CHAPTER -FIVE

TRANSFORMATION OF ALLAHABAD FRINGE IN THE LIGHT OF MARKETING
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INTRODUCTION

The advancement in the landscape of an area is materialized by effective specialization from a self contained subsistence economy. The city is a paint of specialized activities carrying out tasks which are best performed either at central, accessible places or where a large concentration of population is economically necessary. Thus, there exists coordinating activities, long distance transport so as to carry out urban function. Harris and Ullman\(^1\) have mentioned characteristically urban functions as follows-

1. Central place function, or general services, which are carried out for a more or less extensive but contiguous area;

2. Transport functions, which are carried out at break bulk-point along the major lines of communications;

3. Special function, which are carried out for non-local, non-contiguous areas. These could include extractive and manufacturing industries with world wide markets, or minor industries having smaller distributive area than the general service area.

The essence of urban character is service for a tributary area. Thus central place functions have been highly developed and have specialised field. Christaller\(^2\) established the importance of a town, which could be measured by its population size and centrality. But it requires some other measures which are not directly related to the town’s activities. These are resource-orientated functions, that provide an opportunities to the surrounding areas such as the rural urban fringes to participate in the development of urban system. This
involves a separation which is artificial but necessary, and most enlightenment will be derived from a separate study of resource oriented function and other activities whose locations central place theory cannot explain and the subsequent superimposition of such functions and activities on to the areal pattern of central places. A town owes its growth to such specialised resource-orientated functions. The nature and degree of specialisation reveal three aspect of urbanism.

(1) The urban role in regional economy,

(2) The particular aspects of urban society which correlate with types of specialism,

(3) The relation between patterns of function and location.

All these three aspects of urbanism are related to the transformation of the rural urban fringe with mixed landscape of urban and rural element. The real spirit of these activities lies in the service centres developed in the contiguous area of the city and the procedure for their investigation needs extensive field study. ‘In the earth science, as in the astronomical ones, the most notable advances are invariably associated with the construction of a theoretical model which, in a particularly symmetrical and harmonious manner, seems to embrace a large section of observed reality’. Such model building characterizes central place theory. The construction of models, Chorley says, ‘often results from a backlog of accumulated information, although every such accumulation does not inevitably lead to such a construction and attempts are made then to digest the material by means of classification, rather than by integrated models’. Further ‘scientifically, classification is of the utmost importance because of the empirically established fact that it is possible to set up certain classes in such a way that mere membership in the class renders highly probable possession of attributes other than those
needed to define the class'.

The function carried not in fringe areas correspond to the local and regional spatial organizations. Robert Smith puts forward two spatial characteristics that can be associated with town functions:

(1) There should be distributional characteristics of town in similar functional classes that are peculiar to those classes.

(2) Different functional classes ought to be associated with different types of hinterlands.

Although, Smith discusses about classification of town but at the same time he keeps the marketing centre in the hinterland which are associated with fringe areas economy. Central Place function, thus become the focus to analyse the service centres localised in the neighboring areas. The explanation of the locational and temporal situation of central places, their relation with society and administration and their future advancement needs the theoretical and empirical approaches of central place to be addressed. The service centres precede the human settlements. The service centres cater the need of population. The service centres, therefore, seem to be functional effort of human beings.

These service-centres present an account of level of the local economy in reference to the tertiary sectors. These factors, nesting together, make the study of Christaller’s ‘Central Theory’ relevant. He divided his books into three parts-

(i) **Theoretical Part**, was devoted to the setting up of the theory,

(ii) **Connecting Part**, was concerned with practical methods whereby the theory could be tested in the real world,

(iii) **Regional Part**, considered the southern Germany, and the methods devised in the second part were applied to
substantiate the theory.

**Central Place Theory**

Christaller aimed to establish a deductive theory which reveal the ordering principle in the distribution of towns. He justifiably set his idea alongside those of Von Thunen in relation to agricultural production\textsuperscript{10} and Weber in relation to industrial location.\textsuperscript{11} Christaller sought to elaborate a deductive theory which more and more occupies the soul of science. ‘The more advanced a theory is, the more its exposition assumes deductive form........ an advanced science is an immense system of interconnected facts, news discoveries are fitted into the system even if at times the system must be modified to accommodate them’.\textsuperscript{12}

Christaller assumed, towns act as central places for the countryside, that they come into being to carry out a central accessible place the tasks which the life of the countryside creates. Christaller acknowledged that this basic assumption is derived from previous scholars; as early as 1916 Gradman had contended that the distinctive role of a town was ‘to be the centre of its rural surroundings and mediator of local commerce with the outside world’,\textsuperscript{13} collecting and exporting the local products, and distributing the necessary goods and services which countryside demands. The importance of this role can not be measured by the population of a town for it measures ‘importance’ but not ‘centrality’. Indeed it includes, in an indivisible total, the population due to the special functions. Centrality, the degree to which a town serves its surrounding area, can only be measured in terms of the goods and services offered. There are variations in quantity and quality, costs and needs in terms of frequency and population. This is the base of concept of threshold population and range of a good or service.
**Threshold Population**

This term is not used by Chritaller but it is implied in his construct. The threshold is defined as the minimum population that is required to bring about the offering of a certain goods for sale or to sustain any service, in economic terms this means the minimum demand to make such an offering viable. Assuming uniformity of income, consumption and taste it can be measured in terms of population. In a concrete way this concept is easily demonstrated by the minimum varying population required to maintain successively a district nurse, a doctor, a specialist doctor such as paediatrician, a general hospital and a specialised eye hospital. To evaluate these minima is much more difficult.

**Range of a Good or service**

This is the maximum distance that people long to travel to purchase a goods or derive a service offered by a central place. At some range from the centre, the incompetence of travel measured in time, cost and trouble may outweigh the value or need of the goods, or an alternative nearer centre becomes available. Again this can be visualised in terms of the length of journey. A person would like to buy bread in his vicinity and hence these will be very frequent trips, as against a journey to buy a fur coat, where in relation to value of the article and infrequency of demand, a much longer trip would be tolerated.
It is possible from the above to isolate two limits in relation to each goods or service; one can be called a lower and the other an upper limit (Fig. 5.1). The lower limit is determined by the minim demand necessary to ensure a commodity or service is offered that is, the threshold; the upper limit is that beyond which a goods will no longer be obtained from a centre, the range.

Christaller put forward the formula to measure the centrality based on the number of telephones conductivity in the city. The service per person is higher in the city having high degree of centrality than that having low degree of centrality. He applied the statistical technique as follows:

\[ Z_z = T_z - E_z \frac{T_g}{E_g} \]

where,

- \( Z_z \) = Centrality of the city,
- \( T_z \) = Number of service (Telephones) in the city,
- \( E_z \) = The population of the city,
- \( T_g \) = Number of service (Telephone) in the complementary area,
- \( E_g \) = The population of the complementary area.

The complementary area is also a derivative concept. This is the area for which the central place is the focal point. The size of the complementary area and the importance of a central place are directly related to each other. The complementary area would be larger for bigger and more important central place while smaller for less important ones.

If these principles are now applied as control to the development, there have been certain assumptions as proposed by Christaller:

1. There should be an isotropic surface, that is, a flat uniform
plain of equal population density and with no variation in wealth or income,

(2) The central commodity, should, compulsorily, be purchased from the nearest central-place,

(3) The plain should certainly, be served by any of the central place,

(4) The movability of the consumers should be limited.

Christaller derived a model of town distribution on the basis of above proposition. Christaller designated the various ranks of settlement by the initial letter of the different orders of settlements as they could be in southern Germany. To continue the arguments a settlement given the rank 'R' is postulated. This serves the surrounding area and if one of the goods which it offers, number N, can be given the upper limit, or range of 'N' kilometers, and if the lower limit or threshold is such that it can only be offered at R, then it will be supplied over an area of 'N' Kilometers radius about R. Now if the next central good, number (N-1), has a range of (N-1) kilometers, then there will emerge a rings one kilometer wide which can't be served from R. Further centres, therefore, are presupposed and if the lower limit, or threshold, is sufficient elastic, then these must be of the same B order. But they must be equidistant from R in terms of all the presupposed conditions and if the most closely packed equidistant distribution of settlement points is adopted, there will be six of these on a ring about R (Fig. 5.2).

Christaller gives the distance between these centres as 36 kilometers. For still to lower order goods, the next locations would be those at the centres of equilateral triangles joining the R centre at there points K centre will emerge. Now the goods with lower order and lower ranges can not be offered effectively at R and K centres but these will be order which can not be offered, for the unserved one
Spatial Distribution & Hierarchy of Central Places (Hypothetical) : Allahabad District

Hierarchical order

<table>
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</tr>
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<td>II 4</td>
</tr>
<tr>
<td>III 26</td>
</tr>
<tr>
<td>IV 62</td>
</tr>
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<td>V 185</td>
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Fig. 5.2 : Spatial Distribution & Hierarchy of Central Places (Hypothetical) : Allahabad District
kilometers ring will emerge; a further series for lower order service centres has to be introduced. In this way, a whole hierarchy of central places emerges with towns of equal rank equidistant from each other. Christaller called the area which a town served the 'complementary region' with circular shape. However, to avoid overlap, and to match the densest distribution of settlement point, the circular regions were transformed into hexagons. If there are further goods for which the threshold population required is greater than that provided by the 'R' system, then one place alone from that system may be sufficient and it accordingly will acquire higher value as a central place and is given the designation of a 'G' centre. It will have range of 36 kilometers and it is at a value three times the next lower range limit that transition from one rank of central place is able to offer all the goods of lower order centres and, in addition, a distinctive range of goods related to the increased size of its hinterland. On this basis a distinctive series of ranks emerges this is referred to as urban hierarchy.

Christaller has demonstrated that there is strict ordering whereby each settlement serves its own hinterland and an area or population equivalent to the hinterlands of two other settlement in addition, hence it has been called 'the rule of three' or, using the constant 'K' to express this, then K=3.

But still retaining hexagonal structure of basic settlement Christaller realized that two other situation were possible as where K=4 and K=7.

In order to resolve the problem Chritaller associated a controlling principle with each of the three arrangements.

Three controlling principles, identified by Christaller, corresponding to the three smallest system are K=3, K=4 and K=7. (after Harold Carter 1974).
1. **The Marketing Principle**: *K=3*. Under this principle, lower order centres are located at vertices of the hexagonal complementary area of the next higher order centre. Thus, the areas farthest away from a higher order central place are served by a lower order central place, thus compensating for the disadvantages of their location. This factor contributes to the greater accessibility of the system of central places to the general population. In the marketing principle the ratio of central place from hierarchies of higher to the lower order are 1:2:6:18:54 while the ratio of their complementary regions are 1:3:9:27:81.

2. **The Transportation Principle**: *K=4*. This principle evolves the minimization of the length of roads connecting central place at all hierarchical levels. In this system, the lower order centres are all located along the road connecting the higher order centres. This alignment of places along a road leads to minimization of road lengths. There are four centres of immediate lower order for each higher order centre.

3. **The Administrative Principle**: *K=7*. It emphasized the notion that the complementary areas of lower order centres should lie entirely within the units of complementary area of the next higher order centre. Such a principle is inherent in any administrative territorial system. In India, all outer tahsil boundaries coincide with the district boundary; likewise, all district boundaries are enclosed by the state boundary. This principle represents the ratios of orders of hierarchies in central places as 1:6:242:294 and ratio of their complementary regions are 1:7:49:343.

    The transport and administrative principle are consequence of his modification later.

**Modification and Extension in Christaller’s Central Place Theory**

After the publication of Christaller’s central places theory,
reactions were generated in geographers. Some applauded it and accepted as it is, while few accepted the same only after certain modification to suit the aim, and remove its shortcomings. Losch and Garrison can be short named those attracted focus of the scholars of settlement system and who modified Christaller’s Central Place Theory.

‘Economics of Location’ a book authored by August Losch was published in 1939 for the first time. Losch was basically concerned with the problem of the location of economic activity and emergence of economic regions. The focus of Losch was, therefore, like Christaller’s on economic factors as against what he termed the ‘natural’ or ‘political’, raw materials were to be equally dispersed over a flat plain characterised by a pattern of self sufficient farms equally spaced in the densest possible manner. Spatial differences would emerge from this postulated initial situation owing to the forces of concentration brought into play by the possibility of specialization and of the operation of economies of scale, although there would be limiting forces in the form of transport costs and the benefits of diversified production.

Losch outlined the situation of one of the farmers who setout to produce beer, a secondary productive activity, it should be noted, and not a tertiary service. The size of his market can be determined from the relations implicit in the normal individual demand curve.

Losch’s derivation of the market area and demand cone from the demand curve for ‘To conclude, therefore, it must be admitted that whilst the functional array of services does fall into distinct groupings in all cases, it is only when a fixed ’K’ is assumed that a strict hierarchy in the Christaller sense is obtained’.

‘Rank Size Rule for Cities’ put forward by G.W. Ziff is also an attempt to introduce another interpretation of city size, the idea of

(173)
which was originally put forward by Felix Auerbach\textsuperscript{20} in 1913 but was developed and popularized by Ziff. But rank-size rule seems to contrast with the conclusions of Christaller and Losch in nearly every aspect.

Berry and Garrison\textsuperscript{21} proved that the structural pattern of central places may be in consonance with the pattern as propounded by Christaller, also in lack of ideal condition.

Skinner\textsuperscript{22} studied marketing and social structure in rural china; and determined marketing and administrative centres on the basis of economic activities with the modifications over administrative activities as envisaged by Christaller and Losch.

John Marshall\textsuperscript{23} has also presented the clearest exposition of the implications of a Christaller types hierarchy where he argued that the diagnostic criteria of hierarchical structuring are as follows:

1. Spatial interdependence of the centres.
2. Functional wholeness of the system.
3. Discrete stratification of centres.
4. Interstitial placement of orders.
5. Incremental baskets of goods.
6. A minimum of three order.
7. A numerical pyramid in order membership.

**Modification of Central Place Theory by Srivastava in Reference to Periodicity**

‘Periodic central place are located in developing and underdeveloped regions’.\textsuperscript{24}

The regions, with less accessibility and economically weaker population with limited needs, have periodic market for few daily marketing centres. These daily market centres are far from reach of
general population. Most of the periodic markets are realities of agrarian countries. Indian sub-conditions have seven days of week but the concept of number of days in different countries are distinct. In some regions of china, for example, a week consist of four days\textsuperscript{25} while Africa practice eights days and fifteen days a week system\textsuperscript{26}. The periodic market system are not included in central place theory.

In order to overcome the above problem, Srivastava used 'SODA method' in his study of marketing centres in Tarai area. In 'SODA method, the concept of Market opening days and shop openingness are applied. For a daily market, the shop opening days are seven. The number of shop opening days is multiplied by the number of shops to get ‘shop-openingness’.

Thus the duality between daily shop and periodic shop gets vanished and hierarchical status of central place activities can be calculated. This principle, therefore, has more applicability on the fringe regions where the nucleus of the development lies.

**The Concept of General Interaction**

The Theory of general interaction is basically a dynamic concept in contrast to the locational behaviour as envisaged by other theory of the central places.\textsuperscript{27} The region performing secondary, tertiary or business activities are influenced by the pull powers of central places. The intensity of this pull power decides the expansion or contraction of regions associated with central function. The business circles of two central places are consequence of interaction of their pull powers. The theory of general interaction has been propounded to establish the theoretical base of aforesaid concept.

This theory of general interaction is coherent with Newton’s Law of power of attraction and it is seen in wide perspective as migration of population, trips to the central places, classified flow of transport and dynamism for purchasing. This principle, therefore,
analyses behavior of the development of markets, and their transformation in terms of land use patterns.

This principal was, for the first time, applied by Reilly as ‘The Law of Retail Gravitation’ to analyse the interaction among major cities.

Converse rearranged this model and determined the overlapping zone. There overlapping zone model has limitation to explain market influence region upto remarkable extent. Huff, to overcome these limitation, produced a new model which arranges the problem centres among competitive ones to be visited by consumer in a preferential order.

These central places’ theories deal magnificently with main city Allahabad but their limitations become evident when it comes to apply in the fringe areas with specialised functions, small marketing structure and micro spatial organization. The activities of fringe market are varied in nature. These activities, therefore, can be studied in the light of accessibility of the fringe area. 

**Central Location**

These locations are found at the most accessible areas as the goods of daily requirement are purchased from these centres, by the consumes.

**Arterial Location**

The fringe areas are prominently developed along the roads or other approaching way to the main centres. The activities of marketing being carrying out along these extensions of service centres, meet the need of commuting persons. These arterial locations, thus, are developed along roads sides.
Specialised Locations

These locations are developed on the basis of speciality of the certain goods. These service centres cater the needs of a particular class of consumers. The nature of items served by these centres vary significantly. The accessibility of the area very much, depend on the nature and characteristics of consumer and the items being served (Fig. 5.3).

![Diagram](image)

Fig 5.3 : Goods or Services from the Point of the Origin (Production Centre) to Consumers

These three types of locations can be explained with the help of grocery shops, petrol pumps and restaurants etc. The activities of the central place in the fringe areas are classified based on these criteria.

The concept of locational factor and classification of activities of central places in the fringe areas can be explained with the help of 'Rent Theory' proposed by Alonso. According to rent theory, Alonso says the rate of rent is highest at the centre of business area. This theory, therefore, can explain the location of different types of marketing activities in the fringe area of Allahabad.

In the fringe areas, the marketing centres are scattered and have their distinct identity but when superimposed with the sphere of influence of the city they present a picture that can be studied in the light of their contribution to the development of fringe areas of Allahabad.
The transformation of Allahabad Fringe Area has been considerably influence by the marketing in which the processes of physical movement, storage and ownership of goods (anything that satisfies a want e.g. consumer good, service, capital goods etc.) involved in the transfers of those goods from producer to consumer. As these processes operate the goods change their locations. The scope of marketing geography in Allahabad fringe areas relates to the separation of consumption and production which is the reason for marketing, essentially a spatial concept concerned with the problem of overcoming this separations i.e. with marketing a product efficiently. Marketing is a complex, composite and open system, the basic product of movement of which are summarised in (Fig. 5.2). Goods are transported from the production point, to be assembled, sorted, reassembled, distributed and displayed by one or several middlemen, eg. whole sales, bookers, agents, retailers, before the goods is finally consumed. Geographers have contributed to the theory of marketing system presented as follows:

(a) Extending marketing theories to include the spatial dimension, and (b) Demonstrating how geographical theories may be of value to the market researcher.

The spatial process in the marketing system involve the study of following elements:

(i) Consumer behaviour,
(ii) Retail, and to a lesser extent wholesale, location decision,
(iii) The effectiveness of transport in the market system, as well as,
(iv) market research in terms of information flow.33

Present study is only concerned with the marking system of retail and wholesale location decisions, the effectiveness of transport
and market research in terms of information flow as it reflects the processes involved in the transformation of Allahabad Fringe Area.

**Origin and Development of Marketing Centre in Allahabad**

Origin of marketing centres comes to fore due to sequential development of economy as a system. Berry\(^3⁴\) states that marketing centres originate due to mutual exchange system crossing the family unit or the nearest social class boundaries. This system of distribution is progressive towards consumers which gives rise to commercial system of periodic markets and originates the fairs along commercial paths.

Firstly, the exchange of goods starts among the complementary production areas. For example, the people of plain areas and hill areas start commercial activities between them by exchanging their specialized goods. Thus the marketing centre develop at the confluence of their region for convenience of exchange. The consumers and sellers meet at a certain interval of time period originating the phenomenon of marketing. Hodder has also supported this theory of origin and development of marketing centres.\(^3⁵\)

The periodic markets evolve in order to meet the requirements of local society in the less developed countries or developing countries as most of the population is engaged in agricultural activities of primary sector and more or less they depend on periodic markets to fetch their daily needs of what they do not produce. It is necessary to go into the origin and the development of marketing centres in Allahabad Fringe Area before dealing with characteristics of marketing centers.

The origin of marketing centres in Allahabad fringe can be divide into three categories in historical perspective.
(1) Early and very ancient period,

(2) Twentieth Century Time Period,

(3) Present era.

(1) **Early and Ancient Period**

Allahabad has been one of the oldest city in India to attract religious tourists as it has been mentioned in many of the holy epics and Vedas with the name 'Prayag'. Evidently, the process of marketing had been developed very early. Jhusi is an example one of the oldest marketing centre. Nani and Phaphamau are other centres those have been old marketing centres in Allahabad fringe. These regions have been linked with Allahabad city by roads and railway bridges. Probably these centres used to meet the needs of religions tourists around them before the construction of bridges. These centres, therefore, can be said to be very ancient. Jhusi is considered to be emerged as marketing centre before 6000 B.C. It was a periodic market at that time. Its situation on the bank of the Ganga kept it on the path of development by catering the needs of tourists wishing to have the holy dip into the Ganga. After the construction of railway bridge in 1900 its importance enhanced. Now it is a city region and also daily co-periodic market.

Naini, lying at the Allahabad fringe boundary can be included in the category of one the very old market. Naini, situated in the east of confluence of the Ganga and Yamuna, used to provide shelter to the religious tourists who stayed there before visiting the holy sites in Allahabad in the absence of any bridge these upon and were dependent on boats to cross the river. In 1895 A.D., with the construction of bridge its importance increased significantly as a marketing centre and it contributed to the emergence of fringe around it.
In the similar fashion, Phaphamau was also a prominent place where religions tourists used to stay as it was lying in the north of holy Ganga river. The marketing centre flourished in Phaphamau before the construction of bridge over the Ganga river to connect it. Tourist provided the stimulus to the development of Phaphamau as the marketing centre. The construction of bridge (1905 A.D.) enhanced the accessibility of the region and Phaphamau emerged as an important marketing centre. It lies at the inner boundary of Allahabad fringe.

(2) Twentieth Century Period

In the beginning of twentieth century a significant marketing centre named Sahson, came into prominence which is not the part of present study as there is completely absence of fringe phenomena in between Jhusi and Sahson link road and it will take a decade or more to be part of the fringe but it gave a thrust to the development of fringe along its link road. Sahson is said to be originated as a marketing centre in 1900 A.D.

In the post independence era, the region witnessed a rapid growth of population and a number of measures were adopted to increased the agriculture production and for better connectivity of the region by construction of roads etc. All these development in the region, made a number of marketing centres to be established rapidly and thus converting the land-use pattern in their vicinity. In 1960s, the number of marketing centres grew many fold as is evident from the map. The most important examples of this period are Katahula Gauspur, Akbarpur, Marham Uparhar, Maharudih, Lakhanipur, Bhagipur etc. It is, therefore, very much clear point that the marketing centres has been contributed to the development of the fringe areas which have been delimited in the first chapter.
(3) Present Era

The decade of 1960s had witnessed phenomenal growth of marketing centres which were bi-weekly and were mainly situated along either national highways or state highways but the main feature of present era i.e. after 1970, is that marketing centres established in this period were almost weekly and these were situated between the already existing marketing centres and at the circumference of their served areas as to facilitate the unserved areas. Sewaith, Jagdishpur, Rangpur, Berui, Chandarpur, Sarangapur and Shaha marketing centre can be the best cited. There are the marketing centres that contributed a lot to the transformation of Allahabad fringe by offering the opportunities to the local inverters in real property to advance the stream of development and conversion of land-use pattern in the fringe areas.

Major Factors in the Evolution of Marketing Centres in Allahabad Fringe

The evaluations of origin and development of marketing centres of Allahabad fringe in historical perspective reveals many prominent factors that lead to their evolution and development keeping the fringe landscape dynamic and progressive. These can be summed as follows:

1. Historical Factors

The influence of Prayag is well in the religious affair of the world. The situation of Allahabad city at the confluence of the Ganga and Yamuna have put the region at the sides of these rivers at very advantageous position to enrich the local economy by serving the religious tourists by periodic markets before the construction of bridges and after the bridges were once constructed these regions gained quick accessibility to the city to be developed as important marketing centres to serve the population in their vicinity by being
transformed in daily marketing centres. The semi-urban culture and life-style in these areas became a reality which is a significant aspect of urban fringe. Naini, Jhusi and Phaphamau are worth mention ad they are major product of historical factor which shaped these as marketing centres and in turn contributed in the development of the fringe.

2. Transportational Factors

The development of transportational network was leading cause to originate the periodic markets along them. Although the early period of the development of periodic marketing centres were located along roadsides but these roads were hardy of any importance to the local consumers as they used to march the distance on foot but the people who started these periodic marketing centres were of ruling class and they used to visit the markets by horse cart or any other means of transportation available at that time. Twentieth century, particularly post independence period, witnessed great reform in the ways and means of transportation and the capability of mass to use these facilities. The marketing centres, therefore, progressed satisfactorily. Present era radicalised these transportation facilities in terms of roads and vehicles used at mass level. A number of schemes as Pradhan Mantri Gram Sadak Yojana etc. to connect rural areas created the phenomenal change in marketing centres with enhanced accessibility to the centres. Daily marked shops are expanding along these roads. The construction of bridges over the Ganga and the Yamuna were primary stimulus to marketing centre to acquire more importance. The city expanded along these road and crossed the rivers for further growth of the fringe.

3. Economic Factors

The region around Allahabad city has not witnessed much
industrialization. Allahabad fringe, therefore, is a region with most of the population residing in villages, more than 80 percent where about 70 percent of the population is engaged in agriculture. Per capita income of the region is low making low purchasing power. Subsistence agriculture is a prominent feature which gave rise to periodic marketing centres. At present, the establishment of many of the institutions e.g. school and colleges, and factories have generated new opportunities of employment to skilled and non-skilled local population. Allahabad, being mainly the educational centre have provided opportunities of high quality of education but the enhanced accessibility have its own impact an population for education. A number of private institutions of education provide better facilities for population of fringe area, particularly for the girls whose families were shy to let them commute a large distance for education. Thus the development of marketing centres have their great impact in the all round development of the region.

The marketing centre developed due to one or other reasons have transformed themselves immensely. Originally these centers were weekly or bi-weekly but now they are daily marketing center and have contributed to the wealth of fringe area and at present serving a large range of durable and non-durable commodities. It can be said safely that the marketing center have changed life style of rural population and thus transformed the landscape of rural-urban fringe.

Table (5:1)

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<th>Periodicity</th>
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<td>Daily + Bi-Weekly</td>
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<td>2.</td>
<td>Sahson</td>
<td>1900</td>
<td>Daily + Bi-Weekly</td>
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(184)
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</tr>
<tr>
<td>11.</td>
<td>Lakhnipur</td>
<td>1960</td>
<td>Bi-weekly</td>
</tr>
<tr>
<td>12.</td>
<td>Rampur</td>
<td>1965</td>
<td>Weakly</td>
</tr>
<tr>
<td>15.</td>
<td>Jagdishpur</td>
<td>1970</td>
<td>Weakly</td>
</tr>
<tr>
<td>16.</td>
<td>Sewaith</td>
<td>1970</td>
<td>Weakly</td>
</tr>
<tr>
<td>17.</td>
<td>Chandarpur</td>
<td>1970</td>
<td>Weakly</td>
</tr>
<tr>
<td>18.</td>
<td>Dabhano</td>
<td>1970</td>
<td>Weakly</td>
</tr>
<tr>
<td>19.</td>
<td>Shaha</td>
<td>1970</td>
<td>Weakly</td>
</tr>
<tr>
<td>20.</td>
<td>Sarangapur</td>
<td>1970</td>
<td>Weakly</td>
</tr>
<tr>
<td>22.</td>
<td>Rangpura</td>
<td>1972</td>
<td>Weakly</td>
</tr>
<tr>
<td>23.</td>
<td>Bongi</td>
<td>1981</td>
<td>Weakly</td>
</tr>
</tbody>
</table>

**SPATIAL DISTRIBUTION OF MARKETING CENTRES**

The distribution of marketing centres in Allahabad fringe has been pretty uneven. This uneven owes to the influence of Allahabad city and location of different religious places in its envirn. The distribution of marketing centers in north of Allahabad urban agglomeration has been dense and it includes centers of Rangpur, Phaphamaud, Marhum Uprhar, Mahrudih, Lakhnipur, Gohari, Sarai Lalkhatun, Tikri Taluka Parita. In the east old established periodic markets i.e. Purshotampur. Berui, Chandarpur and have been excluded in the present study as they can be future fringe but
presently they are completely detached and do not have continuously built-up area when observed physically. The old established periodic marketing centers in the east are only Jhunsi and Bhagipur. In the west of Allahabad urban agglomeration Dabhan, Sarangpur and Bongi are old established periodic marketing centers. In the west Shaha, Katakula Gauspur, Bamrauli Uparhar and Akberpur are these as old established marketing centers. Thus it is evident that the marketing centers in the East, West and West are spicily distributed which in the north it is densely distributed.

Factors Affecting the Distribution of Marketing Centres

The distribution of marketing centers have been affected by a member of factors affecting the pace of development in the fringe area of Allahabad district. Main attributes can be listed as follows.

(1) Population

The population of fringe area of Allahabad was 98525 lakes in 1971 which increased to 167494 in 1981, 261291 in 1991 became 394942 in 2001. These figures show continuous increase in population and population is dense in northern part of the fringe area while it is sparse in southern part. This is the one of reason for more accumulation of marketing centers in the northern part of the fringe area of Allahabad.

The spatial differences in the density of population is evident and is revealing the fact of more marketing centers in densely populated area. The threshold population to survive a marketing is directly related to the density of population and the member of marketing centers. This relationship, therefore, is being manifested in the study.

(2) Accessibility

Accessibility, a variable quality of a location, expression of the
ease with which a location may be reached from other locations summarizing the relative opportunities for contact and interaction, which plays decisive role for a marketing centre to be established and developed. In the study area journey has been taken as determinant of accessibility. Particular accessibility has been calculated from Allahabad city bus station in all the direction. Marketing center provide the services to the population through arterial accessibility in the fringe area of Allahabad. It has been observed that the rate of travel (speed) increases when the vehicles leave the city and progresses towards the fringe area. The isochromes in the fringe area reflect the fact of difficulty to reach the core of the city. The isotachic map reveals the speed with which different regions of the fringe area and Allahabad city run. One of the fact observed, is the entry to city is time consuming and difficult even by anybody’s own convenience which makes the population dependent upon the marketing centers of fringe area at first preference. This tendency of relying on marketing centers of fringe area is also guided by the low purchasing power of the people. All these factors with their cumulative effects make the marketing centers developed in the fringe area of Allahabad (Fig. 5.4).

![Accessibility Diagram](image-url)
Table 5.2

Allahabad Fringe Area: Accessibility

<table>
<thead>
<tr>
<th>Distance from Bus Station in (km.)</th>
<th>Speed of Buses (km/hr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-5</td>
<td>32</td>
</tr>
<tr>
<td>5-10</td>
<td>48</td>
</tr>
<tr>
<td>more than 10</td>
<td>55</td>
</tr>
</tbody>
</table>

DISTRIBUTIONAL PATTERN OF MARKETING CENTERES IN ALLAHABAD FRINGE

The spatial distribution of marketing centers has been discussed earlier in the light of factors causing to the emergence of spatial variation in the distribution of population in different zone of the fringe area of Allahabad. The pattern of their distribution can be analyzed in the light of well established technique of an analysis of distribution i.e. nearest neighbour analysis. In the densely populated area the distance between two periodic markets is less than those are located in comparative low dense area.

Most of the markets in different segments of Allahabad Fringe Area were originated along the road side i.e. national highways or state highways to render the services to local population. The population of far lying areas from Allahabad city could not visit the main service centre due to early mode of transportation acclivities available. Therefore, they used to purchase necessary items of daily uses from the periodic markets. These periodic markets changed into daily markets in course of development. With increasing population and rapid pace of urbanization. Township developed in areas of location of these markets and further some of them became part of continuous built up area of the city. This happened very fast after the construction of bridge over the Ganga to connect Jhusi in the east and Phaphamau in the north. The construction of bridge over Yamuna in the south connected Naini with main city. All these connectivity is
Fig. 5.5: Distribution of Marketing Centres in Allahabad Fringe Area

in Allahabad Fringe Area
about Road Bridge. Prior to the construction of Road Bridge, people depended only on boats to cross the Ganga and the Yamuna to reach the main city (Fig. 5.5).

Main market in the north was Phaphamau around which a number of periodic markets originated after 1960s due to increasing population and increasing demand for urban based consumer goods and services. Soraon block mainly includes periodic markets of Rengpur (originated in 1972), Jagdishpur (1970) Gohari (1960) and Lakhanipur which are now daily markets and part of Allahabad Fringe Area. Densely populated area in this segment of the fringe, made to originate many periodic markets to meet the urban based needs of population. Rangpura was basically a bi-weekly market opening at Sunday and Thursday. Opening days for Jagdishpur was Monday and Friday. Gohari, a bi-weekly market, has Wednesday and Sunday as opening days. Lakhanipur, was also a bi-weekly market and opened on Monday and Friday.

Main marketing centres of the fringe lying in Kaurihar block are Mahrudih and Morhum Upahar. These were also bi-weekly markets. Mahrudih opened for Manday and Friday while Morhum Upahar opened for Thursday and Saturday.

In the east part of the fringe lying in Bahadurpur block, Jhusi was the main marketing centre. It was a daily market in addition to Monday and Thursday being special marketing days. Bhagipur is the other marketing centre in the east which opened for Sunday and Thursday. Low population density in this area reveals the sparse distribution of marketing centre.

In the south, Naini was the main marketing centre. Dabhan Sarangpur were other weekly markets. Dabhan opened for Monday while Sarangpur opened for Monday. All these marketing centers lie in Chaka block. The distribution of marketing centers in the south is
also scattered due to low population density.

In the west, Bamrauli was the main marketing centre. Shaha, Katahula Gauspur, Bamrauli Uparhar and Akbarpur were other periodic markets. Shaha was the weekly market opening on Sunday. Katahula Ganspur opened for Wednesday and Sunday. Bamrauli Uparhar opened for Tuesday and Saturday. Akbarpur was a bi-weekly market opening on Monday and Thursday. Distribution of marketing centers in this segment of the fringe is comparatively dense.

The opening days for markets in any segment of the fringe are arranged in such an order that they do not clash in respect of opening days and at least one of the marketing centers has opening day in the area. Thus, any particular area has got one the markets opened each or alternate day during a week.

These marketing centres have severed as the main centre of diffusion of innovations. Mass in the countryside got acquainted with urban based consumer goods and facilities and thus marketing centers started attracting the population to be in the vicinity of the city. It created a chain of retail shops, repairing centers and residential areas to be developed along road sides. Consequently, the city expanded into countryside to evolve rural urban fringe.

Thus marketing centers in the fringe have contributed significantly in its growth and development.

10 Von Thuess, J.H. (1826) : De Isolierte Staat auf Landwirschaft und Nationalo konomi (Hamburg).
12 Stebbing, S. (1943) : Modern Elementary Logic. 183. (This is a quotation from Einstein).