International Journal of Trade and Commerce-IIARTC
January-June 2013, Volume 2, No. 1
ISSN-2277-5811(Print), 2278-9065(Online)

Analytical Study of FDI in India

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Abstract

The present paper tries to study the trends and pattern of FDI in India. The paper also studied that what is the limit of investment in different sectors of the economy and what are the sectors where the investment is banned. Another objective of the study is to analyze the yearly sector-wise investment of FDI in India. The study helps to find out which country has made how much investment during the last five years. For the purpose of study secondary data has been collected from various journals, magazines, and websites particularly annual report of RBI 2011-12. The statistical tools i.e. Mean, Standard Deviation and Kurtosis has been used to analyze the data. The study reveals that that during first two years the investment has increased then it goes down and in 2011-12 it is maximum. The study also reveal that majority of the investment are coming from few countries like Mauritius, Singapore, U.S.A. Japan and Netherland. Bulk of the FDI is concentrated in few sectors like Manufacturing, Construction, Financial services, Real estate and Communication. Despite increase in FDI the variation between the sectors is very high which shows that there is unequal distribution of investment in different sectors. The study also reveals that there are good future prospects from countries from where the investment is low. The study also reveals that since the FDI is concentrated only in few sectors there are good future prospects of FDI in other sector where investment is low.

Keywords: *FDI (Foreign Direct Investment), Mean, Standard Deviation, Kurtosis, Playkurtic, Lepokurtic*

PAPER/ARTICLE INFO

RECEIVED ON: 15/09/2012
ACCEPTED ON:19/05/2013

Reference to this paper should be made as follows: Preeti Rani "Analyytical study of FDI in India" *Int. J. of Trade and Commerce-IIARTC*,
Vol. 2, No.1, pp. 178–189

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1. INTRODUCTION

In today's global scenario when investors might be looking at alternative avenues to invest their money there are only few nations across the world that provide opportunities to foreign companies with a highly potential market and a low cost manufacturing opportunities and India is one of them.

FDI (Foreign Direct Investment) is the acquisition of foreign assets for the purpose of controlling them. FDI occurs when a firm invests directly in facilitating to produce or market a product in a foreign country. FDI may take many forms such as; purchase of existing assets in an foreign country, new investment in property, plant and equipment's, participation in joint ventures with a local partner and acquisition of shares and capital through merger and takeovers.

FDI is considered to be the life blood of economic development especially for developing and underdeveloped countries. FDI is a tool for jump-starting economic growth through its strengthening of domestic capital, productivity and employment through the up-gradation of technology, skill, managerial capabilities in various sectors of the economy.

The objective behind allowing FDI is to complement and supplement domestic investment, for achieving a higher level of economic development and providing opportunities for technological up-gradation, as well as access to global managerial skill and practice.

Developing countries witnessed a surge in FDI inflow post 1990's. In many developing countries the rate of growth of FDI inflow surpassed the growth rate of foreign trade. The efforts of the government have shifted towards designing investor friendly policies to attract FDI inflows.

India being a signatory to World trade organization general agreement on trade in service, with Liberalization of trade policies during last one and half decade has led India to become an investment friendly country. India is the tenth most industrialized country in the world. It is well known fact that India is mainly agro-based country with 70% population engaged in the farm sector. However, in the initial stage of liberalization, FDI was centered on the urban manufacturing sectors because of its civic infrastructure.

2. REVIEW OF LITERATURE

The comprehensive literature centered on economies pertaining to empirical findings and theoretical rationale tends to demonstrate that FDI is necessary for sustained economic growth and development of any economy in this era of globalisation.

Swapna S. Sinha (2007) in his thesis, "Comparative Analysis of FDI in China and India: Can Laggards Learn from Leaders?" focuses on what lessons emerging markets that are laggards in attracting FDI, such as India, can learn from leader countries in attracting FDI, such as China in global economy. The study compares FDI inflows in China and India. It is found that India has grown due to its human capital, size of market, rate of growth of the market and political stability. For China, congenial business climate factors comprising of making structural changes, creating strategic infrastructure at SEZs and taking strategic policy initiatives of providing economic freedom, opening up its economy, attracting diasporas and creating flexible labour law were identified as drivers for attracting FDI.

Nirupam Bajpai and Jeffrey D. Sachs (2006) in their paper "Foreign Direct Investment in India: Issues and Problems", attempted to identify the issues and problems associated with India's current FDI regimes, and more importantly the other associated factors responsible for India's unattractiveness as an investment location. Despite India offering a large domestic market, rule of law, low labour costs, and a well working democracy, their performance in attracting FDI flows have been far from satisfactory. The conclusion of the study is that a restricted FDI regime, high import tariffs, exit barriers for firms, poor quality of infrastructure, stringent labour laws, centralised decision making processes, and a very limited scale of export processing zones make India an unattractive investment location.

Kulwinder Singh (2005) in his study "Foreign Direct Investment in India: A Critical analysis of FDI from 1991-2005" explores the uneven beginnings of FDI, in India and examines the developments (economic and political) relating to the trends in two sectors: industry and infrastructure. The study concludes that the impact of the reforms in India on the policy environment for FDI presents a mixed picture. The industrial reforms have gone far, though they need to be supplemented by more infrastructure reforms, which are a critical missing link.

Chandan Chakraborty, Peter Nunnenkamp (2004) in their study "Economic Reforms, FDI and its Economic Effects in India" Assess the growth implication of FDI in India by subjecting industry-specific FDI and output data to Granger causality tests within a panel co-integration framework. It turns out that the growth effects of FDI vary widely across sectors. FDI stocks and output are mutually reinforcing in the manufacturing sector. In sharp contrast, any casual relationship is absent in the primary sector. Most strikingly, the study finds only transitory effects of FDI on output in the service sector, which attracted the bulk of FDI in the post – reform era. These differences in the FDI – Growth relationship suggest that FDI is unlikely to work wonders in India if only remaining regulations were relaxed and still more industries opened up to FDI.

Sharma Rajesh Kumar (2006) in his article "FDI in Higher Education: Official Vision Needs Corrections" , examines the issues and financial compulsions presented in the consultation paper prepared by the Commerce Ministry, which is marked by Shoddy arguments, perverse logic and forced conclusions. This article raises four issues which need critical attention: the objectives of higher education, its contextual relevance, the prevailing financial situation and the viability of alternatives to FDI. The conclusion of the article is that higher education needs long- term objectives and a broad vision in tune with the projected future of the country and the world. Higher education will require an investment of Rs. 20,000 to 25,000 crore over the next five or more years to expand capacity and improves access. For such a huge amount the paper argues, we can look to FDI.

3. EVOLUTION OF FDI IN INDIA

The evolution of Indian FDI can broadly be divided into three phases classified on the premises of the initiatives taken to induce foreign investments into the Indian economy:

1. The first phase, between 1969 and 1991, was marked by the coming into force of the Monopolies and Restrictive Trade Practices Commission (MRTP) in 1969, which imposed restrictions on the size of operations, pricing of products and services of foreign companies. The Foreign Exchange Regulation Act (FERA) enacted in 1973, limited the extent of foreign

equity to 40%, though this could be raised to 74% for technology-intensive, export-intensive, and core-sector industries. A selective licensing regime was instituted for technology transfer and royalty payments and applicants were subjected to export obligations.

2. The second phase, between 1991 and 2000, witnessed the liberalisation of the FDI policy, as part of the Government's economic reforms program. In 1991 as per the 'Statement on Industrial Policy', FDI was allowed on the automatic route, up to 51%, in 35 high priority industries. Foreign technical collaboration was also placed under the automatic route, subject to specified limits. In 1996, the automatic approval route for FDI was expanded, from 35 to 111 industries, under four distinct categories (Part-A-up to 50%, Part-B-up to 51%, Part-C-up to 74% Part D-up to 100%). A Foreign Investment Promotion Board (FIPB) was constituted to consider cases under the government route.
3. The third phase, between 2000 till date, has reflected the increasing globalisation of the Indian economy. In the year, 2000, a paradigm shift occurred, wherein, except for a negative list, all the remaining activities were placed under the automatic route. Caps were gradually raised in a number of sectors/activities. Some of the initiatives that were taken during this period were that the insurance and defence sectors were opened up to a cap of 26%, the cap for telecom services was increased from 49% to 74%, FDI was allowed up to 100% in single brand retail and now FDI is also allowed in multi-brand retail.

4. OBJECTIVES OF THE STUDY

1. To study the trends and pattern of FDI in India.

2. Statistical analysis of sector-wise FDI in India.

5. RESEARCH METHODOLOGY

The research being conducted here is descriptive in nature. The secondary data was collected from various journals, reports of various institutions, magazines and websites particularly annual report RBI 2011-12. Graphs and tables have also been used where ever required to depict statistical data of FDI during the study period.

The study is based on the time period from 2007-08 to 2011-12. The nature of data distribution is examined by using the standard descriptive statistics (as: mean, standard deviation and kurtosis)

Following tools are used for Analysis of data: -

The mean is a particularly informative measure of the "central tendency" of the variable if it is reported along with its confidence intervals.

Mean = (Sxi)/n

The standard deviation is a commonly used measure of variation. The standard deviation of a population of values is computed as:

s = [S(xi-m)2/N]1/2

where m is the population mean and N is the population size

Kurtosis measures the "peakedness" of a distribution. If the kurtosis is clearly different than 0, then the distribution is either flatter or more peaked than normal; the kurtosis of the normal distribution is 0.

Kurtosis is computed as:

Kurtosis = [n*(n+1)*M4 - 3*M2*M2*(n-1)] / [(n-1)*(n-2)*(n-3)*s4]

where: M is equal to: S(xi-Meanx) j

n is the valid number of cases

s4 is the standard deviation (sigma) raised to the fourth power

6. FDI LIMITS IN DIFFERENT SECTORS OF INDIAN ECONOMY

6.1 Ways of receiving Foreign Direct Investment by an Indian company.

1. **Automatic Route:** FDI up-to 100% is allowed under the automatic route in all activities/sectors except where the provisions of the consolidated FDI Policy, paragraph on 'Entry Routes for Investment' issued by the Government of India from time to time, are attracted.
2. **Government Route:** FDI in activities not covered under the automatic route requires prior approval of the Government which are considered by the Foreign Investment Promotion Board (FIPB), Department of Economic Affairs, Ministry of Finance.

Table- 1.1: Sector Specific Permissible FDI Limit in Different Sectors in India

Sector	FDI Cap/Equity	Entry Route
A. Agriculture		
1. Floriculture, Horticulture, Development and production of seeds, Animal Husbandry, Pisciculture, Aquaculture, Cultivation of vegetables & mushrooms and services related to agro and allied sectors.	100%	Automatic
2. Tea sector, including plantation	100%	FIPB

(FDI is not allowed in any other agriculture sector/activity)

B. Industry		
1. Mining covering exploration and mining of diamonds & precious stones: gold, silver and minerals.	100%	Automatic
2. Coal and lignite for captive consumption by power project, and iron & steel, cement production.	100%	Automatic
3. Mining and mineral separation of titanium bearing minerals.	100%	FIPB
C. Manufacturing		
1. Alcohol- Distillation & Brewing	100%	Automatic
2. Coffee & Rubber processing & Warehousing	100%	Automatic
3. Defence production	26%	FIPB
4. Hazardous chemicals and isocyanates	100%	Automatic
5. Industrial explosives- Manufacture	100%	Automatic
6. Drugs and Pharmaceuticals	100%	Automatic
7. Power including generation (except Atomic energy): transmission, distribution and power trading	100%	Automatic

(FDI is not permitted for generation, transmission & distribution of electricity produced in atomic power plant/ atomic energy since private investment in this activity is prohibited and reserved for public sector)

D. Services 1. Civil aviation a. Greenfield projects b. Existing projects 2.Asset Reconstruction companies 3.Banking a. Private sector b. Public sector 4. NBFCs: Merchant Banking underwriting, Portfolio management services, Investment advisory services, Financial consultancy. Stock broking, Asset management. Venture capital. Custodian. Factoring. Leasing and finance. Housing finance. Forex broking etc. 5.Broad casting a.FM Radio b. Cable network c. Direct to home d. Setting up Hardware facilities such as up-linking. HUB. e. Up-linking a news and current affairs TV Channels 6.Commodity Exchange 7. Insurance 8. Petroleum and natural gas a. Refining 9. Print Media a. Publishing of newspaper and periodicals dealing with news and current affairs. b. Publishing of scientific magazines/specialty journals/periodicals 10.Telecommunications a. Basic and cellular. Unified access service national/international long distance. V-SAT. Public mobile radio trunked services (PMRTS). Global mobile personal communication services (GMPCS) and others.	100% 100% 49% 74% (FDI+FII) FII not to exceed 49% 20% 100% 20% 49% (FDI+FII) 100% 49% 26% 49% (FDI+FII) (FDI26%FII23%) 26% 49% (PSUs) 100% (Pvt. Companies) 26% 100% 74% (including FDI,FII, NRI, FCCBs, ADRs/GDRs, convertible preference shares, etc.	Automatic (FIBP beyond 74%) FIPB Automatic Automatic FIBP FIPB FIPB FIPB FIPB FIPB Automatic FIPB (for PSUs) Automatic (Pvt.) FIPB FIPB Automatic up to 49% and FIPB beyond 49%

Sector where FDI is banned

1. Retail Trading (except single brand product retailing):
2. Atomic Energy
3. Lottery Business including Government/private lottery, online lotteries etc.
4. Gambling and Betting including casinos etc.
5. Business of chit fund:
6. Nidhi Company
7. Trading in Transferable Development Rights (TDRs):
8. Activities/ sector not opened to private sector investment:

9. Agriculture (excluding Floriculture, Horticulture, Development of seeds, Animal Husbandry, Pisciculture and cultivation of vegetables, mushrooms etc. under controlled conditions and services related to agro and allied sectors) and Plantation(other than Tea Plantation):
10. Real estate business or construction of farm houses: manufacturing of cigars, cheroots, cigarillos and cigarettes, of tobacco substitutes.

Source: RBI Monthly Bulletin May 2012

6.2 Country-Wise FDI Flows to India

Table- 1.2: Foreign direct investment flows to India: Country Wise US $ million

Rank Country	2007-2008 April-March	2008-2009 April-March	2009-2010 P April-March	2010-2011 P April-March	2011-2012 P April-March
Mauritius	9,518	10,165	9,801	5,616	8,142
Singapore	2,827	3,360	2,218	1,540	3,306
U.S.A.	950	1,236	2,212	1,071	994
Cyprus	570	1,211	1,623	571	1,568
Japan	457	266	971	1,256	2,089
Netherlands	601	682	804	1,417	1,289
U. Kingdom	508	690	643	538	2,760
Germany	486	611	602	163	368
UAE	226	234	373	188	346
France	136	437	283	486	589
Switzerland	192	135	96	133	211
Hong Kong	106	155	137	209	262
Spain	48	363	125	183	251
South Korea	86	95	159	136	226
Luxembourg	15	23	40	248	89
Others	2,699	3,035	2,376	1,184	983
Total	**19,425**	**22,697**	**22,461**	**14,939**	**23,473**

Source: Annual report RBI 2011-12 Note: Includes FDI through SIA/FIPB and RBI routes only

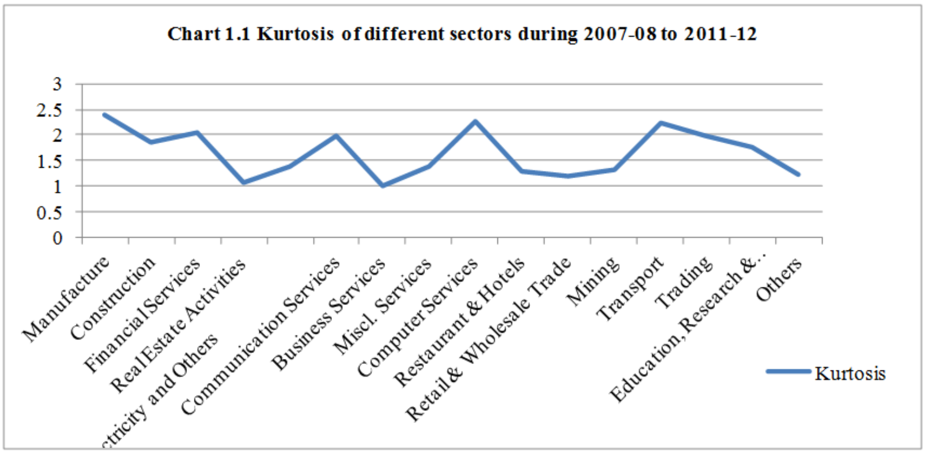
Table 1.2 presents the major investing countries in India during 2007-08 to 2011-12. The mean of FDI shows that Mauritius and Singapore is the largest investors in India in all years, there investment is more than the average. The dominance is because of the Double Taxation Treaty i.e. DTTA-Double Taxation Avoidance Agreement between the two countries, which favours routing of investment through these countries. The U.S, Japan, Netherland investment are also more than the average in last two years. Thus an analysis of last five years of trends in FDI shows that initially the inflows are low but there is a sharp rise in investment flow in last year.

6.3 Sector- Wise inflow of FDI in India

Table-1.3: Analysis of Sector-wise FDI in India 2007-08 to 2011-12

Sector	Mean	Standard Deviation	Kurtosis
Manufacture	5555.2	2179.70	2.39
Construction	2507.4	695.25	1.84
Financial Services	2888.4	1114.07	2.05
Real Estate Activities	1239.4	832.84	1.06
Electricity and Others	1221.6	482.87	1.39
Communication Services	1334.2	781.03	1.98
Business Services	1102.8	484.85	1.01
Miscl. Services	1111.4	559.62	1.39
Computer Services	1025.4	363.63	2.26
Restaurant & Hotels	476.4	281.03	1.27
Retail & Wholesale Trade	397.6	156.26	1.18
Mining	326	197.52	1.30
Transport	438.2	224.38	2.24
Trading	187.2	140.83	1.98
Education, Research & Development	129.8	72.75	1.75
Others	658	315.87	1.23

Data Analysed by the researcher Source: Annual report RBI 2011-12 Note: Includes FDI through SIA/FIPB and RBI routes only



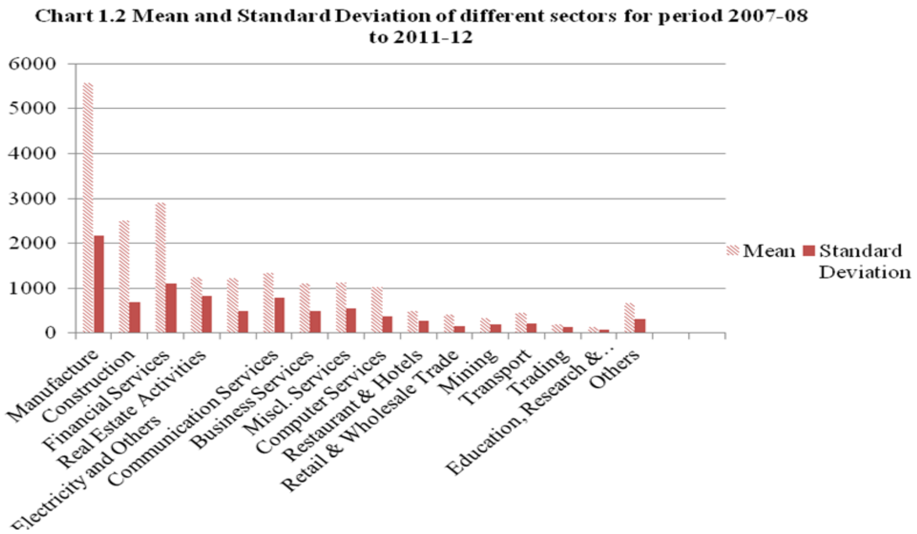


Table 1.3 shows that variables under study are found to be not normally distributed. The average mean FDI inflow in India shows that manufacturing, financial services, construction, communication and real estate are some sectors with high FDI inflow and least contribution in trading, education and retail traders.

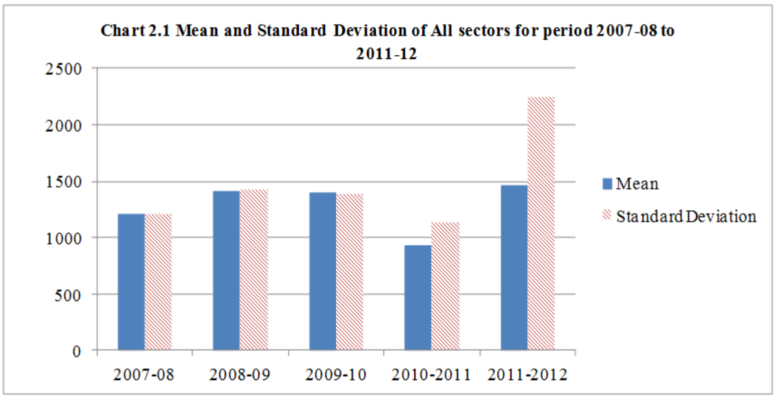
The standard deviation shows a large co-efficient of variation. The range of variation between maximum and minimum is also very high it is 2179.70 in the case of manufacturing sector whereas it is only 72.75 in the case of Transport sector. The range of variance between them is very high which shows unequal distribution of investment in different sectors. This shows that there are good future prospects for investors in other sectors where investment is low.

Kurtosis is the measures of peakedness. Here, kurtosis is less than 3 in all sectors it means that the curve is less peaked than the normal curve. It is **playkurtic** which shows that FDI is widely distributed among the sectors although the variation between the sectors is high.

Table- 1.4: Mean and Standard Deviation of All Sectors for Period 2007-08 to 2011-12

All Sectors	2007-08	2008-09	2009-10	2010-11	2011-12
Mean	1214.06	1418.56	1403.81	933.68	1467.06
Standard Deviation	1210.12	1427.79	1388.23	1129.99	2248.40
Kurtosis	3.04	3.54	4.07	9.14	10.05

Data Analysed by the researcher Source: Annual report RBI 2011-12 Note: Includes FDI through SIA/FIPB and RBI routes only



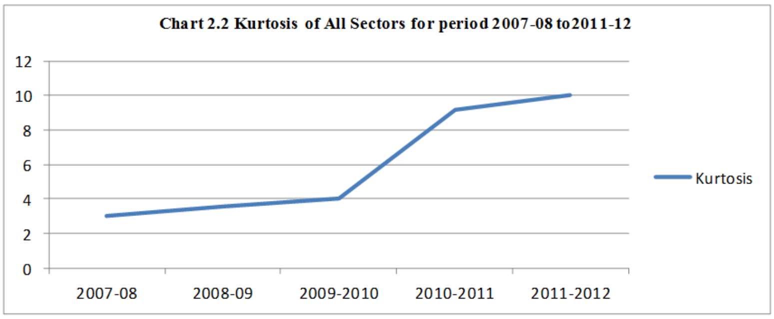


Table 1.4 shows the mean, standard deviation and kurtosis of FDI in different sectors since2007-08 to 2011-12. The mean of the FDI shows that during first two years the trend of investment is increasing after that it go down and in 2011-12 it is in its maximum position.

If the standard deviation is more than its mean there is more variance from the mean. The maximum standard deviation is 2248.40 during the period 2011-12 and the minimum standard deviation is 1129.99 during the period 2010-11. Although average distribution is highest during the period 2011-12 but standard deviation is more than the average it implies that variation among the distribution is more than the other years.

Kurtosis is the measures of peakness. Here, kurtosis is more than 3 in all sectors it means that the curve is more peaked than the normal curve. It is **Leptokurtic** which shows that FDI is not widely distributed among the sectors. During the period 2011-12 kurtosis curve is at its maximum peakness which shows that the variation between the sectors is high although the average investment during that period is maximum.

7. FINDINGS

1. FDI trends during 2007-08 to 2011-2012 shows that during first two years the investment has increased then it goes down and in 2011-12 it is maximum.
2. Mauritius and Singapore are the two countries which has maximum FDI in India.

3. U.S.A., Japan and Netherland are the countries which has more investment than its average during last two years.
4. The trend of FDI shows that there are good future prospects of FDI from countries from where the investment is low.
5. The average mean of a FDI in different sectors shows that Manufacturing, Construction, Financial services, Real estate and Communication are some sectors which pick the highest FDI investment while education and trading sectors are attracting least contribution.
6. The standard deviation of different sectors during 2007-08 to 2011-12 shows a large coefficient of variation. The range of variation between maximum and minimum is very high which shows that there is unequal distribution of investment in different sectors.
7. Kurtosis of the FDI of different sectors during 2007-08 to 2011-12 shows that it is less than 3 in all sectors it means that the curve is less peaked than the normal curve. It is platokurtic it shows that FDI is widely distributed among the sectors although the variation between the sectors is high.
8. After above analysis we can say that FDI has good future in other sectors, where range is low than the other sectors.
9. Mean of FDI in all sectors since 2007-08 to 2011-12 shows that during first two years the trends of investment is increasing than it goes down and in 2011-12 it is maximum.
10. Standard deviation of all sectors shows that there is huge variation between the maximum which is 2248.40 during 2011-12 and minimum which is 1129.99 during 2010-11.
11. Although average distribution is highest during 2011-12 which is 1467.06 but standard deviation is more than the average it implies that variation among the distribution in different sectors is more than the other years.
12. Kurtosis of the FDI of all sectors during 2007-08 to 2011-12 shows that it is more than 3 during all years it means that the curve is more peaked than the normal curve it shows that FDI is not widely distributed.
13. During 2011-12 kurtosis is at its maximum position which is 10.05 despite the maximum average investment during the period Foreign Direct Investment is concentrated in some sectors than the other sectors.

8. CONCLUSION

The findings of the above study show that despite increase in the FDI during the last five years there is huge variation in the investment among the various sectors. The FDI is concentrated in few sectors like Manufacturing, Construction, Financial services, Real estate and Communication while education and trading sectors are attracting least contribution. Efforts should be made to courage more investment in sectors where investment is low.

The findings also show that bulk of the share of FDI is coming from few countries like Mauritius, Singapore, U.S.A., Japan and Netherland. Here also there is huge variation of FDI between the various countries.

Low level of investment in some sectors coupled with bulk of Foreign Direct Investment from few countries gives large space to our policymakers to reconsider our policy regarding FDI. There is good ample scope of FDI in India particularly from countries from where the investment is low and the sectors where the investment is low.

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