















RBI introduced the Electronic Clearing System (ECS) for the faster collection (ECS Debit) and payments (ECS Credit). ECS credit used for payments like dividend and interest and ECS Debit for the collection of utility bills like telephone, electricity and equated monthly instalments of loans.

IMPS transfer the money instantly to the beneficiary account. The beneficiary requires half an hour to transfer and credit the money to the payee. National Electronic Fund Transfer works on net and batch basis that is it makes payment in batches.

NACH started by National Payments Corporation of India (NPCI) this is similar to ECS which is started by RBI. NACH Credit is used to afford credits for large number of customers for the payment of interest, salary, dividend and pension etc. an electronic through raising a single debit to the banks account of user institution means the corporate registered for NACH services.

NACH (Debit) useful for the Corporate for the collection of electricity, telephone, tax collections, water bills loan instalment repayments, insurance premium etc., that are periodic in nature and payable to the User Institution means the Corporate registered for NACH Services.

EFT introduced by RBI, is useful for funds transfer from one bank to other bank accounts but is limited to specific centers in India. Similar to EFT, NEFT is also an electronic fund transfer system for the settlement of transactions nationwide. UPI developed by NPCI for the instant real time payment system. The governor of RBI Dr. Raghuram G. Rajan launched the UPI pilot program in Mumbai on 11 April 2016. Banks have started depositing their UPI-enabled apps on the Google Play store from August 25, 2016. It facilitates peer to peer (P2P) and peer to merchant (P2M) interbank transactions. It can be used on mobiles the mobile number should be registered with bank for the instant transfer funds between the bank accounts. The mobile number on the device is required to be registered with the bank. The UPI ID is used to transfer the money. The maximum proportion of credit transfer are from EFT/ NEFT in the year 2017-18 but after the introduction of UPI the maximum credit transfers are done by UPI. The volume of transactions more through UPI but the value of transactions is more through EFT/NEFT.

Table No. 6

UPI				
(Volume in Lakhs, Value in Millions)				
Years	Volume	AGR	Value	AGR
2016-17	179		6900	
2017-18	9152	5012.85	109832	1491.77
2018-19	53915	489.11	876971	698.47
2019-20	125186	132.19	2131730	143.08
2020-21	223307	78.38	4103658	92.50
2021-22	459561	105.80	8415900	105.08
CAGR	270.04		226.87	

Source: Handbook of RBI Statistics

Table no.6 shows the UPI payments trend form the year 2016-17 to 2021-22. The UPI payments showed a tremendous growth rate for the period of the study. The maximum proportion of credit transfers were done through UPI in the year 2017-18 by the end of the year 2021-22 the AGR is 105.8 with a CAGR of 270.04. the value of UPI growth rate was 1491.77 in 2017-18 reached to 105.08. Even though the volume and value of transactions showed a declining tend comparing to other components of credit transfers growth rate the growth rate of UPI is more with the highest proportion in overall credit transfers.

Debit Transfers and Direct Debits include BHIM Aadhar pay, ECS Dr.NACH Dr. NETC. National Electronic Toll Collection (NETC) is the program which is based on RFID technology. This is introduced by electronic toll payments at all National Toll Plazas. NETC-Fastag is a device that employs Radio Frequency Identification (RFID) technology for making toll payments directly while the vehicle is in motion.

Table No. 7

Debit Transfers and Direct Debits				
(Volume in Lakhs, Value in Millions)				
Years	Volume	AGR	Value	AGR
2017-18	3788		390869	
2018-19	4914	29.73	524556	34.20
2019-20	6027	22.65	605939	15.51
2020-21	10457	73.50	865520	42.84
2021-22	12189	16.56	1034444	19.52
CAGR	26.33		21.5	

Source: Handbook of RBI Statistics

Table no. 7 shows the debit transfers and direct debits and its growth rates. The highest growth rate 73.5 of volume of transactions was found in 2020-21 and reached to 16.56 in 2021-22 with a CAGR of 26.33. the growth rate of value of the transactions was highest with 42.4 in 2020-21 and reached to 19.52 in 2021-22 with a CAGR of 21.5. the volume of transactions showed more growth rate than the value of transactions.

Table No. 8

Credit Cards				
(Volume in Lakhs, Value in Millions)				
Years	Volume	AGR	Value	AGR
2012-13	3992		124427	
2013-14	5120	28.26	155672	25.11
2014-15	6194	20.98	192263	23.51
2015-16	7916	27.80	243702	26.75
2016-17	10935	38.14	331221	35.91
2017-18	14052	28.50	458965	38.57
2018-19	17626	25.43	603413	31.47
2019-20	21773	23.53	730894	21.13
2020-21	17641	-18.98	630414	-13.75
2021-22	22399	26.97	971638	54.13
CAGR	55.11		77.09	

Source: Handbook of RBI Statistics

Table no. 8 explains the credit cards volume and value of transactions and its AGR, CAGR. Credit card growth rate was 28.26 in 2013-14 from then it reached to maximum 38.14 in 2016-17 after that it started decreasing and become negative in 2020-21 by the end of 2021-22 stood at 26.97 with a CAGR of 55.11. the same trend shown in the value of transactions also the highest growth rate 38.57 in the year 2017-18 and then it became negative in 2020-21 but at the end of the year it I 54.13 with a CAGR of 77.09. the value of transactions is more than the volume of transactions.

Table No. 9

Debit Cards				
(Volume in Lakhs, Value in Millions)				
Years	Volume	AGR	Value	AGR
2012-13	57752		174263	
2013-14	67071	16.14	206028	18.23
2014-15	78045	16.36	234926	14.03
2015-16	92470	18.48	269606	14.76
2016-17	109623	18.55	269018	-0.22
2017-18	33434	-69.50	460070	71.02
2018-19	44143	32.03	593475	29.00
2019-20	50611	14.65	703920	18.61
2020-21	40146	-20.68	661385	-6.04
2021-22	39384	-1.90	730213	10.41
CAGR	5.82		40.90	

Source: Handbook of RBI Statistics

Table no. 9 explains the debit cards volume and value of transactions and its AGR, CAGR. Debit card growth rate was 16.14 in 2013-14 become negative in 2017-18, in 2018-19 it showed highest growth rate 32.03 and immediately it start 18.23 in 2013-14 then it became

negative in the year 2016-17 but immediately in 2017-18 it showed highest growth rate 71.02 and finally by showing a variation trend it reached to 10.41 by the end 2021-22 with a CAGR 40.90. the value of transactions is more than the value of transactions completely opposite trend it showed in between value and volume of transactions of debit cards.

Prepaid Payment Instruments (PPIs) are useful to get access to the already prepaid amount. It includes online accounts, smart cards, online wallets, paper vouchers and stripe cards etc. The primary objective of these instruments is to get access to the amount already prepaid so that one can make the payment for their purchases without any physical usage of card and cash.

Table No. 10

Prepaid Payment Instruments				
(Volume in Lakhs, Value in Millions)				
Years	Volume	AGR	Value	AGR
2012-13	669.4		792.3	
2013-14	1336.3	99.63	810.5	2.30
2014-15	3144.6	135.32	2134.3	163.33
2015-16	7480.1	137.87	4875.8	128.45
2016-17	19636.6	162.52	8380.1	71.87
2017-18	34590.46	76.15	14163.4	69.01
2018-19	46043.38	33.11	21287.6	50.30
2019-20	53941	17.15	21486	0.93
2020-21	49366	-8.48	19709.5	-8.27
2021-22	65783	33.26	27941.6	41.77
CAGR	981.72		351.66	

Source: Handbook of RBI Statistics

Table no. 10 explains the prepaid instruments, its growth rate and CAGR. The growth rate of prepaid instruments was highest 162.52 in 2016-17 and it reached to 33.26 by the year 2021-22 with a CAGR of 981.72. the value of prepaid instruments showed a growth rate of 2.3 in 2012-13 and reached its maximum 163.33 in 2014-15 by the end of the year 2021-22 the growth rate is 41.77 with a CAGR of 351.66. The growth rate volume of transactions is more than the growth of value of transactions.

Conclusion: Digital payments in India accelerating Indian government undertaking several measures to promote and encourage the digital payments in the country. The volume of transactions of RTGs, Credit transfers, Credit cards, PPIs showing more growth than the value of transactions. The maximum proportion of credit transfer are from EFT/ NEFT in the year 2017-18 but after the introduction of UPI the maximum credit transfers are done by UPI.

The volume of transactions more through UPI but the value of transactions is more through EFT/NEFT. Even though the volume and value of transactions showed a declining trend comparing to other components of credit transfers growth rate the growth rate of UPI is more with the highest proportion in overall credit transfers. The come-out Fin-Techs are playing a primary role in the widening digital transactions by empowering cost effective, transparent, prompt and secure mechanisms assisting the entire digital payments ecosystem.

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