Banking Industry Performance in Customer Relationship Management: A Case Study in Banks Perspective

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Abstract—

A banks operation in general consist of technology and people oriented, which can also be stated as back and front end operations. In the back end such as check sorting, programming etc., operations are carried and it is not directly observable or understandable by the customers. On the other hand, the front end operations happen between staff and customers, which in a way directly observable by the customers. A bank despite having advanced technology in the back end, which itself will not bring satisfied customers, unless and otherwise the front end staffs using this system are thoroughly familiar and services to the customers provided in a courteous, friendly and competent manner. This portion of it is effectively handled by the strategies of customer relationship management (CRM) that basically integrates the technology and the people under one umbrella. In the present scenario almost all the banks are aware of this importance and implemented the CRM for effective handling retaining and attracting the customers. Yet it is always wise to assess it periodically to ensure that it yields to the target. An attempt has been made in the paper to study the performance of the banking service in the banks perspective using linear regression model. For which, two different leading private sector banks have been studied and the results are discussed based on the four different performance measuring parameters.

Keywords— Banking performance, Branch expansion, Deposits, Study period.

I. INTRODUCTION

The banking industry has faced unexpected and tremendous change in last couple of decades [1]. Banks have evolved from simple banking service providers to wide group selling services that range from normal banking, loans and mortgages, insurance, asset finance and fleet services and much more. There is a tough competition for customers to retain and attract new. The objective for front officers or marketing or client facing staff in banking is to own and then retain the long standing customer relationship could be their first and foremost asset. In fact, banks spend considerable amount in each year to attract and retain customers [2], yet it is cumbersome to identify the critic metric in the customers' decision-making process [3]. Several banks are working hard to enhance their customer relationship practices, as the changes implementing to the way customer relationships are managed and the effective system that facilitates are not been so easy due to the dynamic nature of customers' behaviour [4]. In order to develop the best practices that banks manage their customer relationships apart from the investment it also requires a cultural change in the sales, marketing, information management and the supporting processes and systems. A customer focused culture needs to synthesised and become more unified across the group before even any improvements can be made to processes, systems and even in information management. It has been reported that many international banks across the globe had started to implement such as cultural change from the traditional sales industries [5]. Business information is the most important aspects of managing prospective and existing customer relationships [6]. In general, all the banks maintain huge information that includes the internal and some external data with respect to their customers, prospects, partners and competitors. These data must be synchronized or integrated as one unit and that should be maintained and viewed and worked by different units of the particular concern. It is reported that the most important reason for failure of customer relationship management is on the failure of integrating the data on a common platform that could be used by anyone in the group [7]. The banking industries objective is not only maximising business with their customers but also minimising the risk of doing business with the customers. Not always all the customers are loyal, trusted and good to have business that can earn profit, there are huge possibilities on the negative side as well. Monitoring the customers' loyalty or reputation risk requires access to the up-to-date information. Despite having all these ups and downs, the banks are one of the backbones to regulate and drive the country economy, and it is observed to have a good sign in the Indian banks [8]. With the view of technological development in most of the banks especially on their back end operations and systematic development in the front end operations such as customer relationship management, relationship management and so on. To synch both front and back end operation there has been developed so many tools such as enterprise resource planning (ERP) software and system, analysis and process (SAP) solution based software [9]. Thus, in the present investigation an attempt has been made to study the performance of banking industry in the Virudhunagar region. There are many public and private sector banks in this region, yet two leading private sector banks have been considered as they are long serving to this region and having leading technologies implemented to reach customer and improve their productivity.

II.   METHODOLOGY

The Virudhunagar district has been chosen for the study of banking services in the present work. It is one of the districts in Tamil Nadu state, situated southern part of the state. It consist eleven taluks and has an area surfing 4270.3 square kilometres [10]. The district is served by a network of banking giving an average of 15680 persons per branch during the study period, 2000-2007. These branches are located across the districts comprising nearly six private sector banks during the study period. For this study, several banks were approached, of which, two major banking industries were consented to carry this research work that can be named it as private sector bank 1 (PrB1) and private sector bank 2 (PrB2). The sources of data have been collected from the chosen banking industry with the proper questionnaire constructed through literature survey and through brainstorming exercise carried out with the field experts. In addition, the annual reports of the respective banks have been observed to collect the relevant data during the period of study.

The raw data are first used to estimate the trend that it follows; which are then used to determine the trend coefficients that could basically form as a dependent variable 'Y' is a function of independent variable '$f(x)$' and a constant 'a', which is shown in Eq. 1. In this Eq. 1., The 'a' and 'b' are the trend coefficients, the 'a' further can be determined by taking $\ln(a)$.

$$Y = ae^{bx} \qquad (1)$$

Then, through the regression analysis the certainty of best fit is found, finally the compound growth rate (CGR) is calculated using the obtained data that follows to be:

$$CGR = \left[\left(\frac{n_f}{n_i} \right)^{\frac{1}{n}} \right] - 1 \qquad (2)$$

Where, 'n_f' is the end value in the study period, 'n_i' is the initial value of the study period and 'n' is the number of samples or study period. In addition, the statistical significance of the data on a particular variable is ensured through, 't_o'- test statistic, and accordingly, this analysis is portrayed for the other necessary variables that the banks under study had encountered through CRM strategies in reaching the customer effectively and efficiently. The value of 't_o' can be determined as follows [11]

$$t_o = \frac{r\sqrt{n-3}}{\sqrt{1-r^2}} \qquad (3)$$

Where, 't_o' is the computed value from the sample, 'n' is the sample size and 'r^2' is the regression coefficient. If '$|t_o|$'>$t_{/2, n2}$, the correlation between 'Y' and 'X' is significant or, equivalently, the regression model is significant. The $t_{/2, n2}$ can be determined from the *t*-table for 0.005 and '$n-2$' is the degrees of freedom, in the present study it is 5, therefore the table value of 't' is 4.032. If the condition meets then it can be ensured that 99.9% trend coefficients of the sample data are statistically significant.

III.   RESULTS AND DISCUSSION

Both are leading private sector banks in this region, the number of branch expanded over the years against the study period for both the banks are shown in Fig.1. It is noted from Fig. 1., that there exist a tight run for both the banks especially in number of branch expansion over the study period point of view. It is found that the numbers are exactly matching in the year 2000-2001 and 2006-2007 respectively. On the other hand, the expansion of branches was consistently higher for PrB1 as compared to PrB2. This reflects on one side the improvement of productivity in the region, on the other side is more customer friendly to avoid having congested in a limited number of branches. Thus from the view point of branches expansions during the study period it can be concluded that PrB1 is more customer focussed to serve and establish in the region.
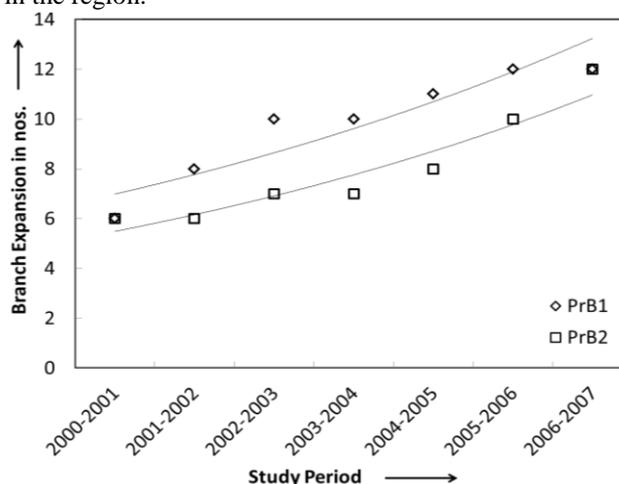

Fig 1. Relationship between number of branch expansion and study period

TABLE I TREND AND GROWTH OF BRANCHES IN THE STUDY PERIOD

Banks	Trend Coefficients		R^2	t_o	$It_oI>t_{\square/2, n2}$	CGR
	a	b				
PrB1	1.8369	0.1066	0.8477	4.7185	Significant	10.41
PrB2	1.5368	0.1155	0.914	6.5201	Significant	10.41

The trend and growth table is constructed for number of branches based on the Fig. 1, which is shown in Table I. The coefficients obtained from the best fit curve, in this case is an exponential fit. The constant '*a*' indicates the rate of growth which is found to be higher for PrB1 as compared to PrB2. The statistic – '*t*' value obtained is compared with table value and is concluded that both the banks' branch expansion data are statistically significant. Interestingly the compound growth rate for both the banks are same despite the rate of growth observed for PrB1 is on higher side.

The overall observation of Fig. 2., which is drawn for various deposits against study period that reveals as all the deposits including current, savings and fixed are found to enhance exponentially over the time period irrespective of the banks under consideration. It is noted that fixed deposit (FD) is relatively falls in the highest followed by savings deposits (SD) and finally current deposits (CD). In particular FD of PrB2 is highest of all, whoever it is very difficult to distinguish among FD of PrB2, SD of PrB2 and FD of PrB1; in one or the other way it is either over lapping with one another or out of these any one is taking highest in any given year. Nevertheless, the careful observation reveals that FD of PrB2 takes the highest or first position and then FD of PrB1 followed by SD of PrB2. The separation between the curves of the respective banks on FD almost very little. Similarly, CD of both the banks shows little separation but bit better than FDs of those respective banks. Thus it can be clearly observed that PrB2 is superseding over CD of PrB1. Further to be noted that the SD of PrB2 is far higher than the SD of PrB1. Thus, it can be concluded that in general FD, SD and CD of PrB2 is higher than the FD, SD and CD of PrB1. Of these different deposits, SD shows substantial difference between curves of respective banks. This is, perhaps leads to the understanding that the market in the region has been widely reached by PrB2 and their service or package been offered would be attractive. Similarly the marketing strategies would have done so effectively in the region by PrB2.
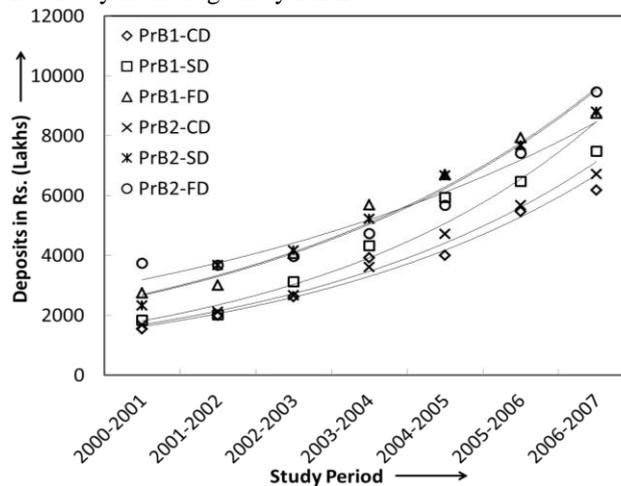

Fig 2. Relationship between deposits and study period

TABLE II TREND AND GROWTH OF VARIOUS DEPOSITS DURING STUDY PERIOD

Banks	Deposits	Trend Coefficients		R^2	t_o	$It_oI>t_{\square/2, n2}$	CGR
		a	b				
PrB1	CD	7.1615	0.2355	0.9684	13.5907		21.936
	SD	7.2499	0.2565	0.9536	11.1541		22.1654
	FD	7.6921	0.2111	0.9661	13.9422	Significant	17.9991
PrB2	CD	7.1939	0.2399	0.9901	27.4542		21.9758
	SD	7.6780	0.2122	0.9613	12.0465		20.9665
	FD	7.9067	0.1625	0.9206	7.5158		14.1874

The careful observation of Table II, which is portrayed from the values obtained from Fig. 2., for various deposits to the corresponding banks; in particular the '*a*' values for both PrB1 and PrB2, it is understood that the rate of growth over the period for all the deposits of PrB2 is higher than PrB1. The statistical –'t' value is found to be higher than the table value that ensures the data obtained for all the deposits of each banks are statistically significant. Finally the compound growth rate indicates that FD of PrB1 shows excellent compared to FD of PrB2, but for SD and CD, PrB2 overtakes in small margin than PrB1 respectively. This reveals that PrB1 is performing well in FD as compared to its respective other components such as CD and SD, where it still has much potential to improve in the region.
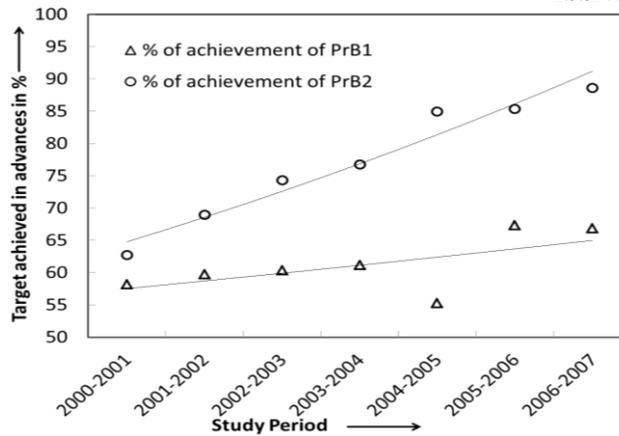
Fig 3. Relationship between target achieved in advances and study period

The general observation of Fig. 3., reveals that both the banks are possessing the increasing trend in achieving targeted advance. But the rate at which the target achievement in advance enhancing is substantially high for PrB2. Indeed, it is in the verge of achieving 100% in another couple of years from 2006-2007. Whereas, the PrB1 target achievement in advance is at slow rate of increase over the period. Particularly, in the year 2004-2005 the target achievement is far less than average of its own target achievement over the period. It is further observed that both the banks are almost near in the year 2000-2001, however the target achievement by PrB2 is tremendous as compared to PrB1 on the subsequent years. This indicates that despite having less number of branches by PrB2 as compared to PrB1, their effective communication, marketing skills, and customer relationship strategies are reached and enhanced the trust of customers on the banks were eventually helped in achieving the target in advance substantially. The compound growth rate for PrB1 especially on the target setting was found to be higher, however in the achievement it was observed to be much lower than PrB2 respectively. This indicates that PrB2 is well predicted the target and established marketing and sales along with better customer focussed service to do the achievement tremendously.
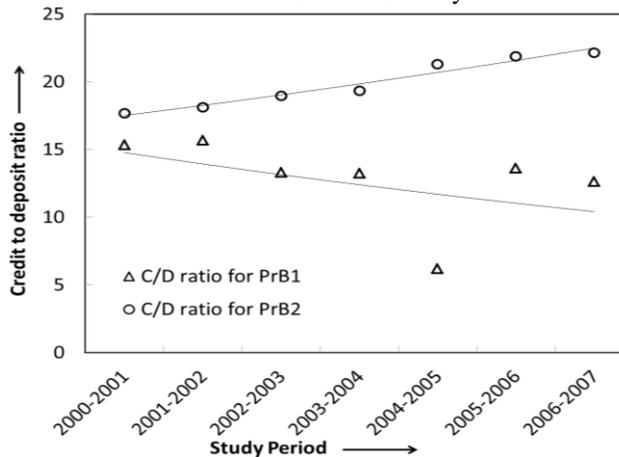

Fig 4. Relationship between credit to deposit ratio and study period

As it is observed in Fig. 2., that deposits keep increasing over period of study for both the banks, but how this is been utilized to make profitability or productivity of it, can be studied by looking through the credit to deposit (C/D) ratio. It is one of the important parameter to measure the performance of the banks as the C/D ratio should neither be very high nor be very low. Since both the way, it indicates that banks are in either the pressure on captivating the resources or the resources are under-utilized. In Fig. 4., it reveals that C/D ratio for PrB2 is gradually increasing over the period on the other hand PrB1 is gradually decreasing over the period. Thus it can be concluded that PrB2 has pioneered in securing the higher deposits over the period and those deposits were better utilized to make it more profit earning organization. On the other hand, the PrB1 appears that they are yet to utilize their full potential in the market.

IV. LIMITATIONS AND FUTURE RESEARCH

The banks performance have been studied in four major parameters, such as branches expanded in the region, various deposits secured, target achieved in advances, and credit to deposit ratio. Yet the performances of the banks are not just limited to these parameters, which can further be stretched to other measuring parameters that can better reveal the performance. Some of the banks might have given thrust on to the specific issues in a given period of time, perhaps that could effectively be met by the respective bank. Thus the parameter of this investigation's interest may not be the deciding factor in deed. The research can also be extended to the customers' point of view to understand the banks performance. A survey could be conducted to the variety of customers to check how well the bank's product are reached customer, how best the banks are effective in solving issues, their knowledge and down-to-earth in serving the customers,

facility in internet banking, electronic banking and so on. Perhaps, these additional parameters will effectively helpful to assess their customer relationship management strategies and its effectiveness of implementation and its eventual return from customers for the productivity and profitability of the banks.

V. CONCLUSIONS

The two leading banks have been considered in the present investigation to study their performance in the region for serving customers with the modern fully equipped customer relationship management strategies. Overall the performances of the two banks were in increasing trend over the years under which the present research is conducted. The number of branches expanded for both the banks are found to have equal as far as compound growth rate concerned; but the rate at which expanded over the years of study is found to have higher for PrB1 over PrB2. The various deposits including current, fixed and saving, the PrB2 is higher in securing than that of PrB1, however in CD and FD the range was bit thin as compared to SD, as for SD, the PrB2 is far higher than of its corresponding PrB1. Nevertheless, both the banks are having an increasing trend over the period in general according to their capacity. On the target achievement in advances PrB2 shows tremendous success over PrB1. In case of C/D ratio, PrB2 shows an increasing trend over the period, whereas PrB1 shows a decreasing trend. Overall, PrB2 shows effective marketing strategies followed to retain existing customer, improve the productivity by having effective CRM. On the other hand PrB1, in general, shows an increasing performance and there are yet to captivate and utilize its full resource in the region.

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