

# Identification and, criteria of Selection Centrality - Hierarchy of Service Centers and, their characteristics

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**Abstract:** The study of central place Theory has been confined with determination of hierarchies of settlements as central places. Because the central places in any area from nuclei or centers of the socio-economic activities. In it, their importance is self-evident as strategic points in planning and future modeling so as to provide more services and developmental innovations to their service zone. As discussed previous the villages, town and cities vary in size throughout in the study area. But a simple division by size does not Shows the order of relationship between them. This is complex and depends on the way in which settlements co-operate amongst themselves in sharing out their functions. As a consequence, develop a grading of services which gives some of them dominant and others subordinate roles.

**Keywords:** Selection Centrality, Hierarchy of Service Centers, Central Services, City Country functional relationship

## I - IDENTIFICATION & CRITERIA OF SELECTION OF SERVICE CENTERS

To identify and select the service centers, many methods have been adopted by several geographers. But in the present study, several criterions focusing their attention on size, infrastructure and other amenities have been selected to identify the service centers. Various geographers have made study of central places with particular reference to India. With an aim to find and rank the central places in relation to show the hierarchy and to plan the further development. But these are not well developed except some studies like that of Mayfield (1962,1963 & 1967), Singh (1966), Tirkha & Lal (1966), Sharma (1972), Mandal (1979), Singh, J. (1979), Singh, S. Chauhan, V.S. (1984) and Sinha, B.L. (1990). They have used various criteria for various regions of India. In the context of designation of a settlement as a central place, the following criteria should be taken into consideration:

- 1. THE SIZE OF THE PLACE:** The models of central place given by Christaller and Losch are associated with functional rather than size grades. Size is also a significant criterion for a central place. The larger the settlement, the larger the number or specialities, services and functions a place has to offer to its neighbors. In Moradabad Commissionary, hamlets and small villages are Ms purely agricultural. Thus they depend on larger villages and towns for various services, while larger villages and small towns depend on bigger towns and cities for several services. In this way, big towns and cities are important magnets

for the rural landscape of the region. A hinterland or the urban sphere, which is measured by the exchange in grains, milk and vegetables and by bus services show a positive relationship between the size of the hinterland and the size of the urban centers.

All the urban spots and rural service centers in the region under study number about 4550 having population in excess of 5000 persons. Thus we see that the number of service centers is quite large. All these have some centralized services like carpentry, weaving, pottery and small grocery shops and consequently they act as central places for the small villages and the hamlets of the study region.

**2. CENTRAL SERVICES:** The rank of a place depends upon the number or services it supplies to its hinterland. The service is the central idea in shaping the central place. Brush (1953) in his study of southwestern Wisconsin considered the following services as central services : Postal and telephone services, hospitals and dispensaries- medical and veterinary, education (Schools), lawyers, banks and hotels. In the context of study area hotels, banks and telephone services are insignificant. Among those services and functions that do count, the following are taken into consideration:

### **i) Administration**

Administration system has three types of organizations of distinct, hierarchical order viz... Police, Government administration and local civic bodies. In police administration there are grades of police out posts,

Police stations, Police sub-divisional stations, District Police headquarters and divisional head-quarters.

The government administration has sub-divisional or tehsil head quarters with the office of S.D.O., District Head Quarters, District Magistrates and Divisional head-quarters with commissioners. At low level, like the village level, there is a representative - patwari or lekhpal or village accountant who is responsible for revenue in one or more Villages and hamlets. There are 19 tehsils or sub-divisional headquarters, 4 district head-quarters and 1 Commissioner Headquarter. All of them have been considered as indices or headquarter. Besides these governmental organizations central places. there are 36 community development blocks with their headquarters. They also render some services like distribution of seed and fertilizers, finances for agricultural and livestock development and several other services. Thus they have been accounted as central places. Local civic bodies include mainly the panchayats town areas and the municipalities. All the urban centers have municipal councils. There are clear-cut grades of panchayats in order of responsibility. There are Panchayats Samiti centers, Nyay Panchayats and village panchayat centers with panchayat samities. Nyaya Panchayats have been treated as central places because of their extent of centrality, while others like village panchayats do not exist in the group of central places as they are confined to only two or three settlements and they have no centralized activities for the outward region.

## ii) Agriculture and, Livestock

Some services are supplied by several establishments under the agriculture and animal husbandry. Government of U.P. for the betterment of agricultural and livestock economy. These establishments vary in size as from agricultural stores for seeds, fertilizers to sub-divisional, district and divisional agricultural and an animal husbandry offices. The location of these services indicates the centrality of places and contributes to the hierarchical system of service centres.

## iii) Industry

Industry is also a significant central service for the Inch hierarchy of a service centre. This offers one of centralized services. The situation of various types of industries such as small scale cottage and manufacturing indicates, the type of a centre.

## iv) Transport and, Communication

Various means of transport and communication are the other indicators to the centrality of a place. The centrality of a place is dependent on its centrality in relation to rail and road net work. Transport in various forms like bullock carts, tractors, bicycles, motor cycles, scooters, rickshaws, tangas, cars and buses differs from hamlet to village to town and city. In small villages the bullock carts and tractors are the main devices of transport, while bicycle, motor cycles, rickshaw, tangas, and cars are

common mode of transport in large village and urban centers. The bicycle, car and motor cycle-scooter repair and servicing centers indicates the centrality of places. Moradabad is the chief- centre of this movement of towns or the umland. Amroha sends the largest daily Contingent, while seohara, Kanth, Dhampur, Rampur & chandausi are also important origin stations of the daily Commuting traffic for Moradabad city. Employees of the railway divisional offices, railway workshop. Collectorate, judge's courts and other district offices, Municipal Of and students of the colleges commute daily from all places of the umland of Moradabad city, in the morning & return back ill the evening. (Fig.10) indicates the movement pattern of workers by distance & mode of transport.

#### v) Health Services

Health services of people and livestock also significant a place. The directorate of medical and for the centrality of Health services and animal husbandry render services to people and livestock. Besides these, there are charitable institutions which run hospitals and dispensaries. The centrality of a place can be seen by the nature of the health centers run by government or private institution. The public health centers and rural clinics and the veterinary dispensaries are the lowest grade in the importance of place, general and specialized hospitals are of the highest order.

The location of these highest order and lowest order services assists to remark the significance of a place and its centrality.

## vi) Education institutions and, Recreation Centers

Education and recreation provision at a place give the indications about the centrality of that place. There are 51 Colleges and all of them are located in larger urban centers or very large villages. There are 5488 junior basic schools, 2462 senior basic schools and 344 higher secondary schools. The places with higher secondary schools and colleges have been taken as central places as they supply educational services to their surroundings as well as to the local people of the central place. Services for recreation are supplied largely by cinemas & clubs. There are 57 cinemas in the study area which are situated in district or larger urban centers. News paper is also an important service. Amar Ujala and Dainik Jagran are leading news papers published from Moradabad.

**3. PUBLIC UTILITY SERVICES:** Public utility services include postal and telephone services, electricity, water supply and public works departmental services. Postal services are supplied by different types of post offices located according to the needs of the neighborhood like experimental post offices, branch post offices, sub-post offices, district postal headquarters and regional postal head quarters. There are 8049 branches of post office in Moradabad Commissionery. On other services like electricity, water supply and sanitation there are no published data. However, they are confined to large urban centers only.



**4. FINANCE:** Agricultural societies, Co-operative bank and development blocks act in place of banks in rural society. Whereas the banks and government treasuries function in the urban centers. Banks are important services for the urban hierarchy of the region, but they are not responsible for the total settlement hierarchy. Besides the above criteria and on the basis of size and services, some other measures given by other geographers have been also used to test the centrality-index. According to Brush and Barcey the importance of a centre or its centrality can be judged in two ways. (i) The measurement of the business activities and other services existing in the centre and (ii) determination of the area dependent upon the centre for goods and services. This concept was further Strengthened by Singh, K.N., who asserted, "commerce in tile most uniformly applicable distinct central place function t through various grades or service centers- small and large, whose functional development owes essentially to the provision of goods and services to the rural population".

## **II - CENTRALITY AND HIERARCHY OF SERVICE CENTERS**

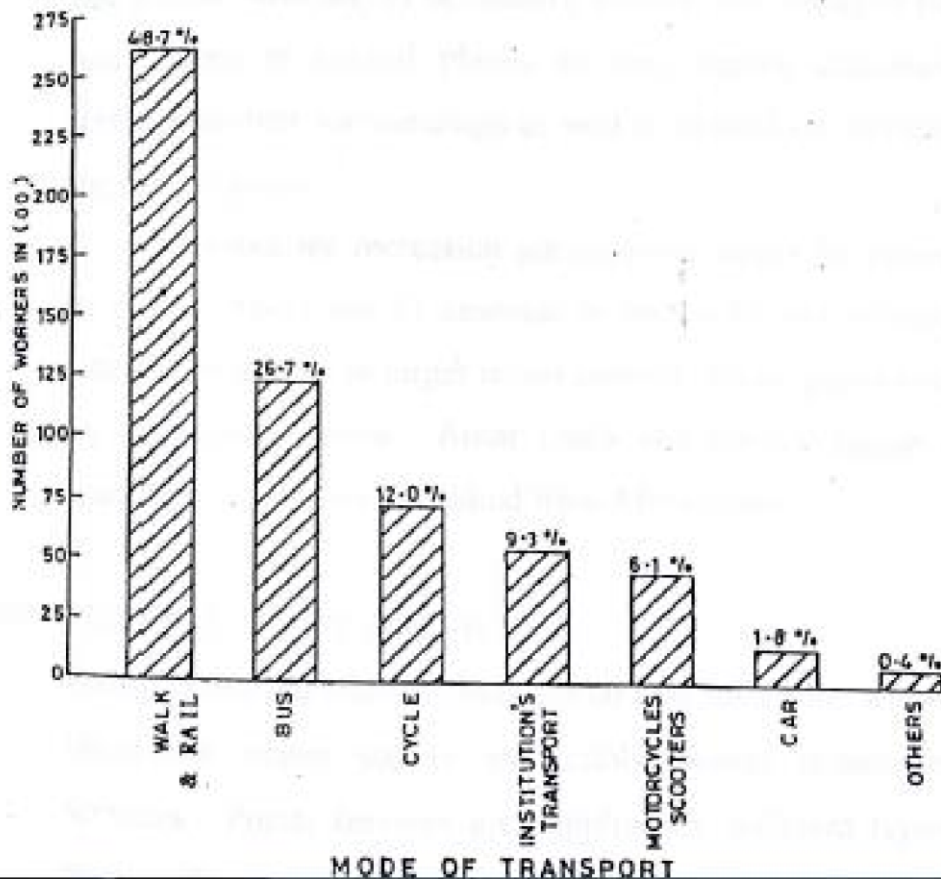
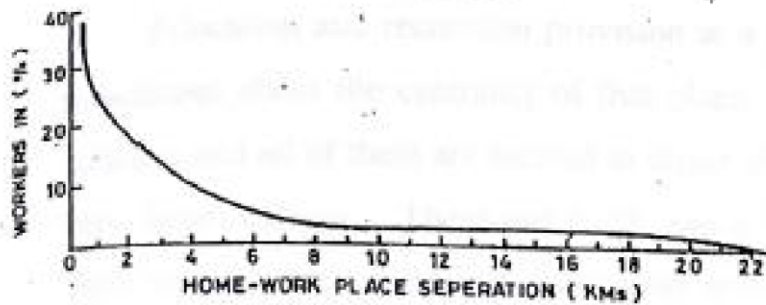
The central place theory is concerned with the number size, spacing and arrangement of central place either urban or rural in character. Mark Jefferson first used the term central place in 1931 for a settlement which is necessarily a focus of various activities, economic and social in nature for its surrounding hinter land. The term, however, became standard after the classical study of Walter Christaller in 1933. The application of various theories and studies on central places has increased rapidly since



II -world war. Christaller's hypothesis on the degree of 'centrality' of a place is the prime criterion for the respective importance of the centre. As it has turned out this is only one of the possibilities determination of centrality of places and the categorizing of their functional importance. Thus many other parameters can be proposed for the purpose.

The study of central place Theory has been confined with determination of hierarchies of settlements as central places. Because the central places in any area from nuclei or centers of the socio-economic activities. In it, their importance is self-evident as strategic points in planning and future modeling so as to provide more services and developmental innovations to their service zone. As discussed previous the villages, town and cities vary in size throughout in the study area. But a simple division by size does not Shows the order of relationship between them. This is complex and depends on the way in which settlements co-operate amongst themselves in sharing out their functions. As a consequence, develop a grading of services which gives some of them dominant and others subordinate roles. This combination of super-ordinate and sub-ordinate service roles leads to a hierarchy of settlement. It produces an orderly arrangement of service centers in a regional frame work. The rural as well as urban hierarchy is ultimately

## MOVEMENT PATTERN OF WORKERS BY DISTANCE & MODE OF TRANSPORT 2003



related with the concept of central places. The central place can be distinguished from non-central places on the basis of goods it offers and the centralized services and functions it performs for the neighboring places. The main aim of the study of central place concept is an analysis of size, number and distribution of central places under an assumed isotropic surface i.e. under conditions of a places uniform distribution of population, purchasing power, resources and transport facilities over a

uniform terrain. Ideally, central places are regularly spaced to form a triangular lattice within hexagonal shaped trade areas and they exist into a hierarchy comprised of discrete groups. Sharma 7 (1972) has visualized the hierarchical order according to (i) market principle; (ii) principle of traffic; & (iii) The socio-political or administrative principle.

In fact, the hierarchy is based on the promise base that the rank of a place depends on the number of services and functions and the range of goods supplied to its hinterland.

Some studies like Berry and Garrison (1958), Bracey (1953), Brush (1953), Dacey (1962), and Morrill (1962) do not confirm the full existence of a hexagonal latic arrangement of central places. Haggett (1955) suggested that --'Inspection of settlement pattern visualized by European geographers indicates a regular lattice., Because the theory is based on the assumption of isotropic surface, laces in it is difficult to find regular lattice arrangements of central places in to real world, because of complications due to natural and socio-economic irregularities and time factor. In the context of the region wider study, it can be hypothesized that the existing central places call be modeled as centers to provide services and development innovations to their service fields as a strategy for speeding up the process of economic growth and infra-regional integration and equalization within which they are to be applied.

### **III - CHARACTERISTICS OF SERVICE CENTERS OR CENTRAL PLACES**

According to various services offered by different types of central places, the main characteristics of the various central places are as follows:

#### **1. Central Villages**

These are nuclei in the rural land-scape and offer certain local services. They offer justice through Nyay Panchayatas to the neighboring hamlets and small villages. They supply education, the post and health services and under above the distribution of seeds and fertilizers. They are the foci or nodal points for rural lives, where people gather for social and cultural activities. The centrality of such type service centers depends on the fact that these central villages are parent villages to the nearby located hamlets and small villages. Thus they are the lowest order central places.

#### **2. Urbanized villages and, Semi-Towns**

These are the collecting centers for agricultural goods and rarely livestock goods of the neighboring villages. These centers have small shops for spices, grain, sugar and gur, tobacco, kerosene, edible oil, soap, and other things of daily use. These also supply other centralized services like weaving, pottery and smithy. They are the nodal carp various facilities like middle schools public health points centers, rural clinics and veterinary dispensaries, branch post offices, panchayats and police

stations etc. Weekly or biweekly markets and annual fairs are also attached with these centers which are the most significant central function of the rural landscape of the region.

### **3. Tehsil centers and, Block Development Centers**

These are bigger collecting and marketing centers for the villagers. Markets are found mainly on cross roads or on the main streets, of the settlements. They offer important services through various establishments like Sub-post offices, Schools, Colleges, Cinemas, Higher and Senior Secondary Munsif and S.D.M. Courts, Police Stations, Panchayats Samities, Municipality and block centers etc., to the surrounding region. They have distinct urban characters, which are not classed as urban centers, due to well- established markets with many shops and small scale cottage industries. They ha have a sizable expense of built-up area along the main roads. They are also nodal points lot the rail and road network.

### **4. District Towns**

All they are confined to governmental institutions and public utility services. They work as administrative centers and offer various professional services. They have well established markets, cottage industries and manufacturing industries. Surface and unsurface road are found in these towns. Being the focal point of rail and road they act as Significant centers in the transport and communication network.

## 5. Cities

They are the divergent places for the economic, cultural and political life of the region administration, law and justice, finance and transport and communication. They are the centers of higher education as they have many colleges. Thus, cities are the magnets various services for the surrounding region. They are occupied with larger built-up areas with surface roads and well established market. Their morphology remarks clear-cut division of commercial, industrial, residential - cum - commercial and residential settlements.

From the above description we reach to the conclusion the larger the that the larger the size of service centers, number of centralized services. This conclusion is quite Consistent with the basic concept of central place theory.

## 6. Functional characteristics of Service Centers in general

Table No. 14 shows the functional characteristics of working population of various service centers of the study area and remarks the relationship between the size of working population and the functional structure of service centers.

The functions among and within centers, have been compared in related to their size and % values of various functions for each centers, which is calculated, taking the total working population of the centers as 100. After a close examination and study, the functional structure of centers has been divided into two classes (a) town and (b) rural centers. The major portion of labour force in towns is engaged in services but in rural centers it is in



agriculture. Dalpatpur due to the location of milk factory. Chandpur, Bilaspur, Seohara due to Sugar Factories. Thakurdwara and Bijnor due to favorable tract of agriculture are growing towns. All newly developing township record 55.3% or more working activities population in services. The secondary and tertiary in importance of size are commerce and manufacturing Amroha with 35.5% (including household industries). Chandausi with 34.6%, Najibabad with 40.5% and Sambhal with 32.5 % are the significant centers for trade and commerce due to their usual local marketing nature. These centers mostly serve the immediate and smaller requirements for the rural areas. Their greater percentage of working population is involved in household industries. Transport services are also important in size. Some centers like Moradabad (15.58%), Chandausi (8%), Gajraula (6.5%), Najibabad (9.5%) and Rampur (11.5%), reveal an important percentage of working population employed in transport Commerce, industry and service group activities are the most widely distributed functions of central places in the study region. It decreases according to the centers, percentage of agricultural activities goes on increasing owing mainly to smaller centers, which are rural in nature. For example, Moradabad records 15% population of working population in agriculture, while, it is about 95% in rural centers. Thus there is great variation in functional characteristics of centers in the study area.

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