PRIMARY EDUCATION IN UTTAR PRADESH: A STUDY OF BUNDELKHAND REGION

Dr. Shipra Singh,
Assistant Professor , K.S. Saket P.G. College,
Ayodhya, U.P.

ABSTRACT

The paper shows the magnitude as well as the dimensions of inequity prevalent in the primary education system in Bundelkhand region. It is one of the most backward regions of of Uttar Pradesh. In this study the status of primary education has been assessed taking four parameters. Primary education being the product itself the issues of price, place and promotion have been explored by taking coverage, infrastructure, efficiency and incentive. Each of these parameters contains several indicators. Non parametric techniques of Kendell's rank method have been put to use to test the hypotheses. Elementary education in the study region performs poorly on place and promotion dimension. While the Madhya Pradesh region is relatively better than Uttar Pradesh region, the converse is true on place dimension.

Key Words: *Primary education, Kendell's rank Method, Efficiency.*

Introduction

Education is the key to enhancing the capabilities of the people. It is intrinsically valuable in addition to being an effective instrument of inclusive growth. The present pace of development has excluded millions from its benefit for the simple reason that they lacked the required skill set. Today's is a knowledge economy and workers are knowledge workers. The explosion in information and knowledge has led to a sort of revolution. But to leverage it, a pool of good quality human capital is must. The quality of human capital can be improved by investing in skill building and for it the most appropriate stage is elementary education. No society can develop sustainably without increasing and transforming the distribution of opportunities, resources, and choices and primary education is the key to all these. Being educated is an important valued functioning in itself (Mishra & Gupta, 2012).

Bundelkhand region is located between $23^0$20' and 26^0 20' N latitude and $78^0$20' and $81^0$40' E longitudes. The region is ravenous, undulating and hillocks are bound by Vindhyan Plateau in south, river Yamuna in north, river Ken in east and rivers Betwa and Pahuj in West. It remains administratively divided between the states of Uttar Pradesh and Madhya Pradesh, with the larger portion lying in the latter. The districts which lie in Uttar Pradesh are Chitrakoot, Banda, Mahoba, Jalaun, Hamirpur , Lalitpur and Jhansi. The Madhya Pradesh portion has districts of Gwalior, Datia, Panna, Chhatarpur, Sagar, Shivpuri, Tikamgarh and Damoh. The major towns are Jhansi, Orai, Mahoba, Gwalior, Gwalior, Sagar and Panna.

The Bundelkhand region presents a picture of diversity. Pockets of affluence co-exist with the most extreme forms of backwardness, and symbols of tradition jostle with signs of modernity. The region suffers from low rain fall, meteorological drought, soil erosion, poor agriculture, lack of

education and poverty are the main abstracts for its development. The Bundelkhand is infamous for distress and crisis. The indicators of development like per capita income and infrastructure remain poor for the region.

In this context, this study examines the status of primary education in Bundelkhand from two perspectives: (1) the overall condition of primary education in Bundelkhand and, (2) exploring the contrasting features of U. P. and M. P. regions of Bundelkhand on chosen parameters of primary education. Primarily using the Data from District Information System for Education (2008-09) and other publications like District Report Cards, Selected Educational Statistics of Ministry of Human Resource Development etc districts have been ranked on the chosen indicators and also a composite picture has been presented of the primary education. Furthermore hypotheses have been formulated and tested to assess the variation between the two administrative divisions of the region.

The paper is structured as follow. The next section delineates the materials and methodology of the study. It has four sub sections. First sub section ie 2.1 spells out research questions and second sub section lists down the objectives of the study. Third sub section 2.3 contains the proposed hypotheses and last sub section deals with data source and techniques of analysis. An account of findings and discussion follows immediately in the third section. Last section of the paper summarises, recommends and concludes.

Objectives

This study strives to seek the following objectives:

- To assess the overall position of elementary education in Bundelkhand.
- To examine the extent of inter district variations in the distribution of elementary education facilities.
- To suggest some measures for strengthening the elementary education system in Bundelkhand.

Hypotheses

The following hypotheses will be tested using the data from various sources; which are as under:

I. **H_0 :** *The three sets of rankings of districts are independent for coverage parameter*

II. **H_0** *: The three sets of rankings of districts are independent for efficiency parameter*

III. **H_0 :** *The three sets of rankings of districts are independent for infrastructure parameter*

IV. **H_0 :** *The three sets of rankings of districts are independent for incentive parameter*

Methodology &Data Sources

This study is based on secondary data. The data relevant for this study has been collected from a variety of sources, prominent among them are listed below:

- District Information System on Education (DISE) 2008-09
- Selected Educational Statistics of Ministry of Human Resource Development
- Annual status education report (ASER) of various years of both the states
- Various Publications of the governments of Uttar Pradesh and Madhya Pradesh

This is an empirical study which follows a quantitative research design. Henceforth, quantitative techniques aligning to the purpose of study have been used. The data has been processed using the statistical software SPSS. Z score and T score have been used to rank the districts on various indicators of elementary education. The overall position of elementary education has been assessed by using the Kendell's rank method wherein we have calculated the composite score for each district.

Introduction

The literacy rate of the region in 2001 was 48.41% which has rose to 68.34% in 2011 as per the

provisional estimates. Not only there is wide gap between literacy rates for males and females but also between urban and rural literacy rates. In the table number 1 the literacy rates for different districts have been shown.

From the table it is evident that the highest literacy rate is in districts of Sagar followed by Jhansi and then Hamirpur. In case of male literacy, however Jhansi secures the top rank followed by Sagar and then Datia. The districts of Sagar, Jhansi and Jalaun are the three top performers on the front of female literacy. For all the districts the literacy rate is above 70% which shows the progress made by the region. Gwalior which is relatively developed part of the region has the least female literacy and is followed by Shivpuri and then Tikamgarh. Interestingly, all these three districts are located in Madhya Pradesh region of Bundelkhand. As far as the male literacy is concerned, the laggard districts are Gwalior, Tikamgarh and Chhatarpur occupying first, second and third position in the same order and all belonging to Madhya Pradesh. The male female literacy gap is highest in Gwalior District and lowest in Sagar District.

Table 1: Literacy of Bundelkhand

Districts	Male Literacy	Female Literacy	Gap	Average Literacy
Jhansi	86.58	64.88	21.7	76.37
Hamirpur	81.27	57.19	24.08	70.16
Mahoba	77.72	54.65	23.07	66.94
Jalaun	84.89	63.88	21.01	75.16
Lalitpur	76.41	52.26	24.15	64.95
Banda	79.38	54.95	24.43	68.11
Chitrakoot	77.42	54.03	23.39	66.52
Datia	85.18	62.1	23.08	73.5
Tikamgarh	73.3	50.71	22.59	62.57
Chhatarpur	74.22	54.34	19.88	64.9
Sagar	86.27	67.71	18.56	77.52
Panna	75.63	55.55	20.08	66.08
Damoh	80.96	59.9	21.06	70.92
Shivpuri	76.2	49.5	26.70	63.7
Gwalior	70.81	41.72	29.09	57.70
Bundelkhand	**79.8**	**56.22**	**22.85**	**68.34**

Variations in Primary Education Facilities

The distribution of primary education facilities in the region is a key point to analyse. Towards the pursuit of this goal coverage parameter has been chosen. This parameter consists of 3 indicators namely primary school per 10 km^2, primary school village ratio and primary school per thousand child population. The first indicator may be viewed as density of primary school. Z and T score has been calculated for all the districts. Higher values of Z and T scores imply better availability of elementary education facilities as compared to low values. Table number one in the appendix shows the T score and the corresponding ranking of the district. In case of indicator one (total school per 10 km^2), Chitrakoot district occupies the first position followed by Datia and Gwalior at second and third position respectively. On indicator two (total primary school per 10 km^2) the first position again goes to

Chitrakoot, Datia being second and Tikamgarh being third. Banda bags the first rank on indicator primary school village ratio, Chitrakoot occupies second rank and Tikamgarh third rank. With regard to availability of primary school per thousand child population the districts of Panna, Shivpuri and Tikamgarh stand at first second and third position in the same order.

The infrastructure status of the elementary schools plays a vital role in promoting the importance of elementary education. Therefore, by taking five ratios of schooling infrastructure (Single Classroom school ratio, single teacher school ratio, school with common toilet ratio, school with drinking water ratio and school with blackboard ratio) the districts have been ranked based on Z and T score. The following table summarises the key figures:

Table 2: Infrastructure parameter			
Indicators	**Rank 1**	**Rank 2**	**Rank 3**
Single Classroom school	Tikamgarh	Chitrakoot	Panna
Single Teacher School	Shivpuri	Jalaun	Datia
School with common Toilet	Lalitpur	Banda	Mahoba
School with Drinking Water	Hamirpur	Jalun	Lalitpur
School with Blackboard	Hamirpur	Jalaun	Jhansi

From the above table it is clear that Tikamgarh has the highest proportion of single classroom school and shivpuri has the highest proportion of single teacher school. Both of these districts are in Madhya Pradesh. Chitrakoot, Sagar and Lalitpur have the least proportion of single classroom school and Banda, Lalitpur and Jhansi have the least proportion of single teacher school. In case of school with common toilet, drinking water and blackboard none of the districts of Madhya Pradesh part of Bundelkhand figure in top three.

Next we move on to the efficiency aspect of elementary education in the region. To study the inter district variations in the efficiency of the elementary education three indicators have been used - Teacher Institution ratio (TIR), Teacher student Ratio (TSR) and Good classroom student ratio (GCSR).

Table 3: Efficiency parameter			
Indicators	**Rank 1**	**Rank 2**	**Rank 3**
TIR	Jhansi	Banda	Hamirpur
TSR	Panna	Jhansi	Gwalior
GCSR	Jhansi	Gwalior	Lalitpur

The above table points towards the fact that on efficiency front the UP region of Bundelkhand has a clear edge over the M P region of Bundelkhand.

Last but not the least inter district variations in the incentives have been studied by taking three indicators – textbook, uniform and stationary. The top three districts in providing textbook to the children are Datia, Hamirpur and Shivpuri. The districts of Shivpuri, Datia and Panna occupy the first second and third rank respectively in providing uniform. Finally, on stationary front the top performing districts are Panna, Damoh and Gwalior. From these facts it is clear that Madhya Pradesh region of Bundelkhand has good penetration of incentives as compared to its U P counterpart.

After an elaborate analysis of the various parameters and indicators, we proceed to study the

overall position of elementary education. Kendell's rank method has been used to rank the districts on the aforesaid four dimensions. The ranking of districts have been done by pooling the individual rankings of indicators constituting that dimension. The composite score so obtained is the summary measure of that district on the concerned dimension. It is worthwhile to mention here that an inverse relationship exists between the status of elementary education and composite score of the districts. Higher the composite score worse is the condition of that district.

Table 4: Efficiency parameter			
Dimensions	**Rank 1**	**Rank 2**	**Rank 3**
Coverage	Chitrakoot	Panna	Datia
Infrastructure	Lalitpur	Hamirpur	Jalaun
Efficiency	Hamirpur	Gwalior	Jhansi
Incentive	Datia	Panna	Shivpuri

The above table summarises the key figures regarding the composite picture of primary education in Bundelkhand. On coverage Dimension Chitrakoot, Panna and Datia hold the first three top positions in the same order. In case of infrastructure, all the top three positions have been in favour of UP region of Bundelkhand. Next is efficiency dimension, on which first rank goes to Hamirpur, second rank goes to Gwalior and third rank goes to Jhansi. In case of incentives all the top three performing districts are of Madhya Pradesh region of Bundelkhand.

Parameters

As it has been already discussed that this study takes four parameters of primary education, it will be quite interesting to see that whether the indicators under each dimension show association or not. As for instance, is it such that districts which rank low on one indicator of a parameter also rank low on other indicators of same parameter. To accomplish this goal Kendall's coefficient of concordance (W) has been calculated. Since there are 15 districts which is greater than 7 the appropriate value of Chi square has been used to test the significance of the W. The calculated value of W and its corresponding chi square value has been tabulated in table number.

Table 6: Test of parameters				
S.No.	**Hypothesis**	**Kendell's W**	**χ2 value**	**Accept/Reject**
1	*The five sets of rankings of districts are independent for coverage parameter*	***0.384***	***26.900***	***Reject***
2	*The three sets of rankings of districts are independent for efficiency parameter*	***0.520***	***21.833***	***Accept***
3	*The three sets of rankings of districts are independent for infrastructure parameter*	***0.505***	***21.200***	***Accept***
4	*The three sets of rankings of districts are independent for incentive parameter*	***0.288***	***32.273***	***Reject***
Tabulated value of χ2 = 23.70 at degree of freedom = 14				

The tabulated value of chi square is less than the calculated value for the first and last null hypotheses. Hence, the null hypotheses first and last are rejected is rejected. In case of second and third null hypotheses the tabulated value of chi square at 14 degree of freedom is more than the calculated value, thereby leading to their acceptance.

The rejection of the first null hypothesis implies that the overall availability of the primary schools can be taken as a base for framing policies and planning for elementary education in the region. This is so because the various indicators of availability of primary schools tend to move together for the districts. Similarly, the acceptance of second null hypothesis that the 4 sets of ranking are independent for efficiency dimension requires that there is no uniformity in performance of the districts on various individual parameters. Consequently, it requires a tailored approach rather than a approach based on a composite measure. Similarly, the acceptance of the third null hypothesis has important implications. Provision of basic facilities in the school has to be based on careful analysis rather than a broad measure. Finally, the rejection of fourth hypothesis entails that on an average the overall picture of performance of incentives may be used as for planning for delivery of incentives.

Conclusion and Suggestions

Primary education is the foundation of the pyramid of education system, stemming from provisions enshrined in the Directive Principles of State Policy and the 86th amendment in the Constitution of India. The 86th Constitutional Amendment Act, 2002 led to a new Article 21 A in Part **III** of the Constitution that made Free and Compulsory Education to all children of 6 to 14 years of age, a Fundamental Right. As per Dakar Convention, the country is left with only three years to achieve the Millennium Development Goal of Universal Primary Education. Under the MDG, it has been envisioned that by 2015 all children irrespective of caste, creed, gender, nationality and economic status compulsorily complete a course in elementary education.

The statistics reveal significant increases in providing access to education to the generality of the Bundelkhand populace hitherto forgotten by successive governments in the past. However, Bundelkhand continue to lag considerably behind the national average on many key indicators of primary education. Also there are stark differences on the various indicators of primary education between the U P and M P regions of Bundelkhand. While on some indicators, U P region of Bundelkhand performs better, it lags behind M P part of Bundelkhand on other indicators. Consequently, it seems almost impossible to achieve the target of universal primary education in Bundelkhand by 2015.

The study recommends a close collaboration between the governments of Uttar Pradesh and Madhya Pradesh to strengthen the primary education system in the region. The children of the region should be provided with quality primary education so that they can prepare themselves to harness the opportunities emanating from the growth process. The focus would have to be retained on providing quality education to the needy, while ensuring that enrolled children complete elementary schooling with adequate learning and skills as per minimum norms. Above all, a separate body catering to the development needs of the region be set up with necessary resources to formulate and implement the development programmes in education, health and other infrastructure areas.

References

1. Narula, M. (2008). Education, Gender, Access and Participation to Elementary Education in Bundelkhand Region of Uttar Pradesh.
2. Mishra, O.N., and Gupta, S. (2013), Scrutinising the Inclusiveness of Education at the Grass -Root Level in Madhya Pradesh Region of India, Knowledge Horizons Economics, 5 (1), pp. 111-117.

3. Mandal, M. and Ganguli, M. (2011). Status of Primary Education in Bankura District, West Bengal: A Geographical Interpretation. Indian Journal of Landscape Systems and Ecological Studies, 34 (1), 171-182.
4. Kundu, S.K (2012). Regional Disparities of Primary Educational Facilities in Murshidabad District of West Bengal, India: Some Findings. International Journal of Humanities and Social Sciences. 2(8), 81-90
5. Kundu, A. & Rao, J. M. (1986). Inequity in educational development: Issues in measurement, changing structure and its socio-economic correlated with special reference to India. In Raza, M. (Ed.), Educational planning: A long term perspective 435–466
6. Grover, S. and Singh, N. H. (2002). The Quality of Primary Education: A Case Study of Madurai and Villupuram Districts in Tamil Nadu, India.
7. GoK. (1996c). Social Dimensions of Development: Revised Approach to Human-Centred Development and Targeted Poverty Interventions. Nairobi: Government Printer
8. Ghosh, S. (2006). An Analysis of Primary Education in Kolkata, CCS Working Paper No. 149, Centre for Civil Society.
9. Debi (1996), "Regional Disparity in Education in Orissa", Indian journal of Regional Science, 28 (2).
10. Das, A.B and Sahoo, D (2012). A regional Disparities in Education: A Comparative Study between KBK and non KBK Districts of Odisha, India. International Journal of Humanities and Social Sciences. 1(1), 31-52