Adopting analytic hierarchy process to prioritise banks based on CRM effectiveness – the customers perspective

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Abstract: Over the past few years, Indian private sector banks has placed stringent competition to public sector banks as the private sector banks pioneered in adopting newer technologies, broad product mix and, flexible offerings in products/services. To win the battle of competition, Indian banks today are focusing towards practicing customer relationship management effectiveness (CRME) to develop and maintain long-term customer relationships. This paper is an attempt to identify the most effective CRM bank with respect to varied CRM practices among the select banks. Sample of 42 retail bank customers were studied using analytic hierarchy process (AHP) for this purpose. The study findings set aside significant implications to each bank corresponding to each CRM practice (dimension).

Keywords: customer relationships; CRM; CRM effectiveness; CRME; public sector banks; PSBs; private sector banks; analytic hierarchy process; AHP; India.

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1 Introduction

Banks are said to be the backbone to a nation’s economy. One of the emerging economies, the Indian economy had experienced major policy changes in the early 1990s. The new economic reform, popularly known as liberalisation, privatisation, and globalisation has allowed many private players to enter the Indian banking industry (Deol, 2009). At present, based on the ownership, banks in India are broadly classified as public sector banks (PSBs) or nationalised banks, private sector banks, and foreign banks. Now, there are 28 nationalised banks, 27 private banks and 24 foreign banks (Malhotra and Singh, 2010; Roy and Shekar, 2010) in India. All the banks operating in India are governed by the central bank, Reserve Bank of India (RBI).

Given the increased number of banks in Indian banking industry, it is evident that competition has been tightened in the Indian retail-banking sector after the arrival of new private banks like Industrial Credit and Investment Corporation of India (ICICI), Housing Development Finance Corporation (HDFC) and Axis Bank (AXIS). These banks have introduced new technologies for banking practices like web-based trading and call centre operations; alternative delivery channels including ATM facilities, banking through internet, mobile banking and SMS banking; broad product mix with innovative products and services; flexibility in product/service offerings; and focus on retail-banking services (Deol, 2009). This made PSBs to get exposed to the rigorous competition from the private players. On the other hand, PSBs pose threat to the private players with its long-term establishment of trust with the public. This shows that competition has become stringent and is greater than ever in the Indian retail-banking segment.

At this juncture, to win the battle of competition, practicing CRM effectiveness (CRME) which is aimed to maintain and develop long-term relationships with customers is crucial for Indian banks to lead the industry (Khare, 2010; Padmavathy, 2012; Roy and Shekar, 2010; Uppal, 2008). In view of this, many Indian banks have invested heavily in CRM technologies leaving to integrate IT solutions with organisation’s people and process (Khare, 2010; Padmavathy, 2012; Sharma and Goyal, 2011). Additionally, effective customer relationship management factors perceived by the customers are not understood by Indian banks. Understanding customer perspective is crucial for an organisation, since an effective CRM requires business process and technology focused towards the customers (Chan, 2005; Chen and Popovich, 2003). Therefore, the purpose of this paper is to adjudge the most effective CRM bank as perceived by the customers based on CRME dimensions. The findings of this study would provide implications to the
bank managers to keep abreast of changing customer perceptions (Pal and Choudhury, 2009).

Rest of the paper is divided into following sections. First, review of literature on CRME is discussed; second, methodology and analysis are presented; and finally, discussion of results, and implications and conclusions are provided.

2 Review of literature

2.1 CRM and its dimensions

In the scale development literature of CRME, Chen et al. (2009), in their seminal work, introduced a construct named CRME and provided a reliable and valid metric system for measuring CRME from the managerial perspective through an integrated process-oriented approach. Their research revealed that CRME is a multi-dimensional construct consisting of three dimensions namely, relationship marketing (RM), customer focused organisational climate (CFOT), and customer focused information technology (CFIT). The three dimensions together contained 16 items which was tested and validated using a data of 231 business managers in the context of various manufacturing and service industries of Taiwan. CFIT signified technology and information systems; RM denoted relationship activities of the firm; and CFOT referred to firm’s focus on customers. These dimensions implied that CRM investments should be directed towards enhancing relationship activities, augmenting IT, and developing an organisational climate that promotes customer interaction and service and enhances customer loyalty.

Earlier, from the customer perspective, Jain et al. (2007) developed a set of measures for CRME in the context of Indian service industries. They found two dimensions of CRME: customisation and credence. The first dimension customisation referred to personal touch, concern for customers, customer centricity, technology orientation and promotion through customers. The second dimension credence included elements such as ethical practices, modesty and being proactive. Their research used a data of 492 customers of various service industries including banks, hotels, hospitals, and restaurants. However, a notable limitation is the methodology adopted for this study, which is purely based on descriptive research. Recently, Padmavathy (2012, p.40) defined CRME as follows: “CRME refers to an extent to which customers perceive certain activities that firms implement to create a customer-centric culture by leveraging business process, people and technology as effective”. The author developed a valid and reliable CRME scale in the context of Indian retail banking. The research showed that CRME is a multi-dimensional construct consisting of four dimensions namely reliability, process-driven approach, customer focus, and technology orientation with a sample of 452 retail-banking customers. The author provided a psychometrically valid measurement tool to assess CRME from the perspective of customers.

In CRM scale development literature, conceptualisation and development of a scale for CRM was proposed by Sin et al. (2005) from the managerial perspective. Reliable and valid scale for CRM was developed and tested in the context of Hong Kong manufacturing and services industries with a sample of 276 business managers. The authors found four dimensions of CRM namely, key customer focus, CRM organisation, knowledge management, and technology-based CRM. They suggested that such a metric
of CRM would increase marketing and financial performance of firms in terms of customer satisfaction, customer trust, return on investment and return on sales.

Usually objective metrics like sales, profit, and market share are employed to measure effectiveness of a CRM programme. Henceforth, in search of behavioural dimensions, attitude, understanding expectations, quality perceptions, reliability, communication, customisation, recognition, keeping promises, satisfaction audit and retention were discovered as metrics to measure CRME in an exploratory study of Jain et al. (2002).

Eid (2007, p.59) defined CRME as “high quality relationships resulting from the use of the CRM in certain activities, namely, customer relations, customer transactions, and sales costs”. The author used relationship quality, transactional quality, and reduced cost as factors of CRME in the context of Taiwanese bank managers. Relationship quality referred to effective communication and solving customer queries; transactional quality indicated processing of customer orders quickly and customisation of the products; reduced cost referred to reduction of sales and marketing costs and assessment of campaign effectiveness. Furthermore, balanced scorecard-based (BSC) dimensions were identified and metrics were developed for each dimension to evaluate CRME (e.g., Kim et al., 2003; Kim and Kim, 2009).

In this research, CRME dimensions are adopted from Padmavathy (2012) to prioritise the banks as the scale was psychometrically validated and also based on customer perception.

2.2 CRM in financial services context

In the context of banker-customer relationship, Zineldin (2005) studied about the bank selection criteria by the customers of Swedish banking industry and found that account and transaction accuracy, carefulness, efficiency in correcting mistakes, and friendliness and helpfulness of the employees when dealing with the customers were the important criteria about a bank. On the other hand, convenience of location, price, recommendations from others, and advertising were not important selection criteria for banks. The author suggested that CRM, quality of products/services, and differentiation were the important three elements for the banks to improve.

In an empirical study, Jham and Khan (2008) identified relationship dimensions of various services of Indian banks and ranked the banks according to customer perception by using a sample of 555 retail bank customers. Perceptual mapping results showed that State bank of India were ranked first for traditional facilities, being HDFC as the last. ICICI was ranked first for multichannel banking by the customers keeping PNB as the last. For internal marketing, ICICI was ranked first, SBI as the last. The authors implied the bank marketers to implement customer-centric strategies to develop better customer relationships. Agariya and Singh (2013) developed a multidimensional construct for measuring CRM in the Indian insurance sector. Factors such as payment security, knowledge about products, personalisation, and transparency in product selling and service quality will eventually make the service provider to enhance customer service.

In case study research, Das and Dasgupta (2009) studied the deployment of CRM practices in the bank named ‘Bank of Baroda’, one of the prominent PSBs in India. The authors found that all CRM practices (except top management support) were poorly deployed within the banks. The authors suggested that having top management support in place, the bank can develop comprehensive deployment practices in future. Roy (2008)
studied about CRM implementation in ICICI bank, which implemented CRM in 1990s. It was explored that ICICI bank has integrated business focus, organisational structure, business metrics, marketing focus, and technology. Such integration provides the banks with number of benefits including single view of the customer, better prediction of profit, calculation of customer life time value and customised services.

In online banking context, Riivari (2005) explored that the adoption of mobile banking as a powerful CRM tool would help in acquiring and retaining customers. From the study of various European financial organisations, the author suggested that the banks that are offering mobile banking services have an opportunity to build long-term relationships with existing customers as well as new customers as it reduces cost, reinforces brand image, improves customer service and market share. Khare (2010) studied the usage of online banking and its role in the development of customer relationships. Customer perception about the use of online banking revealed that the Indian customers are skeptical to use online banking. Support of bank employees in educating the importance and value of online banking will change customer perception and improve CRM strategy.

3 Methodology

In order to rank the banks with respect to CRME dimensions, analytic hierarchy process (AHP) method was employed. It is a multiple criteria decision method that decomposes a complex problem into a hierarchy. This method is used to determine the priorities of the given dimensions via pair-wise comparison with respect to a given criterion (Saaty, 1980). It has been successfully applied to almost all the problems and widely used in modelling the human judgment process (Lee et al., 1995).

To fulfil the research objective, a structured questionnaire was developed and divided into three sections with a total of 13 questions. The first section was enclosed with demographic questions. The second and third part of the questionnaire was prepared as per the AHP scale described in Table 1. The second section of the instrument contained pair-wise comparison of banks with respect to CRME dimensions and the third section captured the pair-wise comparison of dimensions of CRME. The time taken to complete the questionnaire was about 15 to 20 minutes.

The instrument developed was then given to five finance professors, three business people and five IT related people for assessing ambiguity and to correct wordings of the sentences to improve the comprehension of the instrument (Balaji, 2010). Word changes were carried out based on the comments received and readability was ensured.

Two control mechanisms were provided for the sample. The customers participating in the survey should have accounts at least with any three of the selected banks and should have more than five years of banking experience. Respondents were personally administered the questionnaire and purposively chosen. 73 retail-bank customers were contacted to respond to the survey. 42 responses were collected, for a response rate of 57%. The sample size was adequate as a sample of ten or more is sufficient for doing AHP (Saaty, 1980). The calculation procedure of AHP is given below (Hsu, 2006).
AHP scale

<table>
<thead>
<tr>
<th>Relative intensity</th>
<th>Definition</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Equally prefer</td>
<td>Two requirements are of equal preference.</td>
</tr>
<tr>
<td>3</td>
<td>Moderately prefer</td>
<td>Experience slightly prefers one requirement over another.</td>
</tr>
<tr>
<td>5</td>
<td>Strongly prefer</td>
<td>Experience strongly prefers one requirement over another.</td>
</tr>
<tr>
<td>7</td>
<td>Very strongly prefer</td>
<td>A requirement is strongly preferred and its dominance is demonstrated in practice.</td>
</tr>
<tr>
<td>9</td>
<td>Absolutely prefer</td>
<td>The evidence preferring one over another is of the highest possible order of affirmation.</td>
</tr>
<tr>
<td>2, 4, 6, 8</td>
<td>Intermediate values</td>
<td>When compromise is needed.</td>
</tr>
</tbody>
</table>

Note: Reciprocals for inverse comparison.

3.1 AHP calculation procedure

3.1.1 Establishment of pair-wise comparison matrix

Let \( C_1, C_2, ..., C_n \) be the set of elements, while \( a_{ij} \) represents a quantified judgment on a pair of elements \( C_i, C_j \). The relative importance of two elements is rated using Saaty (1994) scale with the values 1 to 9, where 1 stands for ‘equally important’, 3 for ‘slightly more important’, 5 for ‘strongly more important’, 7 for ‘demonstrably more important’, and 9 for ‘absolutely more important’. The digits 2, 4, 6 and 8 are used to facilitate a compromise between slightly differing judgments (Saaty, 1994). This yields an \( n \)-by-\( n \) matrix \( A \) as follows:

\[
A = \begin{bmatrix}
C_1 & C_2 & \cdots & C_n \\
1 & a_{21} & \cdots & a_{n1} \\
1/a_{12} & 1 & \cdots & a_{n2} \\
\vdots & \vdots & \ddots & \vdots \\
1/a_{1n} & 1/a_{2n} & \cdots & 1
\end{bmatrix}
\]

(1)

where \( a_{ii} = 1 \) and \( a_{ij} = 1/a_{ji}, i, j = 1, 2, ..., n \). In matrix \( A \), the problem becomes one of assigning to the \( n \) elements \( C_1, C_2, ..., C_n \) a set of numerical weights \( W_1, W_2, ..., W_n \) that ‘reflects the recorded judgments’. If \( A \) is a consistency matrix, the relations between weights \( W_i \) and judgments \( a_{ij} \) are simply given by \( W_j/W_i = a_{ij} \) (for \( i, j = 1, 2, ..., n \)). The description of the AHP scale is given in Table 1.

3.1.2 Eigen value and eigen vector

According to Saaty (1994), the largest Eigen value will be \( \lambda_{\text{max}} \)

\[
\lambda_{\text{max}} = \sum_{j=1}^{n} a_{ij} \frac{W_j}{W_i}
\]

(2)
If $A$ is a consistency matrix, then eigen vector $X$ can be calculated as

$$( A \lambda_{\text{max}} I ) X = 0$$  \hspace{1cm} (3)

3.1.3 Consistency test

Saaty (1994) proposed utilising consistency index (CI) and consistency ratio (CR) to check the consistency of the comparison matrix. CI and CR are defined as follows:

$$\text{CI} = \frac{(\lambda_{\text{max}} - n)}{(n-1)}$$  \hspace{1cm} (4)

$$\text{CR} = \frac{\text{CI}}{\text{RI}}$$  \hspace{1cm} (5)

where RI denotes the average CI over numerous random entries (Table 2) of same order reciprocal matrices. If CR < 0.1, the estimate is accepted, and otherwise a new comparison matrix is solicited until CR < 0.1.

Table 2  Random CI (RI)

<table>
<thead>
<tr>
<th>N</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>RI</td>
<td>0</td>
<td>0</td>
<td>0.58</td>
<td>0.9</td>
<td>1.12</td>
<td>1.24</td>
<td>1.32</td>
<td>1.41</td>
<td>1.45</td>
<td>1.49</td>
</tr>
</tbody>
</table>

Notes: $n$ = order of matrix, RI = random CI

3.2 Application

The application of AHP model for prioritising the banks involved the following steps.

3.2.1 Step 1: Define the evaluative criteria for prioritising the banks

This study has adopted the four dimensions of CRME (Padmavathy, 2012) namely, reliability, process-driven approach, customer focus and technology orientation as evaluation criteria for ranking the banks.

1 Reliability: refers to the extent to which the banks fulfil its promises by providing relevant information to the customers; by providing effective communication to the customers; and by approaching the customers with cooperation.

2 Process-driven approach: refers to conducting the transactions of the customers correctly and quickly; making the services processes with speed and astuteness in order to provide the customers with fullest satisfaction; delivering the products with value-added information available to the customer.

3 Customer focus: refers to giving importance to the customers; greetings the customers on special occasions; and making the customers to visit the bank again.

4 Technology orientation: addresses the operational performance of banks with the use of latest technology such as automatic teller machines (ATMs), internet banking and mobile banking to provide quality service and easier service.
3.2.2 Step 2: Establish a hierarchical structure

The problem of prioritising Indian banks was decomposed into three levels. Level 1 was the goal to choose the most CRM effective bank. Level 2 was the criteria that were chosen in Step 1 and Level 3 is the alternatives, the banks. Three PSBs (PUB) namely, PSB-A, PSB-B and PSB-C and three new private sector banks (PRB) including PRB-A, PRB-B and PRB-C were selected as alternatives, level 3. These banks were chosen as the number of branches in Trichy City is more compared to other public sector and new private sector banks. The hierarchical structure is depicted in Figure 1.

![Figure 1 AHP model](image)

3.2.3 Step 3: Establish the pair-wise comparison matrix

For the prepared questionnaire, each respondent made a pair-wise comparison matrix for the given banks and criteria. Using the formula (1), pair-wise comparison matrix was developed. In this research, the data is aggregated by geometric mean method to provide a single comparison matrix for each criterion and alternative. The respondents profile is described below.

The participants included 69% male and 31% female. Majority of the respondents (61.9%) belonged to the age category 21 to 30 years and earned a professional degree (73.8%). Over half of the respondents (54.8%) worked for IT concern, about 1/4th (26.2%) of the participants were finance professors, and about 1/4th of the respondents (19%) were business people. Almost all the respondents (97.6%) banked with more than three banks. Majority of the respondents (97.6%) availed more than 4 products and had more than five years of total banking experience.

3.2.4 Step 4: Calculate eigen value and eigen vector

From the pair-wise comparison matrix (Step 3), eigen value and eigen vector was calculated as per the formulae (2) and (3).
3.2.5 Step 5: Test the consistency of each comparison matrix

CI and ratio was calculated from the eigen value using formulae (4) and (5). The CR of each aggregate matrix is <0.1 indicating consistency. The aggregated pair-wise comparison matrix for banks against each criterion with eigen value and CI was prepared. For instance, the aggregated pair-wise comparison matrix for banks for the criterion reliability is shown in Table 3 with eigen value and CR. Similarly, the aggregated pair-wise comparison matrix for all the criteria with eigen value and CR is provided in Table 4.

Table 3 Pair-wise comparison matrix for banks for reliability

<table>
<thead>
<tr>
<th>Banks</th>
<th>PSB-A</th>
<th>PRB-A</th>
<th>PSB-B</th>
<th>PRB-B</th>
<th>PSB-C</th>
<th>PRB-C</th>
<th>Eigen weights</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSB-A</td>
<td>1</td>
<td>1/2</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td></td>
<td>0.257</td>
</tr>
<tr>
<td>PRB-A</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>2</td>
<td>0.248</td>
</tr>
<tr>
<td>PSB-B</td>
<td>1/2</td>
<td>1/2</td>
<td>1</td>
<td>1/2</td>
<td>1/3</td>
<td></td>
<td>0.081</td>
</tr>
<tr>
<td>PRB-B</td>
<td>1/2</td>
<td>1/2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>0.168</td>
</tr>
<tr>
<td>PSB-C</td>
<td>1/2</td>
<td>1/3</td>
<td>2</td>
<td>1/2</td>
<td>1</td>
<td>1/3</td>
<td>0.094</td>
</tr>
<tr>
<td>PRB-C</td>
<td>1/3</td>
<td>1/2</td>
<td>3</td>
<td>1/2</td>
<td>3</td>
<td>1</td>
<td>0.152</td>
</tr>
</tbody>
</table>

Notes: Eigen value = 6.40; CI = 0.079; CR = 0.064

Table 4 Pair-wise comparison matrix for criteria

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Process-driven approach</th>
<th>Reliability</th>
<th>Customer focus</th>
<th>Technology orientation</th>
<th>Eigen weights</th>
</tr>
</thead>
<tbody>
<tr>
<td>Process-driven</td>
<td>1</td>
<td>1/3</td>
<td>3</td>
<td>2</td>
<td>0.252</td>
</tr>
<tr>
<td>approach</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reliability</td>
<td>3</td>
<td>1</td>
<td>3</td>
<td>4</td>
<td>0.502</td>
</tr>
<tr>
<td>Customer focus</td>
<td>1/3</td>
<td>1/3</td>
<td>1</td>
<td>2</td>
<td>0.143</td>
</tr>
<tr>
<td>Technology orientation</td>
<td>1/2</td>
<td>1/4</td>
<td>½</td>
<td>1</td>
<td>0.102</td>
</tr>
</tbody>
</table>

Notes: Eigen value = ; CI = 0.058; CR = 0.064

From Table 3, it can be inferred that for the factor reliability, PSB-A had scored greater eigen weights followed by PRB-A, PRB-B, PRB-C, PSB-C and PSB-B.

Table 4 shows that reliability was the most important factor perceived by customers. This was followed by process-driven approach, customer focus and technology orientation dimensions.

3.2.6 Step 6: Aggregate eigen scores

The eigen weights for each bank calculated were aggregated by arithmetic mean procedure and the results of the aggregated eigen weights for each bank with its corresponding obtained ranks are provided in Table 5. Priority has been assigned to the dimensions based on the eigen weights from Table 4 and it is reflected in Table 6. Table 7 is listed with eigen weights for each bank with its corresponding criteria.
Table 5  Aggregated eigen weights and ranks for banks

<table>
<thead>
<tr>
<th>Banks</th>
<th>Aggregated eigen weights</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSB-A</td>
<td>0.760</td>
<td>3</td>
</tr>
<tr>
<td>PRB-A</td>
<td>1.026</td>
<td>1</td>
</tr>
<tr>
<td>PSB-B</td>
<td>0.292</td>
<td>6</td>
</tr>
<tr>
<td>PRB-B</td>
<td>0.857</td>
<td>2</td>
</tr>
<tr>
<td>PSB-C</td>
<td>0.363</td>
<td>5</td>
</tr>
<tr>
<td>PRB-C</td>
<td>0.701</td>
<td>4</td>
</tr>
</tbody>
</table>

Table 6  Aggregated eigen weights and ranks for dimensions

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Aggregated eigen weights</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Process-driven approach</td>
<td>0.252</td>
<td>2</td>
</tr>
<tr>
<td>Reliability</td>
<td>0.502</td>
<td>1</td>
</tr>
<tr>
<td>Customer focus</td>
<td>0.143</td>
<td>3</td>
</tr>
<tr>
<td>Technology orientation</td>
<td>0.102</td>
<td>4</td>
</tr>
</tbody>
</table>

Table 7  Eigen weights for banks with its corresponding criteria

<table>
<thead>
<tr>
<th>Factors/banks</th>
<th>PSB-A</th>
<th>PRB-A</th>
<th>PSB-B</th>
<th>PRB-B</th>
<th>PSB-C</th>
<th>PRB-C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reliability</td>
<td>0.257</td>
<td>0.248</td>
<td>0.081</td>
<td>0.168</td>
<td>0.094</td>
<td>0.152</td>
</tr>
<tr>
<td>Process-driven approach</td>
<td>0.136</td>
<td>0.332</td>
<td>0.057</td>
<td>0.225</td>
<td>0.081</td>
<td>0.168</td>
</tr>
<tr>
<td>Customer focus</td>
<td>0.148</td>
<td>0.217</td>
<td>0.082</td>
<td>0.273</td>
<td>0.107</td>
<td>0.173</td>
</tr>
<tr>
<td>Technology orientation</td>
<td>0.219</td>
<td>0.229</td>
<td>0.072</td>
<td>0.191</td>
<td>0.081</td>
<td>0.208</td>
</tr>
</tbody>
</table>

Table 5 represents that PRB-A was ranked first based on all the four dimensions which was followed by PRB-B, PSB-A, PRB-C, PSB-C and PSB-B.

Table 6 represents that reliability was the most important dimension perceived by customers. Process-driven approach was the second important dimension followed by customer focus and technology orientation.

It can be read from Table 7 that PSB-A was ranked first for reliability factor, PRB-A for process-driven approach, PRB-B for customer focus and PRB-A again ranked best for technology orientation dimension.

4 Discussion

With the need to be more customer-centric, banks are striving to understand customer perception on their CRM activities (Faase et al., 2011; Khare, 2010; Padmavathy, 2012). Though the dimensions of CRME exist, few studies have applied the dimensions in ranking the banks based on customer perception. This study has contributed to the CRME literature by recognising the position of Indian banks in relation to CRME dimensions based on customer perception.

Generically, from the study findings, the aggregated eigen value revealed that PRB-A was an effective CRM bank followed by PRB-B, PSB-A, PRB-C, PSB-C and PSB-B. In terms of criteria, reliability was ranked first followed by process-driven approach,
customer focus and technology orientation. With respect to individual banks and its corresponding criteria, the eigen weights showed that PSB-A was recognised as more reliable; PRB-A was ranked first for efficient technology deployment, and for speediness and accuracy of business process; and PRB-B was distinguished as more customer-centric bank than other banks.

Specifically, the findings of the study revealed that PRB-A was an effective CRM bank among the other banks. PRB-B was ranked second, PSB-A was ranked third, PRB-C got fourth position, PSB-B and PSB-C got fifth and sixth ranks respectively. This shows that private sector banks, that is, PRB-A and PRB-B got the first two ranks as they were pioneers in introducing information technology, skilled professionals, equipped with modern facilities, and state-of-the-art infrastructure (Kumar and Gulati, 2008). The third ranked PSB-A, the first PSB, is still marching towards to lead the industry by its trained employees and faster adoption of technology. In spite of the establishment of PRB-C bank soon after the liberalisation, it received fourth position. One plausible explanation could be because of the delay of modernisation and the brand change from UTI bank to PRB-C bank. Undoubtedly, PSB-B and PSB-C, the late adopters of technology, infrastructure, and product mix were the last two banks when CRM activities are considered.

With respect to the dimension, reliability was the most important factor needed by the customers. Next, customers sought process-driven bank followed by customer focus and technology oriented banks. Establishment of trust with the customers by efficient transformation of information, communication and cooperation to the customers and the ability to conduct errorless transactions quickly are the first two attributes that the customers need today (Eid, 2007). Making the customer feel that they are important by greeting them on occasions and making them to revisit the bank is the third factor that the customers require today. Efficient deployment of technologies (ATMs, internet banking and mobile banking) to serve the customer easily and to offer quality service is the last, yet important dimension that customers seek from the banks.

Each bank and its corresponding dimension revealed that PRB-A was an efficient CRM bank with its ability to provide the transactions quicker and to deploy the latest technologies including internet banking, ATMs and mobile banking efficiently (Jham and Khan, 2008; Malhotra and Singh, 2010; Roy, 2008). PSB-A was associated with reliability factor as their presence in the country was almost before two centuries (from 1806 to present). People trust PSB-A and its employees (Jham and Khan, 2008). PRB-B was perceived as customer focused bank than PRB-A and PSB-A. One possible explanation could be the fact that the requirement of minimum account balance and presence of high net-worth individuals lower the customer service of PRB-A (Kumar and Gulati, 2008). As PSB-A has the largest customer base individual attention is still not achievable. The other two nationalised banks PSB-B and PSB-C were ranked last in all the dimensions because of the late adoption of technology, limited retail product mix and its segmentation towards the rural population like agriculturalists and industry labourers (Jham and Khan, 2008).

5 Managerial implications

Starting with PSB-A bank (first rank in reliability and second in information technology), the leading PSB, it is doing fairly well with respect to reliability and information
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technology as it has established trust and faith with the customers and deployed the latest
technologies on par with private sector banks. However, managers can train the front-line
employees for quick and errorless delivery of services. Managers should focus on
improving its customer focus by enhancing feel-good factor among the customers and by
wishing the customers on occasions (Jham and Khan, 2008).

PRB-A bank, which is reputed for its information technology and efficient business
process (Jham and Khan, 2008; Khare, 2010), when compared to its counterparts, the
results imply the managers of the PRB-A bank to improve its customer focus and to boost
the trust among the customers by its consistent delivery of products/services and by
effective communication of the employees. This will make the bank to continue to lead
the industry.

The overall rank that PRB-B bank obtained was second. Even so, when compared to
its rivals, the bank managers need to further conduct the service process effectively,
develop the belief among the customers; and deploy the technologies including ATMs,
internet banking, and mobile banking effectively to come up in the industry.

PRB-C bank, which is one among the private sector banks, is competent enough in all
the factors of CRM strategies. To come up in the market place, the bank marketers need
to make progress in delivering accurate information, effective communication and
cooperation by training the front-line employees (Zineldin, 2005). In addition, efficient
leverage of technologies including ATMs, internet banking and mobile banking services
(Thute, 2014) and being proficient in delivering the services quicker with customer focus
are important factors to be considered by the managers to move forward in the industry.

The two nationalised banks, PSB-B and PSB-C are weak in all the factors. It is high
time for the bank managers to train the employees for delivering effective
communication, handling customer queries and being cooperative with the customers.
Furthermore, making use of latest technologies and leveraging the technologies;
reshaping the business process for delivering error-free service process to the customers;
and building customer-focused culture through treating the customers as individuals, and
greeting them on occasions will make the two banks to satisfy their customer needs
(Ndubisi and Wah, 2005; Richard et al., 2007; Rootman et al., 2008). In a nutshell,
implementing these effective CRM strategies is highly recommended for PSB-C and
PSB-B to withstand the competition and to be profitable.

Collectively, PSBs (PSB-A, PSB-B, and PSB-C) can concentrate on building and
improving their service processes and creating customer-focused culture (Das and
Dasgupta, 2009; Khare, 2010). Private sector banks (PRB-A, PRB-C and PRB-B) can
improve their reliability factor by delivering the services as promised.

6 Limitations and future research directions

This study has some limitations. Convenient sample warrants caution before generalising
the results beyond the population studied. The study is also limited to the chosen banks.
The future research can select other banks and conduct the same study to understand
customer perception and rankings of the banks. The study can be conducted in other
contexts to make insightful research. Finally, fuzzy AHP can be applied to prioritise the
banks effectively.
References


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