A CATTLE MARKETING SYSTEM IN AHAMADNAGAR DISTRICT A GEOGRAPHICAL ANALYSIS

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INTRODUCTION

Geography is a science which studies man's activities in relation to natural environments. Now-a-days, the subject of geography deals with the relationship among the spatial variables, and is called a spatial science or an aerial science. The marketing geography is one of the latest and well established branches of economic geography

Cattle marketing are one of the parts of agricultural geography. Firstly, when agricultural development is running at the time, livestock is very import in the period of green revolution. Livestock was getting the major role in farming. Before independence period 80% farming depends upon livestock. In India, now-a-days, livestock is used for various aspects such as milk, eggs, meat and to work for farming

William Applebaum states that, marketing geography is concerned with the channels of distribution through which goods move from producer to consumer where as W.J.Anderson (1960) defined market as "the areas of economic activity which is known as marketing produces mainly form, place and time utilities. In addition, it provides the institutions through which demand and supply establish prices". According to Duddly and Revzan (1953), "Marketing is the economic process by means of which goods and services are exchanged and their values are determined in terms of money prices". According to Agrew conner and Doremus (1950), "The marketing is made up of those business activities that are involved in the movement of goods and services from the point of view of production to the point of view of consumption".

The Study Region:

Ahemadnagar district is lying between 18^0-2' to 19^0-9' north latitudes and 73^0-9' to 75^0-5' East longitudes. It is situated partly in the upper Godavari basin and partly in the Bhima basin. The inter flure in between forming the extensive Ahemadnagar plateau, the district is very irregular but compact in shape and somewhat resembling a slanting cross with a length of 200 km and breadth of 210 km

Ahemadnagar district is bounded on the East/North of Aurangabad district, in the north by Nashik district, East by Georai Beed and Ashti tahasils of Beed district, on the south by the Karmala tahasil of Solapur district and on the south-west by Murbad and Shahapur tahasils of Thane district. It has the total area of 17035 sq.km and a population of 33,72,935 (1991) which constitutes 4.27 percent and 5.54 percent

Location Map of Ahamadnagar District
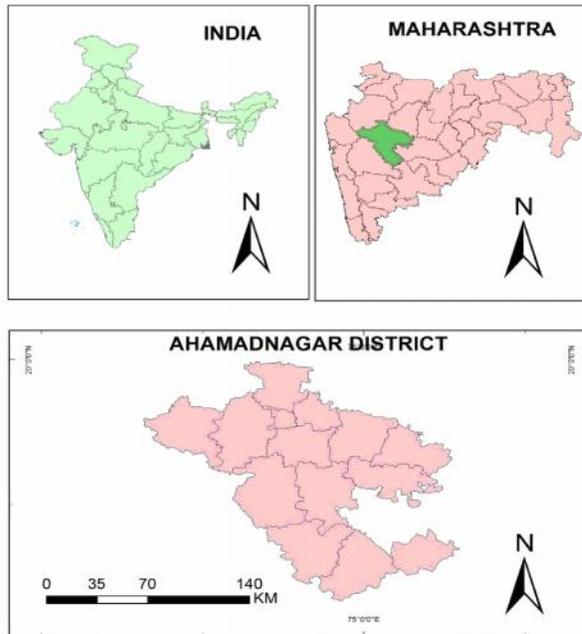
OBJECTIVES: The main objectives of the study is to find out a detailed spatial analysis of cattle marketing system and the impact of its marketing system on the economy of Ahemadnager district of Maharashtra

DATABASE AND METHODOLOGY

The study of cattle market is restricted to Ahemadnagar district of Maharashtra. All the 23 cattle market places in the district were surveyed during the years 1990, 1995, 2000 and 2005 for the relevant data collection. Cattle fair centers of the district were also visited by the researcher in this period for the study. The methodology involved in the study of this research depends upon the response to the relative questionnaires for sellers.

The nearest neighbor (Rn) test is used for the determination of locational pattern. Various cartographic techniques have been used. Simple statistical methods have been also used in this work.

RESULT AND DISCUSSION:

Evolution of cattle markets and the cattle marketing system is closely associated with the progress of civilization in India. The geographical, socio-economic, historical and cultural factors play major role in the evolution of market places. Evolution of cattle market in India, Maharashtra and especially in Ahamednagar district of Northern Maharashtra can be studied on the basis of historical periods to understand the present nature of cattle markets and their system

Markets and Marketing System in Modern Period

The British rule in India ended on 15th August 1947 and India got freedom. There was an urgent need to formulate new economic policy for the country. The Government of India set up the planning commission in March 1950 to prepare a plan for the most effective and balanced utilization of the resources in the country. The local authorities like the local management committee Gram-Panchayat, Panchayat Samiti, Nagar Parishad, Corporation Contonment Board took up the task of conduct and development of markets. Legislation on marketing was first introduced in Bombay, and Madras states followed with several other states in the country under such legislation later.

In Ahemadnagar district of Maqharashtra the demand for cattle is generally net with the weekly / periodic markets and the cattle fairs in the cattle markets the requirements of much cattle slaughter and cart cattle also met through them. According to census of India 2011, there were 23 cattle markets in Ahamadnagar district. Out of them, 20 cattle markets were connected by roads. There was nearly 2891000 population of livestock, out of them

cattle is 1383000, buffaloes are 241000 and sheep and goats are 1251000 remaining are other livestock in the study area. The total number of weekly cattle markets with commodities in the talukas of Ahamadnagar district their linkage with the means of transportation and the day of market is shown in the table given below

Table No 1.1
Number of Weekly Cattle Markets in the District

Sr.No.	Taluka	No of Weekly Market	Day on which cattle market is held
1	Ahamadnagar	03	Friday, Thursday, Sunday
2	Kopargaon	02	Wednesday, Sunday
3	Sangamner	01	Saturday
4	Shrirampur	02	Friday, Thursday
5	Rahuri	01	Friday
6	Newasa	02	Friday, Thursday, Sunday
7	Parner	02	Wednesday, Saturday
8	Karjat	02	Tuesday, Thursday
9	Jamkhed	01	Saturday
10	Sheogaon	03	Sunday, Thursday, Monday
11	Rahata	01	Sunday
12	Shrigonda	01	Sunday
13	Pathardi	01	Friday

Source : Socio Economic abstract of Ahamadnagar district 2012 and personal observation 2014

Functions of Cattle Markets

The Cattle markets have economic, cultural as well as social functions. It has been emphasized that periodic cattle marketing systems have economic and social dimentions.

Economic Functions of Cattle Markets

Cattle markets places in Ahamadnagar district generate cash income to various sections of the people who are involved directly or indirectly in the marketing activity. The amount of cash income can be obtained from each cattle market place and cattle fair. However, the income yielding capacity of each cattle market and cattle fair is variable The vendors or brokers and other people get employment in the cattle markets. Nearly 30% of the active population finds employment in the marketing activities of the district. It is the fact that this is a sort of self employment, nearly source of supplementary earning to a large number of particular vendors.

Socio Cultural Functions of Cattle Markets

Socio cultural factors to affect transactions in the market place. Firstly, the stability of cattle markets is eastablished by economic growth and by proportionate optimum sustained growth of four basis agents of human formation i.e. Man-Earth, Science, technology and cultural movements of sellers or buyers is not simply a desire to profit but it is a social need. As in the case of many catholic countries. Periodic markets meet on Sunday's which allow combining public workshop in the church. It has been observed that in the muslim countries Friday is more favored as a market day as the people attend mosques on Friday and the market place for sale or buy cattle and other items

Cattle Market Places

In all are 25 cattle market places in the district. The following table shows the talukawise names of cattle markets, the day on which market is held and the total number of cattle markets in a taluka.

Table No 1.2
Distribution of Cattle Market Places in Ahamadnagar District

| Sr. No.	Taluka	Name of Cattle Market with day	Total Number of Cattle Markets in a Taluka	Remarks if any
1	Ahamadnagar	Rui Chattisi (Friday) Walki (Thursday) Chichodi Patil (Sunday)	03	Cattle, Sheep & Goats, Cattle
2	Kopargaon	Kopargaon (Wednesday) Punatamba (Sunday)	02	Jurcy cattle,
3	Sangamner	Sangamner (Saturday)	01	Buffaloes
4	Shrirampur	Shrirampur (Friday) Belapur (Thursday)	02	All type of cattle
5	Rahuri	Rahuri (Friday)	01	Jurcy cattle,
6	Newasa	Ghodegaon (Friday) Kukana (Thursday) Newasa (Sunday)	03	All type of cattle
7	Parner	Malvani (Wednesday) Supe (Saturday)	02	All type of cattle
8	Karjat	Mirajgaon (Tuesday) Rashin (Thursday)	02	All type of cattle
9	Jamkhed	Banar (Saturday)	01	All type of cattle
10	Sheogaon	Sheogaon (Sunday) Bodhegaon (Thursday) Balamtakali (Monday)	03	All type of cattle
11	Rahata	Loni (Sunday)	01	All type of cattle
12	Shrigonda	Kashti (Sunday)	01	All type of cattle
13	Pathardi	Madi (Friday)	01	Special Donkey Market
14	Akole	--	-	There are no cattle market & cattle fairs

Source:- Cattle market survey done by research.

All the taluka places excluding Akole taluka have the location of major and minor cattle markets. The largest number of cattle markets are observed in Nevasa taluka followed by Sheogaon and Ahamadnagar talukas, remaining tahsils have one or two cattle markets. It is interesting to note that the cattle market committees and the yearly revenue is 1 crore per year from these markets and the turn over is near about 100 crore per year. The annual cattle fair is held in Madi, Ghodegaon and Walki.

The study of distribution or the spatial pattern of cattle market centers is an important aspect of the geographical study of cattle market places. Earlier geographers have explained the spatial pattern by means of conclusion drawn from dot maps. The nearest neighbor analysis technique has been extensively used by geographers. Mr. Clark and Evans have applied the nearest neighbor analysis to study the pattern of plant communities. In the human geography the settlement, dairy centers factories, shops, the location of crimes in urban areas are some of the examples of points in spatial arrangement.

The value index is normally written as Rn. The value of Rn occurs with the range of 0 (zero) to 2 – 15. The following formula is used for Rn. The descriptive measure is :

$$Rn = 2D \sqrt{\frac{N}{A}}$$
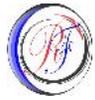
When Rn   =   descriptive statistic of distribution

D   =   the mean distance between nearest neighbours

A   =   Area under study in the same units as D. and

N   =   The humber of points in study area

Rn value is 0 (zero) when all the points are clustered together, at only one location, where as Rn value is 1.0 if all points are randomly distributed, and again Rn value is 2.15 if all points are regularly distributed. Thus we have found out the distribution pattern either clustered or random or uniform.
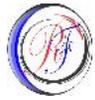
Cattle Market Efficiency

The concept of 'market efficiency' may be considered as a simple statistical device for the evaluation of the efficient marketing capacity. It is based on the excess or deficit percentage of observed sellers over their expected number of sellers at different periodical markets places.

The number of seller has been collected from more than 50% of the cattle market places in the district numbering 23 periodic cattle market places from the plain areas and remaining in plateau areas of the district. These market places have uneven and unequal market efficiency as worked out on the basis of the method suggested above. The Cattle marketing efficiency of 23 cattle market places of the district has been set in table no 3.6 given below.

Table No. 1.3
The Cattle Marketing Efficiency of Ahamadnagar District
Based on the attendance of sellers

Sr. No	Name of the Market	Population in Area	Expected Number of Sellers	Observed Number of Sellers	Percentage of Colury 5 in Terms	Excess Deficit p.c.	Category or Marketing Efficiency
1	Rui Chattisi	800000	- 150	- 200	- 133	+ 33	Overbalance
2	Walki	17000	- 120	- 130	- 110	+ 10	Overbalance
3	Chichodipatil	15500	- 50	- 45	- 95	- 05	Underbalance
4	Kopergaon	91500	- 135	- 140	- 90	+ 05	Balance
5	Punatavesa	27000	- 45	- 50	- 111	+ 11	Overbalance
6	Sangamner	32882	- 40	40	400	Nil	Balance
7	Shrirampur	351718	- 90	95	105	+ 05	Overbalance
8	Belapur	10494	50	50	100	Nil	Balance
9	Rahuri	25153	80	70	88	- 12	Underbalance
10	Ghodegaon	35600	65	75	115	+ 15	Overbalance
11	Kukane	2887	34	40	115	+ 18	Overbalance
12	Newasa	26800	45	50	111	+ 11	Overbalance
13	Malvani	2200	10	05	50	- 50	Underbalance
14	Supe	8684	34	28	82	- 18	Underbalance
15	Mirajgaon	4625	10	05	50	- 50	Underbalance
16	Rashin	3248	14	25	178	+ 78	Overbalance
17	Banar	2887	34	40	118	- 18	Overbalance
18	Shevgaon	25153	80	70	88	- 12	Underbalance
19	Bodhegaon	4865	10	10	100	Nil	Balance
20	Balmtakali	2200	10	05	50	- 50	Underbalance

21	Loni	4367	22	15	68	- 32	Underbalance
22	Kashti	3210	15	10	67	- 33	Underbalance
23	Madi	1440	05	10	200	+ 100	Overbalance

Source:(1)   Personal cattle market survey during 2011-12

(2)   Census of India, District handbook A Nagar

Categories of Market Efficiency

(1)   100% of expected sellers – Ballanced

(2)   More than 100% of expected sellers – Over balanced

(3)   Less than 100% of expected sellers – Under balanced

In the above table, the expected number of sellers at a market place has been matched against the observed number of sellers. The exact correspondence of these two categories of sellers has been designated as the balanced marketing efficiency. The above table of cattle marketing efficiency of Ahamadnagar district based on the attendance of sellers reveals that 43% of the 23 cattle market places of Ahamadnagar district have overbalanced marketing efficiency, near about 40% markets have underbalanced marketing efficiency and remaining 17% cattle market places have balanced marketing efficiency. The over balanced marketing efficiency explores sellers of cattle to fight a battle for buyers due to heavy competition among the sellers.

CONCLUSION

In the study area of Ahamadnagar district, there are 23 periodic cattle markets. The cattle markets in the district are called Bail Bazar. The annual cattle fairs are also significantThe economy of Ahamadnagar district is mainly agrarian and least urbanized. There is a scope for grazing on the plateaus and on the hilly areas of the district. The hot and dry climate conditions are favorable for the health of cattle Some of the crops can be used as the diet for cattle. 'Subabhul' grasses are also useful as the fodder for cattle after studying natural and cultural factors. It can be firmly said that there is a wild scope for the development of cattle marketing system and network in Ahamadnagar district. The cattle markets and cattle fairs in the district have economic functions. They pay cash income to the management body of the market. The socio-cultural factors are also important for the transactions of the cattle market places. The Government has announced various schemes for the development of cattle and marketing activities. The participants must take advantage of these schemes

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