European Journal of Business and Management
ISSN 2222-1905 (Paper) ISSN 2222-2839 (Online)
Vol.6, No.31, 2014

What Is The Role Of Export On Economic Growth?

Albiman, Masoud Mohammed*
Department Of Economics, Faculty Of Economics And Management, University Putra Malaysia, 43400 ,UPM Serdang, Selangor , Malaysia.

ABSTRACT
Export and economic growth relationship has been a long discussion among the researchers. In fact, most of previous literatures have mixed results. Some of literatures found that, export has positive role in economic growth whilst others found that export do not support economic growth. In that sense, the policy makers have to take into consideration this discussion. On one hand, from reviews we found that, export does not guarantee linkage with the overall economic growth

1.0 INTRODUCTON

1.1 Theoretical perspective on relationship between Trade and Economic Growth.

Theoretical literature of trade starts from the mercantilist's theory of trade to the new trade theory. The development of these theories provided extensive theoretical discussions concerning the patterns and role of trade in economic growth. During sixteenth up to eighteenth century's Mercantilists' theory of trade were dominant. The theory of mercantilist believed nation's power and wealth depended on amount of treasury (gold and silver) that it can collect from other nations.

These theories believed that, wealth of nations or trade gains used only for establishment and strengthen of military powers. However, this theory was refuted later by the classical economist .For example, Adam Smith argued that the theories of mercantilism emphasize only on the production and they neglected consumptions and imports. According to Adam Smith accumulations of wealth had little part in welfare of nations.

This it was time for the classical trade theories led by Adam Smith (1776) and Ricardo (1817). Firstly, Adam Smith in his publication of *wealth of nations* argued that each country should specialize in productions of goods and services in which it has absolute advantage .Each Country should export goods and services in which it has absolute (less cost per unit) .Country should imports commodities in which it has higher absolute disadvantage(cost per unit). From this fact, each nation would gains from trade in terms of welfare. However, the theory fails to explain how trade can occur if there is absolute advantage in both countries? This was raised by David Ricardo in his theory of comparative advantage.

Ricardo argued that, for a country to gain benefits from international trade, it does not necessary need to have absolute advantage. Ricardo argued that at least one country would have relative less cost per labor in production of certain goods. In this case, each country should specialize in productions of commodities in which has relative less labor cost compare to other commodities. However, Ricardo had raised one theoretical question without clear answers. Why particular nation have comparative advantage while others have low comparative advantage? This question led to the rise of Hecksher Ohlin theory (H-O theory)[1]. This theory was developed by two Swedish economists. They argue that, comparative advantage is derived from resource endowments' perspective. Each country would specialize in production and export of commodities based on resources endowment. In other side, it would imports commodities in which resource are not available for that country (lack of resources endowment). Major assumptions of this theory are free movement of capital and labors. This theory assumes that no trade of capital goods like fuels .Moreover, it assumes that, labors and capital are fixed for the entitled endowments for each country.

From this fact, specific factors theory assumed that capital is immobile in short run while labor is mobile between industries. It acts as the short run models of OH theory. Specific factors like soils and skilled labors are immobile between industries. When a price of specific factors increase, owners of specific factors gain in terms of real profits .In others words, international trade it can accelerate rise of price to owners of capital stock in particular industry. For example, rise of trade can enhance rise of price of land which produce exported product. However, this theory it can only explain difference of income distribution and not patterns of trade.

On the other hand, during early 1970s up to late 1980s a new trade theory emerged. The prominent authors were Helpman and Krugman(1991). They argue that, assumptions of constant returns to scale have no chance in a presence of technological spillover effect and globalization. Moreover, assumptions that, specific sectors that have certain economies of scale which cannot be adopted by others it is not realistic under globalizations (as comparative theory and OH argued).

[1] Cited in Flam and Flanders (1991)

They argue that, firms can have internal economies of scale and can be imitated to others through spills over effect and learning by doing. Firm had a considerable role in production opportunities. If there are internal economies of scale in firm's production, and large markets exist, firms can increase sales revenue and expand production capacity. From this fact, internal firms will find easier to expand and be competitive in international markets.

Furthermore, a country with large domestic markets can have more economies of scale because will produce at lower cost per unit. The new techniques of production, knowledge and skills can be adopted by other international firms. This fact has not been considered from previous theories of comparative advantage and O-H theories. In this way trade can promote economic growth through economies of scale and improve allocations of resources In fact, a classical theory of international trade provides a theoretical base for international trade flows. It shows how a country could gains from trade.

Foreign trade can promote economic growth. Firstly, through improving better allocation, distribution of the resources and thereby increases productivity. This had kept into a ground due to following reasons .Firstly, through international trade, each country can specialize in more efficient resources in terms of production cost and opportunity cost.

Secondly, through introduction of the new materials and equipment that is not available in the country. This would increase productivity in country and economic growth. However, Chen (2009) concludes that, these theories failed to show the relationship between technical progress and economic growth. Moreover, classical theories relied under the "unrealistic world" assumptions16[2]. From his weakness, created path to existence of neo classical theory by Solow in mid of 1950s.

The new classical theory of economic growth suggested the existence of positive relationship between trade openness and economic growth. This theory argues that, when a country participates in international trade, will increase it will increase technological progress and increase more efficiency through better allocation of resources. Generally, this theory insisted on a technological progress as an engine of growth in the economic growth. Trade openness can simplify this process of technological progress (Sakyi, 2011; Adhikary, 2011; Yucel, 2009.) However, Solow (1957) assumptions failed to show the long run relationship between technological progress and economic growth .In others words, Solow fail to model role of trade openness in economic growth. This implies that, technical productions have short run impact in productivity and growth [3] (Sakyi, 2011).

As a result of this weakness, the rise of the endogenous growth theory came to expand the relationship between trade openness and economic growth. This new theory succeeded to model trade as endogenous related with economic growth. The theory has shown sustained contribution of trade in capital accumulation and economic growth. The theory has created enough theoretical argument of positive relationship between trade openness and growth. Against neo classical assumption, this theory treated technological progresses as endogenous related with other factors in economic growth.

In this way, trade now is seen as a main engine of economic growth that has several positive effects to economic growth. Poor countries can absorb advanced technology from developed countries, and increase intermediate goods and equipments in their economy. Furthermore, it will increase capacity utilization of domestic resources (Sakyi, 2010; Rodrick, 1999; Grossman and Help man, 1991; Balassa, 1985). It will also increase productivity in the country and increase the availability of capital goods that will increase level of economic growth (Chen, 2009; Yanikkya, 2003)

Export can increase availability of foreign exchange reserves which can be used to import capital goods. Availability of capital goods will increase domestic production and improve deficit in balance of the payments. Export can lead to the increase of investment level, as result increase of job opportunities and economic growth can be observed (Jordan and Eita, 2007; Awokuse, 2007; Konya, 2006). Additionally, country can enhance development activities through R&D services which can be absorbed from advanced economies through trade (Chen, 2009; Yanikkaya, 2003)

The introduction of new inputs and products varieties can be influenced through export . Export will help to increase wider market for domestic products, more access to exchange of information, increase integration with external countries markets. Export can increase competitiveness of economy (Shigeyuki and Razafimaheva, 2003). Through trade country can enjoy the comparatives advantage through the specialization process (Konya, 2006).

[2] The assumptions partly were ,constant return to scale assumptions, perfectly knowledge of in formations ,rapidly adapt of the new technology and homogeneous labors and resources.(however the theory provide base for further analysis)

[3] The assumptions is that , Marginal productivity of capital is going to diminishing at long run, here the only weakness, is that the theory neglected the issue of human capital development, and endogeneity relationship between growth and trade or FDI, Human capital

Moreover, when the country has wider market access, more competiveness, and highly capital utilization will enjoy the economies of the scale leading to a sustainable economic growth. In this way will ensure a sustained level of economic growth. Furthermore, export can increase technological innovations that arise due to foreign market competition, economies of scale and increase capacity utilization (Help man and Krugman, 1985). Additionally, it has been suggested that a country with open economic policies can absorb foreign technology easily from advanced economy. This would result into sustained and rapid rate of economic growth compared to country which has lower degree of openness (Barro and Sala-I- Martin, 1995; Grossman and Help man, 1991).

1.2 Empirical Literatures Relating To Trade And Economic Growth

The previous literature of export and growth relationship in 1970s until late 1990s, be can summarized into three broad perspectives .In 1970s several literatures empirically examined export and economic growth relationship using correlation analysis. They relied on positive correlation as a conclusion for export led growth hypothesis. These studies include Tyler (1981), Balassa(1978), Heler and Porter(1978) and Michaely (1977). However, these studies faced major weakness of considering correlation as enough method to show causality between export and economic growth, where by correlation only shows association between variables rather than causation.

The Second groups of literatures examined export and economic growth relationship using regression analysis. These studies include Fosu (1990), Ram (1987), Balassa (1985), Park and Prime(1977) .These studies were treated export as the explanatory variables within growth equations. This group relied on higher positive coefficients between export and growth as a sign of causality between them. In this way, merely make prior assumptions of export led hypothesis (Azgun and Obey, 2010; Ekanyake,1999).

This was the major weakness of these studies. Third group of these literatures examined causality between export and economic growth, and used Granger causality test in VAR methods. These studies are Dodaro (1993), Kwan and Ahmad (1991), Bahmani and Oskosee et al (1991), Chow (1987), Jung and Marshal (1985). However, they did not taking into account the standard test of unit roots and co integration. This lead to uncertainty for relying on their inferences

Kavousi (1984) investigated the relationship between export expansion and growth for 73 developing countries from 1960-1978 data period. They found that, for both groups of low and middle income there was positive relationship between export expansion and growth. Moreover, the study suggested that, export of primary product contributes to growth of both middle and low income economies. However, for the developed countries contribution of manufactured goods is higher compared to developing countries.

On the other hand, Ekanayake (1999) used error correction model and co integration methods under bivariate system. The results showed bidirectional causality between export and growth for India, Indonesia, Korea, Pakistan, Philippines, Sri Lanka, and Thailand. However, in the case of Malaysia it was found that, export causes economic growth. .In addition to that, Ekanyake (1999) found short run causality from growth to export except for Sri –Lanka.

Furthermore, Vohra (2001) after using OLS method and same sample like that of Ekanayake (1999), obtained similar results, that export contributes more to the economic growth. The study suggested that, countries with no open policies in trade had to liberalize their trade and attract foreign inflows in order to ensure economic growth. However, Yanikkaya (2003) had mixed results which are far different from that of Vohra (2001) and Kavousi (1984).

In investigation of how the trade openness affects economic growth, the study employed 100 developing and developed countries for the period of 1970-1997, yet he found mixed results. These results were similar even after considering different types of trade openness measurement[4]. However, in general the study concluded that, trade restriction has positive relation with the economic growth despite major differences in the results.

Reppas and Christoplous (2005) had mixed results like that of Yanikkaya (2003) and supported results of Vohra (2001) and Kavoussi(1984). They considered sample of 22 African and Asian countries. Using panel methods and fully modified OLS technique yet they found mixed results. They found long run positive relationship between export and economic growth for 13 countries .For the same countries they also found the direction of causality runs from growth to export, while the remaining 9 countries found no significant relationship.

Furthermore, Love and Chandra (2005) using Multivariate co integration and bivariate systems found that, there is long run relationship between export and income growth in Bangladesh. These results support the findings of Reppas and Christoplas (2005). On other side, the study found that, causality runs from income growth to the exports .Here again supported the findings of Reppas and Christoplas (2005) despite using different methods. On

[4] The author used different approach of trade measurement for more details discussion of this measurement refers to the related articles.

other hand, Love and Chandra had different results in the period of 1980-2000 and 1985-2000, whereby found no causality relationship between the variables. This difference perhaps was due to the data spans difference.
Furthermore, Konya (2006) supported results of Love and Chandra (2005), Reppas and Christoplas (2005). Employed new panel data approach under SUR and Wald test for 24 OECD countries. The analysis was in bivariate systems (growth and export only) and trivariate (GDP –export -openness) under VAR. The results were inconclusive, as he found one way causality relation from export to economic growth in 8 countries. He found two way causality between export and growth in 3 countries.
On the other side, found no causality relationship for 6 remaining countries. This implies that the trade openness and export do not necessarily imply cause economic growth. These results support Love and Chandra (2005) who used bivaried systems, and Reppas and Christoplas (2005) who found mixed results in the samples .
Moreover, Hsiao and Hsiao, (2006) investigated causality relationship between export and economic growth for eight East Asian countries under VAR systems. Using time series approach they found in conclusive results for individual countries. However, the use of panel data methods revealed general conclusion that, there is bidirectional causality relations between export and growth. These results partly, support previous findings of Konya (2004) who used panel methods. However, they are different compare to Reppas and Christoplas who used the same method of panel analysis. Additionally, Awokuse (2007) had different results when considering the effect of market liberation for 3 CEE transition economies countries. After using multivariate co integration method and different time series periods, the study concluded that, export and imports Granger cause growth in Bulgaria and Czech Republic.
On top of that, Jordan and Eita (2007) found that, export granger cause GDP and GDP per capital in Nigeria. They suggested that, the government should liberalize domestic market to international market and promote export sector so that to ensure sustainable level of economic growth. This conclusion has been given previously by Vohra (2001). However, these findings with that of Hsiao and Hsiao (2006), Reppas and Christoplas (2005), and Konya (2004) who used panel data methods .It also contradict results of Love and Chandra (2005) who used multivariate analysis.
Moreover, Yucel (2009) used multivariate analysis contradict with Jordan and Eita (2007). Yucel used VAR and VECM methods and found that, trade openness had a positive impact to economic growth. Moreover, the study found bi directional causality among trade, financial development and growth. These supports the results of Hsiao and Hsiao (2006) and Konya (2004). This implies that the promotion of trade sectors could guarantee the economic growth.
On other side, Zhang (2010) found that, export has positive contribution to the economic growth for the developed coastal areas in China while in less developed inland areas, the study found no impact of export to economic growth. Moreover, Tekin (2012) using panel granger causality found unidirectional causality from export to economic growth in less developed countries such as Rwanda, Haiti and Sierra Leone. However, he found that GDP cause export growth to three countries.

1.3 Conclusion And Recommendations

Export and growth relationship has been a long discussion among the researchers. In fact, most of previous literatures have been found to have mixed results. Some of literatures found that export has positive role in economic growth whilst others found that export do not support economic growth. In that sense, the policy makers have to take into consideration this discussion. On one hand, from reviews we found export of manufactured product have more linkage with the overall economic growth rather than primary products.
Most of previous literatures until 1980s faced major weakness of relying on positive correlation as main signal for causality between export and economic growth .On top of that, many studies from early 1990s until 2000, have been widely tested for causality relationship between export and economic growth without considering standard test of unit root and co integration. Ignoring these results, may raise problem of spurious relationship. Most of previous literatures relied on traditional granger causality test. However, Granger test has been empirically shown that, it has some weaknesses in case variables are co integrated.
On top of that, most of these studies make prior assumptions that, there is causality relationship from export and growth. In that sense, they did not consider the growth cause export hypothesis. Therefore, new economic analysis is needed to avoid this econometric confusion. The use of Autoregressive distributed lag (ARDL) or Dynamic Ordinary Least Square (DOLS) is more important. These method take into consideration co integration, endogeneity and serial correlation among the variables in a model.

REFERENCES

Adhikary, B. K . "FDI, trade openness, capital formation and economic growth in Bangladesh: A linkage analysis". *International Journal of Business and Management* 6 (2011) : 7-27.

Awokuse, T. O. "Causality between exports, imports, and economic growth: Evidence from Transition Economies" . *Economics Letters,* 94 (2007) : 389-395.

Azgun, S., and Ozbey, N. (2010) .Foreign trade sectors and Economic Growth. *Research Journal of Applied Sciences* 5 (2010) : 54-58.

Balassa., B. "Exports, policy choices and economic growth in developing countries after the 1973 oil shock" . *Journal of Development Economics* 18(1985) : 23-25.

Barro, R.J., and Sala-I-Martin, X. "Capital mobility in neoclassical models of growth" . *American Economic Review* 85 (1995) : 103-115.

Balassa, B. "Exports and economic growth" : Further evidence. *Journal of Development Economics* 5 (1978) : 181-18

Bahmani-Oskooee, M., Mohtadi, H., and Shabsigh G. Export growth and causality in least developed countries (LDCs): A reexamination. *Journal of Development Economics* 36 (1991) : 405-415.

Chen, H. A literature review on the relationship between foreign trade and economic growth. International Journal of Economics and Finance 1 (2009) : 127-130.

Chow, P.C.Y. "Causality between export and industrial development" : Empirical evidence from NICs. *Journal of Development Economics* 26 (1987) : 55-63.

Dodaro, S. "Exports and growth: A reconsideration of causality". *Journal of Developing Areas* 27 (1993) : 227-244.

Ekanayake, M. E.(1999). Exports and economic growth in Asian developing countries: Co integration and Error-Correction Models. *Journal of Economic Development* 24 (1999) : 43-56.

Flam, H., and Flanders, M.J. " Heckscher-Ohlin trade theory" . Cambridge, United States. The MIT Press, 1991.

Fosu, K.A. "Exports and economic growth" . African Case. *World Development* 18 (1990) : 831-835.

Grossman, G.M. and Helpman, E. *Growth and Welfare in a Small Open Economy*. In: Helpman, E. and Razing, A. (Eds.), *International Trade and Trade Policy (*pp: 141-163.) Cambridge MA, USA: MIT Press, 1991.

Helpman, E., and Krugman, P. *Market structure and foreign trade. Increasing returns, imperfect competition, and the International economy*, Cambridge MA, USA and London, England : MIT Press (1985)

.

Heller, P.S. and Porter, R.C" Exports and growth" : An empirical re- investigation. *Journal of Development Economics* 5 (1978) : 191-193.

Hsiao, F. and Hsiao, M. " FDI, export and GDP in East and South East Asia-Panel data versus time series causality analysis" . *Journal of Asian Economics* 17 (2006) : 1082-1106.

Jordaan, A. C. and Eita, J, H." Export and economic growth in Namibia: A granger causality analysis". *South African Journal of economics* 75 (2007) : 540-547.

Konya, L. " Exports and growth: granger causality analysis on OECD countries with a panel data approach" . *Journal of Economic modeling* 23 (2006): 978-992

Kwan, A.C. and Ahmad, J.C. " Causality between exports and economic growth" . *Economic Letters*, 37(1991) : 243-248.

Kavoussi, R.M. " Export expansion and economic growth" : Further empirical evidence *Journal of Development Economics* 14 (1984) : 241-50.

Love, J. and Chandra R. "Testing and export led growth in Bangladesh in a multivariate VAR framework" . *Elsevier* 15 (2005) :1155-1168.

Michaely, M. " Exports and Growth: An Empirical Investigation. *Journal of Development Economics* 4 (1977) :

49-53.

Park, J.H. and Prime, P.B. " Export performance and Growth in China. A cross sectional Analysis." *Applied Economics* 29 (1977) 1353-1363.

Ram, R. (1987). "Exports and economic growth in developing countries: Evidence from time-series and cross-section data" . *Economic Development and Cultural Change* 36 (1987) : 51-72.

Ricardo. D. *On the Principles of Political Economy and Taxation*. London, UK: John Murray, 1817

Reppas, P.A, and Christopoulus, D.K " The export-output growth nexus: Evidence from the African and Asian countries" . *Journal of policy modeling* 27 (2005) : 929-940.

Roderick, D. (1999). The New Global Economy and Developing Countries: *Making Openness Work. (Policy Essay* No. 24), Washington DC, USA: Overseas Development Council

Sakyi, D. " Trade openness, foreign aid and economic growth in post-liberation Ghana: An application of ARDL bound test" . *Journal of Economics and International Finance* 3 (2011): 146-156.

Solow R.M " Technical change and the aggregate productions. *Reviews of Economic and statistics* 39 (1957) : 312-320.

Smith, A. The theory of international trade. Essays on Adam Smith. Oxford, UK: Clarendon Press, 1975

Shigeyuki, H. and Razafimahefa I. F " Trade and growth relationship: some evidence from Comoros, Madagascar, Mauritius and Seychelles" . *Asian and African Area Studies* 12(2003) : 174-185.

Tyler, W.G. "Growth and export expansion in developing countries: Some empirical evidence." *Journal of Development Economics* 9 (1981) : 121-130.

Tekin, R. F. " Economic growth, exports and foreign direct investment in least developed countries: A panel Granger causality analysis" . *Economic Modelling* 29 (2012) : 868-878.

Vohra, R. " Export and economic growth: Further Time series evidence from LDCs" . *Journal of international advance in economic research* 7 (2001) : 345-50.

Yucel. F. " Causal relationships between financial development, trade openness and economic growth: The case of Turkey. *Journal of Social Sciences* 5 (2009) : 33-4.

Yanikkaya, H. " Trade openness and economic growth: Across country empirical investigation. *Journal of Development economics* 72 (2003) : 57-89.

Zhang, D. W. How dependent is the Chinese economy on exports and in what sense has its growth been export led?. *Journal of Asian Economics*, 21 (2010) 481-496.

The IISTE is a pioneer in the Open-Access hosting service and academic event management. The aim of the firm is Accelerating Global Knowledge Sharing.

More information about the firm can be found on the homepage:
http://www.iiste.org

CALL FOR JOURNAL PAPERS

There are more than 30 peer-reviewed academic journals hosted under the hosting platform.

Prospective authors of journals can find the submission instruction on the following page: http://www.iiste.org/journals/ All the journals articles are available online to the readers all over the world without financial, legal, or technical barriers other than those inseparable from gaining access to the internet itself. Paper version of the journals is also available upon request of readers and authors.

MORE RESOURCES

Book publication information: http://www.iiste.org/book/

IISTE Knowledge Sharing Partners

EBSCO, Index Copernicus, Ulrich's Periodicals Directory, JournalTOCS, PKP Open Archives Harvester, Bielefeld Academic Search Engine, Elektronische Zeitschriftenbibliothek EZB, Open J-Gate, OCLC WorldCat, Universe Digtial Library , NewJour, Google Scholar