

Conclusive Research Design and Development of Digital India Campaign: Scope and Challenges



Renuka Bakshi, Swati Watts

Abstract: The introduction of digitalization is the beginning of the digital revolution. It is the backbone of the fourth industrial revolution. It is a dream built by the BJP Government of India. With this dream the Government made it sure that public services are available to all the citizens of the country, not to leave the remote areas, definitely by improving internet connectivity and online infrastructure. Jio was the example which was initiated by the Government. The mission of the program was to make India stronger digitally and economically. Right from its launch, it has taken a lot of praise from various sectors of the economy. It will encourage people to connect with various sectors and come with new startup ideas and will also encourage entrepreneurship which can solve the major problem of unemployment.

But to implement was a major hurdle. There were many speed breakers for successful implementation like illiteracy (digital), bad infrastructure, slow internet speed, etc. The purpose of my study is to study the scope and challenges faced by the country. We will also try to take out the solutions which can be helpful to the Government in the successful implementation of the program and make India a Digitally proven country.

Keywords: Digital, Entrepreneurship, Unemployment, Industrial revolution.

I. INTRODUCTION

Digital India is a dream that was launched by Prime Minister Mr. Narendra Modi in July 2015. The main motive of the campaign was to improve online infrastructure and to connect the rural areas with urban areas. The project is expected to complete by the end of 2019. The project is directly being monitored by Prime Minister himself. It is expected that by the end of 2019, digital literacy will improve and rural and urban areas will be connected in all the three sectors i.e. Primary, Secondary, and Territory. Digital technology can overcome natural barriers and can connect residents from every corner of crossing geographical barriers.

There are nine pillars of the digital India campaign i.e. their nine key initiatives that were taken by the country and still in progress. Those nine important landmarks are:

- Broadband highways
- Universal access to mobile connectivity
- National rural internet mission
- E-governance
- E-Kranti
- Information for all
- Training and job creation
- Early harvest program

Now, to achieve the required objectives of digital India campaign, the Government has marked three vision areas i.e.

- Every citizen should utilize the digital infrastructure
- Proper utilization of public services
- Every resident should digitally be empowered.

The key phrase for the program is "Zero defect zero effect" But the question is: Is it successful in obtaining the required objectives in the last 3 years. The main aim of this research paper is to discuss all the three sectors of the economy. Around 16 percent of the Indian population is still in the primary sector as compared to 6 percent in other BRIC countries. The primary sector can take full advantage of digital Indian campaign by taking the expert advises from agriculturists and the weather update can also be updated to them. Even they can know the current market rates on the phone itself.

Similarly secondary and territory sector employees can take the help of the internet services to know the latest updates. This campaign also wants to strengthen the manufacturing sector of the country. As there is a lot of scope of growth and employment. If properly adopted the current GDP can increase up to 25 percent by 2022.

II. LITERATURE REVIEW

Several research papers and articles provide detailed insight into the role of a digital India campaign. Kalaiselvi K and Shubhi Srivastava, in their paper, "Scope and Impact of digital India: The Review" concluded that a digitally connected India can make a lot of difference by improving country's social and economic condition of residents of the country through the development of non-agricultural economic activities.

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Manjeet Panwar in his paper, "Digital India: Scope and Challenges" concluded that to meet the needs and requirements of 21st-century digitalization is compulsory for the education system in general as well as in teacher training. To overcome e-learning challenges, digital knowledge is helpful.

Dr. Shekhar Srivastava, in his paper, "Digital India-Major initiatives and their impact: A critical analysis: concluded that digitalization is very useful for the infrastructure of the country. The PPP models must be explored for sustainable development of various types of infrastructure

Objectives

This paper has the following research objectives:

- To study the concept of digital India
- To find out the challenges faced in the implementation of the campaign
- To study the growth of the various sectors of the country
- To find out the practical solutions to make the campaign successful

III. RESEARCH METHODOLOGY

This paper is based on the secondary data and information retrieved from the internet via national and international journals, research papers, and websites and expert opinions. In this paper, we have compared the data from the last few years for the various sectors through graphs and tables.

Hypothesis

H0: Digital India campaign helps increase the national income of the country

H1: Digital India Campaign does not help increase the national income of the country

Comparison between various sectors

Primary Sector

The main occupation of India is farming and 57% population depends on the primary sector for their livelihood. The contribution of the primary sector is increasing with 5911.33 billion in 2017-18(Table1) out of Gross value added at basic price depicts 30082.5 billion.

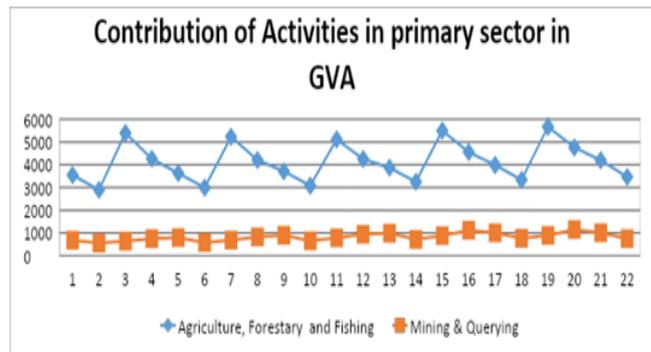
Table-1 Contribution of Primary Sector in Gross Value Added at constant Price

Industry/year	Quarter	Agriculture, Forestry, and Fishing	Mining & Quarrying	Total Primary Sector	Total Gross value at basic price
2013-14	Q1	3544.5	681.34	4225.84	22062.3
	Q2	2893.65	556.61	3450.26	21939
	Q3	5393.6	644.19	6037.79	23149.4
	Q4	4260.23	748.92	5009.15	23485.8
2014-15	Q1	3626.53	795.36	4421.89	23771.5
	Q2	2994.94	579.4	3574.34	23793.6
	Q3	5228.94	686.63	5915.57	24570.1
	Q4	4206.73	825.47	5032.2	24986.1
2015-16	Q1	3711.95	897.28	4609.23	25630.1
	Q2	3077.22	657.73	3734.95	25812.4
	Q3	5111.19	785.36	5896.55	26395.3
	Q4	4251.8	944.16	5195.96	27195.7
2016-17	Q1	3869.86	991.29	4861.15	27750.6
	Q2	3247.33	717.28	3964.61	27681.7
	Q3	5495.17	880.68	6375.85	28213.7
	Q4	4555.09	1121.4	5676.49	28830.4
2017-18	Q1	3986.09	1008.11	4994.2	29291.9
	Q2	3333.34	767.04	4100.38	29378.2
	Q3	5666.82	892.66	6559.48	30082.5
	Q4	4759.48	1151.85	5911.33	31009
2018-19	Q1	4197.47	1009.54	5207.01	31626.2
	Q2	3461.02	748.41	4209.43	31400

Sources:- RBI data center

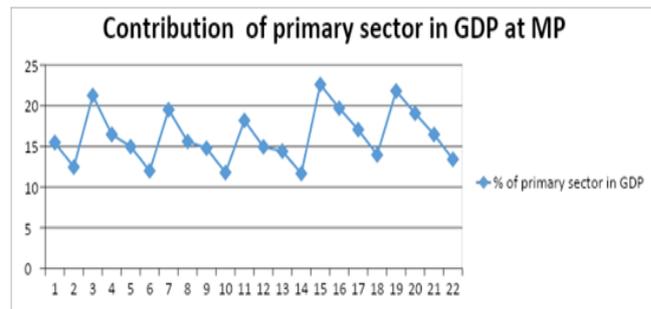
The primary sector is increasing in Gross Value Added. (Chart 1) at Rs. 6599billion. The growth of the primary sector is increasing in the Indian economy after digitalization. Now India has become the sixth-biggest producer of food products all over the world.

Chart-1



The schemes like Paramparagat Krishi Vikas Yojna helps in creating an organic cluster to provide chemical-free inputs to the farmers. The food processing industry is contributing 32% of the country's total food market. After demonetization, the growth has been slow down, the agriculture contribution (chart-2). India has been announced the biggest fruits producer and its achievement is estimated at third in horticulture production after implementing GST (Goods Services taxes) in the third quarter of 2017-18(chart-2). On the other hand, the process of demonetization hampered the agriculture sector directly, as it is running on cash transactions.

Chart-2



The effect of the biggest step in the Indian economy through digitalization is visible on MGNREGA due to an increase in demand for employment through this government scheme. In this scheme the money is transferred by the government in this scheme, it is further distributed to labor as wages. Each worker gets the specific card no, which remains the same either worker is engaged in another state of the country. The wages are distributed on a fair basis. Our government is committing a huge share of funds and actual expenditure is also enhancing (Table-2). It proves the great success of the digitalization process.



Year	Budget	Actual expenditure
2013-14	33,000	38,511
2014-15	33,000	36,000
2015-16	37,345	44,002
2016-17	48,220	58,531
2017-18	48,000	40,725

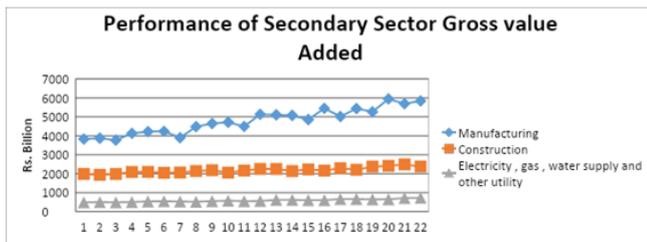
In 2018-19 Rs.55, 000 crore has been announced due to natural calamities in various regions along with demonetization.

Before the election in 2019, an additional Rs.70 billion will be transferred in this scheme, announced by Finance minister, Mr. Arun Jately.

IV. SECONDARY SECTOR

The industrial sector of the economy is adapting new technologies for business transformation to participate in the global economy. This sector is growing at a rapid pace from 2017-18(chart-3) with a contribution of Rs. 9004 billion in Gross Value Added.

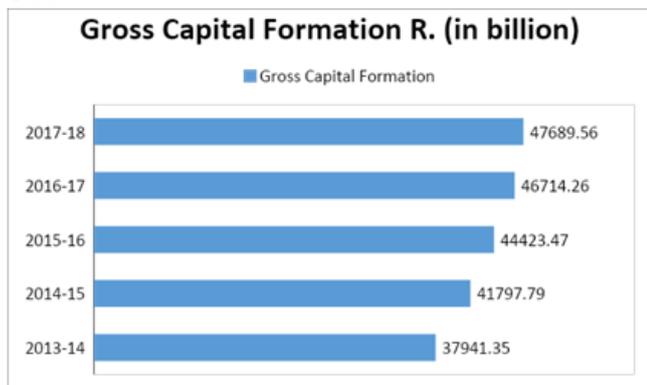
Chart 3 Contribution of Secondary sector



Source:- RBI website

The gross capital formation is robust by increasing in physical assets in 2017-18 (chart 4) with Rs 47689.56 billion. It is an investment indicator of the economy and it has become the second biggest economy from 2015-16 after the USA

Chart 4



Source: RBI Report

After digitalization, India's foreign trade is taking a turning point (Table 3) due to the transparency of payment system in trade and improvement in taxation policy.

Table 3

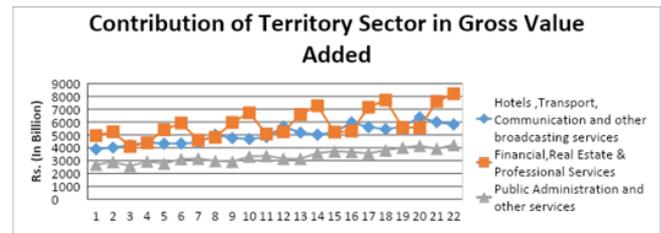
Year	Exports			Imports			Trade Balance		
	Oil	Non-Oil	Total	Oil	Non-Oil	Total	Oil	Non-Oil	Total
2014-15	3460.82	15503.63	18964.45	8428.74	18942.12	27370.87	4967.92	3438.49	8406.41
2015-16	1996.38	15167.47	17163.84	5405.05	19498.01	24903.06	3408.67	4330.54	7739.21
2016-17	2115.09	16379.25	18494.34	5832.17	19944.58	25776.75	3717.08	3565.34	7282.42
2017-18	2413.8	17141.61	19555.41	7003.2	23006.95	30010.16	-4589.4	5865.34	10454.8
2018-19	2163.93	11245.37	13409.3	6132.91	15405.96	21538.87	3968.98	4160.59	8129.57

100% FDI has been approved through automated route channels under the new policy. Its emphasis on the manufacturing sector in 2017. The new FDI policy emphasis three main sectors –automobile, pharmaceuticals, and chemical industry. Now robotic centers in Indian manufacturing industries have become commonplace in India. The use of robots in the Indian industry has enhanced loyalty, dexterity, accuracy, intelligence in automated work.

Territory Sector

After 2016-17 the service sector is increasing in India and contributing to major proportionate Chart 5) of 60%. The digitalization's changing perception of people for various significant activities like investing, buying, producing, trading, etc.

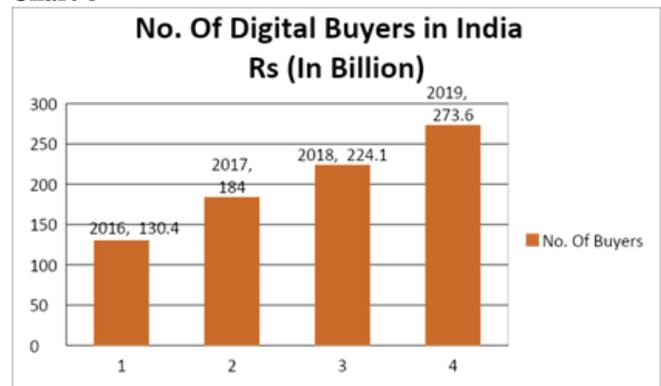
Chart 5



Source: RBI site

The Indians are using digital media to buying a variety of products. From the last three years (Chart 5) until 2019 the number of online buyers are tremendously increasing.

Chart 6



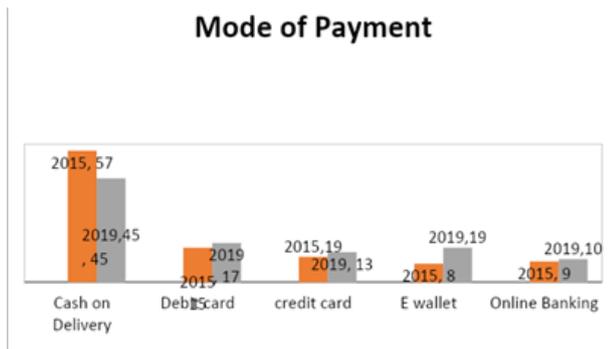
Source:-statistical website

Source:- Statistical website

Now people's choice is inclining towards e-wallet or net banking (Chart7). The e-commerce industry is becoming very prominent. Now modern society is interested in paying through the digitalized way



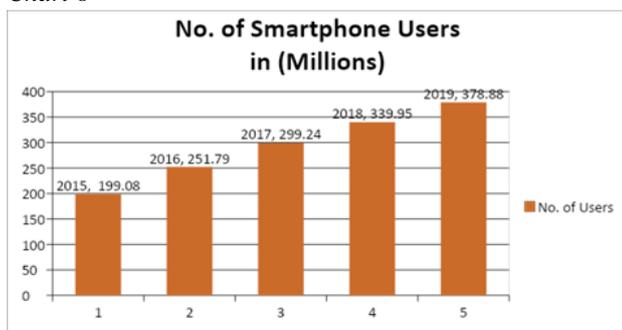
Chart 7



Source:-statistica website

This trend has opened various paradigms for all Indian industry to participate in the global economy. The telecom industry of India is taking a turning point (Chart8) by launching various models of phones, apps. Our Prime Minister has also announced the Bheem App for making digital

Chart 8



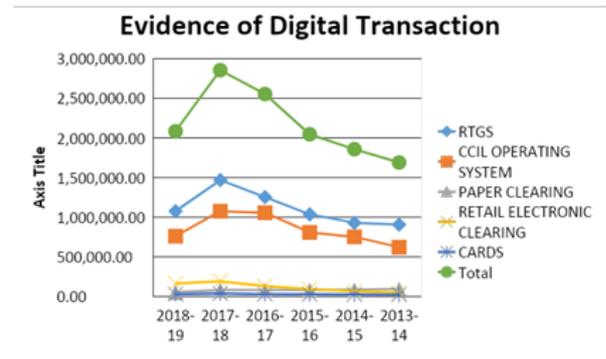
Source:-statistica website

Payment and also provide the facility to link adhaar card with a bank account.

FINDINGS

Due to the digitalization Indian economy has reached different verge. It has introduced changes in the Balance of payment of the Indian economy has improved. The merchandise trade reduced the deficit (Table-4) by -Rs. 7 544 billion in 2017-18, but it is unfavorable in 2018-19. On the other hand, the service sector includes the banking industry, the insurance industry is turned into surplus after digitalization. The RBI has publicized that transactions through digital mode (Table5) is achieved the target of Rs. 2,083,882.14 billion in 2018-19. The transaction through RTGS (Chart-9) has increased. So various initiatives taken by the Indian government are proving successful. The launch of "Make In India " vision has moved up 12 spots out of 142 in 2015 to 130 created in 2017 in the world's bank for providing ratings to the Indian industry. The null hypothesis is accepted.

Chart-9



V. CONCLUSION

By flagging Digital India Campaign, Government cleared that the country will have a powerful digital infrastructure. Various sectors of the economy have become digitally friendly. The contribution of agriculture in the gross domestic product at market prices have increased since 2013. The bad effects of demonetization that were visible are waving off. The industrial sector of the economy has also adopted various technologies to compete in international markets. Transparency has become an important part of the payment system. FDI has also improved since the last few years. The service sector is increasing in India and contributing around 60 percent. Digital online customers are almost double since 2016 onwards. By the time 2025, the dream of 100 percent digital India will come true as it has a good future for the nation.

India's Overall Balance of Payments - Rupees

(₹ Billion)

Item/Year	2012-13			2013-14			2014-15		
	Credit	Debit	Net	Credit	Debit	Net	Credit	Debit	Net
A. Current account									
1. Merchandise	16676.9	27321.5	-10645	19310.7	28159.2	-8848.5	19342.1	28200.7	-8858.6
2. Invisibles (a+b+c)	12188.9	6340.47	5848.46	14138.4	7161.34	6977.09	14780.5	7554.99	7225.49
a) Services	7924.88	4892.71	3032.17	9192.5	4763.82	4428.68	9671.92	4988.97	4682.95
i) Travel	978.81	643.33	335.48	1088.07	714.18	373.89	1245.42	935.35	310.08
ii) Transportation	943	806.05	136.95	1052.61	894.8	157.81	1068.65	989.28	79.4
iii) Insurance	121.19	76.62	44.56	128.49	67.6	60.89	134.61	68.34	66.26
iv) G.I.E.	31.26	44.22	-12.96	29.47	58.88	-29.41	33.21	58.71	-25.5
v) Miscellaneous	5850.62	2822.48	3028.14	6893.85	3028.35	3865.5	7190.02	2937.11	4252.91
of which: Software services	3583.48	128.56	3454.91	4206.77	151.75	4055.02	4470.87	165.82	4305.05
Business services	1547.8	1650.36	-102.57	1722.8	1645.5	76.99	1737.93	1691.73	46.2
Financial services	269.41	252.01	17.4	401.58	346.04	55.54	345.83	217.72	128.11
Communication services	91.77	40.3	51.48	145.61	63.35	82.26	122.24	62.36	59.88
b) Transfers	3704.64	220.71	3483.93	4287.16	309.92	3977.24	4288.63	271.99	4016.63
c) Official	25.1	41.98	-16.88	46.72	58.65	-11.93	19.7	54.61	-34.91
d) Private	3679.54	178.73	3500.81	4210.44	251.26	3959.18	4268.93	217.39	4051.54
e) Income	559.41	1727.05	-1167.6	688.77	2087.61	-1398.8	819.94	2294.23	-1474.3
i) Investment income	392.13	1609.97	-1217.8	489.33	1917.68	-1428.4	602.25	2127.01	-1524.8
ii) Compensation of employees	167.29	117.48	49.8	199.44	169.93	29.51	217.69	167.22	50.47
Total Current account (1+2)	28865.8	33661.9	-4796.1	33449.2	35320.5	-1871.4	34122.6	35755.7	-1633.1
B. Capital account									
1. Foreign investment (a+b)	11698.2	9151.69	2546.53	14906.8	13310.3	1596.5	18862.3	14371.5	4490.72
a) Foreign direct investment (FDI)	2167.37	1085.51	1081.86	2638.94	1339.25	1299.69	3170.87	1258.69	1912.19
i) In India	1868.69	399.15	1469.54	2185.95	317.65	1868.3	2764	605.06	2158.93
Equity	1247.73	372.48	875.25	1533.23	185.99	1347.24	1953.24	589.66	1363.62
Reinvested earnings	537.37	0	537.37	544.24	0	544.24	611.33	0	611.33
Other capital	83.58	26.67	56.91	108.48	30.16	78.32	199.43	15.44	183.99
i) Abroad	298.68	386.14	-87.46	452.99	761.6	-308.61	406.88	237.11	169.77
Reinvested earnings	0	64.71	-64.71	0	70.7	-70.7	0	204.04	-204.04
Other capital	298.68	221.43	77.25	382.39	290.9	91.49	406.88	333.07	73.81
b) In India	9530.85	8066.18	1464.67	12267.8	11971	2996.8	15609.67	13112.9	2496.78
i) In India	9450.11	7937.6	1512.51	12218.2	11907.1	3111.03	15647.7	13070	2577.62
of which: FII	9439.89	7937.6	1502.28	12217	11907.1	3099.91	15668.6	13070	2498.53
GDRs/ADRs	10.23	0	10.23	1.12	0	1.12	79.09	0	79.09
i) Abroad	80.74	128.58	-47.84	49.68	63.91	-14.23	43.72	42.81	0.91
2. Loans (a+b+c)	8433.53	6742.79	1690.73	8134.42	7675.41	459.01	7541.68	7344.35	197.33
a) External assistance	1386.45	920.38	466.07	1749.08	1067.8	661.28	1068.43	1591.76	13.68
i) By India	2.82	18.38	-15.56	2.74	14.78	-12.03	3.68	23.7	-20.01
ii) To India	254.65	185.83	68.82	279.65	205.65	74	350.4	224.17	126.23
b) Commercial borrowings	1501.58	1041.06	460.52	1827.6	1103.44	724.16	1703.86	1608.28	95.57
i) By India	115.13	120.68	-5.54	96.51	35.64	60.88	98.42	16.53	81.9
ii) To India	1386.45	920.38	466.07	1749.08	1067.8	661.28	1068.43	1591.76	13.68
c) Short term to India	6674.47	5497.58	1176.95	6024.42	6351.55	-327.12	5483.74	5488.2	-4.46
i) Suppliers' Credit >180 days & Buyers' Credit	6485.03	5405.49	1079.54	6008.49	6270.93	-262.45	5356.89	5450.24	-93.34
ii) Suppliers' credit up to 180 days	189.44	92.03	97.41	15.94	80.61	-64.67	126.85	37.97	88.89
3. Banking capital (a+b)	4554.07	3651.4	902.68	6544.82	5028.18	1516.64	5509.76	4788.93	720.83
a) Commercial banks	4518.66	3642.09	876.56	6514.91	5028.18	1486.73	5402.46	4788.93	613.53
b) Assets	654.22	726.04	-71.82	865.6	1314.23	-448.64	1034.41	1128.95	-94.54
i) Liabilities	3864.44	2916.05	948.39	5649.31	3713.94	1935.37	4368.05	3659.98	708.07
of which: Non-resident deposits	3551.92	2745.41	806.51	5331.98	2951.99	2380	3868.67	3007.43	861.25
b) Others	35.42	9.3	26.11	29.9	0	29.9	167.3	0	167.3
4. Rupee debt service	0	3.13	-3.13	0	3.04	-3.04	0	4.89	-4.89
5. Other capital	970.73	1250.2	-279.46	1338.01	2008.92	-670.91	1765.62	1694.11	71.51
Total capital account (1 to 5)	25656.6	20799.2	4857.34	30924	28025.8	2898.19	33679.3	28203.8	5475.5
C. Errors & omissions	145.78	0	145.78	49.63	115.92	-66.29	67.25	130.37	-63.12
D. Overall balance (A+B+C)	54668.2	54461.2	207.02	64422.8	63462.3	960.54	67869.1	64089.9	3779.25
E. Monetary movements (+/-)									
1. Monetary movements (+/-)	8.72	215.74	-207.02	663.89	1624.43	-960.54	0	3779.25	-3779.3
i) I.M.F.	0	0	0	0	0	0	0	0	0
ii) Foreign exchange reserves (Increase-/Decrease-)	8.72	215.74	-207.02	663.89	1624.43	-960.54	0	3779.25	-3779.3
of which: SDR Allocation									

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Annexure

Table 5: Evidence of Digital Transaction

Rs. Billion

Year	2018-19	2017-18	2016-17	2015-16	2014-15	2013-14
RIGS	1,075,958.95	1,467,431.99	1,253,652.08	1,035,551.63	929,332.88	904,968.05
CCIL OPERATING G SYSTEM	760,294.76	1,074,802.03	1,056,173.36	807,370.42	752,000.41	621,569.63
PAPER CLEARING	54,822.08	81,934.93	80,958.14	81,860.79	85,434.12	93,316.06
RETAIL ELECTRONIC CLEARING	163,156.97	192,017.90	132,250.11	91,408.14	65,365.49	47,856.29
CARDS	29,649.38	38,214.62	30,214.01	29,397.64	25,415.28	22,159.59
Total	2,083,882.14	2,854,401.56	2,553,247.70	2,045,588.62	1,857,548.18	1,689,869.62

Source RBI site

INDIA'S OVERALL BALANCE OF PAYMENTS - RUPEES (Contd.)

(₹ Billion)

Item/Year	2015-16			2016-17			2017-18		
	Credit	Debit	Net	Credit	Debit	Net	Credit	Debit	Net
A. Current account									
1. Merchandise	17432.9	25928.2	-8495.3	18789.4	26334	-7544.5	19914.4	30231.6	-10317
2. Invisibles (a+b+c)	15386.9	8329.24	7057.69	16235.5	9660.16	6575.36	18267.2	11091.2	7176.01
a) Services	10104.5	5546.17	4558.28	11013.7	6429.16	4584.5	12574.7	7579.03	4995.68
i) Travel	1352.96	967.79	385.18	1103.18	456.11	647.07	1227.68	1257.78	969.9
ii) Transportation	916.6	986.18	-69.58	1063.12	947.73	115.39	1124.18	1134.88	-10.71
iii) Insurance	131.13	75.3	55.83	147.98	100.33	47.61	161.54	109.57	51.97
iv) G.I.E.	37.88	42.13	-4.25	39.46	40.21	-0.75	42.8	51.19	-8.39
v) Miscellaneous	7623.43	3460.35	4163.08	8203.84	4237.71	3966.13	9418.52	5021.62	4396.9
of which: Software services	4854.64	176.83	4677.81	4987	240.62	4746.38	4984.02	331.25	4652.77
Business services	1896.93	2038.6	-141.67	2209.81	2167.54	42.27	2407.22	2360.96	46.26
Financial services	322.71	204.87	117.84	341.93	392.62	-50.69	332.71	356.91	-24.2
Communication services	142.3	65.92	76.39	159.28	61.06	98.22	135.16	61.49	73.66
b) Transfers	4319.23	222.03	4097.2	4129.18	374.32	3754.86	4476.7	452.24	4024.45
c) Official	28.51	13	15.51	17.98	57.5	-39.52	21.03	53.97	-32.95
d) Private	4290.72	159.89	4130.83	4111.2	316.82	3794.38	4455.67	398.27	4057.4
e) Income	963.24	2561.04	-1597.8	1092.68	2856.68	-1764	1215.79	3063.91	-1848.1
i) Investment income	727.7	2414.48	-1686.8	828.57	2686.14	-1857.6	928.48	2915.72	-1987.2
ii) Compensation of employees	235.55	146.56	88.99	264.11	170.54	93.57	287.31	148.19	139.11
Total Current account (1+2)	32819.8	34257.4	-1437.6	35025	35994.1	-969.16	38181.6	41322.8	-3141.3
B. Capital account									
1. Foreign investment (a+b)	18071.5	15985.7	2085.79	20823.2	17929.2	2893.94	23176.5	19799.7	3376.84
a) Foreign direct investment (FDI)	3924.22	1566.4	2357.82	4748.11	2348.98	2399.13	4154.21	2203.69	1950.52
i) In India	3641.46	698.88	2942.58	4040.57	1207.65	2832.92	3929.44	1389.68	2539.77
Equity	2696.6	690.58	2006.02	2999.82	1161.59	1838.22	2933.52	1375.59	1557.93
Reinvested earnings	683.43	0	683.43	0	827.87				