Spatial Validation of MSME Location Choices in Kandy Grid City: A GIS-Based Analysis of Accessibility, Visibility, and Commercial Centrality

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The Kandy Grid City operates as both a world heritage center and a key commercial and tourism hub, where micro, small, and medium-sized enterprises (MSMEs) operate around historic streets, landmarks and commercial corridors. Previous studies on SME location choice and clustering show that business locations are influenced by a combination of location-specific, personal and community factors, including accessibility, visibility, customer access and owner decision-making. However, limited attention has been given to how such perceived location factors can be spatially validated in heritage-tourism cities, where commercial activity overlaps with cultural landmarks and heritage-sensitive urban environments. This study examines the relationship between MSMEs' choices of locational priorities and GIS-based spatial suitability of MSMEs in the Kandy Grid City. Initially, owner perceptions regarding business location factors were explored through Likert-scale interview responses. These perceptions were validated using ArcGIS-based spatial analysis of spatial distribution, road frontage, landmark proximity, major road visibility, and service area, where surveyed MSME records with complete location information and verifiable GIS coordinates were used within the Kandy grid city boundary. Findings indicate that visibility and accessibility from major roads, was the highest rated location factor for the owner, receiving a high importance percentage of 70%. Customer demand was the leading growth/sustainability factor, selected by 89.8% of MSMEs. GIS-based results supported these perceptions, as 86.5% of valid MSMEs were located within 25 meters of a road, indicating strong frontage, accessibility to business and visible commercial corridors in gird city. Proximity to landmarks was particularly important for tourism-related MSMEs, while 10–15-minute walking service areas generated from major landmarks and nodes, confirmed the relationship between MSME clustering and pedestrian accessibility from key landmarks. The results indicate that MSME location choices in the Kandy Grid City are spatially appropriate from a commercial urban planning perspective, are consistent with the perceptions of the owners, and can assist urban planners in guiding activities, like designing pedestrian access. However, commercial suitability does not necessarily imply heritage suitability, and further research is needed to assess whether the concentration of MSMEs around heritage buildings affects the architectural authenticity, heritage character, and conservation value of the Kandy Grid City.

Keywords: Kandy grid city, MSMEs' location choice, spatial analysis, urban planning

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