A study of central places and their role in extension of rural development of Siwan District

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Abstract
Central place study gained momentum after the work of Christaller, who conceptualised central places with certain theoretical principles. The central place thereafter became a popular area of study in the field of market trade worldwide. Thereby, literatures on central place sprawled from geography, economics, social science, marketing phenomenon and behavior, etc. Keeping them in view, the present study intends to investigate central places of an agrarian region of Bihar, the district of Siwan.

Keywords: Christaller, centralistic principle, administrative structure, economic

Introduction
Central place study gained momentum after the work of Christaller, who conceptualised central places with certain theoretical principles. The central place thereafter became a popular area of study in the field of market trade worldwide. Thereby, literatures on central place sprawled from geography, economics, social science, marketing phenomenon and behavior, etc. Keeping them in view, the present study intends to investigate central places of an agrarian region of Bihar, the district of Siwan.

Central places Siwan are the commercial centres that either concern with collection of goods from the surrounding rural areas or distribution of goods to the complementary areas. This way the central place forms a relationship with its hinterland on the basis of mutual interaction and interdependence. Christaller developed a comprehensive location theory which explains the economic relationship between central place and the complementary region. Central place theory concerns the size, number and distribution of central places that base on 'Centralistic Principle'. The centralistic principle of central places observes location of economic, social and administrative structure which is interwoven with the hinterland of the central place. Different level central places from certain theoretical relationship of higher and lower level central places. This relationship of higher and lower order central places is expressed as the hierarchy of central places. However, the central place theory concerns the spatial distribution and optimum location of tertiary sector, i.e. trade and commerce.

Threshold and range of goods are the major concepts as regards central place and its theory. Threshold of a good is the minimum required sale to service that function, while range of good determines the limit of sale area of that function. The first is the basic concept on which central place theory exists, whereas second relates to the distribution of central places as well as determines size and shape of the market or complementary area. The range of good has upper and lower limits; the upper limit is the maximum economic distance considering time and cost spent to obtain a good, and the lower limit bases on the threshold.

Devoted to the geographical framework of the study area which includes location and area, structure and land features, climate, soils, vegetation and drainage. The study area is confined between 25°53'N to 26°23'N latitudes and 84°0'E to 84°47'E longitudes, encompassing a geographical area of 2219 sq. km. It is bounded by district of Gopalganj from north, the district of Saran from east, the district of Deoria (U.P.) from west and river Gaghra from south. The district holds 2714349 (2001) population under 19 community development blocks.

Structurally the study area forms a part of the Indo–Gangetic depression containing alluvium with thickness ranging from 5000 to 25000 feet which bases on gneiss rocks of Archaean period. The alluvial deposit contains silt, clay, gravel, sand, etc. and is put into two groups:
khadar and bhangar. The khadar is newer deposit with living fossils, while bhangar contains extinct fossil deposits. Geomorphologically the study area encompasses a level plain without prominent land features. The slope is imperceptible ranging from 205 feet to 187 feet as maximum and minimum height above the sea level. The chief land features are the depressions, known as chaur. However, the area contains three features: the alluvial lowland adjoining rivers, the upland tract away from rivers, and diara lands in the south.

The climate of the study area is a small segment of the broader North Indian climatic conditions. It falls in between the drier condition of UP and the moist condition of West Bengal. The temperature of the area during hot weather season goes upto 45-46 °C and during cold weather season the temperature comes down up to 6-7 °C. During hot weather season the area experiences dust laden storms, particularly in the evening. The rainfall phenomenon relates to the arrival of monsoon which onsets in June-July. During winter season the effect of westerlies is experienced which gives sometimes rain and accentuates the coldness.

The soils of the area are the creation of alluvium deposited by the Ganga and its tributaries. The young calcareous alluvial soils with saline alkali dominate the district, which are less developed. The soils of the district are of three types: the khadar, the bhangar and the sandy soils of diara land. The khadar soils are newer and are useful for rabi crops because they occupy upland areas. The bhangar soils are the older and are compact to retain water. Such soils are generally found in lowland areas and are useful for bhadai and aghani crops, especially paddy crops. The diara areas, particularly along Ghaghra river, contain sandy soils which do not retain water, but are useful for wheat and barley production as well as seasonal fruits during summer season. As regards vegetation, the area observes grasses and parkland type vegetation that dots in the form of orchards near the settlements. These trees include fruit bearing trees supplemented with timber yielding trees of sisoo, bargad, peepal, semal, neem etc. The diara area bears long grasses of reeds and bushes which are used to construct thatch to build huts in the diara land.

The drainage system is controlled by perennial river, i.e. Ghaghra where other small tributaries meet to drain out their excess water, particularly during rainy season. Other small rivers are Siahi, Nikri, Jharahi, Daha and Dhamoli. All these rivers are over flown during rainy season and act as channel for draining excess water. Other source of water is saucer shaped depression, known as chaur. Most of these chaurhs dry up during summer season and get swelled with water during rainy season.

Since the study area is a small segment of the middle Ganga plain where peoling dates back to thousands of years, it pertains the historical tint of nomadic people without ancient records. During historical part the area has been the part of several kings and Mughal emperors. It is also connected with Lord Buddha who visited the area and later it constituted a part of Kosala Kingdom. The population growth record is untraced during those periods, but it holds definite record from 1951 onwards. Since 1901 the growth in the study area has been fluctuating due to certain epidemic and famines, but since 1951 the growth of population has been continuous. Siwan came as district in 1972 and prior to it the population record is mentioned as subdivision. The growth got pace after the conversion of metre gauge into broad gauge rail line and opening of Mahatma Gandhi Setu between Hajipur and Patna.

The district shows a poor literacy figure in comparison to other areas of the state. As the district comes under a backward economy region, it observes prevalence of poverty on account of low per capita land as well as income. Most of population is devoid of education due to poverty and the children are engaged in some manual work at the early age. This scenario is more intense in the rural areas and, therefore, children are devoid of schooling. However, the district observes 41.18% (2001) literacy wherein male covers 26.07% and female contains 15.11%.

The importance of central places is assessed on the basis of number of functions and their complexities. On the basis of considered criteria 80 central places have been selected for study. These central places have further been classified into four groups, such as market town, service town, service centre and service village. Each group of central places holds different number of functions and establishments. Siwan town is the prime central place and dominates all other central places. Maharajganj and Mairwa are the service towns which exercise dominance over a large area. The service centre save lower range of goods and services, and attract surrounding area population. Most of such service centres are block headquarters and serve administratively besides other services. The service villages are the lowest level central places and serve absolutely the surrounding villages. Besides, periodic markets also function as central place and serve the villages weekly, bi-weekly and so on.

Location of central places is guided by certain geographical factors, like density of population, availability of fertile soil, income of people, demand of goods and services, etc. It is found that most of lower level central places are distributed uniformly and are attached mostly with transport routes. It appears that communication plays an important role to develop a central place. It is important that since the study area bears an agricultural economy, it has facilitated to grow large number of central places as agricultural produce are traded largely at local market centres. However, all areas are not uniformly productive, hence, central places are not distributed uniformly.

Periodic markets are considered as the part and parcel of central place and the marketing system. It holds local trade of agricultural produce. In agrarian society, periodic markets serve the surrounding population on fixed days. It is common feature that such markets trade in goods of very low range, particularly convenience goods of local produce. These goods include vegetables, meat and fish, grocery, etc. However, periodic market includes participation of persons, like producer–sellers, traders-sellers, administrators and bystanders. The study area contains 232 periodic markets which are unevenly distributed.

Devoted to present the relationship between central place and rural development. The chapter includes impact of innovation and mobility, impact of commercial innovation, impact of social innovation, impact of political innovation and impact of innovation on rural development. There is relationship between the innovation and mobility in people. The mobility relates to physical movement, whereby people patronize central places. The physical change in central place in terms of new establishment and inclusion of new function and service at a central place become the innovative force that attract from the surrounding areas.
As regards commercial innovation, a central place happens to be a dynamic place where opening of new unit always provides innovative impact on consumers. Such innovative commercial units create message to the society which sparks to attract consumers from the surrounding areas. The social innovation acts to interrelate people from one society to the other as motivating factor which ultimately guides the consumer behaviour. Central places also become a point of politics from where political sensibility grows and diffuses to the rural areas. This motivates rural people to act and get benefitted from various schemes and programmers. All these innovative factors ultimately exert impact on rural development.

Conclusively the study area holds following features of central places: (a) there are four categories of central places, namely market town, service town, service centre and service village with varied nature of functions and trade areas; (b) the distribution of central places is not uniform; (c) central places form an order of hierarchy which is manifested by consumer travel and trade area; (d) large number of periodic markets supplement the marketing system in the area.

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