

**AN EVALUATION OF THE APPLICABILITY OF  
LOCATIONAL ATTRACTIVENESS MODELING OF  
RETAIL ACTIVITIES IN SMALL COMMERCIAL  
TOWNS : SPECIAL REFERENCE TO PILIYANDALA  
TOWN IN WESTERN PROVINCE OF SRI LANKA**

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SRILANKA**

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Dissertation submitted in partial fulfillment of the requirements for the degree

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## **DECLARATION**

I declare that this is my own work and this thesis does not incorporate without acknowledgement any material previously submitted for a Degree or Diploma in any other University or institute of higher learning and to the best of my knowledge and belief it does not contain any material previously published or written by another person except where the acknowledgement is made in the text.

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## CERTIFICATION

I certify herewith that R.P.Sanjaya Ranaweera, Index Number: 169188H of the Master of Spatial Planning Management & Design 2016/2018 Group has prepared this research project under my supervision.

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Signature of the Principal  
Supervisor

Date .....

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Signature of the Head of the Department  
of Town & Country Planning

Date .....

## ABSTRACT

Retailing is the dynamic and evolving urban function in many small towns in Sri Lanka especially the towns originated and evolving to provide services for the surrounding residential population. This function is closely related to the economy of such towns. Location decisions of those activities in the towns are taken by the retail investors and by retail dealers merely based on their observations and experience. Meantime planners use zoning as a planning tool of managing land use of such towns. They use existing land use and trends in land use patterns as a basis and employ many raster based analysis methods in defining zones. Anyway there are criticisms that those created zoning plans dose not leveraging the economy and the wealth of such towns.

This study attempted to develop a modeling framework for decision making in identifying most attractive areas in a town for retail activities which can be used for the planners and for retail investors as well.

Retailing dense area of the Piliyandala town in the Colombo district of Western Province, Sri Lanka used for the study. This area was divided in to possible retail segments through prominent boundaries. Gravity of each segment based on level of retail attraction was calculated through the model.

This gravity levels (Probability) of each segment was calculated using two views of attraction. They are attraction based on the identified parameters on individual site and the attractiveness derived from the location of the catchment area. The model gives exact boundaries for the retail zones as it taken the retail segments trough the prominent boundaries.

As possible applications of the model by changing variables (attraction parameters) can be examine how the gravity levels are changing in the segments. In that way many planning intervention can be tested before implementing them by using this model.

**Key words** : Zoning Plans; Retail Attraction model; Retail gravity.

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