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**Topic - Transport Network and Its Impact on Regional Development in Haryana**

### **Abstract**

First chapter is about introduction of the Haryana state and case study area - Mewat has been described followed by research problem, objectives, data base, methodology, hypothesis and finally review of literature.

Second chapter is on the levels of transport network and nodal accessibility by using Graph Theoretic measures. The most developed district in transport network efficiency is Faridabad. The districts which recorded least development in network efficiency are Mewat, Mahendragarh, Panchkula and Jind because in the north east district Panchkula is hilly in nature and the southern districts are sandy in nature.

The eastern part of state has high frequency of buses than the western part because of the presence of historic Grand Trunk road which connect the state capital and the NCT, Delhi. In south, highest number of bus frequency are found in the Gurgaon and Faridabad districts due to the high number of City bus services which links Delhi and other NCR part.

Generally class I town and district headquarters located along the National Highway and railway lines have high accessibility. The lower categories (class II, III and IV) of towns which are highly accessible by the transport network also follow the same rule.

Regional development in terms of spatial context, it is found that the districts located in NCR part of Delhi and districts surrounding Chandigarh are far better than other districts of the state. The whole western and southern belt is lagging behind in terms of overall development

There is found positive correlation between Alpha and gamma index with the Transport network efficiency. There is also found positive relationship between levels of development and nodal accessibility. A positive relationship has also been observed in the urban attributes and nodal accessibility. The settlement size and Nodal Accessibility has found to be positively related. The relationship between agricultural development and transport network efficiency are no related.

The inter district connectivity which clearly indicates that neighbouring district/states of Gurgaon, Delhi, Rewari, Palwal and Alwar are well served by the Mewat depot. Delhi – Chandigarh is only long distance belt served by this depot. The moderate frequency of bus is observed on Punhana - Palwal route. Intra-district bus connectivity is a disappointing affair. The major transport nodes are connected by bus. Most of the villages are deprived of bus service facility.

It was observed that people own high number of two wheelers followed by cars and trucks plying on the roads and road crossings. The combined peak hour traffic on all the selected points (road crossings) vary from 320 (minimum) to 1360 (maximum) vehicles.

Commercial zone shows maximum noise level. Ferozpur Jhirka shows highest noise level with 80 dB while Nuh recorded relatively low value of 75.8 dB. The busiest intersections Badkali, Punhana and Jurhera *Mor* where traffic frequency is over 1000 vehicles per hour and the average sound level is more than 75dB. The noise level peak time is around 5 p.m. at Ferozpur Jhirka. At Jurhera T-Point and Punhana, the morning and evening rush hours are the noisiest in the day. An early and late afternoon periods recorded least noise level.