
Population Size Vs Centrality Score of Atarra and Naraini Tehsil

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ABSTRACT:

The centrality of a service centre is closely related to the population size and complexity of functions performed by it. The population size of a service centre mostly serves as a proxy variable for any existing and potential function this is only because larger the population size, greater is the demand of services and stronger is the gravitational force of the centre to attract them over time.

Several methods to decide the hierarchy of service centres are in practice at present. Guttman evolved the technique of scale gram which was first used by Hasinger, to measure the centrality of the service centres.

The spatial distribution of service centres in Atarra and Naraini tahsil is uneven, the Nyaya Panchayats which have only one service centre are mostly agricultural and in clouding hilly, ravenous and uneven terrain.

Centrally transport and medical facilities, financial institution of sense centres and V.L.W. Seats have favoured the localization of service centres while ravenous and uneven topography with low agricultural activity mostly of the southern part have disfavoured.

The distributional pattern of service centres has also been tested through the nearest neighbour analysis. It shows that the distribution tends towards randomness ($RN=0, 5875021$).

This is more clear in the distribution of IIIrd, IVth and Vth level service centres ($RN=0.950438$, $RN=0.7160686$ and $RN=0.6307666$). The Ist and IInd order centres as they are one each in number show a natural lustering.

INTRODUCTION & CENTRALITY SCORE:

The centrality of a service centre is closely related to the population size and complexity of functions performed by it¹. The population size of a service centre mostly serves as a proxy variable for any existing and potential function this is only because larger the population size, greater is the demand of services and stronger is the gravitational force of the centre to attract them over time.

The regression analysis of a centrality score and population size shows a positive co-relation of high level ($r = + 0.9893455$) as shown figure 'A' But there are also such examples, where population size is small and centrality score is high this is only due to their favourable locations on transport router and better economic activities, Badausa, Arjunah, Manpur, Barai due to better accessibility have centrality score than Tarahati Kalinjar, Rasin, Badokhar Buzurg and Khambhaura which inspite of their large population size are either located away from the main transport router or have less developed activities the efficient means of transportation and administration and rural banks have led to phenomenal growth of centres in the Atarra and Naraini Tahsil, Khurahand, Badausa, Mahua, Girwan , Arjunah, Manpur Barai, Sarha, Gudha Kalan and many others are such examples.

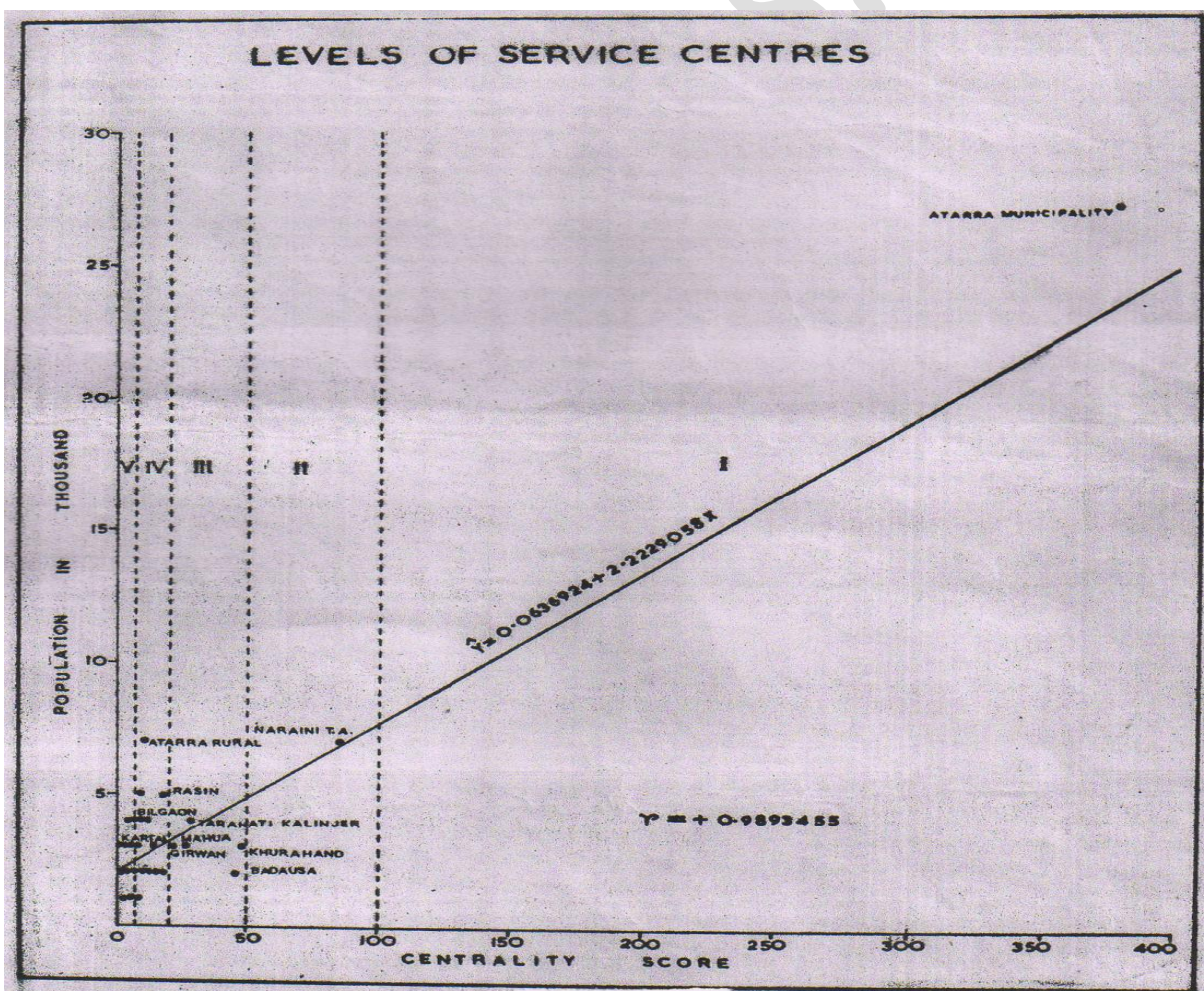
HIERARCHY OF SERVICE CENTRES:

Several methods to decide the hierarchy of service centres are in practice at present. Guttman² evolved the technique of scale gram which was first used by Hassinger³, to measure the centrality of the service centres, Barry and Garrison⁴ used the population threshold method for this purpose Goldund⁵, to study the hierarchy of settlements in Sweden used the centrality index derived on the basis of economic activities which was followed on the basis of entomic activities which was followed by Singh⁶ in India.

Letter on data and Akron⁷ have utilised transportation index to decide the hierarchical levels of settlements.

On the basis of the centrality scores, all the service centres of Atarra and Naraini, Tahsil may be easily grouped into five tyre hierarchy. Atarra municipality town, the biggest settlement of the Atarra Tahsil is also the biggest business, transport, education and medical centre and hold a primate status in the Atarra and Naraini Tahsil having the highest centrality score of 377.75. The only IInd order centre Naraini is the Tahsil head quarter and a business centre located in an agriculturally rich surrounding.

It has post and telegraph office, Bank, Intermediate College, Post Graduate College, rice mills and weekly market etc.



Of the fine third order centres, Mahua is the Block head quarter, where as Badausa and Girwan are the old seats of administration (old tahsil headquarters) Khurahand is an industrial and business centre with rail and road transport facilities, kalinjar an old historical centre is a connecting point between U.P. and M.P. due to its border location. It is also a religious centre where annual fair and daily markets are in practice.

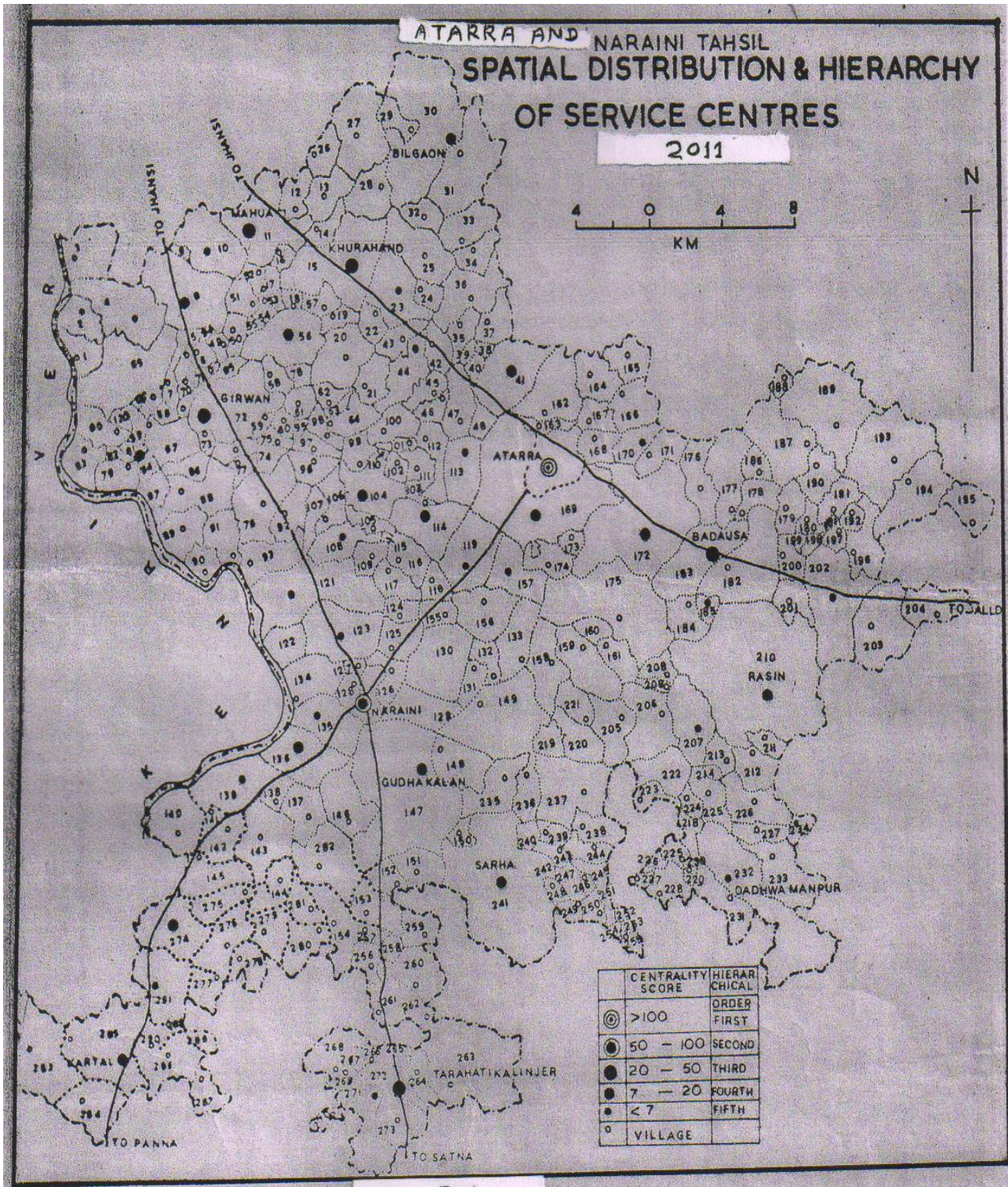
Fifteen IVth order centres are mostly big agricultural villages with road side locations and support rural banks, dispensaries post offices and V.L. ws. Services. Most of these centres arrange weekly markets .These there developing trade cum business centres play a vital role not only in the exchange of agricultural produce and consumer goods but also in the diffusion of new agricultural techniques (Fig B). They are Badokhar Buzurg, Bilgaon, Khambhaura, Arjunah, Barai Manpur, Baheri, Sarha, Naraini, Kartal.

The fifth order centres lower in hierarchy are central villages having village link road and a few other services like junior high schools, dispensaries rural b Banks and house hold in destines. A few of these centres have got road side locations and have emerged a new business centres. Such centres are Pangara, Rauli Kalyanpur, Kata Kalinjar Pachokhar, Lahureta , Barchha, Nagnedhi, and Resaura. These villages meet out the service demands of the nearby hamlets and small villages the Atarra and Naraini, Tehsil requires many more such centres to fulfil the needs of development of the small size villages and to make a field testing of rural development programme and policy.

The Nyaya Panchayat level distribution of service centres various from one to three. The Nyaya Panchayats of Khurahand, Gokhia and Jamwara occupy the formost position having three each of various level centres. The Nyaya Panchayats of Badokhar Buzurg, Khambhaura, Baheri , Pangara , Trra, Badausa , Rasin, Kalinjar and Nyaya Panchayat of bilgaon, Arjunah, girwan, Barai Manpur, Gudha Kalan, Padmai, Atarra Rural, Rauli Kalyanpur, Dadhwa manpur, Sarha and Nahari, have only one service centres each of mostly fourth level.

DISTRIBUTIONAL PATTERN OF SERVICE CENTRES:

The existing pattern of service centres in India is a result of Forces of history and culture on the one hand and of economic and political exigencies on the other. As a result, the development of lower level service centres has been very much neglected, therefore, there is a need to identity and develop systematically these lower level service centres to provide a package of goods and services that are necessary for integrated rural development is India.⁸ Many scholars have worked to identity service centre in India. Sen,⁹ Singh,¹⁰ Tripathi,¹¹ Nityanand,¹² Khan¹³ Singh, (S.B.)¹⁴ Kumar and Sharma,¹⁵ ok. Have tried to identity rural services centres in three to full level hierarchy giving weight to selected function performed by the centres on the basis of their number and quality. But they all differ on the paint of numerical values given as weight. To explain the relative value of the central functions most of them have taken median threshold population as their criteria.



The spatial distribution of service centres in Atarra and Naraini tahsil is uneven, the Nyaya Panchayats which have only one service centre are mostly agricultural and in clouding hilly, ravenous and uneven terrain. The head quarters of these nyaya panchayats work as service centre of their adjacent areas. It is surprising to note that Pauhar nyaya panchayat exhibits no

service centres within its limits. It is a northern region with less developed transport and communication facilities and finally low economic development. The three Nyaya Panchayats Khurahand, Gokhiya and jamwara exhibit three service centres one each in them. This is because of better transport facilities and economic prosperity there in.

The per hundred square km. Density of service centres also exhibits mostly of same trend. The highest density has been represented by Gokhiya nyaya panchayat (8.14 centres) followed by Baheri (5.75 cents), Khambhaura (4.60 centres) Khurahand (4.37 centres) and Badokhar Buzurg (4.02 centres). The lowest density have been shown by Pauhar which possesses no centre followed by Sadha(1.29), Gudha kalan (1.34), Atarra Rural (4.54) and Bilgaon (1.74) as given in following table :-

Nyaya Panchayat wise distribution and density of service centres in Atarra and Naraini Tehsil

Sl.No	Nyaya Panchayat	Ist Order	IInd Order	IIIRD Order	IVth Order	Vth Order	Total	Density/ 100km ²
1	2	3	4	5	6	7	8	9
1.	Badokhar Buzurg				1	1	2	4.02
2.	Khurahand			2	-	1	3	4.37
3.	Belgaon				1	-	1	1.74
4.	Khambhaura				1	1	2	4.60
5.	Arjunah				1	-	1	3.09
6.	Girwan			1	-	-	1	1.64
7.	Berai Manpur				1	-	1	2.017
8.	Baheri				1	1	2	5.75
9.	Gokhia				1	2	3	8.14
10.	Pangara					2	2	2.14
11.	Jamwara				1	2	3	4.56
12.	Gudha kala				1	-	1	1.34
13.	Padmai				-	1	1	2.54
14.	Atarra Rural				1	-	1	1.54
15.	Turra				1	1	2	4.00
16.	Badausa			1	-	1	2	3.77
17.	Pauhar				-	-	-	-
18.	Rauli Kalyanpur					1	1	2.00
19.	Rasin				1	1	2	2.41
20.	Dadhua Manpur					1	1	3.38
21.	Saraha				1	-	1	1.29
22.	Kalinger			1	-	1	2	3.15
23.	Nahri				1	-	1	2.49
24.	Kartal				1	1	2	3.74
25.	Atarra Municiparity	1					1	9.17
26.	Naraini T.A.		1				1	11.79
	TOTAL	1	1	5	15	18	40	2.88

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