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## Developing A Population Relativistic Growth Assessment Indices For Banks With Case Study of Growth of UCBs In Thane District of Maharashtra

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### **Abstract :**

*Banking system is an important part and parcel of broad financial system. Banking system is responsible for performing an important task of mobilizing savings from the people and converting the same into investment. In order to perform this function of mobilisation of resources, there is a requirement of the well-spread banking concerns in each and every corner of the country so that effective mobilisation from masses becomes possible. With the increase in population, there is a need of equal proportional increase in the growth in the banking concerns. Thus, growth in the banking concerns is directly related to the growth in population when there is question of achieving efficiency in the mobilisation function.*

*The present research paper is an attempt to develop three different indices to assess the growth of the banking concerns in the particular geographical location with relation to the growth of population in the same geographical location. For the testing of the indices, an empirical case study related to growth assessment of UCBs functioning in the Thane district of the Maharashtra is also undertaken.*

**Key Words:** Population Relativistic Growth Assessment Indices, Bank, UCBs, Thane

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### **1. Introduction:**

Banking concerns are closely related to masses. They are the centres which directly come into the contacts with people. Banking system is an important part and parcel of financial system. Banking system is responsible for performing an important task of mobilizing savings from the people and converting the same into investment. In order to perform this function of mobilisation of resources, there is a requirement of the well-spread banking concerns in each and every corner of the country so that effective mobilisation from masses becomes possible. With the increase in population, there is a need of equal proportional increase in the growth in the banking concerns. Thus, growth in the banking concerns is directly related to the growth in population when there is question of achieving efficiency in the mobilisation function.

For the effective mobilisation of savings of people, simultaneous growth in banking concerns along with increase in population is pre-requisite.

The present research paper is an attempt to develop indices to assess the growth of the banking concerns in the particular geographical location with relation to the growth of population in the same geographical location. For the testing of these indices,

an empirical study related to growth assessment of UCBs functioning in the Thane district of the Maharashtra is also undertaken.

These indices can be used as tool to determine whether the banking concerns are successful in growing themselves in numbers with relation to the increase in the population in the geographical location concerned.

## **2. Objectives of the study:**

Following are the objectives of the study:

1. To develop a Population Relativistic Growth Assessment Indices for Banks to assess whether they have expanded themselves to meet the growing banking needs of the people due to increase in the population in the particular geographical location.
2. To test these indices with empirical case study.

## **3. Assumptions:**

The indices described above assumes following:

1. For the effective mobilisation of resources from people, there should be growth in banking concerns with relation to increase in population in the particular geographical location.
2. For the effective mobilisation of resources, there should be equal proportional increase in the number of banking concerns in the particular geographical location.
3. People have relations with more than one bank to satisfy their variety of banking needs.
4. Growth in the banking concerns in the particular geographical location is assessed through increase in the number of bank branches only.

## **4. Research Methodology:**

The study attempts to develop the population relativistic growth assessment indices for the banking concerns with empirical case study and hence, a sample of all the five scheduled Urban Cooperative Banks (UCBs) functioning in the Thane district of the Maharashtra are taken as the sample. The data for the empirical case study concerned with the UCBs is collected through secondary sources like annual reports of the concerned banks, RBI data, reports published by the Registrar of Cooperatives etc. for the decade starting with 2001 and ending with 2011.

## **5. Limitations:**

These indices have following limitations:

1. The growth in number of bank branches is considered as the only parameter to assess the growth in the banking concerns.
2. In the empirical case study, only Scheduled UCBs functioning in the Thane district of Maharashtra is considered out of different types of banking concerns like Public sector Banks, Private sector banks and Foreign banks.

## 6. Analysis:

For the assessment of population relativistic growth of the banking concerns, following parameters are analysed:

1. Total Population to Branch (Growth in the number of bank branches in the concerned geographical location) – (Growth in the population in the concerned geographical location) -(a1)
2. Population served by a branch (Growth in the number of Population served by the bank branches in the concerned geographical location) – (Growth in the population in the concerned geographical location)(a2)
3. Households served by a branch (Growth in the number of Households served by the bank branches in the concerned geographical location) – (Growth in the population in the concerned geographical location) (a3)

The above parameters are determinants of the Population Relativistic Growth Assessment indices. So,

$$\text{Population Relativistic Growth Assessment} = f(a_1, a_2, \text{ and } a_3)$$

Where,  $a_1, \dots, a_3$  are determinants (parameters) as given above.

Further, to determine the value of each determinant (parameter) following formula is used (which can also be called as 'parameter index' or 'parametric index')

$$\text{Value of determinant ('parameter index' or 'parametric index')} = \frac{\text{value obtained at the end of the period}}{\text{value obtained at the beginning of the period}} \times 100$$

Finally, in order to obtain the Population Relativistic Growth Assessment Index the above obtained Value of determinant ('parameter index' or 'parametric index') needs to be summed up. So,

$$\text{Population Relativistic Growth Assessment Index} = \frac{\text{value of determinants}}{3}$$

(positive value will confirm the positive growth while the negative will denote opposite.)

## 7. Analysis of Parameters:

Given below is the analysis of the parameters given above.

### a. Population Growth:

Population growth in the particular geographical location is basic parameter to compare the banking related above mentioned parameters and to determine the success of banking concerns in growing themselves to serve the growing needs of the population in the concerned geographical location due to increase in the population.

For the simplicity let's have an empirical example of population growth in the Thane district of the Maharashtra.

The table given below shows decadal change in the population in the Thane district of Maharashtra.

**Table 1 Population - Thane District**

Year	2001	2011	% growth
Population	5902473	8514678	144.26

Source: "Socio-Economic Review of Thane District" published by District Statistical Office-Thane. \* Base year = 2001 (index value 100)

Now, Value of determinant ('parameter index' or 'parametric index') = value obtained at the end of the period / value obtained at the beginning of the period X 100

So, population in 2011 / population in 2001 x 100

Therefore, 8514678 / 5902473 x 100 = **144.26**

**b. Branch Expansion:**

Branch expansion is an important parameter to find out the growth in banking concerns in the concerned geographical location.

In order to develop and test this parameter an empirical example of scheduled UCBs functioning in the Thane district of Maharashtra is taken. There are five Scheduled UCBs viz. Dombivali Nagrik Sahakari Bank Ltd., The Kalyan Janata Sahakari Bank Ltd., Parsik Janata Sahakari Bank Ltd., The Thane Bharat Sahakari Bank Ltd. and The Thane Janata Sahakari Bank Ltd. functioning in the district. During the decade of 2001 to 2011 there is no addition in the numbers of banks.

The table given below shows combined decadal branch expansion by the above given scheduled UCBs in the district.

**Table 2 Branch Expansion of UCBs functioning in Thane District**

Year	2001	2011	% change
Population	82	190	231.70

Sources: Annual Reports of respective Scheduled UCBs. \*Base year index (2001)=100

Now, Value of determinant ('parameter index' or 'parametric index') = value obtained at the end of the period / value obtained at the beginning of the period X 100

So, no. of branches in 2011 / no. of branches in 2001 x 100

Therefore, 190 / 82 x 100 = 231.70

**c. Population – Bank Branch Ratio:**

This ratio denotes the proportion of the population served by the number of bank branches in the concerned geographical location.

The table given below shows decadal data related to this ratio in Thane district of Maharashtra.

**Table 3 Population – Bank Branch Ratio**

Year	Population	No. of bank branches	Population–Bank BranchRatio
2001	5902473	82	71981
2011	8514678	190	44814

*Sources: as per table-1 and 2 given above.*

From the table above it can be observed that in the year 2001, each branch of UCBs was serving 71981 people in the district while in the year 2011 due to heavy branch expansion the same came down to 44814 people.

In order to find out expected index value below table can be derived from the above.

**Table 4 Population – Bank Branch Ratio (Derived from table-3)**

Year	2001	2011	% change
Population–Bank Branch Ratio	71981	44814	162.25

*Sources: as per table-1 and 2 given above.*

Now, Value of determinant ('parameter index' or 'parametric index') = value obtained at the end of the period / value obtained at the beginning of the period X 100

So, Population–Bank Branch Ratio in 2011 / Population–Bank Branch Ratio in 2001 x 100 (Note- Population–Bank Branch Ratio is improved favourably and hence, base points 100 are added which would have been reduced if this ratio would had been unfavourable)

Therefore,  $44814 / 71981 \times 100 = 62.25(+100=162.25)$

**d. Household – Bank Branch Ratio:**

This ratio denotes the number of households served by the each branch of the bank in the given geographical location.

The table given below shows decadal data related to this ratio in Thane district of Maharashtra.

**Table 5 Household – Bank Branch Ratio**

Year	Households	No. of bank branches	Household –Bank Branch Ratio
2001	1755124	82	21404
2011	2529165	190	13311

*Sources: as per table-1 and 2 given above.*

From the table it becomes clear that in the year 2001 each branch of the UCBs was serving 21404 households while in the year 2011 it declined to 13311.

In order to find out expected index value below table can be derived from the above.

**Table 6 Household – Bank Branch Ratio (derived from table-5)**

Year	2001	2011	% change
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Household –Bank Branch Ratio	21404	13311	162.19
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Sources: as per table-1 and 2 given above.

Now, Value of determinant ('parameter index' or 'parametric index') = value obtained at the end of the period / value obtained at the beginning of the period X 100

So, Household –Bank Branch Ratio in 2011 / Household –Bank Branch Ratio in 2001 x 100 (Note- Population–Bank Branch Ratio is improved favourably and hence, base points 100 are added which would have been reduced if this ratio would had been unfavourable)

Therefore,  $44814 / 71981 \times 100 = 62.19(+100=162.19)$

**e. Combined analysis of parameters:**

1. (Growth in the number of bank branches in the concerned geographical location) – (Growth in the population in the geographical location concerned) - (a1)

Therefore,  $(231.70) - (144.26) = 87.44.....(a1)$

2. (Growth in the number of Population served by the bank branches in the concerned geographical location) – (Growth in the population in the geographical location concerned)(a2)

Therefore,  $(162.25) - (144.26) = 17.99.....(a2)$

3. (Growth in the number of Households served by the bank branches in the concerned geographical location) – (Growth in the population in the geographical location concerned) (a3)

Therefore,  $(162.19) - (144.26) = 17.93.....(a3)$

**f. Calculation of Combined Population Relativistic Growth Assessment Indices**

<p><b>Combined Population Relativistic Growth Assessment Indices =</b> <b>(value of determinants)/3</b></p> <p style="text-align: right;">= (a1,a2 and a3)/3 = (87.44 + 17.99 + 17.93)/3 = 123.36/3 = 41.12</p>
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**g. Findings:**

From the above analysis, it becomes clear that the final index value (41.12) is positive. This means, the banking concerns have been successful in growing themselves in relation to growth in the population in the given geographical location.

**Conclusion:**

The above indices devised for the assessment of population relativistic growth of the banking concerns have following advantages:

- These indices are directly related to the growth in the population in the concerned area,



- These indices can be used to study the population relativistic growth of banking concerns in the particular geographical area which may be Entire County, a state, a district, a taluka or even a city or a village provided data is made available related to population and bank branches.
- These indices can even be used to compare population relativistic growth of different types of banking concerns in the concerned geographical location.
- A combined analysis of population relativistic growth of all the different types of banking concerns can also be made with the help of these indices.

**References:**

- Socio-Economic Review of Thane district, *Maharashtra Government*, Mumbai. (for respective years).
- Annual reports of the concerned UCBs functioning in the Thane district of Maharashtra.(for respective years).
- District Census Handbook-Thane, *Census of India (2001 and 2011)*, Directorate of Census Operations, Maharashtra, Mumbai.