

## Abstract

Banking is considered to be the foundation of a country's economic development because banks play a vital role in capital formation. A bank branch should be present in an area with enough demand and revenue potential. To stay in the competition, banks usually increase closeness with customers by increasing bank branch networks. Opening a bank branch in a new locality/area involves much assessment of past, present, and upcoming environments of the locality. A suitable site selection for establishing a new bank branch is one of the vital and planned decisions which significantly affects the competitiveness, performance, and sustainability of the bank. So far, factors affecting location-based decisions are not standardized yet. Hence the existing bank branch network in Hyderabad is mainly the outcome of need, historical urban sprawl, and personal experience without performing any scientific study/analysis. In Qasimabad, Hyderabad, many localities have flourishing business potential, but they are far from the existing banking network. Thus, the present study was conducted through an analysis of spatial data using geospatial tools for the selection of potential locations for the opening of new bank branches in Qasimabad, Hyderabad. Spatial data of existing banks, business units, land use demography, road network, and income-based was collected through primary and secondary data. The primary data were collected through interviews with Qasimabad's bank officials, residents, and business owners, and georeferenced surveys of banks and business units. While secondary data consisted of information obtained from Google Earth, scanned maps, and reviews of print and electronic media. The data analysis was performed using geospatial tools in ArcGIS 10.5 software along with statistical tools embedded in Excel. The geospatial analysis included Point Density, Kernel Density, Mean Center, Standard Distance, Directional Distribution, Density-Based Clustering, Multivariate Clustering, and Proximity analysis. The results of the analysis revealed that the highest point density of business units was near Pakora Chowk, Qasimabad. The Kernel Density Estimation (KDE) for business units were higher along the Main road and Nasim Nagar road with the highest KDE at the Pakora Stop. The banks are concentrated mostly along the Main Road, Nasim Nagar Road, and Wadhu Wah Road. The proximity analysis showed that most of the business units along the Main Road and Nasim Nagar Road were within a 100 m buffer of banks. The analysis of land use, income-based demography, road network, spatial variation of existing banks, and business units through reclassifying, weighting, and combining revealed that the most suitable location for opening a new bank branch is along Sahrish Nagar road. However, there is also the potential of opening new bank branches along Happy Homes road, Wahdat Colony road (old National Highway). It is recommended that before opening a new bank branch, the geospatial analysis of the different parameters with GIS tools should be performed to find the most suitable locations in the town/city.