

## **ABSTRACT:**

Commercial Centres are economic, social, cultural and administrative hubs for any city. Over the years, they have changed in organisational, spatial, economic and social composition due to alterations in process of Urban Development. Urban Development process determines the course of future development of an urban area or a city. Transformation of Commercial Centres with respect to process of Urban Development have developed as an important area of inquiry in the recent years throughout the world as it has become a common phenomenon across all cities especially in the Global South. These transformations have impacted not only the economic development but also has resulted in massive physical changes in urban form and character of cities. This has led to tremendous social changes which has seen modulations in the preferred kind of shopping based on experiential factors, availability and quality of goods and services and accessibility of multiple functions.

Kolkata, the main Commercial hub of Eastern India has also undergone similar changes over the past 2 decades. The city expansions and related developments have increased the number and types of Commercial Centres present in the city. The urban fabric has seen shopping malls and block markets develop alongside the traditional markets, municipal markets and bazaars. The needs, aspirations and changes in lifestyle has made the shopping mall and related Commercial establishments popular. Commercial Centres have also become recreational and entertainment hubs over the recent years.

This research delves into the understanding the transformation of Commercial Centres with respect to the process of Urban Development through available Literature. The significant research trends have been discussed and the relevant research gaps have been identified to generate research questions, based on above mentioned literature study.

The parameters of Vitality, Liveability and Sense of Place have been identified as the 3 major influential parameters which modulate the transformation of Commercial Centres with respect to process of Urban Development in a City. A list of related sub-parameters and variables have been identified and their inter-relationship has been established, through literature study and Expert Opinion Survey.

This has been used to survey pertinent Commercial Centres which has been selected in the city of Kolkata, where detailed on-site study has been conducted based on above mentioned established parameters and sub-parameters and derived results have been synthesized.

Analytical discussion based on these results have been carried out and a mathematical interpretation of the same has been done related to each of the parameters of Vitality, Liveability and Sense of Place. It has been derived that Pedestrian Flow, Time to Access and Height of building are the 3 main variables which are the regulating factors to ensure minimum attainment of Vitality, Liveability and Sense of Place respectively. The mathematical expressions related to these 3 variables can be used in redevelopment and upgradation of existing Commercial Centres or predict the direction of transformation of new Commercial Centres in the city.