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To Study IT Implementation in Private and Public Bank

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ABSTRACT: IT refers to processing, storing and transferring information. It uses computers, electronic devices such as telephones, mobile phones, fax machines etc. and telecommunication network. IT has defied all geographical boundaries. The banking today is redefined and re-engineered with the use of IT and it is sure that the future of banking will offer more sophisticated services to customers with the continuous product and process innovations. Banks are taking an effort to make a client's banking experience more helpful, effective, at low transaction cost, very quick and compelling. The above research paper enlightens the IT implementation in private and public banks in Satara district and also provide comparative study between private and public bank.

KEYWORDS: Private bank, Public bank, IT (Information Technology), configuration.

I. INTRODUCTION

In advancement of the banking industry, Satara region is not lingering behind the improvement. In the improvement of banking in the Satara area, some historic progressions might be performing. The age-old foundation of cash banks, which were the conspicuous wellspring of credit to an expensive segment of the individuals, particularly the farming populace is fast losing ground and no doubt reinstated by the up to date, sorted out banking framework (Kumbhar, V. M. (25-Mar-2013). On the date 20th August 1907, the first bank Satara Swedish Commercial Bank was created as a Joint Stock Bank. The development of banks in Satara area is its establishment only. The main objective of the above study is to know the IT implementation in Satara district private and public banks.

In order to accomplish the objectives of the study, the data are collected from primary and secondary sources the empirical findings will be analysed against the frame of reference and based on the collected data from interviews and questionnaires. Collected data can be represented or analysed with the help of elementary statistical tools

II. PRIVATE AND PUBLIC BANKS IN SATARA DISTRICT

Data collected from 17 private bank branches and 57 public bank branches for the analysis. Samples details are described below.

Table 2.1 Demographic profile of selected samples for study.

Sr. No	Name of bank type	Population	Sample units
1	Private banks	46	17
2	Public banks	181	57
	Total	227	74

(Source: - Secondary data)

The table 2.1 shows the details of the private bank branches and public bank branches existing in Satara district. There are total 46 private bank branches in Satara district from which the researcher has taken 17 bank branches as a sample for the study and from 181 public bank branches 57 as a sample for study to know the IT implementation in Satara district banks.



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Table 2.2 Demographic profile of private banks

Sr No.	Private bank names	Population	Sample units
1	ICICI Bank	20	7
2	HDFC Bank	12	2
3	Axis Bank	5	1
4	Catholic Syrian Bank	1	1
5	Karnataka Bank	1	1
6	Federal bank	2	1
7	ING Vysya Bank	2	1
8	Ratnakar bank	1	1
9	Indusind bank Ltd.	1	1
10	Yes bank	1	1
	Total	46	17

(Source: - Secondary data)

The table 2.2 shows the private bank branches in the Satara district. Out of 46 private bank branches researchers selected 17 bank branches for the study. In which ICICI bank has the maximum number of branches in Satara from which researcher has taken 7 branches for the study, on the other hand HDFC bank has 12 branches from which researcher has selected 2 branches, same way going ahead, researcher has chosen 1 branch of Axis bank, Catholic Syrian bank, Karnataka bank, Federal bank, ING Vysya bank, Ratnakar bank, Indusind bank Ltd., Yes bank for this research study.

Table 2.3 Demographic profile of public banks

Sr No.	Public bank names	Population	Sample units
1	State Bank Of India	31	12
2	Canara Bank	8	1
3	Syndicate Bank	5	1
4	Bank Of Maharashtra	57	17
5	Dena Bank	2	1
6	Oriental Bank of Commerce	1	1
7	UCO Bank	2	1
8	IDBI Bank	24	4
9	Bank Of India	19	6
10	Bank of Baroda	14	4
11	Central bank of India	5	1
12	Corporation bank	2	1
13	Indian Overseas bank	1	1
14	Union Bank of India	4	1
15	Vijaya Bank	2	1
16	Allahabad Bank	1	1
17	Indian Bank	1	1
18	Punjab National Bank	1	1
19	United bank of India	1	1
	Total	181	57

(Source: - Secondary data)

The table 2.3 shows the details of the public bank branches in Satara district. There are total 181 public bank branches from which the researcher selected 57 branches for the research. In which SBI bank has maximum 31 branches from which researcher undertake 12 branches. Secondly Bank of Maharashtra is having 57 branches from which researcher selected 17 branches, and further for remaining banks researcher selected 4 branches of IDBI bank out of 24 branches in the district. Bank of India is having 19 branches in total over here from which researcher chosen 6 branches. Bank of

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Baroda is having 14 branches among them researcher has selected 4 branches. Remaining all other mentioned here by researcher selected one branch of each Canara bank, Syndicate bank, Central bank of India, Corporation bank, Indian overseas bank, Union bank of India, Vijaya bank, Allahabad bank, Indian bank, Punjab National bank, United bank of India for the study.

IV. IT IMPLEMENTATION STATUS OF PRIVATE AS WELL AS PUBLIC BANKS IN SATARA DISTRICT.

To know the IT implementation in Satara district banks researcher studied computer configuration, network facilities, Intent banking service provided by bank, Training provided to the employees etc. These are as follows.

Table 3.1 Status of computer configuration used in private and public banks.

Type Of PC	Private bank				Public bank			
	Number of Computers				Number of Computers			
	10	20	30	Any other	10	20	30	Any other
Dual Core	14 (82.35%)	1 (5.88%)	.	.	32 (56.14%)	8 (14.04%)	9 (15.78%)	-
PIV	1 (5.88%)	1 (5.88%)	-	-	5 (8.77%)	8 (14.04%)	4 (7.02%)	-
PIII	-	1 (5.88%)	-	-	2 (3.51%)	-	-	-
Celeron	-	-	-	-	2 (3.51%)			-
Any other	-	-	1 (5.88%)	-	6 (10.53%)	1 (1.75%)	2 (3.51%)	-

(Source:-Primary data)

Table 3.1 reflects the computer configuration used in private and public banks. In private banks, 82.35% dual core computers are used where a number of the computer are near about 10, whereas in public bank it is 56.14%. The number of PIV computers used in private banks is 5.88% where a number of the computer is near about 20 whereas in public bank it is 14.04% of the same numbers of computers in PIV range. Use of PIII is reduced and it is 5.88% in the range of 20 computers for private banks, on the other side in a public bank number of computers are near about 10 uses PIII configuration are 3.51%. So the analysis shows that private bank is using an updated computer configuration in their banks compared to public banks.

Table 3.2 Type of printers used in private and public banks.

Type of printer	Private bank			Public bank		
	Below 10	10 to 20	Above 20	Below 10	10 to 20	Above 20
Laser Jet printer	17 (100%)	2 (11.76%)	-	55 (96.49%)	1 (1.75%)	-
Ink Jet Printer	17 (100%)	-	-	31 (54.39%)	-	-
Dot Matrix Printer	13 (76.47 %)	-	-	27 (47.37%)	1 (1.75%)	-

(Source:-Primary data)

Table 3.2 reflects the types of printers as output media used to keep records of banking transactions in private and public banks of Satara district. Analysis shows that the private banks in which the number of printers is below 10 the use of a Laser Jet printers are 100%, whereas in public banks use of a Laser Jet printer are 96.49%. Ink Jet Printer in

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private bank below the number 10 and its use is again 100%. Whereas in a public bank for the same criterion, with 54.39%. For Dot Matrix Printer in private bank below the number 10 and its use is 76.47% and a public bank, it is 47.37%. This analysis again reflects that private banks are using higher numbers of Laser Jet and Ink Jet printers in comparison with public banks.

Table 3.3 Type of Storage media used in private and public banks.

Type of bank	Storage media used				
	Pen drive	Magnetic tape	Mirroring & Duplexing server	Data Warehouse	CD/ DVD
Private bank	15(88.24%)	5 (29.41%)	13(76.47%)	15(88.24%)	5(29.41%)
Public bank	24(42.11%)	10 (17.54%)	15(26.32 %)	45(78.95%)	5(8.77%)

(Source:-Primary data)

Table 3.3 represents the use of Storage media for securing data for future use in selected banks for this research. In private bank use of pen drive is 88.23%, but in public bank it is 42.11%. Use of magnetic tape in private banks is 29.41%, whereas in public bank it is 17.54%. For Mirroring and Duplexing server private banks are using its 76.47% and public bank usage is 26.32%. About Data Warehouse private bank usage is 88.24% and in public bank it is 78.95%. For Compact Disk (CD) and Digital Video/Versatile Disk (DVD) use in a private bank is 29.41%, whereas public bank usage is 8.77%. This analysis reflects that again a private bank uses Storage media facility in high percentage as compare with public banks.

Table 3.4 Other type of computer peripherals used in private and public banks.

Type of bank	Other Peripherals used		
	Scanner	MICR	UPS system
Private bank	17(100%)	16(94.12%)	17(100%)
Public bank	57(100%)	35(61.40%)	57(100%)

(Source:-Primary data)

Table 3.4 represents computer peripherals used in private and public banks. Use of the scanner is 100% in both private and public banks; use of MICR (Magnetic Ink Character Recognition is a technology used in banking to facilitate the processing of cheques) is 94.12% in private bank and 61.40% in public banks, whereas use of the Uninterruptable Power Supply (UPS) system in private as well as public banks is 100%. So the analysis indicates that both types of banks have the similar type of computer peripheral utilization.

Table 3.5 Type of network structure used in private and public banks.

Type of bank	Type of network structure used		
	Client server	Peer-to-Peer Network	Distributed Network
Private bank	14 (82.35%)	1(5.88)	2(11.76%)
Public bank	47(82.46%)	3(5.26%)	7(12.28%)

(Source:-Primary data)

Table 3.5 reflects the analysis of the network structure used in private and public banks. In the private banks use of client server network (One powerful computer act as server and other computers are less power personal computers or workstations are connected in the network) arrangement is 82.35%. Whereas in public bank it is 82.46%, use of peer to peer network (All connected computers in the network share equivalent responsibility for processing data) in private bank it is 5.88%, but in public bank it is 5.26%. For distributed network (computer network spread over different networks having single data communication network, which can be managed jointly or separately by each network) use of a private bank is 11.76% and for public bank it is 12.28%. This reflects that use of client server network is more popular with both the banks.



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Table 3.6 Type of network topology used in private and public banks.

Type of bank	Network topology used				
	Bus	Ring	Star	Tree	Mesh
Private bank	14(82.35%)	-	2(11.76%)	1(5.88%)	-
Public bank	36(63.16%)	2(3.51%)	12(21.05%)	5(8.77%)	2(3.51%)

(Source:-Primary data)

Table 3.6 describes about network topology used in private and public bank. Topology is nothing but a schematic description of the arrangement of a network. It provides maximum possible reliability to assure proper receipt of all traffic. Route the traffic across the least-cost path within the network between the sending and receiving DTEs (Data Terminal Equipment) (Black, U. (1993)). Mostly bank used Bus, Ring, Star, Tree, Mesh topology as per requirement in a bank branch. Most of the banks used Bus topology (In this network arrangement, all of the various devices in the network are connected to a single cable or line. It is also called as horizontal topology and this arrangement is quite popular in local area network)¹ in their branches. The usage of bus topology percentage in private banks is 82.35% and 63.16% in public banks.

Table 3.7 Type of network component used in private and public banks.

Type of bank	Network Components used						
	Network interface card	Repeater	Hub	Bridge	Switch	Router	Gateway
Private bank	5 (29.41%)	3 (17.65%)	12 (70.59%)	4 (23.53%)	12 (70.59%)	13 (76.47%)	3 (17.65%)
Public bank	32 (56.14%)	18 (31.58%)	42 (73.68%)	10 (17.54%)	40 (70.18%)	37 (64.91%)	19 (33.33%)

(Source:-Primary data)

Table 3.7 shows the network components used in private and public banks in which router (Small physical device is used to join multiple network together that forwards data packets between computer network) use is 76.47% in private banks, but in public bank it is 64.91%. Hub (Hardware device is used to network multiple computers together) network use is 70.59% in private banks whereas in public banks its use is 73.68%. In private banks usage of switch (It works similar to a hub, but is extra superior to hub and less competent than routers) is 70.59% comparatively in public bank it is 70.18%.

Table 3.8 Development of Internet banking software in private and public banks.

Type of bank	Internet banking software development		
	In-house	Outsourcing	Readymade packages
Private bank	1(5.88)	14(82.35%)	2(11.76%)
Public bank	3(5.26%)	47(82.46%)	7(12.28%)

(Source:-Primary data)

Table 3.8 is an analysis of Internet banking software development, which signifies that in private banks outsourcing of software development is done with percentage 82.35% and in public bank it is 82.46%. Rarely, some banks use In-house and ready-made packages. In a private bank In-house software development is done with 5.88% and in public bank it is 5.26%. Ready-made package use in a private bank is 11.76% and in public bank it is 12.28%. So the analysis represents that Outsource development of Internet banking software is more ordinary in both the banks.

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Table 3.9 Technical person used to handle Internet banking software in both banks.

Type of bank	Technical person used by banks			
	IT manager	System Administrator	Special Assistant	Any other
Private bank	8(47.06%)	16(94.11%)	8(47.06%)	1(5.88%)
Public bank	50(87.72%)	40(70.18%)	13(22.81%)	8(14.04%)

(Source:-Primary data)

Table 3.9 shows that a technical person was available in bank to handle Internet banking software in selected bank branches. Banking sector adopts new technology regularly. For smooth functioning of Internet banking, banks require to train the personnel with advanced technology regularly. Hence bank appoints technical personnel with adequate technology knowledge. During the analysis researcher find both the bank concentrates on technical personnel. In a private bank number of system administrator are 94.11%, whereas in the public banking sector, it is 70.18%, IT managers in private banks are about 47.06% where as in public bank this number increases to 87.72%. With this few banks also appoint special assistant and technical personnel with percentage 47.06% and 5.88% in private bank branches. In public bank branches this percentage is 22.81% and 14.04% respectively. So the table signifies that intake of technical people is in good amount for both the banks.

Table 3.10 Training is provided to employees regarding IT trends, security and Internet banking awareness program for private and public banks.

Bank	Internet banking technology awareness		System security and audit		Recent trends in IT	
	Annually	Occasionally	Annually	Occasionally	Annually	Occasionally
Private bank	9(52.94%)	8(47.06%)	9(52.94%)	8(47.06%)	8(47.06%)	9(52.94%)
Public bank	23(40.35%)	34(59.65%)	23(40.35%)	34(59.65%)	21(36.84%)	36(63.16%)

(Source:-Primary data)

Table 3.10 reflects the training program for employees to boost them towards the latest technologies to create world class professionals in the banking industry. Nowadays for knowing the customer as well as to increase customers of the bank is very difficult task. Hence bank needs to develop their employees to work on creating customer loyalty towards bank with innovative service packages. They solve all types of customer queries efficiently regarding technological updates. In private bank, bank arranges 52.94% Internet banking technology awareness training programs annually and in public bank it is 40.35%. For the occasionally conducted training, then it is 47.06% in a private bank and 59.65% in public banks. For system security and audit private bank conduct training programs annually with 52.94% and in public bank it is 40.35%. Also occasionally conducted training programs for system security and audit researcher see private bank training programs are 47.06% and public banks are 59.65% in number and lastly for training in recent trends in IT researcher see private bank is conducting annually 47.06% training programs and public banks are conducting it 36.84% and for occasionally training it is 52.94% in private banks and 63.16% in public banks. So the frequency of arranging training program is approximately same in both the banks.

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Table 3.11 To study software used in private as well as public banks.

Sr.	Software type	Description	Private bank		Public bank	
			Count	Percentage	Count	Percentage
1	Operating system	Non-GUI(DOS/Unix)	0	0.00	0	0.00
		GUI(Windows/XP/LINUX/NT/VISTA)	13	76.47	53	92.98
		Windows Server 2008 SP2	4	23.53	3	5.26
		Any other(specify)	0	0.00	1	1.75
2	Database management system	Oracle	7	41.18	27	47.37
		SQL Server	4	23.53	10	17.54
		DB2	8	47.06	9	15.79
		Any other(specify)	3	17.65	11	19.30
3	Application software	MS Office	14	82.35	35	61.40
		ISM/Shree Lipi	2	11.76	10	17.54
		Any other(specify)	1	5.88	12	21.05
4	Utilities	Antivirus	10	58.82	54	94.74
		Server Management Utilities	7	41.18	3	5.26
5	Internet banking software	Finacal (Infosys Technology Ltd.)	11	64.71	18	31.58
		Flexcube (I-Flex Solution Ltd.)	1	5.88	12	21.05
		BaNCS 24(TCS)	9	52.94	32	56.14
		Alnova	0	0.00	0	0.00
		Sanchez(IBM)	1	5.88	0	0.00
		SAP	0	0.00	0	0.00
		Bancs 2000	0	0.00	0	0.00
		BOSS(DDE-ORG)	0	0.00	0	0.00
		Finware	1	5.88	0	0.00
		HKI	0	0.00	0	0.00
		HUB	0	0.00	0	0.00
		Laser-soft (CBS)(TCS)	0	0.00	1	1.75
		Equations(ACT Kindle)	0	0.00	0	0.00
		FNS(TCS)	0	0.00	4	7.02
		TC/4(TCS/CMC)	0	0.00	0	0.00
		Newton (ICICI Info Tech)	0	0.00	1	1.75
		Marvel	1	5.88	0	0.00
Fednet(Infosys)	1	5.88	0	0.00		
Quartz(TCS)	0	0.00	0	0.00		
Any other(specify)	0	0.00	0	0.00		

(Source:-Primary data)

Table 3.11 describes software status used in private and public banks. The use of software development is examined in the following manner. Operating system GUI (Windows/XP/LINUX/NT/VISTA) was used, maximum in private and public banks with a percentage of 76.47 and 92.98 % respectively. In Data Base Management System use of DB2 is more in a private bank with a 47.06% and in the public bank use of Oracle is more with 47.37%. In Application software use of MS Office is 82.35% in private bank and 61.40% in a public bank. For other utilities, program use of antivirus is higher in both the banks with percentage 58.82% in private banks and 94.74% in public banks. In Internet banking software BaNCS 24(developed by TCS) is used in Public banks with percentage 56.14% whereas in the Private bank use of Finacal (developed by Infosys Technology Ltd.) is more with percentage 64.71%. This analysis reflects that both the banks are using updated technology as per the need of the banking system. In the planning and development of e-banking services, software developers give attention to ease of use of the systems (Muneer Abbad, J. M. (2012)).



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V. CONCLUSION

In recent years, IT implementation in banking will not only be appropriate approach of banking, but will be the ideal approach of banking. One of the primary objectives of this research was to know the status of IT implementation in private and public banks of Satara district. The Indian banking industry quickly adopts the technology development and provides automated banking services to the bank customer. According to available information it is realized that hundred percent of private sector banks and public sector banks provide adequate IT implementation, automated services to their client in Satara district. The bank had adequate hardware and software status for managing banking technology.

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BIOGRAPHY



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