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## A GEOGRAPHICAL STUDY OF CENTRALITY OF AGRICULTURAL REGULATED MARKET CENTRES IN SOLAPUR DISTRICT OF MAHARASHTRA

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### **Abstract**

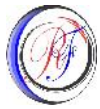
*Marketing geography is concerned with the channels of distribution through which goods move from producer to consumer. The present attempt is concerned with the calculating the centrality values of the market centres in the Solapur District. The entire investigation is based on the intensive fieldwork, for which schedule and questionnaire techniques have been employed to collect the information regarding 14 parameters selected for the study. It is also supplemented by the secondary data. The composite scores of centrality are obtained by location quotient method of Davies.*

**Keywords:** Conceptual, Regional Analysis, Weightage, Centrality.

### **INTRODUCTION**

Agricultural regulated market centres play a vital role not only in the marketing system of the country but also in a rural development. They provide trade and commerce services and act as nodal centres for transportation and serve as growth centres, also help in increasing social contact, serve centres of diffusion of innovation and ideas and become focus for political and other activities. Agricultural regulated market centres are different from each other. They are different in the respect of their population, size, functional capacity and aggregate importance. The present attempt is concerned with the calculating the centrality values of the market centres in the Solapur District.

Centrality simply refers to the measure of importance of place in terms of its functional capacity to serve the needs of the people in the surrounding area. The centrality of place can be expressed qualitatively, such as the low and high centrality as well as quantitatively with the help of the centrality values. The centrality values can be obtained by converting the functional base of a place into the scores on the basis of the frequency and importance of the functions



performed by the place. The centrality however depends on central functions. These functions have a certain range beyond the limits of the surrounding region.

Hence agricultural regulated market centres have predominant economic importance in any region. Market centres also play a vital role in socioeconomic development of region (Dixit, 1980).

In the present investigation an attempt is made to find out the centrality and hierarchy of agricultural regulated market centres in Solapur district of Maharashtra. The entire investigation is based on the intensive fieldwork, for which schedule and questionnaire techniques have been employed to collect the information regarding 14 parameters selected for the study. It is also supplemented by the secondary data. The composite scores of centrality are obtained by location quotient method of Davies.

### **OBJECTIVES**

In view of the above, the specific objectives of the present to study-

1. To Calculate the centrality of agricultural regulated market centres.
2. To determine and analysis the centrality of agricultural regulated market centres.

### **DATABASE AND METHODOLOGY**

For the present investigation the empirical data regarding cattle market centres have been collected through intensive field work which is supplemented by the secondary data abstracted from socio- economic review and district statistical abstracts and district census hand book. Centrality score is calculated by giving weightage to selected fourteen indicators of various functions and services. The composite scores of centrality are obtained by location quotient of Davis (1967). The results are shown with the help of table and maps.

### **STUDY REGION**

For the present investigation Solapur district is selected as a study region. It is one of the southern district of Maharashtra. The Solapur district lies between 17<sup>0</sup> 10' north to 18<sup>0</sup>32' north latitude and 74<sup>0</sup> 42' east to 75<sup>0</sup> 15' east longitude. It covers an area of 14895sq.km.and has population 3849543. The region has 1150 inhabited villages and 10 urban centers, is administratively sub divided in to 11 tahsils. It located in the Bhima, Sina and Man basin just before the Bhima River leaves Maharashtra to enter in to Karnataka state. At present the region have eleven principal market yards and 26 have categorized as a sub-market yards.

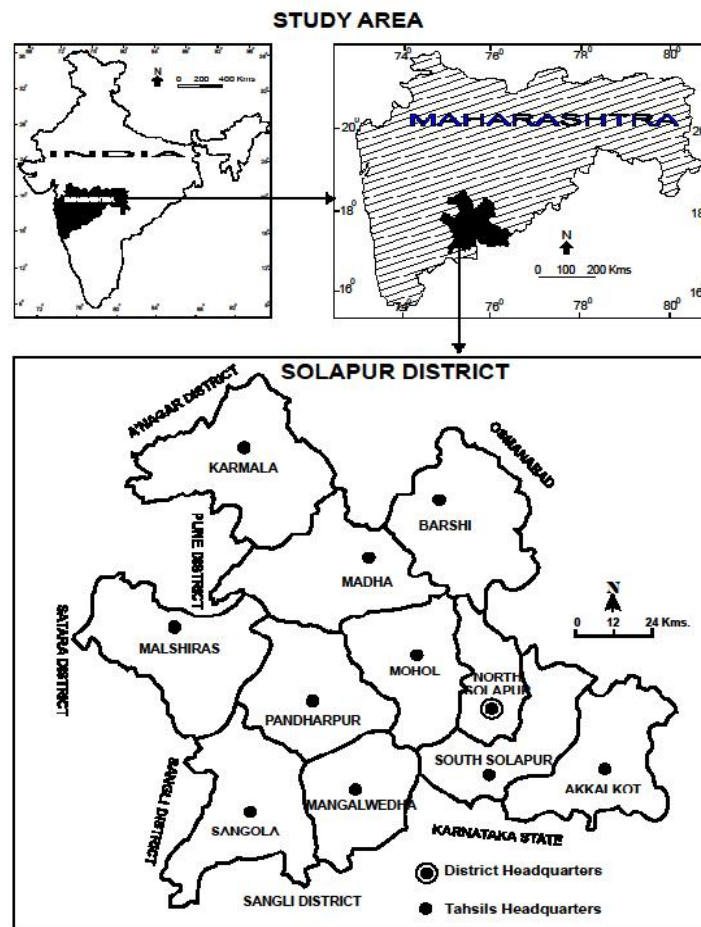


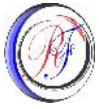
Fig.1

## CONCEPTUAL ASPECTS OF CENTRALITY

Agricultural regulated market centres are different from each other. They are different in the respect of their population, size, functional capacity and aggregate importance. The present attempt is concerned with the problem of calculating the centrality values of the market centres in the study area.

Christaller (1933, 1966) considered central place as the places, which proved central goods and services to their hinterlands. According to him, the centrality of a place is that component of its functional magnitude which is required for the population of its hinterlands.

In the study area, the agricultural regulated market centres which are grouped into four classes. Solapur is the only regional agricultural regulated market centre, followed by six major agricultural regulated market centres, twelve minor and sixteen small agricultural regulated market centres. However their spatial analysis reveals that the agriculturally developed,



economically prosperous, and infrastructural well endowed central and western part of the study region have more, big and developed agricultural regulated market centres in higher order, while economically backward northern and south eastern part have less number and small undeveloped agricultural regulated market centres of lower order.

It is notable fact that most of the agricultural regulated market centres of higher centrality values are facilitated, by developed road, agricultural facilities and other communication network.

Centrality refers to the measure of importance of a place in terms of its functional capacity to serve the needs of the people in the surrounding area. The centrality of the central place can be expressed qualitatively, such as the relatively low and high centrality as well as quantitatively with the help of absolute centrality values. The centrality values mostly obtained by converting the functional base of the centre into the scores based on the frequency and importance of the functions performed by the same centre. The centrality however depends upon central functions. These functions have the certain range beyond the limits of the surrounding region. Christaller (1933 and 1966) rightly considered central places as the places providing central goods and services to their hinterlands. According to him, the centrality of place is component of functional magnitude which is required for the population of its hinterland. The term 'central place' mostly used in a relative sence. Every place has certain importance more or less in accordance with its possession of certain functions or services not mealy for its internal population, but for surrounding areas also (Singh,1977). Theoretically a central place enjoys centrality in a given area or region with respect to a variety of functions or services to the its surrounding areas. For the rational study of the centrality, location quotient method of Davis (1967) has been employed. By this method a score for any single unit of function has been calculated by using following equation.

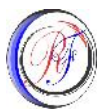
$$C = \frac{t}{T} \times 100$$

Where,

C= Score for any function't',

t = One unit of function't' and

T= Total number of functional units of function't' inthe entire area.

**Solapur District:**

Centrality Score of Agricultural Regulated Market Centres by - Location Quotient Method.

Sr. No.	Name of the Market Center	Centrality Score	Rank	Sr. No.	Name of the Market Center	Centrality Score	Rank
1	N. Solapur	510.6	I	20	Karajgi	22.3	V
2	Barshi	302.6	II	21	Bhalwani	14.0	V
3	Pandharpur	252.4	II	22	Karkamb	13.5	V
4	Sangola	207.0	II	23	Piliv	13.2	V
5	Kurdwadi	201.2	II	24	Velapur	13.0	V
6	Akluj	197.7	III	25	Nandeshwar	12.2	V
7	Akkalkot	189.3	III	26	Angar	12.0	V
8	Karmala	145.9	III	27	Shindewadi	11.1	V
9	Mohol	142.2	III	28	LaximiDhahiwdi	10.4	V
10	Mangalwedha	130.2	III	29	Maindargi	9.9	V
11	Vairag	108.2	III	30	Kurul	9.7	V
12	Dhudhni	59.0	IV	31	Kem	9.5	V
13	Jeur	55.1	IV	32	Bhandishegaon	8.8	V
14	Malshiras	53.9	IV	33	Jinti	5.6	V
15	Natepute	53.0	IV	34	Kamti (bk)	5.4	V
16	Madha	52.6	IV	35	Patkul	5.0	V
17	Temburni	45.0	V	36	Ghodeshwar	4.8	V
18	Modnimb	42.0	V	37	Shetphal	4.5	V
19	Mahud (bk)	30.9	V				

*Source: Compiled by researcher.*

The weightage scores of all the agricultural regulated market centres have been considered for the centrality scores for all the variables calculated by adding up all the values of single variable and finally obtain composite centrality value or index for each agricultural regulated market centres. The centrality scores have been depicted on Fig 2

### Regional Analysis of Centrality

The centrality index of 08 agricultural regulated market centres range between 25 to 100. It includes mainly Dudhni, Jeur, Malshiras, Natepute and Madha agricultural regulated market centres. Generally these agricultural regulated market centres are medium in size. About 18 agricultural regulated market centres have below 25 centrality values.

**Solapur District :**

**Centrality Score of Agricultural Regulated Market Centres by Location Quotient Method**

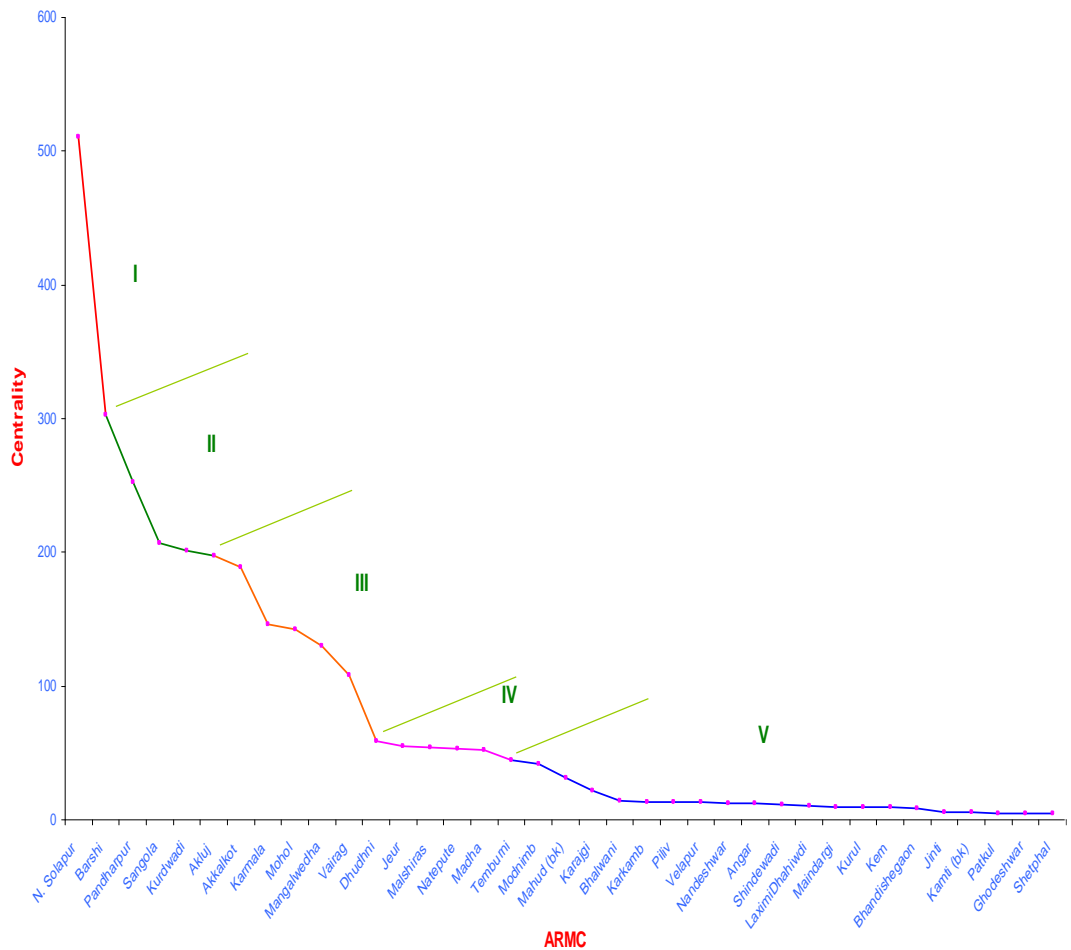
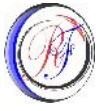


Fig. 2

In fact all the main agricultural regulated market centres have got the centrality value of above 100 except the Dudhni agricultural regulated market centre because this is the newly developed agricultural regulated market centre in the study area. Solapur is a regional market centre and it has got very important status in agricultural marketing system of the study area. Solapur agricultural regulated market centre is a Unique Principal market centres where arrival of agricultural commodities not only in the study area but also comes from Karnataka and Andhra Pradesh State. Thus the arrival of rice commodity is comparatively more than other commodity. Barshi is also important agricultural regulated market centre in the study area. Barshi is known



as the gate of Marathwada region because the commodities from Latur, Nanded, Aurangabad, Beed arrivals to the Barshi agricultural regulated market centre.

Pandharpur and Sangola agricultural regulated market centre are the famous for the cattle markets. In Pandharpur there are three cattle markets in fair time its mean the Chaitra, Kartiki, Magh. But Sangola agricultural regulated market centre is famous for only cattle market.

High centrality value agricultural regulated market centres are located in the central part of the study area, and some of them are located in the river basin. The high centrality value agricultural regulated market centres are located in agricultural prosperous region or the agricultural developed region. The low centrality value agricultural regulated market centres are located in the rural area where the transport facilities and other agricultural regulated market facilities are not available.

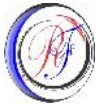
For analysis all the centrality values have been put according to their descending order table 6.2. The highest centrality value is obtained by Solapur agricultural regulated market centre (510.6) and is followed by Barshi (302.6), Pandharpur (252.4), Sangola (207.0), Kurdwadi (201.2) and Akluj (197.7). These are the very important agricultural regulated market centres in the study area.

The analysis of regional agricultural regulated market centres, (in view of the centrality ranking perspective) show that the Solapur agricultural regulated market centre has the highest centrality value in the study area by Davies' Location Quotient Method. Thus the Solapur agricultural regulated market centre proves its dominancy, which acts as the regional agricultural regulated market centre. Barshi and Pandharpur stand at second and third ranks respectively and they serve as the sub- regional agricultural regulated market centres, which range between 100 to 500 centrality scores. . Whereas 08 agricultural regulated market centres have the centrality scores ranging between 25 to 100. It includes mainly Dudhni, Jeur, Malshiras, Natepute and Madha etc. agricultural regulated market centres are medium in size. Another 18 agricultural regulated market centres have centrality values below 25 are located in the rural area of the study area.

## **CONCLUSION**

Centrality is the means measure of importance of a place (agricultural regulated market centres) in terms of its functional to serve the need of the people in the surrounding area.

Centrality score is considered in the study of the importance of agricultural regulated market



centres in the Solapur district. The composite score of centrality obtained by Davies method clearly indicate high difference between the lower and higher values of centrality score. It is observed that, the places having high centrality are located in the town or city and functional large villages in the study area. It is notable that the agricultural regulated market centres which have economically prosperous, well infrastructural facilities have higher order, while economically backward, agriculturally undeveloped and poor in infrastructural facilities have lower order agricultural regulated market centres.

The principal agricultural regulated market centres are mainly located in the town or city and its well connected with transports facilities and these agricultural regulated market centres are provided more services and facilities to the population / agricultural producer.

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