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RELATION BETWEEN TRADE IN SERVICES AND ECONOMIC GROWTH IN INDIA : COINTEGRATION ANALYSIS

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ABSTRACT

International trade in services has become more important in recent years as advances in technology have permitted new means of providing services across borders. Services have emerged as crucial economic activities in India, more prominently since the last decade. Apart from providing the bulk of employment and income in India, the services sector also serves as vital input for producing other goods and services. Therefore, the present papers tries to examine the relation between trade in services (TIS) and economic growth in India using time series data for the period 1990-91 to 2014-15. We have used co integration approach to establish a long run relationship between trade in services and economic growth. Granger Causality analysis and VECM analysis have also be undertaken for the examination of short run and long run causality running from trade in services to economic growth (GDP). The empirical results show that there is unidirectional causality running from GDP to TIS in the long run. But the results of wald test indicates the absence of short run causality between the two variables.

KEYWORDS: Services, Economic Growth, Co integration and Granger causality.

INTRODUCTION:-

Service sector also known as tertiary or residual sector is essential for economic growth in any economy including India. It has emerged as the largest and fastest-growing sector in the global economy in the last two decades. On the basis of this observed development pattern of countries Kuznets (1971) has suggested that development is a three stage process. The dominance of the services sector in the growth process is associated with the third stage of development. However in India the acceleration in growth in recent years has been due to the dynamism of the service sector while the contribution of industry has tended to stagnate over the last two decades. Services now contribution almost 59%to India 's GDP and have contribution to more than 60% of India's growth during the period of the last decade and a half. Firstly, Fisher classified the economy into primary, secondary and tertiary sector. Later on Kuznets introduced the term 'services' instead of tertiary, there by bringing the sector into economic discussion (Kuznets, 1972).

Indian economy has been witnessing a service driven growth, particularly since 1990s, though it still remains in the category of low-middle income emerging countries. While the share of services in India's GDP has risen over much of the post independence period, there was a marked acceleration in the trend since the early 1990s. Moreover, the export share of services has been large and increasing in recent years (Eichengreen and Gupta, 2012). The economic reforms of the 1990s paving the way for trade liberalization along with major policy changes in domestic business environment may have helped the emergence of service sector as a key player in India's growth story. Traditionally, services have been a regulated activity. This was particularly true in areas of banking, insurance and telecommunication, which are among the sectors that witnessed massive improvement in the post-reform period. Further, this sector has evolved as a prominent sector in terms of contribution to national and state incomes, trade flows, FDI and employment. The emergence of services as the most dynamic sector of the Indian economy has in many ways been a revolution. The most visible and well-known dimension of the take-off in services has been in software and information technology (IT)–enabled services (including call centers, software design, and business process outsourcing), which to some extent also help increase innovation capabilities in the sector (Lema et al, 2012). There have been many studies looking into India's service-driven economy (Eichengreen and Gupta 2009, 2010), and its sluggish manufacturing. While studies on structural transformation suggest that the observed structural transformation in India has been growth enhancing (McMillan and Rodrik, 2011; Bosworth and Collins, 2008; Vries et al, 2012), evidence on services sector suggest that the observed growth surge is mainly due to higher productivity growth in this sector (Verma, 2012). However, there has hardly been any attempt to explain the observed momentum in the service economy in detail, particularly by looking into how productive the sector is and what are the factors that drive the productivity in this sector.

The services sector in India has grown at a rapid rate compared to the growth of the secondary sector with the onset of economic development since 1950s. In a span of 60 years, beginning from 1950-51 the share of primary sector to GDP has decreased from 56% to 22% whereas the share of service sector has increased from 28% to 54%. The fall in the share of the primary sector has taken 40 years that was achieved by the developed countries in 100 to 150 years and the services sector has grown at a rapid rate since 1990s. The share of secondary sector has increased at a slow pace from 16% in the decade of 1950s to only 24% in 2000s. In the decade of 2000s the share of primary, secondary and service sector were 22%, 24% and 54% respectively.

The stage of industrialization has been by-passed by the Indian economy with the services sector showing a phenomenal growth since the post- liberalization period. Service–led growth in India has forced the economists to re-think about the pattern of structural shift that a country should experience as it embarks upon the path of economic development. The services sector, with around 52 per cent contribution to the Gross Domestic Product (GDP) in 2014-15, has made rapid strides in the past decade and a half to emerge as the largest and one of the fastest-growing sectors of the economy. The services sector is not only the dominant sector in India's GDP, but has also attracted significant foreign investment flows, contributed significantly to exports as well as provided large-scale employment. India's services sector covers a wide variety of activities such as trade, hotel and restaurants, transport, storage and communication, financing, insurance, real estate, business services, community, social and personal services, and services associated with construction and financial services. India has witnessed a gradual structural shift towards the services sector in the past decades, with services comprising a growing share of GDP and employment. Today, services sector in India represents an essential component of competitive, knowledge-based economy, accounting for 57.2 per cent of GDP.

FIG:-1 INDIA'S TRADE IN SERVICES AS A PERCENTAGE OF GDP (1990-91 TO 2014-15)

percent share
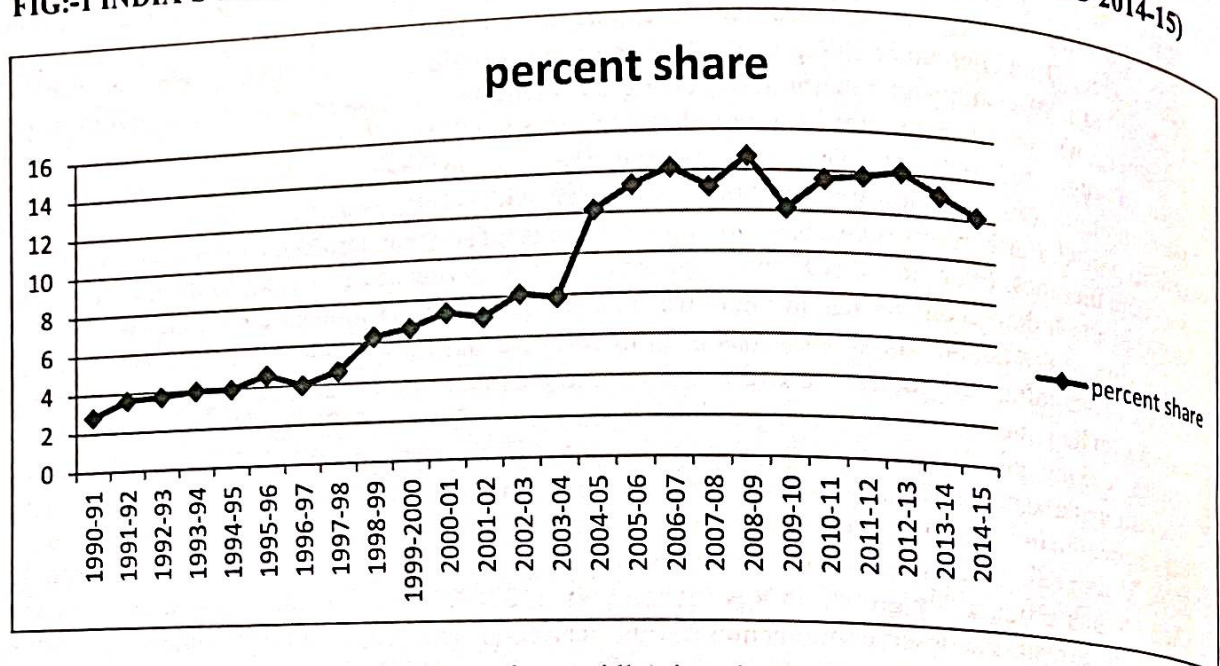
Trade in services in India has been growing rapidly since beginning of the last decade, following significant domestic liberalization on one hand, and access to a growing overseas market for services, on the other. India's services export currently constitutes about 38 per cent of the country's total export. Services export not only grew more rapidly than the country's merchandise exports, but also increased much faster than the world average during the past decade and a half. Due to such rapid growth in services exports, India has succeeded in raising its penetration in global markets more rapidly for services than for goods.

FIG:-2 TREND IN INDIA'S TRADE IN SERVICES (1990-91 TO 2014-15)

Trade in services
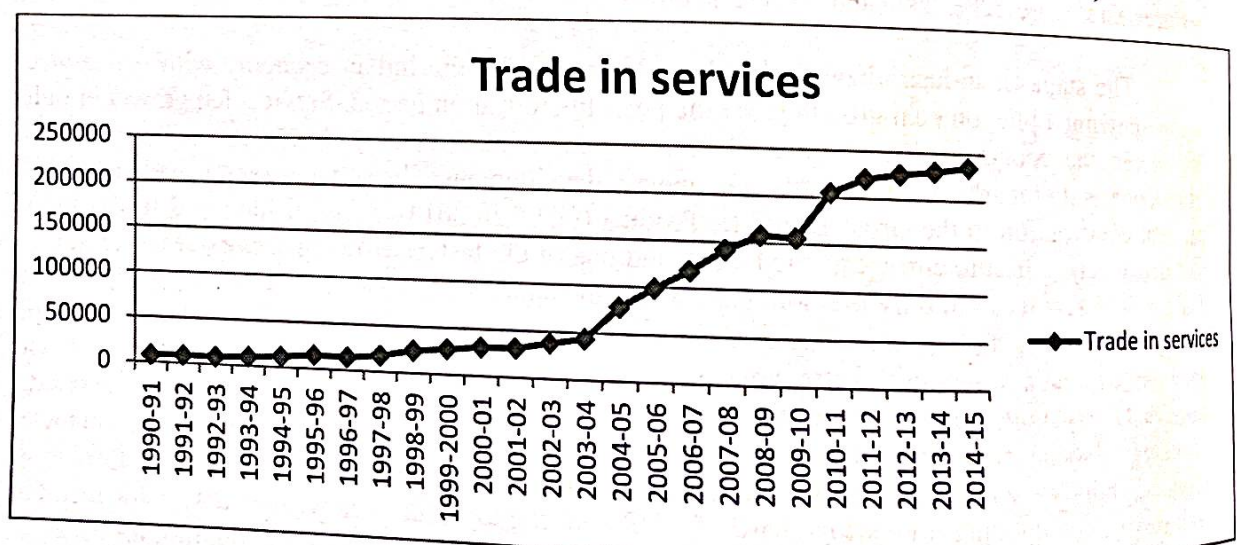
FIG:-3 TREND IN INDIA'S GROSS DOMESTIC PRODUCT (1990-91 TO 2014-15)
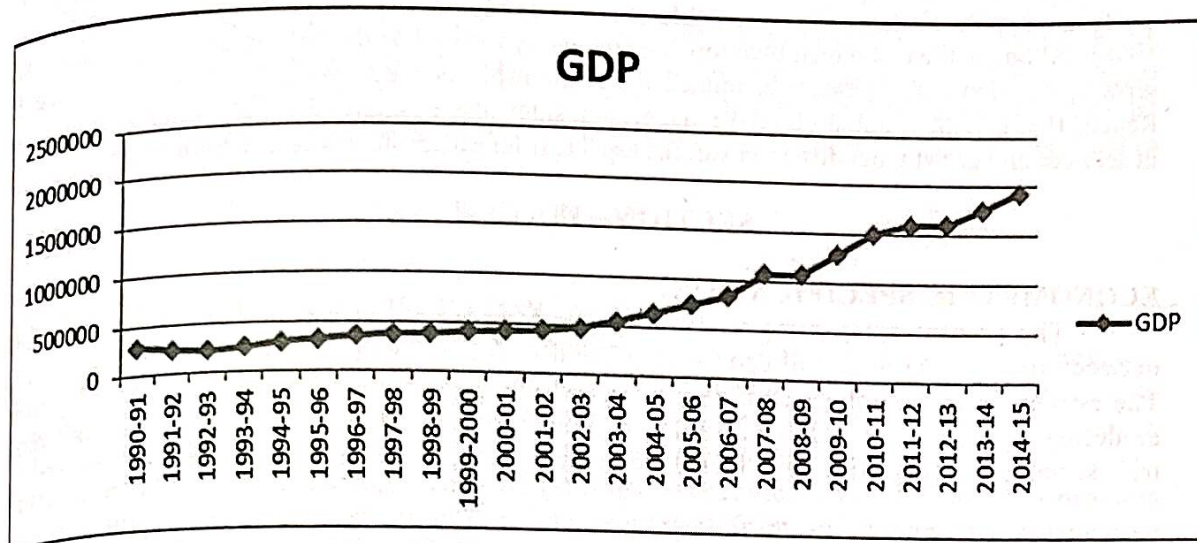
SECTION – I

LITERATURE SURVEY

Rugiero (1998) found that there is positive impact of services liberalization on economic efficiency. Banik and Bhaumik, (2010a) suggested that, a competitive and well-regulated financial sector leads to the efficient transformation of savings into an investment which is one of the essential features of growth to occur. The favorable impact of exports on economic growth has been well established in the literature as it facilitates better resource allocation, efficient management style, and economies of scale and efficiency of production (Balassa, 1978). Thus, an increase in investment in the export sector, even at the cost of other sectors, will have a positive impact on the economy. Further, exports enable importing of essential raw materials and capital goods, thus increasing investment in the economy and thereby resulting in higher output (Rana & Dowling, 1990). Economic growth leads to an increase in exports through technological innovation and an increase in productivity, thereby increasing competitiveness. Further, some of the studies have established the presence of a bidirectional relationship between export and economic growth (Shan&Sun, 1998; Anwar& Sampath, 2000). India's exports of finance and insurance services have been growing in recent years and constitute a rising share of total services exports. Indian banks have been gradually expanding their presence overseas in recent years, through branches, representative offices, and subsidiaries (Chanda 2005). India's exports of finance and insurance services have been growing in recent years and constitute a rising share of total services exports. Indian banks have been gradually expanding their presence overseas in recent years, through branches, representative offices, and subsidiaries (Chanda 2005). Edward (1992) used across country data set to estimate the relationship between trade openness and GDP growth of 30 developing countries over the period 1970 to 1982. His study used two basic sets of trade policy indicators. The first set refers to the openness and measures of trade policy (tariff and Non Tariff Barriers - NTB) which restrict imports. The second set measures trade intervention and captured the extent to which trade policy distorted trade.

However, in the last decade, there has been a surprising and impressive resumption of activity in the economic growth literature triggered by the endogenous growth theory (Grossman & Helpman, 1990; Rebelo, 1991;), which has led to an extensive inventory of models that stress the importance of

trade in achieving a sustainable rate of economic growth. These models have focused on different variables, such as degree of openness, real exchange rate, terms of trade and export performance, to verify the hypothesis that open economies grow more rapidly than those that are closed (Edwards, 1998). Although the theoretical literature has frequently focused on the relationship between trade and growth, the empirical literature examined the relationship between exports and growth (Levine & Renelt, 1992). With a similar objective, the present study also examines the relationship between trade in services and growth, but differs in various aspects from earlier studies as discussed earlier.

SECTION – II

ECONOMETRIC SPECIFICATION

The present study aims to examine the long-term and causal dynamic relationship between trade in services and economic growth in India for the period 1990-91 to 2014-15. The estimation methodology employed in this study is the co integration and error correction modeling technique. The entire estimation procedure consists of three steps: first, unit root test; second, co integration test; third, the error correction model estimation.

METHODOLOGY

In order to avoid spurious regression, we need to distinguish the stationary of the series. By doing so, we ensure the validity of the usual test statistics (t-statistics, F-statistics and R^2). Stationary could be achieved by appropriate differencing and this appropriate number of differencing is called order of integration. The standard Augmented Dickey Fuller (ADF) [Dickey and Fuller 1979] Unit root have been used to check the stationary of the series. If the two time sequences are all integrated of order one i.e., I (1) either following the Augmented Dickey-Fuller test or the Phillips-Perron test we can perform co-integration test with them. Once the unit roots are confirmed for data series, the next step is to examine whether there exists a long-run equilibrium relationship among the variables. This calls for co integration analysis which is significant so as to avoid the risk of spurious regression. Co integration analysis is important because if two non-stationary variables are co integrated, a VAR model in the first difference is mis specified due to the effect of a common tend. In this stage, the Johansen (1988) co integration test is used to identify a co integrating relationship among the variables. In our present research study, we have used Johansen test to assess the co integration of the interest variables. We have applied two maximum likelihood tests, the Trace test and Maximum Eigen value tests, advocated by Johansen (1988) and Johansen and Juselius (1990). If a co integration relationship is identified, the model should include residuals from the vectors (lagged one period) in the dynamic Vector Error Correcting Mechanism (VECM) system.

A Vector Error Correction Model (VECM) is a restricted VAR designed for use with non-stationary series that are known to be co integrated. Once the equilibrium conditions are imposed, the VECM describes how the examined model is adjusting in each time period towards its long-run equilibrium state. Since the variables are supposed to be co integrated, then in the short-run, deviations from this long-run equilibrium will feedback on the changes in the dependent variables in order to force their movements towards the long-run equilibrium state. Hence, the co integrated vectors from which the error correction terms are derived are each indicating an independent direction where a stable meaningful long-run equilibrium state exists. The VECM has co integration relations built into the specification so that it restricts the long-run behavior of the endogenous variables to converge on their co integrating relationship while allowing for short-run adjustment dynamics. The co integration term is known as the error correction term since the deviation from long-run equilibrium is corrected

gradually through a series of partial short-run adjustments. The dynamic specification of the VECM allows the deletion of the insignificant variables, while the error correction term is retained. The size of the error correction term indicates the speed of adjustment of any disequilibrium towards a long-run equilibrium state. The error correction term represents the long-run relationship. A negative and significant coefficient of the error correction term indicates the presence of long-run causal relationship. Granger causality test as proposed by Granger (1969) has also been used in order to determine the direction of causal relationship among variables.

SECTION – III

EMPIRICAL RESULTS AND DISCUSSION

The present research study tries to empirically examine the causal relation between trade in financial services and economic growth of Indian economy in using time series data running from 1990-91 to 2014-15. The data used in the study is secondary and have been collected from Handbook of Statistics on Indian economy, Economic survey (various issues), International Financial Statistics Yearbook (various issues) etc. Given the nature of problem and quantum of data we first study the data properties from an econometric perspective starting with the stationary of data. We employ co integration technique to investigate the causality between trade in financial services and economic growth. If the two variables are found to be integrated of same order, only then we can apply the co integration analysis. Before applying co integration test, we had checked whether the series are stationary or not and the results of stationary test are given in the following table 1.1:-

TABLE: 1.1 AUGUMENTED DICKY FULLER TEST

VARIABLES	WITH CONSTANT	WITH CONSTANT & TREND
TRADE IN SERVICES	-3.641136**	-4.136848**
CRITICAL VALUES		
5% level	-2.998064	-3.622033
10% level	-2.638752	-3.248592
ECONOMIC GROWTH (GDP)	-3.293376**	-5.073809**
CRITICAL VALUES		
5% level	-2.998064	-3.622033
10% level	-2.638752	-3.248592

*&** denotes significance at 5% and 10% level of significance.

The above table (1.1) shows that series belonging to trade in financial services and GNP is not stationary in level value. It becomes stationary only when first difference is taken. The table further reveals that as the calculated ADF statistics exceed the tabulated critical values at 5% and 10% level of significance, therefore we reject the null hypothesis of unit

root and non-stationary and conclude that variables are stationary only at the first difference. Strong evidence emerges that all the time series are I (I) at the 5% and 10% Level of significance. To employ co integration technique it is a pre condition that the series have to be non stationary which is met. Hence we employ co integration technique to determine the existence of stable long run relationship between exports, imports and GDP in India for the period 1990-91 to 2014-15. The co integration results are reported in Table 1.2 . Results of co integration are obtained using the optimal lag length calculated using VAR lag length order selection criterion.

TABLE:-1.2 JOHANSEN COINTEGRATION TEST RESULTS

Hypothesized Number of Co integrating Equations	Eigen Value	Trace Statistics	Critical Value at 5% (p-value)	Maximum Eigen statistics	Critical Value at 5% (p-value)
None*	0.733220	29.27613	15.49471 (0.0002)	29.06929	14.26460 (0.0001)
At Most 1*	0.009358	0.206837	3.841466 (0.6493)	0.206837	3.841466 (0.6493)

Source: Author's own Calculation & * denotes rejection of the hypothesis at the 0.05 level

The above table (1.2) shows that first hypothesis i.e. no co integration among variables can be rejected as p-value (0.02%) is less than the critical value (15.49%) at 5% level of significance on the basis of trace statistics. The second null hypothesis i.e. there is at most one co integrating equation, cannot be rejected as p-value (64.93%) is more than the critical value (3.84%) at 5% level of significance. This implies that our both the variable i.e. trade in services and GDP are co integrated i.e. all the variables have long run association among them. And the Maximum Eigen test statistics makes the confirmation of this result. After analyzing that there is significant co integration in the sample series we employ Granger causality test to know the causality between the two variables. Granger causality is a statistical concept of causality that is based on prediction. The results of Pair-wise Granger causality test done for 2 Time lags and 4 time lags between the two variables for which unit root test is carried out are shown in the following table (1.3):-

TABLE:-1.3 GRANGER CAUSALITY FOR THE PERIOD 1990-91 TO 2014-15
Pairwise Granger Causality Tests

Sample: 1990 2014
Lags: 2

Null Hypothesis:	F-Statistic	Prob.
TS does not Granger Cause GDP	2.18655	0.1412
GDP does not Granger Cause TS	7.44900	0.0044

The results of the Granger causality tests shows that the hypotheses trade in services does not Granger causes GDP cannot be rejected at the 5% level of significance but it can be

rejected that GDP does not Granger cause trade in services as the probability value is less than the calculated value of F-statistics. This implies that there is a one-way causality between GDP and trade in services .

Error Correction Mechanism:-

The coefficients of Error Correction Term (ECM) contain information about whether the past values affect the current values of the variable under study. A significant coefficient implies that past equilibrium errors play a role in determining the current outcomes. The information obtained from the ECM is related to the speed of adjustment of the system towards long-run equilibrium. The short-run dynamics are captured through the individual coefficients of the difference terms. The results of VECM analysis are given in the following table 1.4:-

TABLE:-1.4 ESTIMATES FOR VECM REGRESSION

Dependent Variable: D(GDP)
Method: Least Squares

Sample (adjusted): 1993 2014
Included observations: 22 after adjustments
D(GDP) = C(1)*(GDP(-1) - 7.27717220131*TS(-1) - 125486.433246) +
    C(2)*D(GDP(-1)) + C(3)*D(GDP(-2)) + C(4)*D(TS(-1)) +
C(5)*D(TS(-2))
    + C(6)

	Coefficient	Std. Error	t-Statistic	Prob.
C(1)	-0.814821	0.223641	-3.643426	0.0022
C(2)	0.302741	0.222168	1.362663	0.1919
C(3)	-0.051934	0.347526	-0.149438	0.8831
C(4)	-3.322663	1.979996	-1.678116	0.1127
C(5)	-2.535398	1.638942	-1.546973	0.1414
C(6)	118297.8	26973.62	4.385686	0.0005

R-squared	0.524000	Mean dependent var	77457.46
Adjusted R-squared	0.375250	S.D. dependent var	75623.58
S.E. of regression	59773.73	Akaike info criterion	25.06152
Sum squared resid	5.72E+10	Schwarz criterion	25.35908
Log likelihood	-269.6767	Hannan-Quinn criter.	25.13162
F-statistic	4.522689	Durbin-Watson stat	1.928051
Prob(F-statistic)	0.024476		

The above table (1.4) shows that the estimated error correction term has negative sign and is statistically significant at 5 per cent level of significance which confirms that there can be long run equilibrium relation between dependent and independent variables. The value of R^2 is also found to be high i.e. 0.52 and F-value is also found to be statistically

significant at 5% level of significance which shows that the overall model is significant. But the individual coefficients are found to be statistically insignificant which indicate the absence of short-run causality running from GDP to trade in services. In order to check the short-run causality running from GDP to trade in services, we have also applied Wald test:-

H_0:- $C(4)=C(5)=0$

H_1:- $C(4)=C(5)\neq0$

TABLE:-1.5 SHORT RUN CAUSALITY (WALD TEST)

HYPOTHESIS	CHI-SQUARE	P-VALUE	DECISION AT 5% LEVEL OF SIGNIFICANCE
H_0 = GDP doesn't Granger Cause trade in services	3.403943	0.1823	Accept H_0

Source: Author's calculation

The above table (1.5) clearly indicates that there is absence of short run causality running from trade in services to GDP as p-value is found to be more than 5% level of significance in both the cases. If p-value is found to be more than 5% level we can't reject the null hypothesis which means that there is absence of short run causality between the two variables. Finally, the results of Wald test clearly indicate the absence of short run causality running from trade in services to GDPAA.

SECTION –IV

CONCLUSIONS

In this paper, we made an attempt to understand the role of trade in services in economic growth. The main variable of this study are Trade in Services (TIS) which includes export and imports of services. The other variable is economic growth and we have measured it with GDP. The objective of this study is to see that, is there any relationship exist in these variable? This study is based on time series data running for the time period 1990-91 to 2014-15. The study further shows that India's trade in services as a percentage of GDP has been rising continuously for the period 1990-91 to 2014-15. The empirical results indicate that both the variable that is TIS and GDP are co integrated in the long run. After finding the variables are co integrated, we also checked the direction of causality with the help of vector error correction model, the result of which reveals that there is unidirectional causality running from GDP to TIS in the long run. But the results of wald test indicates the absence of short run causality between the two variables.

Our findings support the fact that trade in services plays an important role in GDP of the India. It is further assumed that, if the government can remove the restrictions from trade in services it will develop this sector and the overall economy. This study led the door open for further study, which may see the impact of liberalizing trade in services (or in other words removing the barriers) on other important macroeconomic variables.

REFERENCES

Anwar, M. and Sampath, R.K. (2000). Exports and economic growth. Indian Economic Journal, 47 (3): 79–88.

Balassa (1978). Exports and Economic growth: further evidence, Journol of Development Economics, Volume 5, Issue 2, June 1978, Pages 181-189.

Bhagwati, J. N. 1987 "Trade in Services and the Multilateral Trade Negotiations". World Bank Economic Review, Vol. 1(4), pp. 549–69.

Bosworth Barry, Susan M Collins and Arvind Virmani (2007): Sources of Growth in Indian Economy, NBER Working Paper 12901.

Barry Eichengreen and Poonam Gupta, (2009), "The Two Waves of Service-Sector Growth," Development Economics Working Papers 22914, East Asian Bureau of Economic Research.

Banik, A. & Bhaumik, P.K. (2010a). Assessing the Barriers to Trade in Services in South Asia, Asian Development Banik, Manilla, *mimeo*.

Banik, A & Bhaumik, P.K. (2010b), Trade in Health Services in South Asia: An Examination of the Need for Regional Cooperation, SANEI (South Asia Network of Economic Research Institutes, Dhaka) ,September, *mimeo*.

Chanda, R. (2005). Trade in Financial Services: India's opportunities and Constraints, Indian Council for Research on International Economic Relations.

Chanda, Rupa. 2006. (ed.) *Trade in Services and India: Prospects and Strategies*. New Delhi: Wiley-India

Chanda Rupa and Pralok Gupta, P (2011) "Service Sector Liberalization in India: Key Lessons and Challenges", *South African Institute of International Affairs; Economic Diplomacy Program;* Occasional Paper No.88.

Chanda, Rupa and Pralok Gupta (2013), "Services Reforms in India: Update and Challenges", Chapter 11 in *Services Liberalization*, (eds.) P. Dee and R. Findlay, ANU Press (forthcoming 2013)

Edwards, S. (1992). Trade orientation, distortions and growth in developing countries. Journal of Development Economics, 39, 31–57

Edwards, S. (1998). Openness, productivity and growth: what do we really know? Economic Journal, 108, 383–398.

Eichengreen, Barry and Poonam Gupta (2010), "The Service Sector as India's Road to Economic Growth?" *Indian Council for Research on International Economic Relations (ICRIER) Working Paper Series* No. 249. New Delhi: ICRIER.

Eichengreen, Barry and Poonam Gupta (2012), "The Real Exchange Rate and Export Growth: Are Services Different? " MPRA Paper 43358, University Library of Munich, Germany

Eichengreen, Barry and Poonam Gupta (2013), "Exports of services: Indian experience in perspective", Indian Growth and Development Review, Vol. 6 Iss: 1, pp.35 – 60.

Grossman, G.M. and Helpman, E. (1990). Trade, Innovation, and Growth. The American Economic Review, Vol. 80, No. 2, 86-91

Kuznets S (1966), Modern Economic Growth, Yale University Press, New Haven

Levine, R. and Renelt, D. (1992). A sensitivity analysis of cross country growth regression. The American Economic Review, Vol. 82, No. 4, pp. 942-963.

Lema, Rasmus, Ruy Quadros, and Hubert Schmitz (2012), Shifts in Innovation Power to Brazil and India: Insights from the Auto and Software Industries, IDS Research Reports, 73

McMillan M S and D Rodrik (2011), "Globalization, Structural Change and Productivity", NBER Working Papers 17143, National Bureau of Economic Research, Inc

Rebelo, S.T. (1990). Long-Run Policy Analysis and Long Run Growth. Journal of political economy, 99(3), 500-521

Rana, P.B., and Dowling, J.M. (1990). Foreign capital and Asian Economic growth. Asian Development Review, 8(2), 77-102.

Ruggiero, R. (1998). Financial Services Trade Liberalization in the Wake of the Asian Crisis, International Finance 1:1, 1998: pp. 161–172

Shan, J.Z. and Sun, F. (1998). Export-led growth hypothesis: Further econometric evidence from China. Applied Economics 30, 1055-65

Sengupta, Aggarwal, Erumban and Das (2013), " Revisiting the Service Led Growth in India understanding India's Service Sector Productivity Growth", Paper Prepared for the IARIW-UNSW Conference Sydney, Australia, November 26-27, 2013

Vries, D E, A.A. Erumban, M. P. Timmer, I. Voskoboynikov and H. Wu (2012), "Deconstructing the BRICs: Structural Transformation and Aggregate Productivity Growth", Journal of Comparative Economics.

Verma R (2012) Can Total Factor Productivity Explain Value Added Growth in Services? *Journal of Development Economics, Volume 99, Issue 1, September 2012.*

OFFICIAL PUBLICATIONS

1. Economic Survey of India (Various Issues), Published by Govt. of India.

2. Handbook of Statistics on India Economy (Various Issues), Published by Reserve Bank of India (RBI).

3. RBI Bulletin (Various Issues), Published by Reserve Bank of India. (RBI).

4. Statistical Abstract of India (Various Issues), Published by C.S.O, Govt. of India, New Delhi.

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