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A STUDY OF TRENDS IN E-BANKING WITH SPECIAL REFERENCE TO SELECTED PUBLIC SECTOR BANKS

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ABSTRACT:

Banking sector plays an important role in the development of the economy. The banking sector, in recent years, has been influenced and driven by the innovations in Information Technology. A host of new banking products have emerged and they are defining the significance of banks in the contemporary economic world. The present research work is undertaken to study the trends in e-banking with special reference to five public sector banks i.e. Bank of Baroda, Bank of India, Canara Bank, Central bank of India and State bank of

India. For the study, secondary data have been collected from RBI website, theses, books and journals. From the study, it is found that there is a tremendous increase in e-banking services in recent years. This indicates that the banking sector in India is progressing with an increased customer base.

KEYWORDS: Banking sector, recent trends, and development.

INTRODUCTION:

Information technology is playing a vital role across the globe. India too is witnessing radical growth in the information technology. As a result, the Indian banking sector is transforming to offer better and enhanced banking services to its customers. The banking industry is compelled to change rapidly as a result of open market forces such as the threat of competition, customer demand, technological innovations and growth of internet banking. If banks have to retain their competitiveness, they must focus on customer retention and relationship

management, upgrade and offer integration and value-added services.

The term electronic banking refers to "the provision of information or services by a bank to its customers, via a computer or television"(Allen et al, 2001). E-banking is a generic term encompassing internet banking, telephone banking, mobile banking, etc. In other words, it is a process of delivery of banking services and products through electronic channels such as telephone, internet, cell phone, etc. The concept and scope of E-banking are still evolving. Electronic services allow a bank's customers and other stakeholders to interact and transact with the bank seamlessly through a variety of

channels such as the internet, wireless devices, ATMs, online banking, phone banking, and telebanking. Other services offered under E-banking include electronic fund transfer, electronic clearing service and electronic payment media including the credit card, debit card, and smart card. Online banking helps consumers to overcome the limitations of place and time as they can bank anywhere, anytime as these services are available twenty-four hours, 365 days a year without any physical limitations of space like a specific bank branch, city or region. They also bypass the paper-based aspect of traditional banking. As compared to developed countries, e-banking growth and

development is at a nascent stage in India, yet the changing profile of customers and the resultant competition from the establishment of new private sector banks and foreign banks have provided a fillip to its growth. As a result, India has emerged as one of the fastest growing markets in the world.

Recently due to the merger of SBI and its subsidiaries there is a strategic restructuring in public sector banking. Size of a bank provides several leverages leading to specific advantages to stakeholders. Apart from that larger banks can invest more in automation, invest more in research and withstand adverse business environment at times. Banks are in competition within the sector and across the sectors, whether they want it or not.

OBJECTIVES OF THE STUDY:

The main objectives of the study are:

1. To analyze the trends in Electronic Clearing Service.
2. To analyze the trends in the National Electronic Fund Transfer and Real Time Gross Settlement.
3. To analyze the trends in Mobile Banking.
4. To draw a conclusion.

RESEARCH METHODOLOGY:

The present study analyses the trends in e-banking with special reference to selected public sector banks viz. Bank of Baroda, Bank of India, Canara Bank, Central Bank of India and State Bank of India of Kalaburagi district. The study is based on secondary data. The secondary data have been collected from the RBI reports, journals, books and websites.

LITERATURE REVIEW:

Internet accessibility, awareness, attitude towards change, computer and internet access costs, trust in one's bank, security concerns, ease of use and convenience are the major factors affecting the adoption of internet bank services in Malaysia (M. Sadiq Sohail & Balachandran Shanmugham, 2002). Wai-Ching Poon (2008) in his study reveals that privacy, security and convenience factors play an important role in determining the users' acceptance of e-banking services with respect to different segmentation of age group, education level, and income level. Customers are satisfied with e-banking due to its cashless nature, cash accessibility, time-saving and seamless transactions (Haadi Babatunde Asiyanbia and Ajibola Abdulrahmon Isholab, 2018). R. A. Gbadeyan & O. O. AKinyosoye-Gbonda (2011) in their paper conclude that e-banking has become an important phenomenon in the banking industry and it will continue as more progress and innovations are made in information technology. Luis V. Casalo, Carlos Flavia and Miguel Guinalu (2008) say that the improvement of the levels of satisfaction and usability will promote customer loyalty and positive word-of-mouth. As a consequence, the retention-rate and profits of the e-banking business will be also increased. Abdullah Bin Omar (2011) concludes that the services which are not available in Pakistan by all banks e.g. cash depositing facility through ATM machines, "SMS/E-mail Alert" Service, Payment of utility bills through the internet, etc are the most desirable services by the customers. The benefit of modern banking services with all its modern technology and ultimate development must be extended to each and every citizen in every nook and corner of the nation (Mahalingam, 2016). M. Amutha (2015) says that Banking business is now becoming more competitive, and the customer benefits have come under sharp focus at the customer's end. There are several reasons for this intensified interest. The important one is, customers are becoming more and more critical of the service they receive. Many customers are not only desiring but longing for much better services. Dr. S. Sudalai Muthu (2015) found that more number of customers is using mobile banking services offered by various commercials in banks in Pondicherry. In addition, customers are satisfied with the mobile banking services offered by various commercial banks.

The Study

The researchers have analyzed the data pertaining to Electronic Clearing Service, National Electronic Fund Transfer, Real Time Gross Settlement and Mobile Banking vis-à-vis the banks under study. The researchers have worked out mean and standard deviation and analyzed the data with ANOVA.

ANALYSIS AND INTERPRETATION:

TABLE - 1
Trends in Electronic Clearing Service of the Banks under study (2013 - 2017)

ECS credit Volume							
Bank Names	2013	2014	2015	2016	2017	Mean	SD
Bank of Baroda	270756	221918	7674	0	0	100069.60	134671.52
Bank of India	0	0	0	0	0	0.00	0.00
Canara Bank	0	0	0	0	0	0.00	0.00
Central bank of India	0	0	0	0	0	0.00	0.00
State bank of India	5877376	5206807	2974252	658734	1047	2943643.20	2627228.48
ECS credit Value							
Bank Names	2013	2014	2015	2016	2017	Mean	SD
Bank of Baroda	5775530466	7902401310	577258369.3	0	0	2851038029.06	3724776390.51
Bank of India	0	0	0	0	0	0.00	0.00
Canara Bank	0	0	0	0	0	0.00	0.00
Central bank of India	0	0	0	0	0	0.00	0.00
State bank of India	95912058238	89978200306	38107187147	7597063370	27505673	46324402946.80	44931396997.35
ECS debit Volume							
Bank Names	2013	2014	2015	2016	2017	Mean	SD
Bank of Baroda	1584548	475988	43705	0	0	420848.20	680753.45
Bank of India	0	0	0	0	0	0.00	0.00
Canara Bank	0	0	0	0	0	0.00	0.00
Central bank of India	0	0	0	0	0	0.00	0.00
State bank of India	17206862	13651306	10150811	2421081	227320	8731476.00	7249019.96
ECS debit Value							
Bank Names	2013	2014	2015	2016	2017	Mean	SD
Bank of Baroda	9517326038	4207909833	390721730.7	0	0	2823191520.34	4140851716.27
Bank of India	0	0	0	0	0	0.00	0.00

Canara Bank	0	0	0	0	0	0.00	0.00
Central bank of India	0	0	0	0	0	0.00	0.00
State bank of India	8434608 3375	130800247 532.85	6416789 0952	17065021 645.68	317608 6180	59911016 430.60	51708493 133.12

Source: RBI Report

Table – 1 reveals the number of transactions of ECS debit and ECS credit. ECS debit is used for raising debits to a number of accounts of consumers/ account holders for crediting a particular institution and ECS credit is used for affording credit to a large number of beneficiaries by raising a single debit to an account such as dividend, salary payment, and interest, etc. From the above table, we can infer that ECS Credit volume of Bank of Baroda has decreased over the years i.e from 2013 to 2015 and there is no transaction in the year 2016 and 2017 and in SBI there is a decrease in the transactions over the years. ECS credit value of Bank of Baroda has decreased till 2015 and the value is NIL as there is no transaction during the year 2016 and 2017. SBI has also decreased in trend. ECS debit volume and value of Bank of Baroda has decreased but there is no transaction in the year 2016, 2017 and SBI is decreased over the years. There is no transaction in Bank of India as it has no approved center for ECS. Canara Bank and Central bank of India have no transactions because there is very less number of centers approved for ECS purpose, as per the data collected by RBI. Here, we can observe that there is a continuous decrease in ECS Transactions. This is due to formalities involved in ECS transactions and existence of Mobile Banking.

ANOVA		Sum of Squares	df	F	Sig.
ECS Credit Volume	Between Groups	34111058459868.2	4	6.161	0.002
	Within Groups	27681863550878.0	20		
	Total	61792922010746.2	24		
ECS Credit Value	Between Groups	8352169635932910000000.0	4	5.136	0.005
	Within Groups	8130817581172200000000.0	20		
	Total	16482987217105100000000.0	24		
ECS Debit Volume	Between Groups	298313893468191.0	4	7.034	0.001
	Within Groups	212046862278739.0	20		
	Total	510360755746929.0	24		
ECS Debit Value	Between Groups	14050920653308900000000.0	4	6.527	0.002
	Within Groups	10763659660137800000000.0	20		
	Total	24814580313446800000000.0	24		

The ANOVA analysis shows whether there is a statistical difference between the groups. We can see the significance value is 0.002 (i.e., $p = 0.002$), and 0.005 (i.e., $p=0.005$) which is below 0.05 and therefore there is a statistical difference between selected public sector banks with regards to ECS Credit volume and value respectively. There is also an association between selected public sector banks with regard to ECS credit value and ECS debit volume as 'P' value is 0.005 and 0.001 respectively, which is below 0.05.

TABLE - 2
Trends in National Electronic Fund Transfer of the Banks under study (2013 - 2017)

OUTWARD DEBIT NO. OF TRANSACTIONS							
Bank Names	2013	2014	2015	2016	2017	Mean	SD
Bank of Baroda	8004132	1439360 1	1562757 2	2245610 6	3668495 1	19433272. 40	10923195. 86
Bank of India	7290386	1598262 1	2222024 8	2307418 8	2423721 6	18560931. 80	7064933.9 7
Canara Bank	8732691	1919979 3	1452301 5	1992188 5	3096576 8	18668630. 40	8200326.1 0
Central bank of India	7309827	2300659 2	2709657 4	2766724 1	2384589 7	21785226. 20	8337922.3 1
State bank of India	9892836 2	1704507 47	2698268 40	2297410 71	3050757 03	21480454 4.60	81844339. 92
OUTWARD DEBIT AMOUNT (Rs. Million)							
Bank Names	2013	2014	2015	2016	2017	Mean	SD
Bank of Baroda	576564. 23	880361. 95	1142478. 57	1809844. 40	2788308. 59	1439511.5 5	880618.37
Bank of India	377786. 78	520671. 28	715781.4 5	964513.0 2	1488571. 90	813464.89	436941.24
Canara Bank	672289. 30	917016. 41	1202163. 81	1877473. 31	2869618. 58	1507712.2 8	884834.03
Central bank of India	408653. 47	595750. 91	784801.5 7	1104060. 56	1713381. 89	921329.68	511912.01
State bank of India	6327490 .26	9407584 .28	1247566 3.89	1504992 0.46	2282708 3.27	13217548. 43	6289671.4 6
INWARD CREDIT NO. OF TRANSACTIONS							
Bank Names	2013	2014	2015	2016	2017	Mean	SD
Bank of Baroda	2256498 3	3753964 0	5566092 2	7365179 9	9482825 4	56849119. 60	28611250. 07
Bank of India	2270806 8	4317771 3	5899737 1	6715176 9	7920040 7	54247065. 60	21960219. 46
Canara Bank	2080924 5	3169673 2	3415194 8	4398860 6	5797378 3	37724062. 80	14004422. 98
Central bank of India	1427512 9	2762873 0	4190508 1	5201927 7	6442960 3	40051564. 00	19746530. 53
State bank of India	1046980 81	1632177 78	2124499 52	2830606 18	3918946 16	23106420 9.00	11122957 5.02
INWARD CREDIT AMOUNT (Rs. Million)							
Bank Names	2013	2014	2015	2016	2017	Mean	SD
Bank of Baroda	1089932 .41	1491870 .13	2002844. 30	2673035. 35	4029690. 98	2257474.6 3	1154077.9 0
Bank of India	1018712 .05	1446535 .00	1932975. 15	2601223. 25	3818259. 01	2163540.8 9	1096306.1 8
Canara Bank	896709.	1373529	1875315.	2561894.	3630510.	2067591.7	1069661.8

	81	.03	58	21	04	3	8
Central bank of India	650991.34	931279.12	1346550.49	1751368.23	2480489.58	1432135.75	719257.24
State bank of India	6371034.30	8256944.80	1050985.4.14	1574871.2.02	2406026.7.60	12989362.57	7115563.17

Source: RBI Report

Table -2 depicts the transactions of NEFT inward credit and outward debit, which transfers fund from one bank to another. Under the NEFT system fund transfers takes place on Deferred Net Settlement basis and are take place in hourly batches. The result shown in the table is that there is a continuous increase in the NEFT outward debit volume and value of transactions and NEFT inward credit volume and value of transaction of Bank of Baroda, Bank of India, Canara Bank, Central Bank and State bank of India. There is high value and volume of transactions in SBI when compared to other selected banks. Among all Canara bank is the least amount of volume and value of transactions.

ANOVA		Sum of Squares	df	F	Sig.
Outward Debit Volume	Between Groups	152434241865448000.0	4	27.203	0.000
	Within Groups	28017967092469600.0	20		
	Total	180452208957918000.0	24		
Outward Debit Value	Between Groups	582403256681236.0	4	17.512	0.000
	Within Groups	166285434201910.0	20		
	Total	748688690883146.0	24		
Inward Credit Volume	Between Groups	136616077763117000.0	4	11.976	0.000
	Within Groups	57035690234221700.0	20		
	Total	193651767997339000.0	24		
Inward Credit Value	Between Groups	486900430954250.0	4	11.101	0.000
	Within Groups	219306119041905.0	20		
	Total	706206549996155.0	24		

ANOVA test is made to know the association between the groups. The analysis reveals that there is an association between selected public sector banks with regards to NEFT outward debit volume and value, inward credit volume and value as 'P' value is 0.000 which is less than the 0.05.

TABLE - 3
Trends in Real Time Gross Settlement of the Banks under study (2013 - 2017)

Inward volume							
Bank Names	2013	2014	2015	2016	2017	Mean	SD
Bank of Baroda	2574673	3054384	3307199	3373178	3874123	3236711.40	474716.58
Bank of India	1967576	2288226	2467909	2538473	3062388	2464914.40	400299.52
Canara Bank	1461486	1858626	2073525	2233091	2710928	2067531.20	461610.65

Central bank of India	970577	1127514	1249641	1319479	1695707	1272583.60	271114.43
State bank of India	12290083	13631313	14215776	14983396	18170066	14658126.80	2196427.17
Inward value(in Rupees Billion)							
Bank Names	2013	2014	2015	2016	2017	Mean	SD
Bank of Baroda	9712.3341	10346.21	9924.25	9479.48	9526.32	9797.72	353.23
Bank of India	11019.817	12138.75	12380.43	12042.97	14001.59	12316.71	1076.04
Canara Bank	9114.3986	9747.11	9988.80	9878.84	9480.66	9641.96	350.64
Central bank of India	6847.9689	6184.70	5664.90	7005.96	7220.69	6584.84	643.68
State bank of India	68314.088	69722.53	74067.27	88872.81	110812.32	82357.80	17872.56
Outward volume							
Bank Names	2013	2014	2015	2016	2017	Mean	SD
Bank of Baroda	3124475	3598956	3880230	4019135	4510697	10575.99	240.57
Bank of India	2806247	3229895	3472056	3608724	4146081	12930.48	1570.81
Canara Bank	1717479	2163994	2393628	2567313	2896344	10803.77	812.72
Central bank of India	1460450	1740468	1839601	1965388	2366613	7239.43	691.03
State bank of India	9847391	10613242	10918079	10743324	14795602	83885.79	21664.43
Outward value(in Rupees Billion)							
Bank Names	2013	2014	2015	2016	2017	Mean	SD
Bank of Baroda	10389.879	10855.69	10550.31	10301.56	10782.52	10575.99	240.57
Bank of India	11069.307	12354.67	12936.28	12897.30	15394.85	12930.48	1570.81
Canara Bank	9711.678	10354.78	11074.70	11867.66	11010.04	10803.77	812.72
Central bank of India	7340.17	6617.67	6448.04	7781.91	8009.34	7239.43	691.03
State bank of India	67066.575	69159.55	73469.93	90924.13	118808.76	83885.79	21664.43

Source: RBI Report

The Table – 3 shows the transactions of RTGS inward and outward which transfer fund from one bank to another bank, but the transaction are settled as soon as they are processed on one to one basis without bunching with any other transaction. Here, it can be seen that there is a consistent upward trend in volume and value of inward and outward transactions of RTGS, as it is the fastest transfer of the fund to the beneficiary account. There is more increase in RTGS value and volume of SBI

when compared to other selected banks and it is observed that the Central bank of India has the least amount of transactions in terms of value and volume.

ANOVA					
		Sum of Squares	df	F	Sig.
Inward Volume	Between Groups	624850981487707.0	4	142.103	0.000
	Within Groups	21985901075579.2	20		
	Total	646836882563286.0	24		
Inward Value	Between Groups	21265903150.8	4	82.747	0.000
	Within Groups	1284993299.1	20		
	Total	22550896449.9	24		
Outward Volume	Between Groups	302145386143423.0	4	81.789	0.000
	Within Groups	18470916672458.8	20		
	Total	320616302815882.0	24		
Outward Value	Between Groups	21690972560.2	4	57.322	0.000
	Within Groups	1892043730.7	20		
	Total	23583016290.9	24		

ANOVA test reveals that the significance level is 0.000 (i.e., p=0.00) which is below 0.05 and therefore there is a statically significance between selected public sector banks with regards to RTGS value and volume of inward and outward transactions.

TABLE - 4
Trends in Mobile Banking of the Banks under study (2013 - 2017)

Volume (actual)							
Bank Names	2013	2014	2015	2016	2017	Mean	SD
Bank of Baroda	664550	945634	3640427	12651068	30782669	9736869.60	12729666.56
Bank of India	1363	367	597698	237958	21511877	4469852.60	9529910.93
Canara Bank	124529	1109255	4709937	17093784	31800783	10967657.60	13467267.22
Central bank of India	8626	23930	198769	2043781	9496853	2354391.80	4083246.57
State bank of India	49140009	68782714	119256330	220468175	288293343	149188114.20	102227289.88
Value (in Rs.'000)							

Bank Names	2013	2014	2015	2016	2017	Mean	SD
Bank of Baroda	2266025	4348551	14539486	53661142	169097054	48782451.60	70374241.26
Bank of India	2574	136	3146411	1804990	29122600	6815342.20	12540327.77
Canara Bank	299455	19397223	101103253	107101544	195426735	84665642.00	78133226.77
Central bank of India	27088.55	51429	1683925	9019517	31059661	8368324.11	13216930.13
State bank of India	32208903	81567906	442063531	4708344602	3729050889	1798647166.20	2241750553.90

Source: RBI Report

Table - 4 depicts mobile banking service which is the act of making a financial transaction on a mobile device. From the table – 4 we can infer that the value of transactions through mobile banking has shown remarkable growth. The growth in the number of volume and value of transactions of all selected banks has increased. Among all the selected banks SBI indicates high value and volume of transactions, but the growth in volume and value of transactions has slowed down in the year 2014 as compared to 2013 of Bank of India.

ANOVA					
		Sum of Squares	df	F	Sig.
Mobile Banking Volume	Between Groups	81259703795170300.0	4	9.318	0.000
	Within Groups	43605290396466300.0	20		
	Total	124864994191637000.0	24		
Mobile Banking Value	Between Groups	12432085307609800000.0	4	3.085	0.039
	Within Groups	20147339311784200000.0	20		
	Total	32579424619394000000.0	24		

As per the ANOVA analysis, there is an association between selected public sector banks with regards to Mobile banking volume and value as 'P' value is 0.000 and 0.039 respectively which is less than the 0.05. when compared to the volume and value of transaction value is more significant.

CONCLUSION:

The researchers' aim of the study has been to analyze the trends in e-banking services of the public sector banks under study. The Bank of Baroda, Bank of India, Canara Bank, Central Bank of India and State bank of India is the leading banks in the public sector in the country. They provide a variety of services to the customers. Hence, the study undertaken reports the fast growth of mobile banking services both in terms of their value and volume of transactions when compared to the Electronic Clearing Service, National Electronic Fund Transfer, and Real Time Gross Settlement. It indicates fast growth in mobile banking services in India. The trends in banking sector highlighted in the study also indicate that banks are moving from traditional banking to modern banking services. The banking sector in India is progressing with the increased growth in the customer base, due to improved and innovative services provided by banks. Thus e-banking is the backbone of the present banking system.

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