INDIA'S COMPETITIVE POSITION AMONGST THE ASIAN ECONOMIES: AN EMPIRICAL STUDY ON FDI INFLOW

Tushar Ranjan Panigrahi[1]
St. Francis Institute of Management & Research, India

Sunita Mall[2]
MICA The School of Ideas, India
E-mail: sunita.mall@micamail.in

ABSTRACT

Foreign investment has become a vital part of economic development in the globalization era where every business tries to go global and tries to stay ahead in the competition. As the competition becomes very tough and price is almost similar or equal, it becomes to cut price further. So manufacturers and the firms from service industry looks for the cheaper source of production and services by means of cost cutting which in turns is possible by finding cheaper source of raw material, labour, good infrastructure etc. Also to supply goods and services without import duty, the foreign firm takes the help of producing them at the Host country's territory and all these are possible through foreign investment. Foreign direct investments (FDI) are considered to be an important external source of finance to supplement domestic savings. India has improved its ranking in FDI over the past years and currently ranks among the first twenty nations in getting the highest inward FDI. This research paper attempts to predict the position of India in getting the inward FDI among the rest of the countries in Asia by 2020. Polynomial method of second degree (Quadratic Equation) of time-series analysis is used for prediction. The results show that China, Hong Kong and Singapore are continuing at first second and third position and India has got the fourth rank in achieving the inward FDI. This research paper highlights the ranks of different countries with respect to inward FDI.

Key Words: FDI inflow, Polynomial Trend, Forecasting, FDI Rank Forecasting and Rank Comparison.

JEL Classification: F21, F39, H11

I. INTRODUCTION

Foreign investment has become a vital part of economic development in the globalization era where every business tries to go global and tries to stay ahead in the competition. As the competition becomes very tough and price is almost similar or equal, it becomes to cut price further. So manufacturers and the firms from service industry looks for the cheaper source

[1] Dr. Tushar Ranjan Panigrahi, Assistant Professor, St.Francis Institute of management & Research, Mt.Poinsur , SVP Road, Borivali(w), Mumbai-400103.
[2] Dr. Sunita Mall, Assistant Professor, MICA The School of Ideas, Room no-17, Shela, Ahmedabad-380058

of production and services by means of cost cutting which in turns is possible by finding cheaper source of raw material, labour, good infrastructure etc. Also to supply goods and services without import duty, the foreign firm takes the help of producing them at the Host country's territory and all these are possible through foreign investment. Foreign investment is of two types, those are Foreign Direct Investment (FDI) and Foreign Institutional Investment (FII). FDI refers to the investment made by a foreign firm or investor in order to have a control over the business run by another firm in the domestic country known as host country. As per the definition of Organization of Economic Co-operation and Development (OECD), a firm needs to invest a minimum of 10 percent of the total capital employed in the foreign by which it can exercise control. Thus the FDI can be said as the net inflow of funds in a business firm which operates in a foreign country to produce goods and services with an objective of a lasting management interest. Foreign institutional investors (FIIs) do investment in the assets belonging to a different country other than that where these organizations are based. These FIIs are the big companies such as insurance companies, investment banks, mutual funds etc., who invest considerable amount of money in the money market and stock market of another country. When the FIIs buy securities, stocks, etc., markets move upward and vice-versa. The FDI is generally preferred over FII, as FDI has a direct and a multiplier effect on the production, employment and income generation.

Asia is the World's largest and most populated continent. As an economy, Asia is the second largest in nominal GDP of all continents after Europe, but it the largest economy among all the continent when measured in purchasing power parity.[" Population of Asia in 2014" , World Population Statistics .Retrieved on 20th December,2014]. According to the UNCTAD[13] reports of 2014, on the basis of the nominal GDP, the largest economies in Asia are China, Japan, India, Russia, South Korea and Indonesia and according to the purchasing power parity, China, India, Japan, Russia, Indonesia and South Korea.

According to the Global Office Locations survey[5], 2014, four of top five most preferred office locations like Hong Kong, Moscow, Beijing and Tokyo are from Asia. It also reveals around 68 percent of international firms have office in Hong Kong. New Delhi ranks 8th position in the global preference which is located in India. Thus, including New Delhi five out of the top ten business locations are located in Asia and this shows the global preference for investment in Asia. The location choice for doing business has a direct link with the FDI flow as the firm will go global in its way for business expansion. Thus a similar condition in the FDI inflow to Asia is also observed as it tops the position by receiving nearly 38 percent of the total FDI in the world in 2014[13].

For this research, data was collected from the secondary sources like World Bank portal for the time period of forty-five years, i.e., from 1970 to 2014. This data consists of the FDI inflow to the countries of Asia continent and measured at current prices and current exchange rates. The main objective of this research is to forecast the position of India in the Asia continent in getting Inward FDI by 2020. For the purpose of forecasting time series, trend forecasting technique, particularly second degree polynomial trend technique is used.

The result of the analysis shows India's strong consistency in the current and the forecasted ranking as it stands at the fourth position now and for the next six years. The first three ranks are occupied by China, Hong Kong and Singapore and they sound to be very consistent in their position in our forecasting. The consistency of the forecasted rank is determined and interpreted using R^2.

There are plenty of research papers and studies available showing trend analysis of FDI inflow but a little work is done on the trend forecasting of FDI inflow and ranking the countries on the forecasted FDI inflow. The present study is an attempt to fill the gap of thin documentation of rank forecasting through trend analysis. The remaining part of the research paper is segmented as; Section II deals with Literature Review & Research Gap, Section III explains the relevance of the Study and objective of the study. Research Methodology is discussed in section IV Section V depicts the scenario of FDI inflow to the countries at the global level and at the Asian Continent level, data analysis and interpretation; Section VI. Conclusion; and Section VII, Implications of the Study.

II. EXTANT OF LITERATURE

Major FDI research has focused on various aspects of FDI like investigating determinants, Location and FDI, trends in FDI, sector based FDI etc. Some of such literature is discussed in this research paper.

Fisher and Alan [4] (1998) remarked that incentives declared and offered by various regions/states had a positive impact on investment flows. They studied the impact of incentives like job credits, property tax abatements, sales tax exemptions, grants, loan guarantees, firm specific job training and infrastructure subsidies on FDI inflow for both the US and the European Union. They used time series trend analysis and found the regions/states respond positively to the incentive declared and negatively to the revisions in taxations at local level both in the US and the European Union.

Kamath[8] (2009) conducted a study for Asian countries for the period from 1985 to 2005 by taking world investment data from world investment report 2006. Using regression analysis for the dependent variable FDI inflow and the independent variables viz. GDP, exchange rate, interest rate, human capital, technological factor and openness of the economy, he discarded the relevance of the model in the Indian contest as the Indian liberalization of FDI inflow and outflow as long way to go. In India only the human capital has a significant role in the FDI inflow and other factors are insignificant to drive the FDI inflow.

Ansari & Ranga[1] (2010) conducted an empirical analysis of status of FDI in India and made some policy recommendation to boost flow of FDI to India with reference to the FDI data and economic indicators of the country from 2000 to 2009. They found growing confidence of Investors in the immediate and medium term prospects of Indian Economy. FDI off course might be one of the important sources of financing the economic development.

Behzad, A. et.al.[2] (2012) stated getting FDI is becoming more and more complex because of competition. They measured the performance of South Asia, East Asia and South-East Asia on the basis of FDI inflows and found that he performance of the three sub regions and their major economies varied significantly.

Lee et. al.[9] (2013), studied the increasing trend of FDI outflow in Russian Federation from 2000 to 2011. In their descriptive analysis of Russian FDI they found the country served as a source of investment to 29 countries on an average outflow of $100 million to more than $1 billion even during the global financial crisis of 2008.

Singh and Paul[11] (2013) found that developing nations like India, China, Brazil, etc. are able to attract Inward FDI in higher quantity or even at par when compared with the developed countries while their FDI outflow is far lesser that the developed countries. Ikenson[7] (2011), studied a reversal trend in the inward FDI flows to US and surveyed to find out the reason for so. In his explorative study, he found the economic policy decision is poor, the size of the government is inappropriate, the regulator's inefficiency to amend laws from time to time and this unchanged investment policy from 1997 to 2012 made US economy to be more stringent to invest with. They also checked it is not the lax standards and low wages which attract FDI as in that case the US outward FDI is mostly concentrated in those locales where wage is relatively higher and more stringent standards than that of the U.S. is followed.

Thus they found quality and skilled labour, effective political system, growing infrastructures are the key to attract investment in the US. But they lack these factors as these are deteriorating.

According to UNCTAD' World Investment report (2015)[13], from 2011 the Developing Asia remains the world's largest recipient region of FDI followed by Latin America. Dutta and Sharma[3] (2008) found India's share of Inward FDI in the world is far behind that of China though the FDI inflow has increased more than 300 times in 2005 over the inflow in 1991. They found the traditional industrial sectors in India like food processing, textile industries attracted foreign investors significantly.

Singh & Kumar[12] (2014) documented the trend of FDI inflows to for the years 2000-01 to 2013-14 by focusing on its flows and distribution both by regions and sectors. With a comprehensive explanation of the underlying factors they concluded that maximum global FDI inflows have been attracted by Mumbai region (32 per cent) and also stated that Services sector has attracted highest FDI inflows (18.75 per cent) during the study period.

Matiza & Oni[10] (2014) studied the problems of African economies in getting investment and economic growth as these economies suffer from a negative image challenge. They pointed out that nation branding can break the stereo-type concept of African economies for investment and make a significant contribution in the image-building aspect of the investment promotion process. The perceptions of foreign investors towards African Nations has to be changed by proactively managing their images before embarking on investment generation activities.

The above review of literature proves beneficial in identifying the research issues and the research gaps. Though literatures on the trend analysis and determinants of FDI inflow at national and global level are thickly documented, still there is the scarcity in the prediction of ranking of countries done on the basis of FDI inflow. In this study, attempt is taken to predict the FDI inflow to India for the next six years that is from 2015 to 2020 on the basis of FDI realized from 1970 to 2014. The objective also includes prediction of ranking of the countries in Asia for the same period and investigating India's competitive position in Asia which are not studied in the existing literature.

III. RELEVANCE OF THE STUDY

The study works out the trends of investment flows to India and some emerging economies. The study also forecasts the change in the rank of each country in the continent of Asia on the basis of Inward FDI inflows happened to these countries from 1970 to 2014. The trend of Inward FDI for the period 1970-2014, the period under study is important for a variety of reasons. First of all, it was during the seventies and eighties some of the leading economies now had gone for liberalization and globalization of their economies like Ireland, China, Brazil, Chile, Mexico, etc. where as in 1991 India had gone for globalization, privatization and liberalization. Secondly, in 1980s and 1990s, the South-East Asian countries have experienced the rapid economic growth by liberalizing their economies. Thirdly, India's experience in growth performance with economic reforms in 1990s made the country a safe haven for the foreign investment and this led to a revision of economic reform in 2000s. Fourthly, almost all the emerging economies of today have declared themselves politically independent and joined IMF and the World Bank membership by 1970. Fifthly, increase in competition for FDI inflows particularly among the developing nations can be well compared to that of the developed and transiting economies when the period will be long enough.

As the study is based on time-series analysis, the result can show where our economy is leading into in the coming years.

A. OBJECTIVE OF THE STUDY

i) To check the trend of inward FDI of India from 1970 to 2014.
ii) To find out the competitive position of India in the Asia continent in getting Inward FDI by 2020

IV. RESEARCH METHODOLOGY

Using secondary data on FDI for a period of forty-five years from 1970 to2014, the trend of inward FDI is checked. The data is collected from the World Bank website. The major focus of this paper is to find out the competitive position of India in the Asia continent in getting inward FDI by 2020. For this purpose, Time series technique, more specifically second order polynomial method is used. It establishes the trend or the expected line much closer to the realized FDI line in the line FIGURE. To test how much the variation in the trend is being explained by the variation in the observed FDI inflow, we have used the degree of determination for each of the country's trend calculation.

V. FDI INFLOW AT THE GLOBAL LEVEL AND INDIA'S POSITION

Countries are in a competition to overtake one another to get the maximum possible of foreign investment. The country's FDI inward flows along with its ranking is displayed in Table-1. It is seen in Table-1 that for the first time US has lost its top rank in receiving the highest FDI to China and Honk Kong SAR in 2014. The two countries were ranked second and fourth in 2013. In fact, Hong Kong has proceeded two ranks ahead by leaving British Virgin Island and the United States behind and has become the second most favourable investment destination in the world. In Asia, the other two countries are India and Malaysia to do a similar move like China and Honk Kong SAR in 2014. India was ranked at fifteenth and sixteenth position in 2012 and 2013 respectively and in 2014 it could climb six steps up and placed itself at 10th rank. At the global level, India had taken over Netherland, Chile, Spain, Mexico, Russia and France to get the tenth position. Thus, 2014 is the year for Asian economy as a business hub and destination for investment to lead the global economy.

It is very clear from Table 1 that Canada and India have moved into the top ten countries list for receiving the highest FDI within the last two years where as Russian Federation has moved out from the top ten list in the same period of study. Countries like Indonesia, Netherlands, Cayman Islands and Colombia are making a sharp move and listed in the Top twenty FDI receiving nations. As Asia received the highest FDI among all the continents, it attracts us to get a clear picture of India and the other leading economies in Asia in their FDI status and to predict the flow of inward FDI in the coming years.

Table 1. FDI Inflow from 2010-2014 (Million US$ @ current prices and current exchange rates) & the Country Ranking in the World for the Top 20 countries

	FDI Inward flows annual, 2010-2014					Country Ranking for FDI Inward flows annual, 2010-2014				
	2010	2011	2012	2013	2014	2010	2011	2012	2013	2014
China	114734	123985	121080	123911	128500	2	2	2	2	1
China, Hong Kong SAR	70541	96581	70180	74294	103254	3	3	4	4	2
United States	198049	229862	169680	230768	92397	1	1	1	1	3
United Kingdom	58954	41803	59375	47675	72241	6	11	7	10	4
Singapore	55076	48002	56659	64793	67523	7	10	8	7	5
Brazil	48506	66660	65272	63996	62495	9	6	6	8	6
British Virgin Islands	50645	57695	67973	92300	56541	8	7	5	3	7
Canada	28400	39669	39266	70565	53864	17	12	12	5	8
Australia	36443	57050	55802	54239	51854	14	8	9	9	9
India	27417	36190	24196	28199	34417	18	13	15	16	10
Netherlands	-7184	24369	17655	32039	30253	203	18	20	15	11
Chile	16789	16930	25021	16577	22949	21	23	14	22	12
Spain	39873	28379	25696	41733	22904	12	16	13	13	13
Mexico	26083	23376	18951	44627	22795	19	20	18	11	14
Indonesia	13771	19241	19138	18817	22580	23	21	17	20	15
Switzerland	28744	28309	15989	-22555	21914	16	17	23	207	16
Russian Federation	43168	55084	50588	69219	20958	10	9	10	6	17
Finland	7358.8	2549.9	4158	-5165	18625	35	63	51	205	18
Cayman Islands	8666.5	15116	7366.8	12637	18553	32	28	42	27	19
Colombia	6429.9	14648	15039	16199	16054	38	29	25	23	20

Source: World Investment Report 2015, UNCTAD

A. FDI Inflow in Asia

The competition for FDI in the individual economies resulted in an increasing flow of capital at the global level. Developed countries as well as many developing countries of the world had opted for liberal economic policies to boost trade and production. Looking at the benefits experienced from economic reforms taken by the developed economies in 1970s, some developing economies followed the pattern of liberal economic policy in 1980s and 1990s. These developing countries had experienced a multi-fold economic growth and the chain of economic reform continued to almost all the countries in the world. The cross border trade is complemented with the cross-border production as many developing countries in seventies and eighties were following protectionism policy with a model of export promotion and import substitution to solve the deficit Balance of Payment (BoP) problem. Though some of the economies had opened up to foreign trade, the protectionism attitude of rest of the world had compelled the earlier opened-up economies to follow an economic reform model through cross-border production which can have a spill-over effect of international capital flow, technology and know-how sharing and quality production to meet international standard. But the hindrance in this cross-border production was the unsupportive economic policies adopted during that time which prevented many MNCs to start their operation in India and other less developing countries, those that were suffering from deficit BoP. Once these MNCs came to start the operations, they brought the foreign capital, know-how, quality policy in a combination and required the domestic man-power to run the operation. Thus, production increased along with the increase in employment and income generation. This again helped the countries not to depend much on import as most of the importable items were produced at home. Realizing the benefits of FDI clubbed with the MNCs, countries are in a competition to attract the Foreign Investors, so that the prolonged BoP deficit, the capital deficiency, out- dated technology and unemployment problem can be wiped away. Thus, due to inconsistency in the economic policies till the mid-1980, the FDI inflow to Asia had witnessed remarkable fluctuations and after 1985 the consistency in growth of FDI inflow is significantly witnessed which is due to the stable economic reforms adopted by most of the countries. We can mark the similar patterns in the inward FDI to Asia and South Asia and also the total FDI flow in the world.

Table 2. Trend of FDI flow to South Asia, Asia and in the World and the share of FDI inflow to Asia in the World FDI from 1970 to 2014

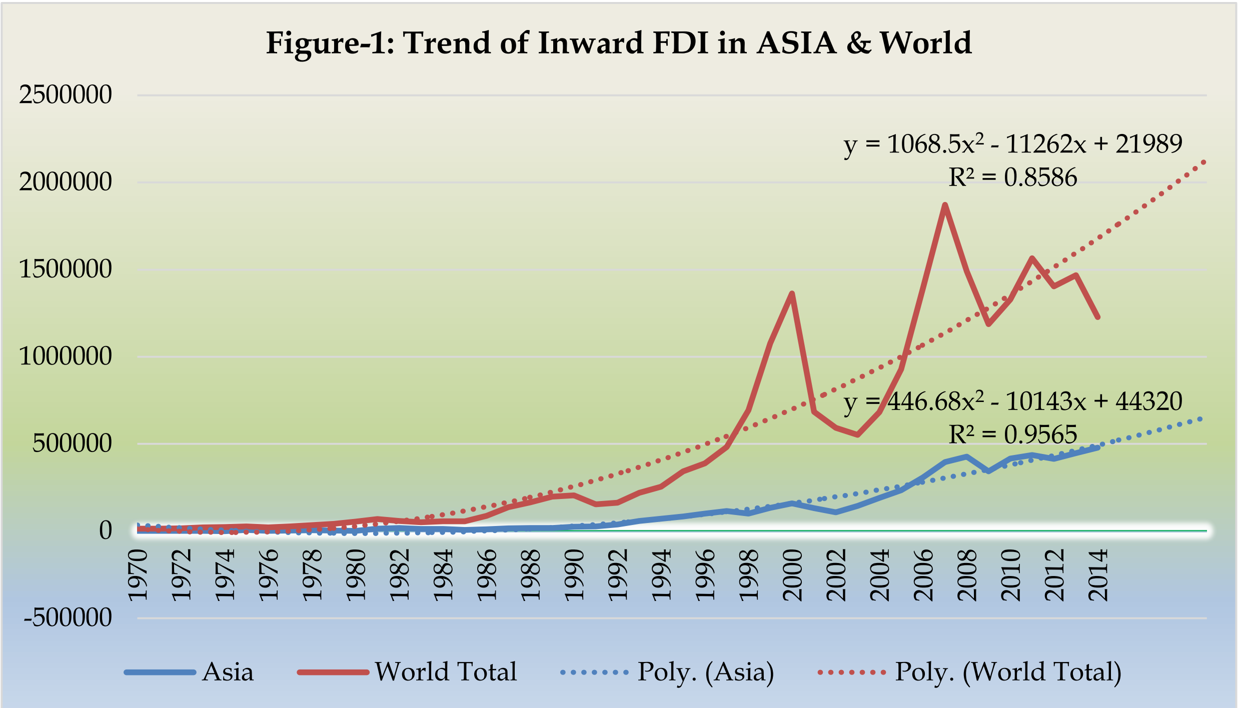
YEAR	Southern Asia	Asia	World Total	Share of Asia in the World in %	Share of South-Asia in Asia (in %)
1970	96.39	1009.63	13256.92	7.62	9.55
1971	114.61	1062.78	14241.26	7.46	10.78
1972	126.56	1706.06	14760.75	11.56	7.42
1973	598.31	1762.65	20377.55	8.65	33.94
1974	388.81	-1374.13	23873.81	-5.76	-28.30
1975	607.90	5541.65	26395.75	20.99	10.97
1976	-36.66	1769.55	21934.94	8.07	-2.07
1977	331.79	3142.03	27057.21	11.61	10.56
1978	969.97	3976.58	34247.04	11.61	24.39
1979	312.46	2411.52	41906.23	5.75	12.96
1980	284.28	913.31	54399.65	1.68	31.13
1981	283.71	13662.79	69614.10	19.63	2.08
1982	67.57	17664.76	58243.59	30.33	0.38
1983	-5.88	11486.80	50394.19	22.79	-0.05
1984	150.31	11735.08	56175.46	20.89	1.28
1985	134.98	6249.96	55835.03	11.19	2.16
1986	134.74	9894.85	86696.09	11.41	1.36
1987	83.06	15066.74	136884.06	11.01	0.55
1988	332.23	18201.22	164202.32	11.08	1.83
1989	440.00	16773.53	197598.68	8.49	2.62
1990	212.80	24961.67	204895.94	12.18	0.85
1991	446.94	26350.44	154138.28	17.10	1.70
1992	754.38	37330.60	163007.34	22.90	2.02
1993	1354.27	58028.39	220145.99	26.36	2.33
1994	1949.96	70098.55	254906.18	27.50	2.78
1995	2816.35	83759.91	341536.94	24.52	3.36
1996	3379.97	100404.09	388737.01	25.83	3.37
1997	5413.61	115400.51	481230.05	23.98	4.69
1998	3926.57	100054.82	692336.08	14.45	3.92
1999	3249.48	132912.41	1076312.63	12.35	2.44
2000	4864.11	158926.24	1363215.34	11.66	3.06

2001	6837.04	131540.06	684070.93	19.23	5.20
2002	10575.17	107241.52	591385.70	18.13	9.86
2003	8419.25	143545.68	551992.56	26.01	5.87
2004	10874.78	190379.60	682749.32	27.88	5.71
2005	14182.11	233919.50	927402.30	25.22	6.06
2006	28589.53	306812.06	1393033.58	22.02	9.32
2007	34557.48	394883.38	1871701.58	21.10	8.75
2008	56655.47	427570.95	1489732.09	28.70	13.25
2009	42403.42	342498.24	1186512.85	28.87	12.38
2010	35024.13	415778.36	1328215.31	31.30	8.42
2011	44538.99	436258.18	1564934.67	27.88	10.21
2012	32414.63	414250.88	1403115.47	29.52	7.82
2013	35624.23	446484.83	1467149.02	30.43	7.98
2014	41192.43	478242.08	1228283.32	38.94	8.61

Source: World Investment Report 2015, UNCTAD

The inward FDI to Asia was very low during 1970s and once it had become negative in 1974. The Inward FDI flow to South-Asia and Asia was highly volatile in the seventies. Even it is noticed that the inward FDI to Asia had decreased from $3976million in 1978 to $913.16 million in 1980.

Figure 1: Trend of FDI flow in ASIA and the World from 1970 to 2014 (in Million US $)



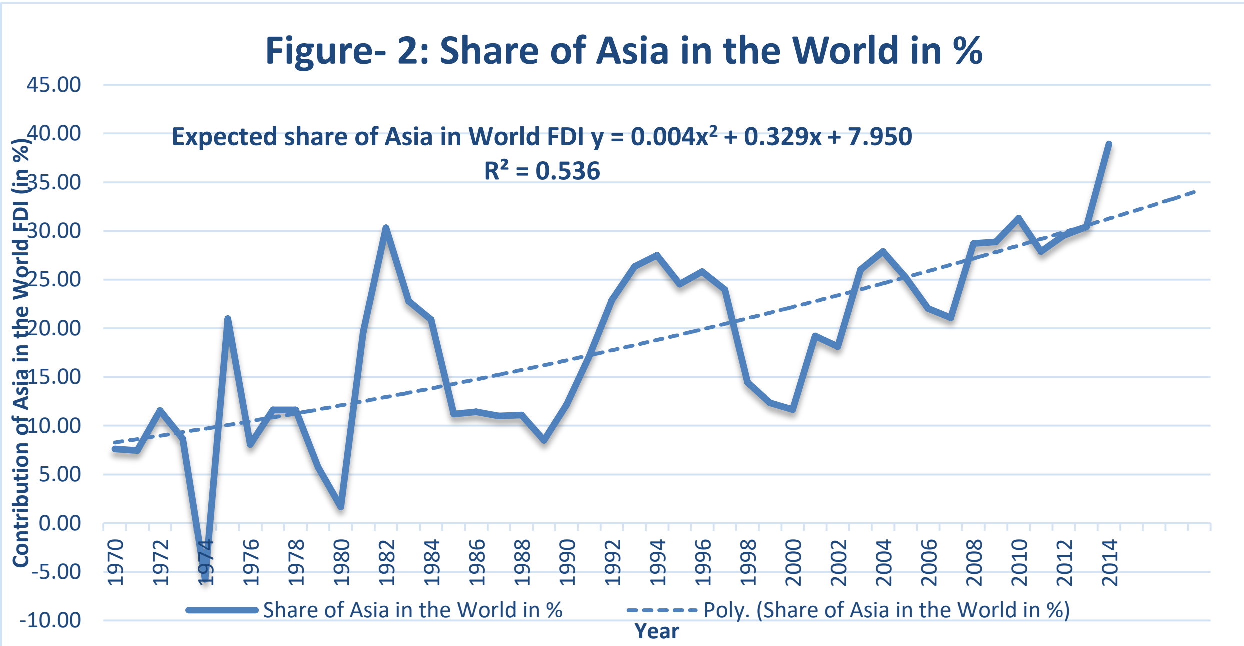
Source : Calculated from Table No 2

But after 1986 (refer Table 2 and Figure 1), the volatility in inward FDI is reduced and the trend of share of Asia in the World had increased for continuous one and half decade. It again started showing volatility from the year 2000 but the trend is increasing. The R^2 of trend is calculated to be 0.9565 which tells us that the trend line is explained up to 95percent by the variation in the observed inward FDI line. As the R^2 is higher than 0.5, the projected line is a goodness of fit. Again if we compare the trend of Asia's FDI to World FDI, we can find the R^2 of world FDI is less than that of the R^2 of Asia's FDI. It means the observed FDI flow in the world is less consistent than that of Inward FDI to Asia.

In Figure 1, the trend of world FDI and the inward FDI to Asia are extended till the year 2020 and we get that both the trends are showing an upward movement for the coming years in forward.

The gap between the two trend lines show the expected absolute difference between the world FDI and the inward FDI to Asia though the observed difference between the two lines is decreasing. A better observation of Asia's performance in inward FDI can be marked with a relative comparison that is shown in Figure 2.

Figure2: Share of Asia in the World in percent



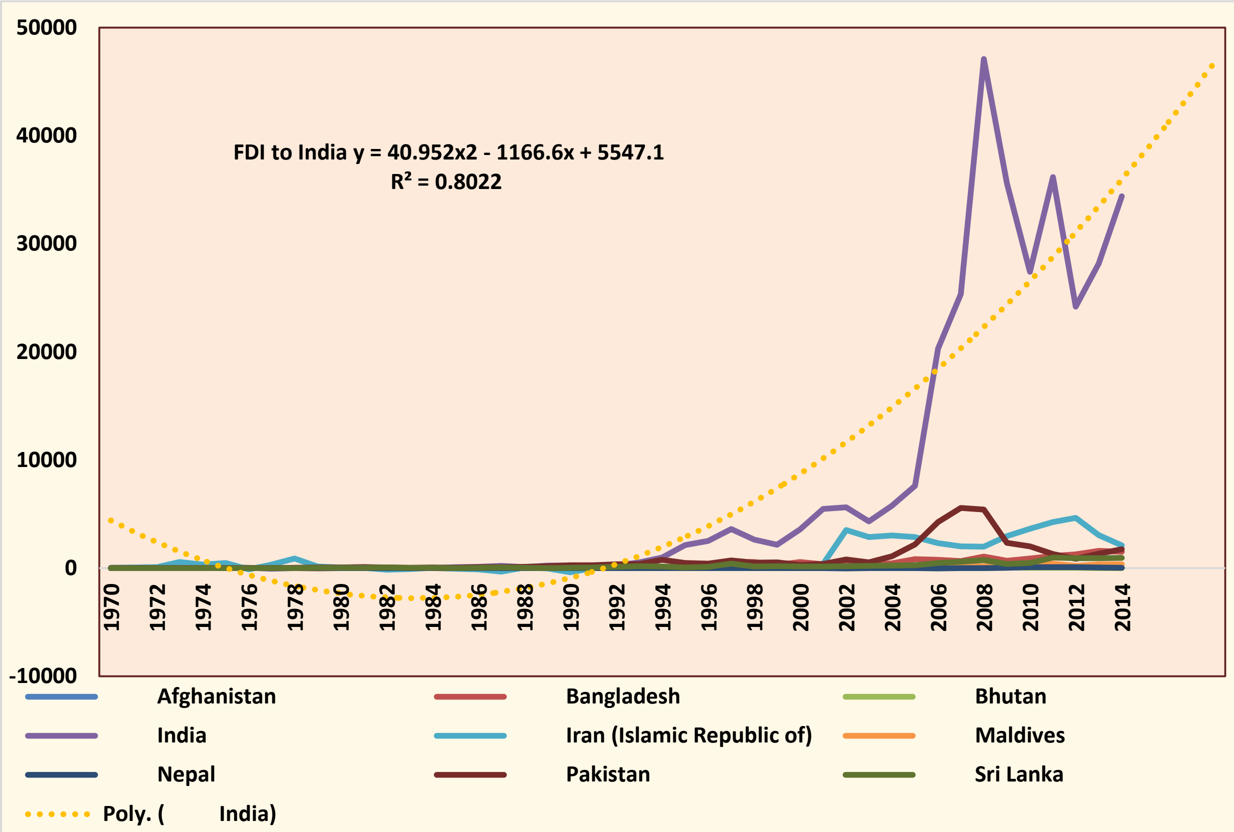
Source : Calculated from Table No 2

If we compare (refer Figure 2) the share of Asia in the World FDI, then we observe a complete volatile line since 1970 and the observed line shows a huge deviation from the polynomial trend line (Second Degree). We got the R^2 between the two line is 0.536 which seems to be significant telling that the two lines do explain the variation between each other up to 53.6 percent. In fact, the deviations between the two lines towards the recent years is diminishing showing more stability is expected in future and Asia will perform well in getting a higher and higher share in the world FDI in future.

B. FDI Inflow in South Asia

The south Asia is comprised of nine countries: Afghanistan, Bangladesh, Bhutan, Maldives, Nepal, India, Pakistan, and Sri Lanka. Bhutan & Afghanistan did not receive FDI till 1994 and they received a negligible amount of FDI from 1995 to 2005. It is only after 2002 & 2006; Afghanistan & Bhutan have shown some participation in the inward FDI in Asia though they could not cross 1percent share of the total inward FDI to South Asia. A similar trend of FDI inflow is marked for Bangladesh, Maldives, Nepal, Sri Lanka and Pakistan. The inward FDI to these countries were either negative or near to zero from 1970 to 1995, expect Sri Lanka and Pakistan Bhutan & Afghanistan were. In 1970, the observed Inward FDI statistics for the economies of South-Asia from 1970-2014 are shown in Figure 3.

Figure 3. FDI Inflow in South-Asia From 1970-2014 (US$ in millions)



Source: Calculated from Table No.3

From the Figure 3, it is seen that all the developing countries in the southern Asia were receiving a negligible amount of foreign investment till 1990 but after 1990 the inward FDI has become quite significant though only four out of nine countries got significant improvement in inward FDI. India toped among these nine developing economies of South Asia in 1970 but it lost the rank to Iran from 1971 to 1975 and regained the rank in 1976. But India could not continue in the 1st rank for more than a year and in 1977 again Iran ruled at number one position among the south Asian countries till 1980. The remarkable fact is that from 1970 to 1975 India and Iran were competing with each other to rule at position number one but from 1981 to 1999 India and Pakistan compete with each other for the rank. Since 1993, due to the positive effects of the economic reforms of 1991, India is continuing at 1stposition in the inward FDI and is much ahead of any other nations in the group. Rather Pakistan and Iran are struggling for the 2nd position since 1993.

Looking at the percentage of Inward FDI (refer Table 3) to India, it can be said that India will continue to be the top economy of the South Asia to get the lion's share. If we mark at the table, the percentage of inward FDI in some cases appears in negative. This is due to the withdrawal of FDI which happened to be more than the injection of FDI in those years by the investors. But after 1991, in South-Asian countries the withdrawal of FDI has not happened except two or three times in case of Afghanistan and Nepal. It shows an increasing trust in the business community and the consistency that the foreign investors are maintaining in bringing the FDI.

The second degree polynomial trend line for the inward FDI to India shows that the inward FDI to India will continue to increase for the years ahead. To test the significance of the trend, line the degree of determination is calculated and it is found that the trend explains 80 percent of the variation in the observed data.

FDI to India $y = 40.952x^2 - 1166.6x + 5547.1$

$R^2 = 0.8022$

Table 3. Share of Economies of South-Asia in Inward FDI from 1970 - 2014. (In Percentage)

Year	Afghanistan	Bangladesh	Bhutan	India	Iran	Maldives	Nepal	Pakistan	Sri Lanka	Total
1970	0.24	0.00	0.00	47.16	29.05	0.00	0.00	23.86	-0.31	100
1971	0.39	0.00	0.00	41.58	56.89	0.00	0.00	0.87	0.26	100
1972	0.12	0.07	0.00	14.06	72.06	0.00	0.02	13.43	0.24	100
1973	0.05	0.39	0.00	6.34	93.85	-0.03	0.00	-0.67	0.08	100
1974	0.00	0.57	0.11	14.65	83.20	0.02	0.06	1.03	0.36	100
1975	0.00	0.25	0.00	14.00	81.33	0.32	0.00	4.11	-0.02	100
1976	-0.11	-14.78	0.00	-139.4	277.12	-0.49	0.11	-22.42	0.00	100
1977	-0.07	2.10	0.00	-10.87	104.19	0.36	0.00	4.59	-0.30	100
1978	0.00	0.79	0.00	1.87	93.72	0.10	0.04	3.33	0.15	100
1979	0.38	-2.56	0.00	15.54	52.60	0.26	0.10	18.64	15.04	100
1980	3.17	2.99	0.00	27.85	28.46	-0.05	0.11	22.38	15.09	100
1981	0.06	1.89	0.00	32.40	9.95	-0.01	-0.08	38.10	17.69	100
1982	0.15	10.30	0.00	106.67	-201.41	-4.26	-0.04	94.46	94.12	100
1983	0.00	-6.80	0.00	-95.92	1335.37	-4.08	10.20	-501.02	-637.76	100
1984	0.00	-0.37	0.00	12.80	28.40	-0.09	0.63	36.93	21.70	100
1985	0.00	-4.93	0.00	78.60	-28.26	0.90	0.48	35.15	18.08	100
1986	0.00	1.81	0.00	87.38	-83.45	4.01	0.87	68.46	20.93	100
1987	0.48	3.86	0.00	255.64	-370.39	6.14	1.67	132.52	70.07	100
1988	0.00	0.55	0.00	27.47	18.22	0.36	0.20	40.25	12.94	100
1989	0.00	0.06	0.00	57.30	-4.41	1.00	0.10	41.90	4.07	100
1990	0.00	1.52	0.75	111.23	-170.09	2.63	2.79	130.79	20.37	100
1991	-0.06	0.31	0.13	16.78	5.05	1.45	0.50	60.84	14.99	100
1992	0.05	0.49	0.00	33.40	1.13	0.87	0.00	47.80	16.26	100
1993	0.00	1.04	0.00	39.28	15.33	0.51	0.00	29.48	14.36	100
1994	0.00	0.57	0.00	49.95	0.02	0.45	0.00	40.48	8.53	100
1995	0.00	3.28	0.00	76.38	0.31	0.26	0.00	17.47	2.31	100
1996	0.02	6.85	0.04	74.70	0.61	0.28	0.57	13.00	3.93	100
1997	-0.03	10.63	-0.01	66.85	0.79	0.21	0.43	13.13	8.00	100
1998	0.00	14.68	0.00	67.06	0.96	0.29	0.31	12.89	3.82	100
1999	0.19	9.51	0.03	66.72	0.48	0.38	0.13	16.37	6.19	100
2000	0.00	11.90	0.00	73.76	3.98	0.46	-0.01	6.35	3.56	100
2001	0.01	5.18	0.00	80.12	5.97	0.30	0.30	5.60	2.51	100
2002	0.47	3.17	0.02	53.23	33.28	0.23	-0.06	7.78	1.86	100
2003	0.69	4.16	0.04	51.32	34.18	0.38	0.18	6.34	2.72	100
2004	1.72	4.23	0.08	53.13	27.93	0.49	0.00	10.28	2.14	100
2005	1.91	5.96	0.04	53.74	20.37	0.52	0.02	15.52	1.92	100
2006	0.83	2.77	0.25	71.10	8.11	0.33	-0.02	14.95	1.68	100
2007	0.55	1.93	0.01	73.36	5.84	0.38	0.02	16.18	1.75	100
2008	0.17	1.92	0.04	83.14	3.49	0.32	0.00	9.60	1.33	100
2009	0.18	1.65	0.17	84.04	7.04	0.37	0.09	5.51	0.95	100

2010	0.60	2.61	0.09	78.28	10.42	0.62	0.25	5.77	1.36	100
2011	0.19	2.55	0.06	81.26	9.60	0.95	0.21	2.98	2.20	100
2012	0.29	3.99	0.16	74.64	14.38	0.70	0.28	2.65	2.90	100
2013	0.19	4.49	0.02	79.16	8.56	1.01	0.20	3.74	2.62	100
2014	0.13	3.71	0.01	83.55	5.11	0.88	0.07	4.24	2.29	100

Source: Calculated from World Investment Report 2014, UNCTAD

The Table 3 shows India's continuous top performance in getting inward FDI since 1993 and it is expected that India will continue to stand at the first position amongst the South-Asian economies in the coming future too. It is observed that India is very sound in the South Asia but to check how far it is a sound economy in the whole Asia, we have taken the help of forecasting of the ranks. Giant economies like China, Hong Kong, Singapore, Indonesia, etc. are very strong on the basis of the per capita income and economic development. As the FDI inflow is associated with growth, we need to compare India's position among the rest of the Asia in terms of the FDI it is expected to receive in the future.

C. Forecasting the Individual Country's Rank in FDI Inflow in Asia and Comparing the Position of India with the rest of Asia

By applying second order polynomial equation of Time series trend calculation, the trend equation of each Asian Country's Inward FDI is calculated. To know the precision of the expected inflow we have used the degree of determination (**R^2**) that speaks to what extent the expected trend explains the observed trend of FDI inflow. Let's verify the trend of the FDI inflow and the expected rank of the economies till 2020 by the help of the following table.

Table 4. Individual Country's Actual Rank in Inward FDI in 2014 & Expected Rank from 2015-20 in Asia.

Country ranking in 2014		Trend	R^2	2015	2016	2017	2018	2019	2020
1	China	$y = 107.85x^2 - 1999.6x + 6418.8$	0.978	1	1	1	1	1	1
2	China, Hong Kong SAR	$Y = 87.391x^2 - 2225.2x + 10466$	0.894	2	2	2	2	2	2
3	Singapore	$y = 56.056x^2 - 1402x + 6978$	0.861	3	3	3	3	3	3
4	India	$y = 40.952x^2 - 1166.6x + 5547.1$	0.802	4	4	4	4	4	4
5	Indonesia	$y = 21.32x^2 - 676.27x + 4044.2$	0.699	6	6	6	6	6	6
6	Thailand	$y = 6.9996x^2 - 74.316x + 137.82$	0.777	10	10	10	10	10	10
7	Turkey	$y = 17.011x^2 - 443.53x + 1967.7$	0.680	7	7	7	7	7	7
8	Malaysia	$y = 4.9299x^2 - 12.293x + 320.31$	0.700	11	11	11	12	12	12
9	United Arab Emirates	$y = 12.445x^2 - 326.77x + 1401.6$	0.681	9	9	9	9	9	9
10	Korea, Republic of	$y = 7.1347x^2 - 19.305x - 439.76$	0.813	8	8	8	8	8	8
11	Viet Nam	$y = 9.4802x^2 - 250.27x + 164.1$	0.859	12	12	12	11	11	11
12	Saudi Arabia	$y = 21.796x^2 - 562.25x + 2885.7$	0.442	5	5	5	5	5	5
13	Philippines	$y = 2.0427x^2 - 23.265x + 163.13$	0.656	17	18	18	18	18	18
14	Iraq	$y = 4.5255x^2 - 150.09x + 809.4$	0.742	16	16	15	15	15	15
15	Lebanon	$y = 3.728x^2 - 77.036x + 229.15$	0.864	13	13	13	13	13	13
16	China, Macao SAR	$y = 4.0146x^2 - 125.27x + 639.85$	0.757	18	17	17	16	16	16
17	China, Taiwan Province	$y = 0.2681x^2 + 81.795x - 556.49$	0.392	15	15	16	17	17	17
18	Iran	$y = 4.431x^2 - 124.92x + 723.34$	0.749	14	14	14	14	14	14
19	Jordan	$y = 2.3086x^2 - 54.497x + 218.33$	0.677	21	21	21	21	21	21
20	Pakistan	$y = 1.8393x^2 - 20.882x + 0.1967$	0.446	20	20	20	20	20	20

21	Cambodia	$y = 1.9317x^2 - 58.485x + 298.84$	0.864	24	24	24	24	24	24
22	Bangladesh	$y = 1.3898x^2 - 34.661x + 149.71$	0.922	27	27	27	27	27	27
23	Oman	$y = 1.7733x^2 - 45.354x + 243.86$	0.505	23	23	23	23	23	23
24	Qatar	$y = 2.3403x^2 - 41.34x + 61.699$	0.316	19	19	19	19	19	19
25	Bahrain	$y = 0.4207x^2 + 10.683x - 121.77$	0.332	28	28	28	28	28	28
26	Myanmar	$y = 1.2132x^2 - 22.928x + 73.173$	0.206	26	26	26	26	26	26
27	Sri Lanka	$y = 0.8371x^2 - 20.508x + 105.82$	0.863	30	30	30	30	30	29
28	Lao People's Dem. Rep.	$y = 0.4779x^2 - 14.187x + 73.59$	0.735	32	32	32	32	32	32
29	Brunei Darussalam	$y = 0.111x^2 + 16.904x - 155.35$	0.277	31	31	31	31	31	31
30	Mongolia	$y = 3.0072x^2 - 98.067x + 520.28$	0.477	22	22	22	22	22	22
31	Kuwait	$y = 2.0695x^2 - 67.613x + 364.31$	0.473	25	25	25	25	25	25
32	Maldives	$y = 0.3931x^2 - 12.33x + 64.649$	0.821	33	33	33	33	33	33
33	Korea, Dem. People's Rep	$y = -0.0192x^2 + 3.0468x - 11.976$	0.060	36	36	36	36	36	36
34	State of Palestine	$y = 0.1076x^2 - 0.8336x - 2.8388$	0.404	34	34	34	34	34	34
35	Afghanistan	$y = 0.1265x^2 - 2.4398x + 5.4394$	0.457	35	35	35	35	35	35
36	Timor-Leste	$y = 0.0553x^2 - 1.7862x + 9.3664$	0.734	38	38	38	38	38	38
37	Nepal	$y = 0.0727x^2 - 2.2141x + 11.692$	0.531	37	37	37	37	37	37
38	Bhutan	$y = 0.0363x^2 - 0.9836x + 4.2692$	0.379	39	39	39	39	39	39
39	Syrian Arab Republic	$y = 0.6901x^2 - 11.202x + 13.024$	0.318	29	29	29	29	29	30
40	Yemen	$y = -1.8534x^2 + 39.702x + 14.424$	0.040	40	40	40	40	40	40

Source: Calculated from World Investment Report 2015, UNCTAD

From the Table 4 it is observed that China, Hong Kong and Singapore are very consistent in their position and will not allow India to take over the rank from them. So India will continue with fourth position and will be consistent with this rank till 2020. If we will look at the trend calculation and the R^2 value of the observed FDI statistics with the second order polynomial trend statistics, we found, that R^2 for countries with rank number one to eleven are very strong which means that the variations in the calculated trend is very close to the variation in the observed trend as R^2 is higher than 0.5 and very close to its extreme limit of 1. In case of Indonesia, Thailand, Malaysia, Philippines, Iraq, Jordan, Cambodia, Bahrain, Bangladesh, , Sri Lanka and Maldives their trend estimates shows a downgrade from their current rank in FDI inflow whereas the rank gainers according to our trend forecasting are Republic of Korea, Saudi Arabia, Lebanon, Taiwan, Iran, Mongolia, Qatar, Kuwait and Syrian Arab Republic. Countries like China, Hong Kong, Singapore, India, Turkey, United Arab Emirates, Pakistan, Oman, Myanmar, Palestine, Nepal and Yemen have shown no change in their inward FDI rank. The magnitude of gain or loss in ranking is shown in Table 5.

Table –5: Gain Loss or No Change of country ranking in FDI inflow in relation to the ranks achieved in 2014

Country's Rank in Asia in Inward FDI in 2014		2015	2016	2017	2018	2019	2020
1	**China**	0	0	0	0	0	0
2	**China, Hong Kong SAR**	0	0	0	0	0	0
3	**Singapore**	0	0	0	0	0	0

4	**India**	0	0	0	0	0	0
5	Indonesia	-1	-1	-1	-1	-1	-1
6	Thailand	-4	-4	-4	-4	-4	-4
7	**Turkey**	0	0	0	0	0	0
8	Malaysia	-3	-3	-3	-4	-4	-4
9	**United Arab Emirates**	0	0	0	0	0	0
10	Korea, Republic	2	2	2	2	2	2
11	Viet Nam	-1	-1	-1	0	0	0
12	Saudi Arabia	7	7	7	7	7	7
13	Philippines	-4	-5	-5	-5	-5	-5
14	Iraq	-2	-2	-1	-1	-1	-1
15	Lebanon	2	2	2	2	2	2
16	China, Macao SAR	-2	-1	-1	0	0	0
17	China, Taiwan Province	2	2	1	0	0	0
18	Iran (Islamic Republic)	4	4	4	4	4	4
19	Jordan	-2	-2	-2	-2	-2	-2
20	**Pakistan**	0	0	0	0	0	0
21	Cambodia	-3	-3	-3	-3	-3	-3
22	Bangladesh	-5	-5	-5	-5	-5	-5
23	**Oman**	0	0	0	0	0	0
24	Qatar	5	5	5	5	5	5
25	Bahrain	-3	-3	-3	-3	-3	-3
26	**Myanmar**	0	0	0	0	0	0
27	Sri Lanka	-3	-3	-3	-3	-3	-2
28	Lao People's Dem. Rep.	-4	-4	-4	-4	-4	-4
29	Brunei Darussalam	-2	-2	-2	-2	-2	-2
30	Mongolia	8	8	8	8	8	8
31	Kuwait	6	6	6	6	6	6
32	Maldives	-1	-1	-1	-1	-1	-1
33	Korea, Dem. People's Rep.	-3	-3	-3	-3	-3	-3
34	**State of Palestine**	0	0	0	0	0	0
35	**Afghanistan**	0	0	0	0	0	0
36	Timor-Leste	-2	-2	-2	-2	-2	-2
37	Nepal	0	0	0	0	0	0
38	Bhutan	-1	-1	-1	-1	-1	-1
39	Syrian Arab Republic	10	10	10	10	10	9
40	**Yemen**	0	0	0	0	0	0

It is very clear from Table 5 that there is no change in the rank of the countries like China, Singapore, India, China Hong-Kong SAR, Turkey, United Arab's estimate, Pakistan, Oman, Myanmar, State of Palestine, Afghanistan and Yemen in comparison to the rank of 2014. The countries like Indonesia, Maldives and Bhutan will lose their ranks by 1 unit whereas the countries like Korea, Republic, Saudi Arabia, Lebanon, will gain their ranks by 2, 7 and 2 units respectively in comparison to the rank of 2014.

It is also seen that Vietnam will lose its rank by 1 unit for three years say 2015-17 but there will be no change in its rank for the year 2018-20 in comparison to the rank of 2014. Similar interpretations can be made for all the countries.

VI. CONCLUSION

In the World scenario, the country's ranking in terms of FDI inflow in 2014 has witnessed a new thing which is beyond imagination. The United States has lost the first position to China and for Asia also it is a great achievement. Globally, India has over taken Mexico, Chile, Canada, Spain and Russia in the inward FDI and become the 10th highest FDI receiving economy of the world in 2014 from 16th rank in 2013. In the continent of Asia, it is seen that the estimated country ranking in Inward FDI is very much consistent to that of the ranking realized in 2014. Fourteen out of forty countries of Asia, the estimated ranks in FDI inflow from 2015 to 2016 is equal to the realized ranks in 2014. Eight out of forty countries in Asia show an improvement in their country ranking whereas eighteen out of the forty countries lose their current rank in the forecasted ranking. According to this Time-Series forecasting, India is very consistent in the current and the forecasted ranking and rules the fourth position for the next six years. China, Hong Kong and Singapore are also very consistent in their position and ranked as first, second and third respectively. Other counties which are also showing consistency in their forecasted rank with the current ranking are seen with a higher R^2 value like the first four countries.

It is seen that Asia's position in the World in terms of inward FDI is getting stronger & stronger and some the Asian countries like China, Hong Kong Singapore and India are also significantly contributing to the growth of Inward FDI to Asia by creating themselves attractive destination of investment in the world. The time-series forecasting of country ranking in inward FDI says that in Asia the first four positions will be unaffected till 2020 while in some of the countries within the rank of five to twenty, there will be slight deviations in their forecasted ranks from the current rank. But in overall the Countries in Asia will continue with their ranks with slight changes as for most of the countries in the study, the variation in the forecasted inward FDI is well explained by the variation in the observed inward FDI.

The study is based on the time series estimation of the inward FDI where the trend is calculated by second degree polynomial function (non-linear time series model). The results and the ranking may vary if we employ either a linear trend forecasting or if we employ regression method where the governing variables could be the non-time-period variables which are the further scope of this research.

VII. IMPLICATIONS

For the developing countries like India, the FDI plays a very vital role as these countries are always in the capital deficiency. For the development of these countries investment is required in huge amount but the capital formation in these countries are very less in comparison to the required investment as income generation is low and employment is also low. Thus the gap of saving and investment is bridged by the flow of FDI to the developing countries. This research can help the economy to frame macroeconomic policies in order to achieve the rank. If a country is losing its rank, then the country will be able to take necessary steps to retain or to improve the rank.

REFERENCES

1. Ansari, Mohd. Shamim and MukeshRanga (2010), India's Foreign Direct Investment: Current Status, Issues and Policy Recommendations. UTMS Journal of Economics, 1(2).

2. Ayanpour Behzad Sarhani Mansour & Ata Abdolhamid, (2012). 'Foreign Direct Investment flows throughout India". Asian Journal of Development Matters Vol 6. No 2, Dec2012;PP:54 http://www.indianjournals.com/ijor.aspx?target=ijor:ajdm&volume=6&issue=2&article=008

3. Azarhoushang, B. (2013), The effects on China's economic development; case of Volkswagen in china ." Master thesis, Berlin School of Economics and Law.

4. Dutta, M. K. and Sarma, Gopal Kumar, Foreign Direct Investment in India since 1991: Trends, Challenges and Prospects (January 1, 2008). Available at SSRN: http://ssrn.com/abstract=1443577 or http://dx.doi.org/10.2139/ssrn.1443577

5. Fisher, Peter S., and Alan H. Peters (1998), Industrial Incentives: Competition among American States and Cities. W.E Upjohn Institute for Employment Research, Employment Research B fall 1998.

6. Global Office Locations survey, 2014: Office Space Across the World

7. Ikenson, Daniel J., (2013), Reversing Worrisome Trends: How to Attract and Retain Investment in a Competitive Global Economy (August 22, 2013). Cato Institute Policy Analysis No.735. Available at SSRN: http://ssrn.com/abstract=2430417

8. Kamath, G. Bharathi. (2009). Macroeconomic Determinants of Foreign Direct Investment in India, Baudhik, vol.1, No.2, Sep-Dec 2009, pp.3-13.

9. Lee, Jae-Young and Min, Jiyoung and Lee, Seong Bong and Kuznetsov, Alexey, the Russian ODI and FDI Promotion Strategy of Korea (April 5, 2013). KIEP Research Paper No. World Economy Update-13-14. Available at SSRN: http://ssrn.com/abstract=2320938 or http://dx.doi.org/10.2139/ssrn.232093j8

10. Matiza, Tafadzwa& Oni, O.A. (2014), the Case for Nation Branding as an Investment Promotion Methodology for African Nations: A Literature-Based Perspective, Mediterranean Journal of Social Sciences, MCSER Publishing, Rome-Italy. Vol 5. No . March, 2014, pp. 262 -272.

http://www.mcser.org/journal/index.php/mjss/article/view/2141

11. Singh, Gurmeet and Paul, Justin, (2014), Foreign Direct Investment in India - Trends, Pattern and Linkage (April 29, 2014). SMART: Journal of Business Management, Vol. 10, No.1, 2014. Available at SSRN: http://ssrn.com/abstract=2430931

12. Singh, Hira & Kumar Sandeep (2014), Foreign Direct Investment Scenario in India European Academic Research - Vol. II, Issue 2/May 2014, pp. 2848-2865 www.euacademic.org/UploadArticle/592.pdf

13. UNCTAD, (2015), World Investment Report.’

22