planning', Published by Kalyani Publishers, Ludiana.
[vii] R. Gupta's(2015), 'Popular Master Guide for Kendriya Vidhyalaya Teachers, Post Graduate Teachers, Economics' Published by O.P. Gupta for Ramesh Publishing House, New darya Ganj Road, New Deli.