EXPLOITATION OF INFORMATION AND COMMUNICATION TECHNOLOGIES (ICT) BY PUBLIC SECTOR BANKS

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Abstract: The staid community of public sector commercial banks had to rouse themselves from their self-induced stupor, once the new generation private sector commercial banks arrived on the scene. The latter almost hit the ground running in the information and communication technologies (ICT) space. Lest they should be left out of the race, the stragglers, namely the public sector banks, pulled their socks up and joined the bandwagon. Upon doing so, they realised that jumping on the bandwagon was not difficult but remaining relevantonce aboard was, what with everyone on the bandwagon chasing the same metrics, namely,rosier financials. The move entailed periodic financial investments in the ICT infrastructure and constant innovation in their products and services basket on the part of banks. Their job did not end with merely embracing ICT. In fact, it marked only the beginning. They had to innovate constantly in the products and services spaces through superior exploitation of the ICT infrastructure in order to widen their customer base and improve their financials too. In fact, change seemed to be the only constant they had to chase all the time to stay relevant. To ascertain how well the public sector banks had stacked up vis-à-vis their private sector peers, the researcher examined the performance of three public sector banks, namely, the State Bank of India (SBI), Canara Bank (CB) and Vijaya Bank (VB), upon adoption of ICT. Since the three banks had adopted ICT by 2006, the period 2006-17 was reckoned by the scholar for the purpose. The researcher assumed that the year of introduction of core banking solution by the respondent banks as the year of adoption of ICT by the said banks. Upon analysis, the researcher inferred that Vijaya Bank had reaped most from its investment in ICT, going by two metrics, namely, the compounded annual growth rate (CAGR) in the employee cost space and the net profit space. It was followed by SBI. Canara Bank came a poor third, but it could not be related to the bank's investment in the ICT infrastructure.

Key words: bandwagon; CBS; ICT; innovate; metrics; rosier; rouse; staid; stragglers; stupor.

1.1 Theoretical background of the topic

Public sector banks (PSBs), for the right reasons, were looked upon as staid banks, ever since their inception. However, their complexion had to change once the country opened up the banking sector. A bunch of private players arrived and after settling down rather swiftly and easily, decided to embrace ICT. Being workforce-light, the private players decided that to run their business profitably in the huge geography that India represented, there was no alternative but to embrace ICT. The PSBs, thanks to their extensive branch network and a near-sovereign backing, realised all of a sudden that they could no longer afford to be complacent about their business, present and future. Accordingly, they decided to follow suit and embraced ICT. They had to shape up or ship out and obviously they chose the former.

1.2 Statement of the problem

PSBs raced against each other to embrace ICT no sooner the biggest of them all, namely the SBI, decided to embrace ICT. SBI had a distinct advantage which many of its peers lacked, namely size, in value as well as volume terms. Hence the decision made business sense and financial sense for the SBI. All the same, the rest of the PSBs embraced ICT too in order to stay relevant. But they met with varying degrees of success, for a variety of reasons, some of them beyond their control. Hence the addressable problems need to be identified so they can be acted upon.

1.3 Review of literature

1. Quietly, and without any regulatory nudge, Indian banks have been focusing on retail loans, transforming the very complexion of banking in India (Vivek, 2018). Bad loans of Indian banks, in particular, the government-owned public sector banks, simply keep mounting. There seems no end in sight, although bank managements repeat every three months, that the worst is behind them. In fact, as of 31 March 2018, the total bad loans of banks (loans which have remained unpaid for a period of 90 days or more) stood at INR 10,35,528 crore or 11.6 percent of the total advances on the books of these banks. In September 2017, bad loans stood at 10.2 percent. Public sector banks account for a huge chunk of these bad loans

2. The researcher has a different take on the diversification of the advances portfolio on the part of the country's commercial banks and in particular, on the part of the public sector banks (Pronab, 2018). The researcher argues that much of the problems being faced by the banking sector can be attributed to the fundamental change that embraced the banking industry, post 2002. In the pre-2002 phase, the banks mainly disbursed only two types of loans. One was working capital loans to entities, firms, and farms which went into production goods, food grains, cash crops, etc. Such loans accounted for 76 percent of the advances portfolio of the

banks. The other was retail loans for purposes like housing and for acquiring durable goods that accounted for a little under 24 percent. Post 2002, banks have been aggressively financing businesses for acquiring fixed assets like land, building, and machinery. Such financing now accounts for 38 percent of the advances portfolio, with working capital loans stagnating at 42 percent and retail loans stagnating at 20 percent. According to the researcher, the shift from short-term working capital loans to long-term loans has not gone down well with the banking industry of the country owing primarily to the eventual asset-liability mismatch. The latter led to liquidity problems in the banking industry. The research almost insinuates that not all innovations have benefited the banking industry although in this instance, the innovations have not been fintech driven. Hence the researcher's comments have to be taken with a pinch of salt.

3. To remain competitive, banks need to set aside a larger budget for online initiatives. The online initiatives they can launch are digital ads, content marketing and search engine optimization (Jon, 2016). The investment will fetch new customers and enhance brand recognition. Banks need to put in place a long-term strategy of building relationships with customers and integrating their bank in the online space. With the help of the Search Engine Optimization (SEO) tool, banks can ensure that their they figure on the first page of Google search results when someone searches for banks in the city the banks operate in. Ground reality reveals that at least half of the traffic comes through organic search, with people just clicking on links through Google or another major search engine. Content marketing helps given that when customers search online, they are looking for content that answers their queries and provides them with value. By regularly churning out articles on topics that customers appreciate, banks will be able to generate more traffic from search engines and thus encourage people to engage with its website. The content could convey information to, say, homebuyers or announce a rise in interest rates. With the digital advertising tool, banks can advertise online. This tool makes it easier to target specific demographics and personalize the message the banks want to convey. For the banks, the data collected from such campaigns comes in handy to optimize advertisements and thus get a lot more bang for their buck. Banks can also use the email newsletter to keep the people engaged with their brand. Banks should include relevant but interesting articles in the newsletters. Email is invariably read by the recipients since most of them check their inbox at least once a day. Email newsletters help build brand loyalty and upsell products. Last but not least, banks should ensure that their websites are user-friendly and mobile friendly. Most millennials conduct a web search before making a 'buy' decision. Given that mobile searches surpass desktop searches these days, banks should ensure that the information the customers seek can be easily found on the mobile site with minimal effort. Simply put, banks need to grow beyond traditional forms of advertising, like TV or newspaper advertisements.

4. State Bank of India (SBI) is riding the digital wave with futuristic banking technology products and activities that add cutting edge to the digital skills programme for empowering rural women (Anil, 2016). Shaking off its staid legacy, the technology-challenged bank has finally embraced digital revolution. Already, private banks are said to have been poaching its gen next customers. The bank believes that its Gen Y customers seek innovative technology and thus arises the need to stay attuned to the needs of the Gen Y customers. This explains the bank's decision to offer a slew of digital services to the customers, on the go. On its 61st founding day observed in the month of July, the bank announced the introduction of as many as seven innovative digital products, namely, SBI Buddy, Mingle, State Bank Scribe, SBI Digi Voucher, SBI Video Statement, SBI Smart Watch, and the Digital Village programme. The announcement surprised all stakeholders although it was common knowledge that SBI was strong in its back-end technology. However, the bank did not see eye to eye with its tech-savvy customers who wanted everything at their fingertips and deemed it passé to visit even an ATM kiosk.

5. *Vishwanath Nair* and *Nilasri Barman* argue that so far, the auto loan segment has been dominated by private sector banks as their state-owned peers kept away owing to lack of transparency amid the involvement of a third party (Vishwanath & Nilasri, 2011). But now, at least three public sector banks are seriously looking at entering this space. And in a bid to push their products, they would even be offering a commission of 1-3 percent to the automobile dealers, much like the private players. Dealers are cheering the idea already. Going by them, the commission received from the lenders mostly goes to executives who work hard to achieve good sales numbers. With more lenders in the fray, the incentive could go a long way in boosting revenues, particularly at a time when fewer enquiries are converting into sales.

6. Aarti finds cent percent agreement across bank officers on the rising impact of Internet banking services on customer base (Aarti, 2009). It may be attributed to the fact that the customer can avail of banking services anytime and anywhere. 60.53 percent of the sample bank officers observed that bank expenses had slowed down upon introduction of internet banking although 27.63 percent of them begged to differ. 11.84 percent of them averred that bank expenses indeed rose upon introduction of internet banking services by public sector banks (PSBs). A higher proportion, namely 44.64 percent of private sector bank officers saw no impact of internet banking on bank expenses. However, 42.86 percent of them believed that bank expenses slowed down. Curiously, 12.50 percent of them believed that bank expenses indeed rose upon introduction of internet banking. 44.44 percent of foreign bank officers observed that bank expenses declined upon introduction of internet banking services. 38.16 percent of PSB officers saw a 10 to 20 percent growth in banks' business upon introduction of internet banking services; only 3.95 percent of them saw a rise of more than 40 percent in banks' business upon introduction of internet banking. Only 2.63 percent of them saw no impact whatsoever of internet banking on banks' business. 42.86 percent of the private sector bank officers saw a rise of 10 to 20 percent in their banks' business, upon introduction of internet banking. 27.78percent of foreign bank officers saw a 30 to 40 percent growth in their banks' business.

1.4 Research gap

The reviewed literature by a motley crowd of researcher is enlightening and valuable. As one researcher rightly observes, even the staid PSBs have been unobtrusively raising the pace of their retail financing portfolio, among other things. They have exploited their ICT infrastructure for the purpose. As another researcher implies, this represents a paradigm on the part of the PSBs. Banks need to set aside a larger budget for their online initiatives in order to innovate in their services and products space, as one researcher aptly puts it. Perhaps to drive home the point that the staid PSBs are taking ICT rather seriously, one researcher even cites that the SBI has been riding the digital wave with futuristic banking technology products and activities. The researcher pointedly adds that the bank has shaken off its staid legacy in the process. However, in the phase following the adoption of ICT, how well the PSBs have performed largely remains unanswered thereby giving rise to a research gap. It is this aspect of the issue the present study seeks to investigate.

1.5 Scope of the present study

The study confines itself to SBI, Canara Bank and Vijaya Bank

1.6 Objectives of the study

The objectives of the study are to:

1. Ascertain the trend in employee cost in the respondent banks, upon embracing ICT
2. Ascertain the net profit trend in the respondent banks, upon embracing ICT
3. Assess the growth in reserves of the respondent banks, upon embracing ICT

1.7 Research design

1.7.1 Research methodology

The study is descriptive in nature and has used the 'fact-finding' survey method

1.7.2 Sources of data

The study is based only on secondary data. Secondary data has been collected from the audited annual reports of the respondent banks and from the web site of RBI.

1.7.3 Data processing and analysis plan

Data has been processed and the financial performance of the banks gauged, by applying the metrics relevant to the banking industry

1.8 Trend in employee cost, net profit and reserves of the respondent banks

In the following paragraphs, the trend in employee cost, net profit and reserves of the three respondent banks is captured. As said in an earlier paragraph, SBI embraced ICT in the year 2004, Canara Bank embraced ICT in the year 2006 and Vijaya Bank embraced ICT in the year 2005. Hence the performance indicators reckoned for the research relate to the period 2006-2017.

1.8.1 Trend in employee cost of the respondent banks for the period 2006-17

Upon embracing ICT, banks should be in a position to right-size their workforce given the productivity gain triggered by the ICT infrastructure they have installed. Additionally, banks do not have to replenish their workforce as much as they used to, in the past. Hence the following Table and Figure capture the trend in employee cost of the respondent banks in the post-ICT adoption phase.

Table-1

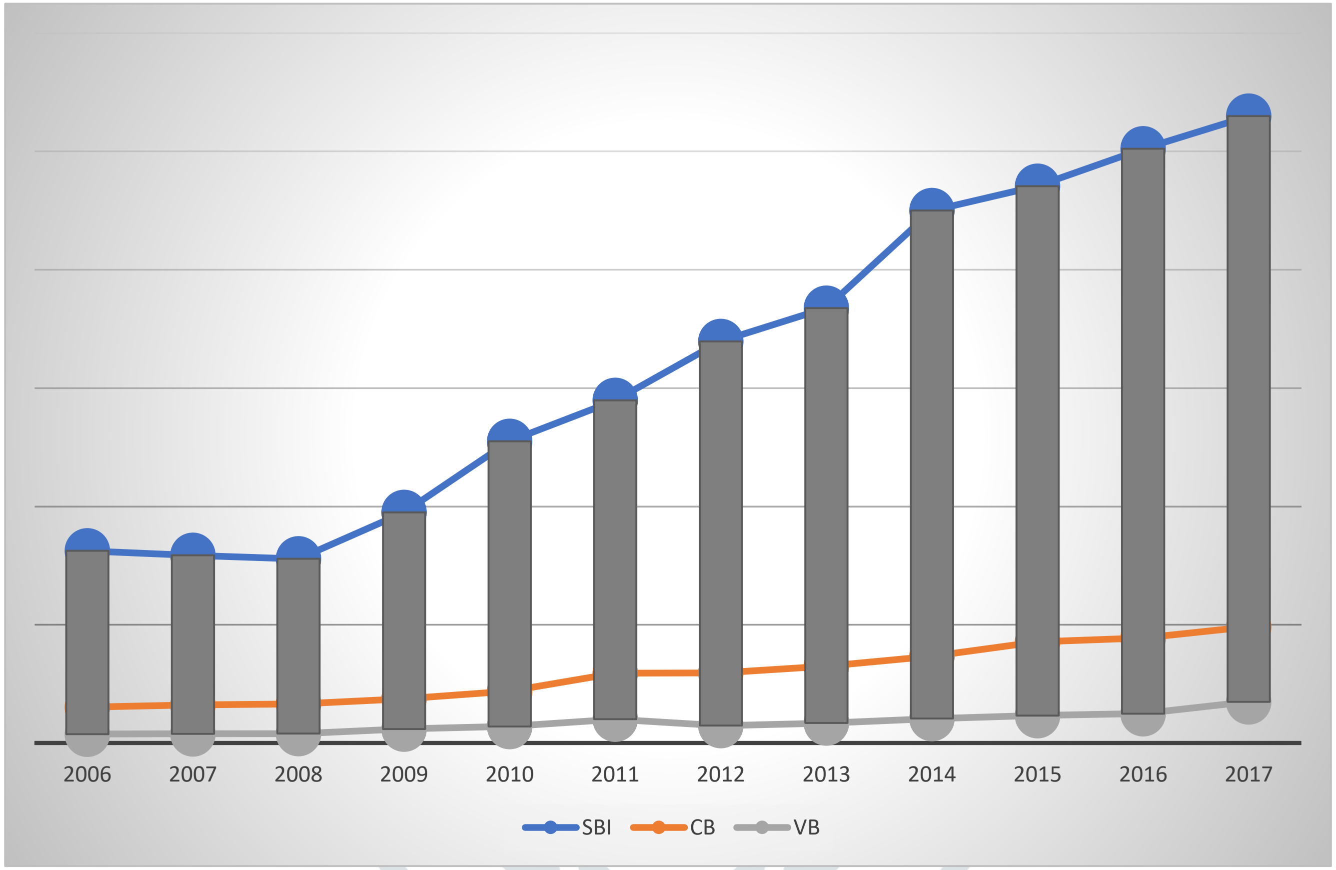
Trend in employee cost of the respondent banks for the period 2006-17 (in INR Crs)

Year	SBI	Canara Bank	Vijaya Bank
2006	8,123.04	1,515.30	378.84
2007	7,932.58	1,609.29	392.14
2008	7,785.87	1,661.28	404.92
2009	9,747.31	1,877.15	597.47
2010	12,754.65	2,193.70	705.62
2011	14,480.17	2,954.84	1,010.44
2012	16,974.04	2,973.08	739.92
2013	18,380.90	3,253.56	848.59
2014	22,504.28	3,672.38	1,039.80
2015	23,537.07	4,274.25	1,165.55
2016	25,113.83	4,445.88	1,246.97
2017	26,489.28	4,915.09	1,747.89
CAGR (%)	38.45	11.29	14.91

(Source of secondary data: Annual Reports of the banks)

Figure-1

Trend in employee cost of the respondent banks 2006-17 (in INR Crs)



(Source of secondary data: Annual Reports of the banks)

It is clear from the foregoing Table and Figure that the employee cost CAGR of Canara Bank was the lowest at 11.29 percent. Next best was that of Vijaya Bank which recorded a CAGR of 14.91 percent. SBI registered the highest CAGR of 38.45 percent in the employee cost space.

Hence, relative to Canara Bank and Vijaya Bank, SBI performed rather poorly in the employee cost space. This fact has to be viewed in the context of other metrics , like the net profit growth registered by the bank and the additions it made to its reserves and surplus or retained earnings, though.

1.8.2 Net profit growth of the respondent banks for the period 2006-2017

Upon embracing ICT, banks should be in a position to raise their business in volume terms and value terms too. After all, the ICT infrastructure must have provided the springboard for a spurt in the net profit growth of the banks. Additionally, the marginal cost incurred by the ICT-driven banks to achieve business spurt must be minimal. Hence the following Table and Figure capture the trend in net profit of the respondent banks in the post-ICT adoption phase.

Table-2

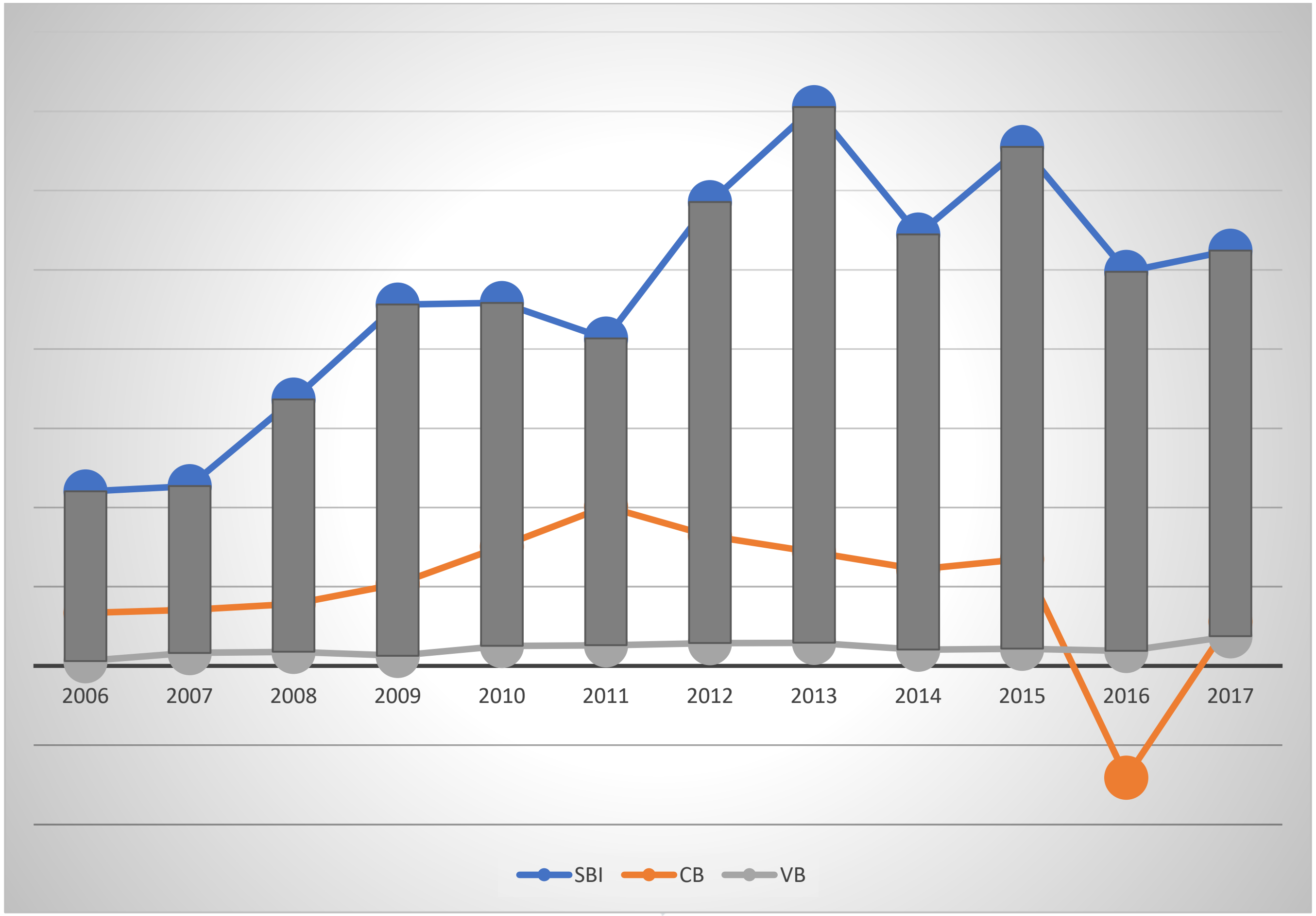
Net profit growth of the respondent banks for the period 2006-17 (in INR Crs)

Year	SBI	Canara Bank	Vijaya Bank
2006	4,406.67	1,343.22	126.88
2007	4,541.31	1,420.81	331.34
2008	6,729.12	1,565.01	361.28
2009	9,121.24	2,072.42	262.48
2010	9166.05	3,021.43	507.29
2011	8264.52	4,025.89	523.82
2012	11,707.29	3,282.72	580.99
2013	14,104.98	2,872.10	585.61
2014	10,891.17	2,438.19	415.91
2015	13,101.57	2,702.63	439.41
2016	9,950.65	-2,812.82	381.80
2017	10,484.10	1,121.92	750.48
CAGR (%)	8.20	-1.62	17.54

(Source of secondary data: Annual Reports of the banks)

Figure-2

Net profit growth of the respondent banks for the period 2006-17 (in INR Crs)



(Source of secondary data: Annual Reports of the banks)

The Table and Figure make it clear that in terms of net profit CAGR, Vijaya Bank was way ahead of SBI and Canara Bank, clocking 17.54 percent. SBI came next, clocking a CAGR of 8.20 percent. Canara Bank came a poor third – poor because its CAGR was in the negative territory or -1.62 percent, to be more precise.

Vijaya Bank registered the highest rate of net profit growth at 17.54 percent in the post ICT adoption phase.

1.8.3 Growth in the retained earnings space of the respondent banks during the period 2006-2017

Upon embracing ICT, banks were able to achieve a net profit spurt and consequently, a spurt in reserves or retained earnings too. After all, reserves or retained earnings raise the net worth of the bank. Hence the following Table and Figure capture the trend in the growth of the reserves or the retained earnings of the respondent banks in the post-ICT adoption phase.

Table-3

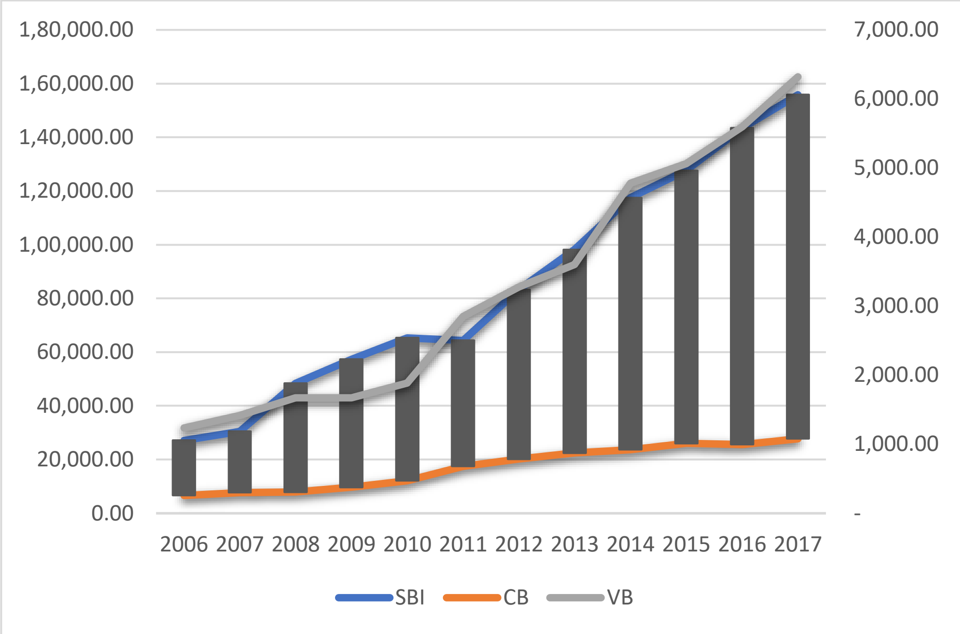
Growth in reserves of the respondent banks for the period 2006-2017

Year	SBI	Canara Bank	Vijaya Bank
2006	27,117.79	6,608.86	1,236.05
2007	30,503.66	7,701.12	1,417.81
2008	48,401.19	7,885.63	1,672.89
2009	57,312.81	9,629.61	1,672.89
2010	65314.32	12,129.10	1,884.55
2011	64351.04	17,498.46	2,850.50
2012	83,280.16	20,181.82	3,279.15
2013	98,199.65	22,401.55	3,600.49
2014	1,17,535.68	23,660.60	4,779.81
2015	1,27,691.65	25,978.18	5,064.12
2016	1,43,498.16	25,615.55	5,598.30
2017	1,55,903.06	27,715.10	6,322.18
CAGR (%)	17.23	13.92	15.99

(Source of secondary data: Annual Reports of the banks)

Figure-3

Growth in reserves of the respondent banks for the period 2000-2017



(Source of secondary data: Annual Reports of the banks)

The Table and Figure make it clear that SBI was able to grow its R&S levels at a CAGR of 17.23 percent. The corresponding percentages for Canara Bank and Vijaya Bank were 13.92 percent and 15.99 percent respectively. All the three banks have benefited from the base effect in the R&S space.

1.9 Summary of the findings

The following Table presents a summarized version of the findings arrived at by analysing the secondary data.

Table-4

Summarized version of the findings relating to the period 2006-2017

Metrics	SBI	Canara Bank	Vijaya Bank
Employee cost CAGR (%)	11.34	11.29	14.91
Net profit CAGR (%)	8.20	-1.62	17.54
CAGR of reserves (%)	17.23	13.92	15.99

1. Employee cost rose to the highest level in the case Vijaya Bank. It closed in on the 15 percent mark during the period under review. It was the least in the case of Canara Bank – the CAGR was 11.29 percent. SBI was almost on the same page in the employee cost space by registering a CAGR of 11.34 percent. It is a feather in SBI's cap given that the bank is way ahead of Canara Bank and Vijaya Bank put together . Perhaps the advantage of size (in volume and value terms) helped the bank realise more value for the money it invested in ICT – proof that investment in ICT is more productive when the size of the business is high.

2. The net profits of SBI and Vijaya Bank rose at CAGRs of 8.20 percent and 17.54 percent respectively. When Vijaya Bank's employee cost CAGR of 14.91 percent is viewed against this backdrop, one can conclude that its rather high CAGR of 14.91 was justifiable, after all. Net profit CAGR of 17.54 percent against an employee cost CAGR of 14.91 percent is praiseworthy. The corresponding percentages for Canara Bank make no sense since the bank's net profit CAGR lies in the negative territory during the period under review. Apparently, this has nothing to do with the bank embracing ICT. Non-ICT factors like write offs and other balance sheet cleansing measures led the bank to this plight.

3. In the reserves CAGR space, SBI leads the trio with a CAGR of 17.23 percent. Vijaya Bank and Canara Bank in that order follow SBI registering CAGRs of 15.99 percent and 13.92 percent respectively.

1.10 Recommendations

The following are the recommendations of the researcher:

1. A high employee cost CAGR is justifiable if it has been accompanied by a higher CAGR in the net profit space. In the case of Vijaya Bank, the employee cost CAGR was a high 14.91 percent and the net profit CAGR was higher at 17.54 percent. The inference that can be drawn is that the bank went for expansion of branch network leading to a higher net profit CAGR of 17.54 percent. In other words, the net profit CAGR of 17.54 percent easily outpaced the employee cost CAGR of 14.91 percent leading to a higher above-the-line performance as well as a higher below-the-line performance. Embracing ICT has paid off since the HR base went up in volume and value terms and the total business of the bank went up too, in volume and value terms. In other words, embracing ICT has paid off for the bank. The bank's investment in ICT has been really good value for money. It is high time the bank maximised the exploitation of its ICT base and benefited even more. Once that is done, it should be in a position to raise its reserves CAGR beyond its net profit CAGR sooner than later.

2. In the case of SBI, in the post ICT adoption phase, the employee cost CAGR outpaced its net profit CAGR by a whopping three percent (11.34-8.30) which is not acceptable. Obviously, it has to right-size its work force or identify ways and means raising its bottom line by introducing and popularizing innovation-driven products and services. Possibly both the strategies will pay off for the bank.

3. Canara Bank has to focus on regaining its profit-generating ways. Going by the figures, it has already made a beginning in this direction. Its profit was in the positive territory in 2017 and hopefully, the green shoots of profit-making have come to stay.

4. Once all the three banks establish themselves firmly along the path of profit generation, regaining the financial health should be just a matter of time.

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