SOCIOECONOMIC DEVELOPMENT INEQUALITIES AMONG GEOGRAPHIC UNITS IN AKWA IBOM STATE, NIGERIA

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Abstract

Socio-economic development inequality among geographic units is a phenomenon common in both the developed and developing countries. Regional inequality may result in dissension among geographic units of the same state due to the imbalance in socio-economic development. This study examines the inequality and the pattern in socio-economic development in Akwa Ibom State. Data on socio-economic development indicators was collected using field survey, questionnaire and data from relevant agencies across the 24 areas or nodes selected out of the 31 areas or nodes. The factor analysis technique was applied to the 26 variables to achieve a parsimonious description and identify the major factors to indicate the socio-economic dimensions. From the analysis seven major factors were identified. Factor 1 identified and named as education/communication factor, factor 2 identified and named Health institution/small scale industry factor, factor 3 identified and named as means of transport factor, factor 4 identified and named as land area factor, factor 5 identified and named as distance factor, factor 6 identified and named as income/household size factor and factor 7 identified and named as car ownership factor. The total variance for the factors is 82%. The study revealed that there exist variation and patterns in the socio-economic development in the study area.The pattern shows factor 1 has Essien Udium and Onna indicating high performance .Factor 2 , has 3 areas that indicate high performance Okobo, Ibeno, and Oruk Anam.Factor 3 has 3 areas that indicate high performance Ibesikpo Asutan, Abak and Etinan. Factor 4 has 4 areas Ibiono Ibom, Itu, Mkpat Enin and Ikot Abasi which indicate high performance. Factor 5 has 3 areas Nsit Ubium, Ini and Ikot Abasi.Factor 6 has 5 areas which indicate high performance Ikono, Eket, Mbo, Esit Eket and Udung Uko. Finally factors 7 has 4 areas which indicate high performance Eastern Obolo, Nsit Ibom, Ukanafun and Uruan. Efforts should be made to increase the number of socio-economic indicators in the disadvantages areas.

Introduction

Regional inequality as a common phenomenon and may result in dissension among geographic units of the same state due to the imbalance in socio-economic development. The dynamics of development in Akwa Ibom State can be assessed looking at the interdependence of the level and pace of urbanization in relation to indicators of socio-economic development. Despite impressive progress made in economic development, inequality still characterizes the pattern of socio-economic development in State. Spatial inequalities are directly associated with access to virtually all products and services e.g. health, education, roads, housing and infrastructure etc.

The issue of regional inequalities is very common in developing countries, but the problem of disparity in development among nations and among the different regions of any nation is not only restricted to developing countries (Akpan, 2000; Antai, 2011). Regional inequalities become more perturbing due to the imbalance in development among geographic units in the same country. The problem of socio-economic inequality in the Nigeria today is multi-faceted and multi-dimensional, and Oyebanji (1986) reported the phenomenon is metaphorically a "coat of many colours". An understanding of the scale of inequalities in regional development according to Akpan (2000) motivates backward or marginalized communities to

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embark on development projects in order to catch up with communities that are ahead of them or addressed the inequalities.Also Akpan (2000) established that significant differences exist in level of development among the administrative units of Akwa Ibom State and it could be categorised into Three classes as the developed, fairly developed and the disadvantaged.

The process of rehabilitation may be by redirecting government's development projects and attention to such communities or accelerate the development process through private collaboration and efforts of cooperate individuals. Indeed, exploring the pattern and variation in development process, will enable government identify backward communities and the dare need to improve on their social and economic wellbeing for the overall development of the communities and the state in particular. However developing marginalized areas can abate misunderstanding and discontentment that may arise when backward communities feel they are unfairly uncared for. In all regions of the world, inequalities in the level of development exist, what is more perturbing according to Akpan (2000), is to determine if the pattern of observed inequalities among geographic units are significant or not. If the pattern of inequalities is significant, it translates that more needs to be done to correct the skewed pattern of socio-economic development indicators so as to facilitate the development process of such communities. Rehabilitating backward communities will promote economic growth and help to improve the well being of the communities concerned.

Even though such regional inequalities have been part of the nation's space economy over the years, they, however, became really noticeable in the 1950s with the increasing development of the modern indicators of the country's economy. The spread of socio-economic development in Akwa Ibom State may be promoted or otherwise, and to some extent inequalities in socio-economic development addressed when there are adequate linkages among the regions as good road infrastructure an indicator leads to even development and growth. The absence of good road infrastructure may undermine productive process and may further retard economic expansion (Umoren *et al*., 2009).

In the study area there seems to be a discernible pattern of inequalities in socio-economic development indicators across local government areas of the state. Some local government areas enjoy huge government presence, while others suffer complete or fairly enjoy government presence. A good example is on the issue of road development, a greater percentage of the roads in Uyo, the capital city are tarred while a greater percentage of the roads in other local government areas are not tarred. Similarly, while the road density and interconnectivity is high in Uyo, they are very low in other local government areas (Umoren, 2008). Also Atser *et al.,* 2009 states on the basis of the basis of the quality of road infrastructure from the perspective of network density of paved road per unit area in the study area.The condition of road infrastructure indicates inequality and is deemed as deplorable as exemplified by their weak density values. Atser (2008) in his study reveals inequality in the distribution of social infrastructure in rural areas of the study area which needs to be addressed promptly to allow for even development.

This is the same across with other socio-economic development indicators such as education, electricity, hospitals etc. It is on this basis that the study examines the inequalities and pattern in socio-economic development in Akwa Ibom State.

Methodology
Data for this study was derived from two main sources, the primary and secondary sources. Field survey and questionnaire administered to respondents (i.e. head of household) make-up data from primary sources. The other sources consist of data collected from relevant agencies. A two stage sampling method was used to draw up the sample areas or nodes and the respondents which the structured questionnaire was administered. In the first stage a sample of 24 areas or nodes was selected out of a total of 31 areas or nodes identified in the study area. A

random sampling technique was employed to select the 24 areas or nodes from 31 areas or nodes using the first two columns of the table of random numbers.

A sample size of 400 (0.01%) from the total population of 2.8m from the 24 sample areas constitute the respondents for the study. The population of chosen sample areas was expressed as a percentage of the total population of the 24 sample areas and this was used to determine the number of questionnaires for each area. The final selection of the number of respondents to be interviewed in each of the 24 sample areas was carried out randomly but the total number in each was based on the percentage of the population of each sample area as compared with the total sample population.

The socio-economic development variables measured in the study area includes; level of income, average transport cost, settlements linked with paved road, number of cooperative societies, number of small scale industries, number of large scale industries, number of markets, distance to nearest market, number of educational institutions, types of educational institutions, number of banking facility, post office/agency, GSM available, distance to the nearest highway, car ownership, population density, land area (sq.km), household size, distance from the state capital, source of portable water supply, access to portable water supply, number of health institutions, types of health institutions, access to nearest health institutions and means of transport. The variables chosen were considered as socio-economic development indicators vital for the development of the area.

A factor analysis technique was applied to the twenty six variables to achieve a parsimonious description and identify the major factors which act as socio-economic development within the area. Also a Q mode factor analysis of the columns was carried out to indicate the patterns of socio-economic development in the area.

Result and Discussion

A factor analysis technique was carried out on the 26 socio-economic development variables measured in the study area, table 1. This identifies major dimensions of socioeconomic development in the area. Table 2 indicate rotated factor loading matrix for the distribution of socio-economics development indicators in the study area. The major factors extracted are seven and they accounted for 82% of the total variation in the data set.

Factor 1 is defined by four items related to education/communication. This factor account for 33.9% of the total variance as indicated in table 3 and is clearly the most important dimension of the 26 variables. This factor is referred to as an education / communication factor. The variables loading on factor 1 are between 0.727 – 0.862. The variables are number of educational institutions, types of education institutions, post office/agency and source of portable water supply.

Factor 2 is identified as health institution/small scale industry factor. The variable loading ranges from 0.666 – 0.903. This factor accounts for 17% of the total variance as indicated in table 3. Associated with it are five variables which load positively and significantly. These are types of health institutions, number of health institutions, number of small scale industry, GSM available and a number of cooperative societies.

Factor 3 is identified as a means of transport factor. This accounted for 9.5% of the total variance as indicated in table 3. Associated with it are three variables which load positively and significantly. These are means of transport, number of markets and population density; the variables loading ranges from 0.539 – 0.921.

Factor 4 accounts for 6.8% of the total variance as indicated in table 3. This factor is identified as land area factor. Two variables are associated with this factor which loads positively and significantly. These are land area and settlement linked by paved road; the variables loading ranges from 0.826 – 0.847.

Factor 5 is identified as distance factor. This accounted for 5.2% of the total variance as indicated in table 3. Associated with it are average transport cost and distance from the state capital; the variables loading ranges from 0.715 – 0.766.

Factor 6 accounts for 4.8% of the total variance of the original data set as indicated in table 3. This factor is identified as income/household size. This factor has the following variables which load highly positive about it and they includes level of income, distance to the nearest market and household size. The variables loading ranges from 0.532 – 0.730.

Factor 7 which is the last factor has the following variables that load positively on it and includes car ownership and the number of banking facility. This factor is thus identified and named as car ownership factor. It accounts for 4.6% of the total variance of the original data set asindicated in table 3. The variables loading ranges from 0.445 – 0.696.

Patterns of Socioeconomic Development in Akwa Ibom State

A Q-mode factor analysis of the columns through the factor scores shows the following pattern and result of distribution on the seven factors extracted as indicated in table 4 in the study area.Table 4 shows the seven socio-economic factors and the unit of their major performance in the study area. On factor 1 which is defined as education/communication factor a total of 2 out of the 24 areas have moderate positive scores indicating the level of performance. The two areas that stand out are Essien Udim and Onna.

Factor 2, health institutions/small scale factor, a total of 3 out of the 24 areas have scores indicating high and positive performance on factor 2 in the area. The areas are Okobo, Ibeno and Oruk Anam. Health institutions/small scale industry is an important measure of socio-economic development.

Factor 3, means of transport be it public or private in developing countries is an indication of socioeconomic status and ease comfort and convenience of travels. A total of 3 out of 24 areas have scores indicating high and positive performance on factor 3 in the area. The sample areas are Ibesikpo Asutan, Abak and Etinan.

Factor 4 land area factor, a total of 4 out of the 24 areas have scores indicating high and positive performance on factor 4 in the area.

The areas that load positively are Ibiono Ibom, Itu, Mkpat Enin and Ikot Abasi.

Factor 5 defined as distance factor, a total of 3 out of the 24 areas have high positive scores indicating the level of performance. The three areas that stand out are Nsit Ubium, Ini and Ikot Abasi.

Factor 6 defined as income/household size factor, a total of 5 out of the 24 areas have high positive scores indicating the level of performance. The five areas that stand out are Ikono, Eket, Mbo, Esit Eket and Udung Uko.

Factor 7 which is defined as car ownership factor, a total of 4 out of the 24 areas have high positive scores indicating the level of performance. The four areas that stand out are Eastern Obolo, Nsit Ibom, Ukanafun and Uruan.The field data as indicated in table 1 across the 24 geographic units of the study area with the 26 variables obtained in each of the units show a measure of inequality in the units of the study area. As indicated in figure 1, the seven socio-economic factors in the study area has been maped with the study are map to indicate the units of the major performance.

Conclusion

The study attempts an analysis of the socio-economic development dimensions in the study area. From the factor analysis result, it classified the socio-economic development in the study area into seven main factors. Factor 1, education/communication factor which accounts for 33.9%, factor 2, health institution/small scale industry factor accounts for 17%. Factor 3, means of transport factor accounts for 9.5%, factor 4, land area factor accounts for 6.8%. Factor 5, distance factor accounts for 5.2%, while factor 6, income/household size factor accounts for 4.8% and lastly factor 7, car ownership factor accounts for 4.6% of the total variance.

The factor loadings of the socio-economic development variables reflect the existing pattern/performance of socio-economic development as expressed by the defined variables among the areas of the study was observed. The observed spatial development pattern/performance may be change if the

socio-economic conditions of the disadvantage areas are improved upon.

References

Akpan, P. A. (2000). Spatial Inequality in Nigeria Development. The case of Akwa Ibom State. African Journal of Development Studies. 2(1 and 2) pp 78 – 86.

Atser, J (2008). Analysis of Spatial Patterns of Social Infrastructure in Rural Areas of Akwa Ibom State , Nigeria.Ph.D Thesis. Dept of Geography/Regional Planning. University of Uyo.

Atser, J, Umoren, Victor, and Akpabio Friday (2009). Level of Road Network Density and Connectivity: Implication for Sustainable Development in Akwa Ibom State, Nigeria. Journal of Environmental Design Vol (4) No 1& 2 pp 54 -62

Antai, D. (2011). Regional Inequalities in under–5 Mortality in Nigeria: A Population-Based Analysis of Individual and Community Level Determinants. *Population Health Metrics*, 9(6),1- 10

Oyebanji, J. O. (1986). Coat of Many Colours: An Inaugural Lecture. University of Ilorin, Ilorin Nigeria.

Umoren, V., Ikurekong, E. E., Emmanuel, A. and Udida, A. A. (2009). Development of Road Infrastructure as a Tool of Transforming: Ibiono Ibom Local Government Area. Global Journal of Social Sciences. 8(2):pp53-59.

Umoren, V.E. (2008). Impact of Road Transport on Socio-Economic Development in Akwa Ibom State , Nigeria .Ph.D Thesis (Unpublished), Calabar : University of Calabar.
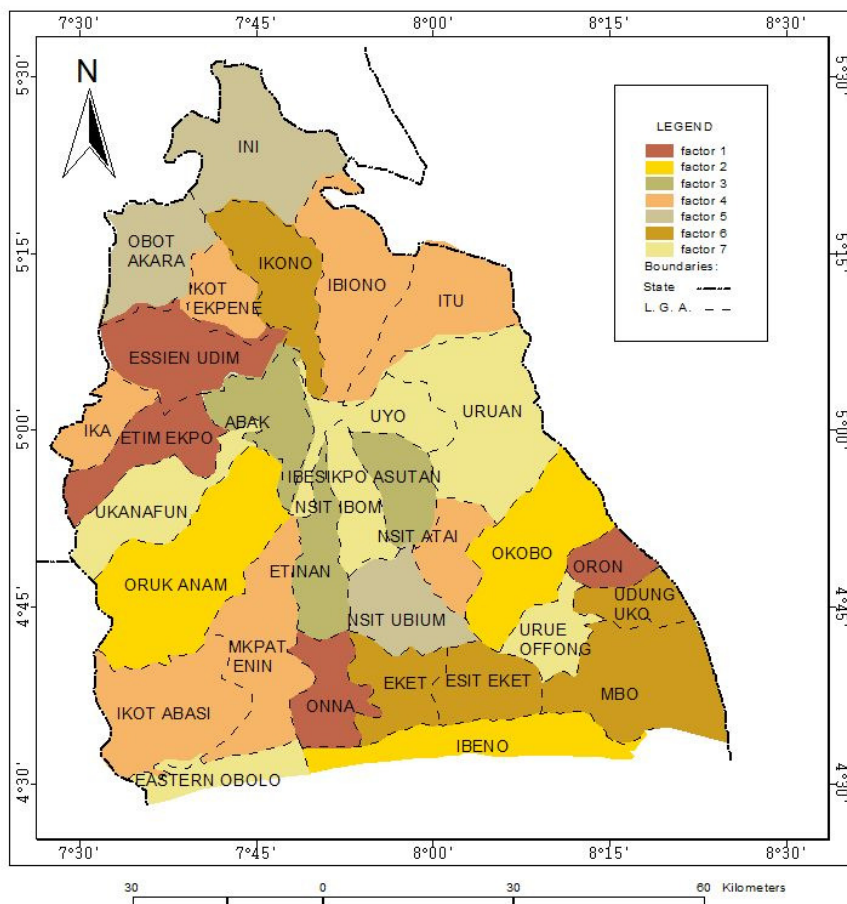
Figure 1 Map of Akwa Ibom State showing the dimension of socio economics development patterns

Table 1 Socio-Economic Developing Variables

S/N	AREAS	LEVEL OF INCOME (₦)	AVERAGE TRANSPORT COST (₦)	SETTLEMENTS LINKED WITH PAVED ROAD	NO. OF COOPERATIVE SOCIETIES	NO. OF SMALL SCALE INDUSTRIES	NO. OF LARGE SCALE INDUSTRIES	NO. OF MARKET	DISTANCE TO NEAREST MARKETS (KM)	NO. OF EDUCATIONAL INSTITUTIONS
		1	2	3	4	5	6	7	8	9
1	Abak (AK)	12,306	180	24	3	3	1	3	.356	8
2	Eastern Obolo (EO)	15,000	450	2	1	1	1	1	2.0	5
3	Eket (EK)	11,750	263	12	2	2	3	3	.531	10
4	Essien Udim (EU)	8,441	371	32	2	2	0	2	.425	5
5	Esit Eket (EE)	13,751	314	9	1	1	1	2	.576	4
6	Etinan (ET)	7,503	240	23	2	3	0	2	.245	5
7	Ibeno (IB)	10,234	395	3	1	1	1	1	.421	4
8	Ibesikpo Asutan (IA)	4,358	215	14	2	1	0	2	.408	4
9	Ibiono Ibom (BM)	20,359	355	52	1	2	0	2	.528	5
10	Ikono (IK)	12,300	340	41	2	2	0	2	.342	4
11	Ikot Abasi (KA)	18,502	501	25	2	3	2	2	.435	5
12	Ini (IN)	5,355	450	27	2	2	1	2	.452	3
13	Itu (IT)	6,560	220	36	2	3	1	2	.438	4
14	Mbo (MB)	13,117	301	16	1	1	0	2	.181	3
15	Mkpat Eni (ME)	11,302	385	28	2	2	0	1	.253	3
16	Nsit Ibom (NI)	14,084	338	14	1	1	0	2	.550	5
17	Nsit Ubium (NU)	5,034	318	31	1	1	0	2	.347	4
18	Obot Akara (OA)	11,072	430	24	2	1	0	2	1.7	4
19	Okobo (OK)	7,800	331	21	1	1	0	2	.217	2
20	Onna (ON)	8,305	320	27	2	2	0	1	.225	5
21	Oruk Anam (OR)	4,680	355	45	2	1	0	1	.121	3
22	Udung Uko (UU)	10,168	267	8	1	1	0	2	.692	3
23	Ukanafun (UK)	11,287	415	21	1	1	0	2	1.3	2
24	Uruan (UR)	10,868	168	33	2	2	0	2	.488	3

TYPES OF EDUCATIONAL INSTITUTIONS	NO. OF BANKING FACILITY	ACCESS TO BANKING FACILITY (KM)	POST OFFICE/AGENCY	GSM AVAILABLE	DISTANCE TO THE NEAREST HIGHWAY (KM)	CAR OWNERSHIP	POP. DENSITY (sq.km)	LAND AREA	HOUSEHOLD SIZE
10	11	12	13	14	15	16	17	18	19
9	3	.265	2	3	.150	1	432	252	3
5	0	2	1	1	3.5	0	119	117	4
9	4	.282	2	3	.188	1	472	175	3
6	0	2.0	1	1	.603	1	441	295	3
5	0	.951	0	1	.575	1	241	164	4
4	2	.356	2	2	.356	1	495	182	3
5	0	2.0	1	1	3.5	1	170	248	2
4	1	.264	1	1	.122	1	429	191	2
5	0	2.0	1	1	1.6	1	311	333	2
3	1	.351	1	1	.342	1	237	390	3
4	3	.345	2	3	.205	2	197	335	3
2	0	2.0	1	1	.602	0	223	320	2
3	2	.201	1	2	.423	1	303	273	3
3	1	.923	1	1	1.2	1	200	335	3
4	1	.450	1	2	.380	1	314	332	2
5	1	.947	2	1	.297	0	583	139	2
4	2	.487	1	1	.544	2	304	243	2
4	0	1.8	1	1	1.5	1	285	227	3
4	1	.587	1	1	.680	1	193	360	2
6	1	.258	2	1	.180	1	650	174	3
3	1	1.2	1	1	1.7	1	248	512	2
3	0	1.4	1	1	.934	1	408	64	2
3	1	1.3	1	1	1.8	1	338	254	3
4	0	1.6	1	1	.443	1	189	422	2

DISTANCE FROM STATE CAPITAL (KM)	SOURCE OF PORTABLE WATER SUPPLY 21	ACCESS TO PORTABLE WATER SUPPLY (KM)	NO. OF HEALTH INSTITUTIONS	TYPES OF HEALTH INSTITUTIONS	ACCESS TO NEAREST HEALTH INSTITUTIONS (KM)	MEANS OF TRANSPORT
20		22	23	24	25	26
16	3	.232	5	3	.420	2
46	0	1.5	2	1	1.5	0
45	5	.244	5	2	.750	2
35	2	.112	3	2	.690	2
46	1	.482	3	1	.656	2
26	2	301	5	4	.403	2
46	1	1.2	2	1	.635	0
15	2	.100	2	1	.429	3
30	2	.396	2	1	.86	2
46	2	.320	3	2	.424	2
46	3	.232	5	4	.345	2
46	1	.503	2	1	.735	2
27	2	.435	4	4	.535	2
45	2	.304	2	2	.808	2
45	2	.320	3	2	.540	2
22	2	.550	2	1	.786	2
39	2	.254	2	1	.584	2
40	1	.273	2	1	.464	2
40	1	.106	1	1	.834	2
46	2	.230	2	1	.435	2
44	2	.794	2	1	1.1	2
46	1	.617	2	1	1.1	2
46	2	916	2	1	1.6	2
10	2	.414	2	1	.101	2

Table 2 Rotated Factor Loading Matrix for the Distribution of Socio-Economic Development Indicators in Akwa Ibom State

Variables	F1	F2	F3	F4	F5	F6	F7
Level of income	.261	-4.194E-03	-.122	7.292E-02	.133	.730	6.159E-02
Average transport cost	-.155	-132	-.360	.198	.715	.307	-3.123E-02
Settlements link with paved road	-.122	.160	.334	.826	9.422E-04	6.208E-03	-7.021E-02
No of cooperate societies	.258	.666	.236	.297	-.179	-.124	-.192
No of small scale industries	.258	.849	.169	.278	-.107	2.836E-02	-5.745E-02
No of large scale industries	.376	.364	-.265	-.203	7.008E-02	.261	.392
No of markets	.551	.166	-539	-.171	-.357	.340	.222
Distance to nearest market	.127	-.109	-356	-.363	9.838E-02	.580	-.285
No of educational inst.	.862	.304	6.303E-02	-.181	-2341E-02	.195	-2.562E-02
Types of educational inst.	.839	9.189E-02	2.785E-02	-.195	-156	.166	-5.403E-02
No of banking facility	-596	.503	.244	-8.525E-02	5.424E-02	-.173	-445
Access of banking facility	-.204	-.434	-.497	.199	-3.193E-02	.417	-.358
Post office/agency	-720	.368	.115	2.405E-02	8.544E-02	-.233	-.184
GSM available	-579	-689	7.675E-02	-2.592E-02	9.465-E05	5.114E-02	-.316
Distance to the nearest highway	-.153	-.302	-835	-6.464E-02	.163	.177	-6.407E-02
Car ownership	1.538E.02	.135	.302	-202	.105	-6.759E-02	.696
Pop. Density	-506	2.365E-02	.536	-215	.118	-321	-.462
Land area	-.242	9.521E-02	-4.262E-02	.847	-.143	-5.000E-02	.280
Household size	-3.943E-02	.455	-6.666E-02	-.468	.201	-532	-3.419E-02
Distance from state capital	-4.006E.02	-1.064E-02	-.274	-3.769E-02	.766	.184	.111
Source of portable water supply	.727	-275	.373	.186	-3.640E-02	-2.880E-02	.334
Access to portable water supply	-.119	-.161	-.862	-.193	.125	8.625E-02	-.139
No of health institutions	.447	-810	.144	-9.179E-02	2.799E-02	.114	.198
Types of health institutions	.108	.903	.137	7.546E-03	4.129E-02	-3.164E-02	.195
Access to nearest health institutions	-8.686E-02	-5.236E-02	-.110	.297	-.777	.105	-7.553E-03
Means of transport	-4.904E-02	3.629E-02	.921	.161	-.107	-.115	5.988E-02

Table 3 The Eigen Value of the Factor Matrix

FACTORS	EIGEN VALUES	% OF VARIANCE	CUMULATIVE % EXPLANATION
1	8.823	33.933	33.933
2	4.438	17.067	51.001
3	2.494	9.591	60.592
4	1.772	6.814	67.406
5	1.355	5.212	72.617
6	1.272	4.891	77.508
7	1.202	4.621	82.130

Table 4 Matrix of Factor Scores Showing Dimensions of Socio-Economic Development Initiaties in Akwa Ibom State

S/N	AREAS	Dimensions of socio-economic development operations						
		F1	F2	F3	F4	F5	F6	F7
1	Abak	0.036	0.598	2.944	-15.321	-29.359	-45.804	11.980
2	Eastern Obolo	0.015	-3.318	-3.690	10.942	11.888	-.841	60.654
3	Eket	0.043	-0.118	1.400	-5.747	-13.578	54.634	-1.854
4	Essien Udim	0.059	-0.563	2.230	6.156	11.275	-14.659	-31.035
5	Esit Eket	0.022	-0.661	-2.847	-1.701	-11.110	59.872	5.185
6	Etinan	0.040	-1.211	3.091	1.373	4.387	-7.019	-17.329
7	Ibeno	0.039	3.138	-2.438	0.036	-7.019	17.750	38.021
8	Ibesikpo Asutan	0.025	0.337	1.940	-0.622	0.260	-17.205	7.399
9	Ibiono Ibom	0.037	-8.593	-1.725	1.938	-4.373	-71.266	-138.049
10	Ikono	0.057	1.589	-3.470	2.728	-5.663	48.186	-98.402
11	Ikot Abasi	0.053	-0.439	-5.143	3.861	-10.546	-52.397	14.343
12	Ini	0.040	0.615	-0.220	8.305	12.663	4.697	-24.745
13	Itu	0.032	-0.133	0.558	2.588	3.161	6.635	-47.801
14	Mbo	0.038	5.570	-4.899	-12.465	-35.690	56.304	3.834
15	Mkpat Eni	0.061	1.293	-0.925	3.358	-0.147	18.943	-36.626
16	Nsit Ibom	0.054	-6.511	8.224	0.138	9.434	-93.719	61.412
17	Nsit Ubium	0.032	-0.453	0.466	6.480	10.933	13.541	-37.271
18	Obot Akara	0.053	-2.419	0.566	12.654	20.346	-16.877	-23.920
19	Okobo	0.040	2.756	1.249	-3.370	-7.659	-94.570	42.465
20	Onna	0.058	0.909	3.7.4	-2.963	-3.358	26.785	30.074
21	Oruk Anam	0.039	6.208	-1.178	-7.944	-19.655	8.633	35.756
22	Udung Uko	0.029	-1.865	1.109	1.321	2.547	61.769	5.952
23	Ukanafun	0.056	3.428	-0.172	-3.779	-11.287	4.806	69.981
24	Uruan	0.042	-0.137	-0.865	-7.982	73.216	32.817	70.121