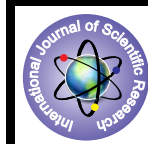


Status of Infrastructure Development in Primary Education of Ahmedabad District



Economics

KEYWORDS : Primary education, infrastructure development, infrastructure index

Prof. Pallavi C. Vyas

Head Dept. Of Economics, Prin. M.C. Shah Commerce College, Navgujarat campus, Ahmedabad.

Prof. Prakash Parmar

Lecturer in Economics, Prin. M.C. Shah Commerce College, Navgujarat campus, Ahmedabad

ABSTRACT

This paper proposes infrastructure index that summarizes relevant aspects of the infrastructure development achievements, out of the data provided by the Education Department, Ahmedabad district Panchayat, concerning infrastructure facilities of 11 Talukas of Ahmedabad district. The 11 indicators considered are: percentage of schools without boy's toilet, percentages of schools having- water facility, building facility, girl's toilet, electricity, playground facility, medical check-up, computer, library, kitchen shed and total no of enrolment in schools having SCR>=60, (Classes 1-8). We analyse Principal Component Analysis (PCA) to compute factor loadings and weights of selected indicators and the resulting index.

INTRODUCTION:

Primary education is the basis on which the development of country and every citizen as an entire constructed on. As per Constitution of India, elementary education is a fundamental right of children in the age group of 6-14 years. The government has made many plans to increase the percentage of elementary education. The plans such as 'Sarva Siksha Abhiyan (SSA), District Primary Education Program (DPEP), Operation Blackboard, Mid-Day Meal have been successful to great level. When we talk about, a fundamental point, the quality of the people is the quality of the country; the development of one is to develop the nation. Development is the extension of choice, so how can choices be made more significant and effective? Making the right choices requires awareness of the consequences, and this requires education and proper infrastructure facility. That is the only resources through which people can gain the chance to control and direct their own development.

LITERATURE REVIEW:

L.N.Bhagat & Ashok Oraon in his article on 'education for sustainable development: a study of actions, achievements and challenges with references to school education in India' attempted to examine the actions taken and status achieved relating to school education in India. The challenges also looked into and remedies offered. Admitting that providing resources for educating the masses is the biggest challenge, the study emphasized the need for better access through improved quality and providing incentives for enrolment and attendance. Moses Oketch & Anthony Somerset (2010) in their article entitled by 'Free Primary Education and After in Kenya: Enrolment impact, quality effects, and the transition to secondary school' examined the local-level effects of FPE 2003, and suggested that at the high impact primary schools, remedial measures be introduced to counter the effects of the 'quality shock' they experienced following FPE in 2003. They also suggested that consideration be given to the introduction of a secondary-school quota system, either by setting a maximum limit to the proportion of private-school graduates accepted to each national and provincial school; or alternatively by setting a minimum limit to the proportion of leavers accepted from each public primary school to the higher status secondary schools.

OBJECTIVES OF THE STUDY:

1. To study infrastructure development in primary education at Talukas level. (11 Talukas) of Ahmedabad district.
2. To analyse of infrastructure development in primary education of Ahmedabad district.
3. To measure infrastructure development in primary education by infrastructure index at Talukas level (Ahmedabad district).

METHODOLOGY:

Required data has been collected from the Education Department of Ahmedabad district Panchayat, especially for the year of

2012-'13 of Ahmedabad District. The whole of the observations and interpretation and analysis is based on above-mentioned years. For empirical approach of the study, we have selected 11 indicators of infrastructure regarding primary schools level at Talukas level (Ahmedabad district).

- Normalization of the indicators value by using following formula:

$$I = \left\{ \frac{\text{Best Value} - \text{Observed Value}}{\text{Best Value} - \text{Worst Value}} \right\}$$

- For calculating the index, Special Package for Social Sciences (SPSS) has been used for calculation.
- Attained Principal Component Analysis (PCA) to compute factor loadings and weights of selected indicators.
- For constructing infrastructure index following formula has been used.

$$I = \frac{\sum_{i=1}^n X_i \left(\sum_{j=1}^n |L_{ij}| \cdot E_j \right)}{\sum_{i=1}^n \left(\sum_{j=1}^n |L_{ij}| \cdot E_j \right)}$$

Source: (education development index- a suggestive framework of computation, NUEPA, p-19.)

Where 'I' is infrastructure index, Xi is the Ith Indicator; Lij is the factor loading value of the Ith variable on the jth factor; Ej is the Eigen value of the jth factor:

- Ranking of the Talukas based on infrastructure index value.

STUDY AND ANALYSIS OF INFRASTRUCTURE DEVELOPMENT IN PRIMARY EDUCATION OF AHMEDABAD DISTRICT:

Ahmedabad district is situated in the central Gujarat. The district headquarter, Ahmedabad is the prime city in Gujarat and seventh largest urban agglomeration in India. There are 11 Blocks in Ahmedabad and 884 Primary Schools of District Panchayat Education Committee. 2, 38,805 Students are studying in these schools in various classes. For analysis of infrastructure development in primary education, we have selected 11 Talukas of Ahmedabad district namely- City, Barwala, Daskroi, Dholka, Dhandhuka, Detroj, Sanand, Bavla, Ranpur, Mandal and Viramgam.

For analysing infrastructure development of Ahmedabad district at Talukas level, we have chosen 11 indicators namely- percentage of schools without boy's toilet, percentage of schools having- water facility, building facility, girl's toilet, electricity, playground facility, medical check-up, computer, library, kitchen shed and total no of enrolment in schools having SCR>=60,

(Classes 1-8). Following table-1, represent above said indicators and their value.

TABLE-1 KEY INFRASTRUCTURE INDICATORS, AHMEDABAD DISTRICT-2012-'13

Sr. no.	Talukas Name	% of school without boy's toilet	% of schools having water facility	% of school having building facility	% of schools having girls toilet	% of schools having electricity	% of schools having play-ground facility	% of schools having medical check-up facility	% of schools having computer	% of school having library	% of schools having kitchen shed	TOTAL NO. OF ENROLMENT IN SCHOOLS HAVING SCR > = 60 (CLASSES 1-8)
1	Mandal	4.08	100	100	98.5915493	98.5915493	61.971831	90.1408451	74.6478873	88.7323944	60.5633803	525
2	Detroj-Rampura	1.41	100	100	98.79518072	100	92.7710843	98.7951807	85.5421687	95.1807229	75.9036145	145
3	Viramgam	2	99.2857143	99.2857143	98.57142857	99.2857143	84.2857143	96.4285714	82.8571429	88.5714286	67.1428571	5303
4	Sanand	0.89	100	100	99.41520468	96.4912281	88.3040936	83.0409357	78.9473684	88.8888889	63.7426901	7933
5	City	7.84	99.5753715	99.5753715	99.1507431	89.3842887	62.6326964	84.0764331	64.7558386	75.7961783	7.6433121	51900
6	Daskroi	0	99.7830803	99.5661605	99.78308026	97.8308026	81.1279826	94.143167	69.6312364	81.3449024	34.2733189	13985
7	Dholka	6.73	99.4350282	100	95.48022599	99.4350282	85.8757062	94.9152542	70.0564972	67.2316384	57.0621469	6309
8	Barwala	5.41	96.4912281	96.4912281	91.22807018	94.7368421	77.1929825	87.7192982	73.6842105	77.1929825	59.6491228	617
9	Ranpur	7.5	98.3333333	100	91.66666667	98.3333333	76.6666667	88.3333333	71.6666667	86.6666667	56.6666667	2700
10	Bavla	3.17	98.9473684	100	96.84210526	93.6842105	62.1052632	83.1578947	82.1052632	84.2105263	64.2105263	1547
11	Dhandhuka	5.88	98.4496124	98.4496124	94.57364341	96.8992248	81.3953488	95.3488372	55.0387597	94.5736434	57.3643411	2282

(Source: Education department, Ahmedabad district Panchayat)

This table indicates percentage values of indicators. These percentage values of indicators were converted in normalized value by using above mentioned formula in methodology and after applying SPSS for calculation by Principal Component Analysis for factor loadings and weights of these above mentioned indicators at Talukas level, and for getting infrastructure index above mentioned formula were used. We found following result. The following table-2 present infrastructure index of Talukas and ranking of the Talukas is based on their index.

TABLE-2, INFRASTRUCTURE INDEX

SR. NO	TALUKAS NAME	INFRASTRUCTURE INDEX	RANK
1	Mandal	0.62704273	6
2	Detroj-Rampura	0.82277022	1
3	Viramgam	0.68050412	3
4	Sanand	0.63863369	5
5	City	0.51359377	9
6	Daskroi	0.64287894	4
7	Dholka	0.68064171	2
8	Barwala	0.29535602	11
9	Ranpur	0.53516994	8
10	Bavla	0.46493035	10
11	Dhandhuka	0.56152913	7

The above mentioned table indicates the status of infrastructure development in primary schools of Ahmedabad district during the year 2012-'13. Ahmedabad district has 11 Talukas. Their analytical observations have been done on the basis of infrastructure indicators during the year 2012-'13 and have been assessed on the basis of the following ranks of infrastructure index in them. On the basis of ascending order of infrastructure index, Detroj- Rampura comes at first place of which infrastructure index was 0.82277022, while Barwala stood at the last place by having only 0.29535602 in infrastructure index. Dholka gained 2nd place by having 0.68064171 in infrastructure index. Viramgam acquires the third place by having 0.68050412 in infrastructure index. The 4th position was of Daskroi of which, the infrastructure index was 0.64287894. Sanand, Mandal, Dhandhuka, Ranpur, City, Bavla were stood at 5th to 10th ranks in relation to infrastructure index, which were 0.63863369, 0.62704273, 0.56152913, 0.53516994, 0.51359377, 0.46493035 during the year 2012-13 respectively.

CONCLUSION:

The infrastructure index is a measure of overall progress towards the goal of infrastructure development. After empirical analysis of infrastructure development of 11 Talukas of Ahmedabad district, we found that the situation of Barwala taluka regarding infrastructure development were quite bad compare to other Talukas of Ahmedabad district. It stood last rank in infrastructure index of Ahmedabad district. Hence, it needs much improvement.

REFERENCE

Primary education- India development gateway | <http://www.indg.in/primary-education/> | Bhagat L. N., Oraon Ashok: 'education for sustainable development: a study of actions, achievements and challenges with references to school education in India' | <http://www.dise.in/Downloads/Use%20of%20Dise%20Data/L.N.Bhagat%20&%20Ashok%20oraon.pdf> | Oketch Moses, Somerset Anthony (2010): 'Free Primary Education and After in Kenya: Enrolment impact, quality effects, and the transition to secondary school', published by Consortium for Research on Educational Access, Transitions and Equity, CREATE PATHWAYS TO ACCESS Research Monograph No. 37, pp. 1-30. | http://www.create-rpc.org/pdf_documents/PTA37.pdf | Education development index- a suggestive framework of computation, pp.1-46. http://www.dise.in/downloads/suggestive-framework-for_EDI-computation%202009.pdf | Education-Ahmedabad collectorate | http://revenuedepartment.gujarat.gov.in/applications/content.asp?Content_Id=767&Title_Id=195&language=G&SiteID=8 | Education for all development index | http://www.wikiprogress.org/index.php/Education_for_All_Development_Index