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CENTRALITY OF MARKET CENTRES IN YAVATMAL DISTRICT: A GEOGRAPHICAL STUDY

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Abstract:

Marketing geography describes the various facts of retailing as aspect of geography which is concerned with territory economic activities and especially the distributive trades. The distribution of market centers is influenced by different physical and cultural factors. rural economy market plays a vital role in the interactions and exchanging the local products through certain norms where 'system of rural market serves as the nodal points for the collection and distribution of large range of goods and services of both local and external origin' Therefore attempt is made here to analyze spatial distribution of market centers in Yevatmal District. The paper is based on primarary data. The present attempt is concerned with the calculating the centrality values of the market centers in the Yavatmal District.

Key words: Weightage, Centrality.

Introduction:

"Marketing geography describes the various facts of retailing as aspect of geography which is concerned with territory economic activities and especially the distributive trades" (Davies, 1976). Geographers are mainly concerned with the spatial distribution of geographical phenomena. The distribution of market centers is influenced by different physical and cultural factors. Each factor has its own influence and affects directly or indirectly on the distribution of market centers (Pawar & Lokhande 2000). There is a great variation also in the distribution of market centers at tahsil level. There are 20 market centers in Ner tahsil while they are only 04 in each of Maregaon, Zari-jamni and Wani tahsils. The present attempt is concerned with the calculating the centrality values of the market centers in the Yavatmal 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.

Market centers are the main places of gathering of the societies of farmers, the reason behind this is that the main features of internal trade network is the existence of market nodal point to and from which, flows of commodities are directed (Brombley, 1971). In the economy, especially rural economy plays a vital role in the interactions and exchanging the local products through certain norms where 'system of rural market serves as the nodal points for the collection and distribution of large range of goods and services of both local and external origin' (Good,1972).

Objectives:

The main objective of the present study is to calculate the Centrality of Market centers in Yavatmal district.

Data Base and Methodology:

For the present investigation the empirical data regarding market centers 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. The composite scores

of centrality are obtained by location quotient of Davis (1967).

Study Area:

The Yavatmal district is located South-western part of Vidharbha and South- eastern part of Maharashtra state. The absolute location of district is 19°26' to 20°42' north latitude and 77°18' to 79°28' east longitudes. The total geographical area of district is13584 square kilometers,which constitutes 4.50 per cent of the total area of the Maharashtra state. The district has hot and dry climate with average annual rainfall is 970 MM, as per 2011 Census, Yavatmal district has 24, 58,272 population. For administrative purpose the district is divided into 16 tahsils.

Concept of Centrality:

Centrality simply 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 place can be expressed as the low and the high centrality. 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. Christaller (1966) considered central places as the places, which provide 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 hinterland.

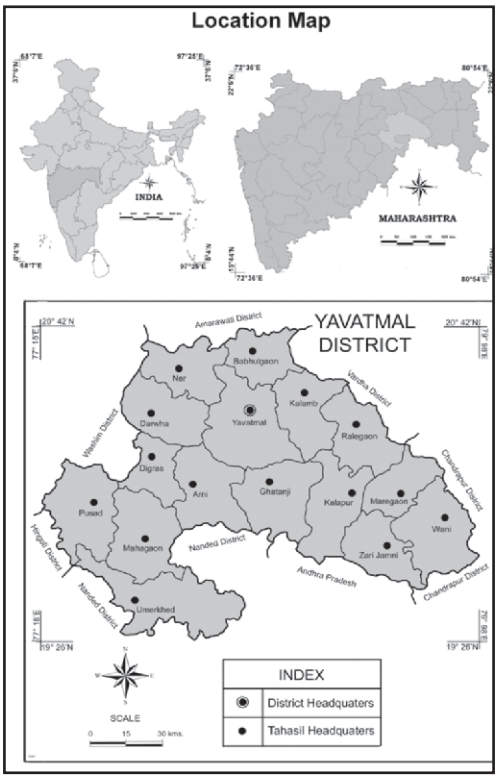

Fig. No.:1

Centrality by Davies Location Quotient Method:
This method has been used for south Wales by Davies (1967) and a score for any single unit of function is calculated by following formula.

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

Where,

C= Score for any function't'
t = One unit of function't'
T= Total number of functional units
Of function't' in the area

Table No. 1
Centrality Scores Of Market Centers Calculated By 'location Quotient Method'and Their Ranks

Sr. No.	Name of the Market Centers	Centrality Score	Rank	Sr. No.	Name of the Market Centers	Centrality Score	Rank	Sr. No.	Name of the Market Centers	Centrality Score	Rank
1	Yavatmal	5641.97	I	21	Bori(Kh)	820.25	III	41	Pardi(Nasari)	233.45	III
2	Pusad	1830.43	II	22	Mukutban	729.29	III	42	Veni	232.10	III
3	Wani	1746.43	II	23	Parwa	574.96	III	43	Jamb Bazjar	232.08	III
4	Digras	1435.71	II	24	Fulsawangi	558.50	III	44	Patan	230.40	III
5	Umarkhed	1298.62	II	25	Ladkhed	550.60	III	45	Garfal	230.20	III
6	Kelapur	1270.47	II	26	Pahapal	483.33	III	46	Sayyatkherda	220.19	III
7	Darwha	1092.66	II	27	Sawana	468.02	III	47	Ningnur Jah	220.18	III
8	Ghatanji	1072.55	II	28	Akola Bajar	465.49	III	48	Bhandegaon	220.16	III
9	Arni	1057.50	II	29	Mulawa	452.27	III	49	Chikhali	220.14	III
10	Ner	1045.88	II	30	Dongarkharda	368.00	III	50	Sawar	220.12	III
11	Kalamb	1040.04	II	31	Shivani	364.55	III	51	Wadki	220.11	III
12	Ralegaon	1033.00	II	32	Kalegaon	363.45	III	52	Tiwasa	220.00	III
13	Maregaon	1020.30	II	33	Rui	351.56	III	53	Dhanaj	219.88	III
14	Mahagaon	1020.20	II	34	Mangladevi	348.72	III	54	Bittargaon	215.12	III
15	Zari-Jamni	1012.10	II	35	Bori Patan	298.60	III	55	Hiwara	210.50	III
16	Babulgaon	1010.02	II	36	Mohada	261.25	III	56	Jodmogha	210.25	III
17	Dhanki	839.29	III	37	Ambola	260.06	III	57	Kumbha	210.20	III
18	Shembalpimpari	835.20	III	38	Isapur	260.05	III	58	Hiwari	210.10	III
19	Kali(Du)	835.10	III	39	Talegaon	250.20	III	59	Dabha	210.00	III
20	Gunj	820.46	III	40	Khairi	250.10	III	60	Vasant nagar	205.50	III

Sr. No.	Name of the Market Centers	Centrality Score	Rank	Sr. No.	Name of the Market Centers	Centrality Score	Rank	Sr. No.	Name of the Market Centers	Centrality Score	Rank
61	Mahagaon(K)	201.19	**III**	**94**	Ramgaon	110.39	**IV**	**127**	Sakara	63.20	**IV**
62	Gahuli	200.20	**III**	**95**	Sonwadhona	109.94	**IV**	**128**	Kinhi(Jawade)	63.10	**IV**
63	Harsul	200.10	**III**	**96**	Sawargaon	109.36	**IV**	**129**	Jalka	63.00	**IV**
64	Kotha	200.05	**III**	**97**	Ghonsa	106.07	**IV**	**130**	Nawargaon	59.64	**IV**
65	Kuri	200.04	**III**	**98**	Kayar	105.73	**IV**	**131**	Harjuna	58.00	**IV**
66	Ghoti	200.00	**III**	**99**	Adgaon	105.00	**IV**	**132**	Jewali	57.64	**IV**
67	Morath Jah	195.46	**IV**	**100**	Pimpari (K)	103.45	**IV**	**133**	Wadgaon	56.63	**IV**
68	Sakara	194.46	**IV**	**101**	Mankini	102.57	**IV**	**134**	Chani	54.94	**IV**
69	Goul(Kh)	190.46	**IV**	**102**	Kinhi Jawade	102.00	**IV**	**135**	Sawargaon	54.30	**IV**
70	Singad	190.00	**IV**	**103**	Mudana	101.19	**IV**	**136**	Pimpalgaon	52.50	**IV**
71	Malkhed(Bk)	180.35	**IV**	**104**	Rani Amravati	100.37	**IV**	**137**	Chikni	50.10	**IV**
72	Karanja Road	174.42	**IV**	**105**	Rohada	100.20	**IV**	**138**	Chahand	50.00	**IV**
73	Wadhona Baj	168.75	**IV**	**106**	Kondhri (I)	100.10	**IV**	**139**	Kothoda	49.70	**IV**
74	Nanza	168.10	**IV**	**107**	Bangaon	100.00	**IV**	**140**	Bulai	49.50	**IV**
75	Malvakhed	163.00	**IV**	**108**	Uttarwadhona	99.93	**IV**	**141**	Chinchagaon	48.55	**IV**
76	Manikwada	162.79	**IV**	**109**	Watfal	98.25	**IV**	**142**	Tadsalvi	47.26	**IV**
77	Mangrul	162.07	**IV**	**110**	Waradh	98.00	**IV**	**143**	Bramhanwada(E)	45.64	**IV**
78	Bhamb	156.17	**IV**	**111**	Pathrad (Gole)	96.56	**IV**	**144**	Wanoja	42.84	**IV**
79	Belura	155.86	**IV**	**112**	Arli	84.88	**IV**	**145**	Parsodi	41.55	**IV**
80	Talni	155.46	**IV**	**113**	Umari Road	81.74	**IV**	**146**	Kharda	41.54	**IV**
81	Yelabara	155.07	**IV**	**114**	Akpuri	79.41	**IV**	**147**	Panchkhed	40.47	**IV**
82	Asegaon	147.27	**IV**	**115**	Shivpuri	76.49	**IV**	**148**	Mangi	40.42	**IV**
83	Kotamb	128.20	**IV**	**116**	Nanand Ijara	76.48	**IV**	**149**	Sawarkhed	37.38	**IV**
84	Satefal	125.58	**IV**	**117**	Hiwara	76.47	**IV**	**150**	Chikhali	37.05	**IV**
85	Fubgaon	125.33	**IV**	**118**	Watkhed(Bk)	76.40	**IV**	**151**	Deghi	34.38	**IV**
86	Kurha	125.32	**IV**	**119**	Bhamboa	73.96	**IV**	**152**	Khairgaon	31.39	**IV**
87	Shirpur	125.30	**IV**	**120**	Ayata	73.95	**IV**	**153**	Wadgaon	30.00	**IV**
88	Lohi	120.49	**IV**	**121**	Pokhari(I)	70.65	**IV**	**154**	Kharad	29.30	**IV**
89	Matharjun	120.47	**IV**	**122**	Shirpur	68.75	**IV**	**155**	Sarol	28.20	**IV**
90	Zadgaon	120.00	**IV**	**123**	Pahur	68.00	**IV**	**156**	Kumbharkini	28.10	**IV**
91	Mozar	119.77	**IV**	**124**	Dhanora	66.67	**IV**	**157**	Mendhala	28.00	**IV**
92	Yawali	118.10	**IV**	**125**	Shirasgaon	65.12	**IV**	**158**	Falegaon	27.90	**IV**
93	Chikani	111.63	**IV**	**126**	Runza	65.11	**IV**	**159**	Dhotra	27.80	**IV**

Sr. No.	Name of the Market Centers	Centrality Score	Rank	Sr. No.	Name of the Market	Centrality Score	Rank	Sr. No.	Name of the Market	Centrality Score	Rank
160	Nandisawangi	27.20	**IV**	**165**	Dahlia	26.10	**IV**	**170**	Khandala	20.10	**IV**
161	Parwa	26.90	**IV**	**166**	Watkhed(Kh)	25.90	**IV**	**171**	Dhamangaon	19.21	**IV**
162	Pimpalkutha	26.80	**IV**	**167**	Umari	25.35	**IV**	**172**	Musal	18.21	**IV**
163	Asola	26.60	**IV**	**168**	Pardi	25.00	**IV**	**173**	Bilayat	18.00	**IV**
164	Tirzada	26.20	**IV**	**169**	Shelu	20.42	**IV**				

Source: - Compiled by Researcher

Discussion

Regional Analysis of Centrality:

Centrality of market centers are divided into four classes on the basis of above data. The analysis represents that above 2000 centrality values there is only one market centre i.e. Yavatmal. It is a regional market centre.

The second order of market centers that have centrality values between 1000 to 2000. In this order there are 15 market centers that account for 8.67 percent of the total market centers of the study region and they are sub regional market centers.

The third order of market centers that have centrality values between 200 to 1000 account for 28.90 percent of total market centers of the study region which includes 50 market centers and these are intermediate market centers

The fourth order of market centers have centrality values below 200 which account for 61.85 percent of market centers of the study region which have low centrality values. These small or local market centers serve most of the rural population of the study region which have got more importance because of their nearness. It is an indication of developing stage of the study region which includes 107 market centers and these are small or local market centers.

I. Regional Market Centre:

Only one market centre in the entire region that has obtained the status of regional market centre is Yavatmal. It seems that the centrality score of it is maximum 5641.97. It is the district headquarter and the biggest town of the study region. At this centre most of the commercial social and administrative district and divisional offices are situated. Moreover, it is historical, Cultural religious and old trade centre.

In the result of all above factors Yavatmal a largest and biggest market centre in the study region. As a result Yavatmal is at the highest peak of hierarchy. It provides services to its lower order market centers and covers the whole order market centers in the study region.

II. Sub-Regional Market Centers:

Here an attempt has been made to present the second centrality order of market centers. The market centers Pusad (1830.43), Wani (1746.43), Digras (1435.71), Umarkhed (1298.62), Kelapur (1270.47), Darwha (1092.66), Ghatanji (1072.55) and Ner (1045.88) are large daily market centers. And some market centers which are notable in this category are Babulgaon, Kalamb, Mahagaon, Arni, Ralegaon, Maregaon, and Zari-Jamni.

The above mentioned market centers are endowed by rich hinterland and they also integrate the services of a number of market centre around them. The centrality of all these market centers ranges between 1000 to 2000. Maximum concentration as well as variety of functions has

characterized these market centers of second order or sub regional. In this order. sub regional market centers are also clearly distinct from both the higher order centers and the next lower order centers in respect to variety of function, goods and services supplied.

III. Intermediary Market centers:

It is the third centrality order of market centers. It is seen that 50 market centers belong to the third order. The centrality score ranges between 200 to 1000. Out of which only 08 market centers are daily market centers.

In this order seven market centers are tahsil headquarters. The high order of market centers are Dhanki, Shembalpimpri, Kali (DU), Gunj, Bori (Kh), Mukutban, Parwa and Fulsawangi etc. These market centers are neither headquarter nor town but they are bigger than villages. These market centers are the main centre places for the adjacent people from the various villages who come to sell their agro based home products, handmade products and other products as well as to purchase goods and services to fulfill their daily needs and for their home consumptions.

IV. Small or Local Market Centers:

In the fourth and last hierarchical class market centre, the centrality score ranges below 200. This class has 107 market centers which have immense local importance. The centers of this group and rural service centers are characterized as small village markets. As they are large in number, there are large variations in their functional character. Most of the market centers are actually over growing villages and market meets once in week. In these markets centers, traders and farmers come to sell their various products and purchase the goods required for a week's period.

Conclusion:

Centrality is the measure of importance of market in terms of its functional capacity to serve the needs of the people in surrounding area. As such the study of the importance of market centers in Yavatmal district, the centrality score has been considered. The methods of Davies have been used to obtain the scores. It clears the high difference between the lower and higher values of the score of centrality. It is observed that the places having high centrality are located in the central and western part of the study region. It is remarkable that the economically prosperous agriculturally developed and infrastructural well endowed areas have more market centers of higher order, whereas economically backward hilly areas have less market centers of lower order because of the inadequate transportation facilities.

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