

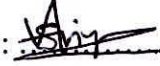
**Determinants of Urban Middle Income Housing
Prices: A Hedonic Regression Analysis
Case Study in Kurunegala Municipal Council Area**

**Dissertation Submitted to the University of Sri Jayewardenepura as a Partial
Fulfillment for the Requirements of the Final Examination of the M.Sc. in Real
Estate Management and Valuation Degree**

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“The work described in this dissertation was carried out under the supervision of Mrs. N C Wickramaarachchi and any report on this has not been submitted in whole or in part to any university or any other institute for another degree/examination or any other purpose”

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Abstract

In real estate housing valuation, determination of housing value supported on sales comparison approach for similar housing in a particular market area remains the most widely used method. Given this situation, the hedonic model should be seen as a solution to improve the quality of assessments, as it determines the price of housing according to the observable values of their different attributes. This dissertation aims to assess the determinants of urban middle income housing prices and finally develop real estate price indexes for urban middle income housing prices in Kurunegala Municipality council area.

Two no of urban housing schemes named as Millennium City & Vilthera Uyana consist with total no of 284 housing units sold during the period of 2002-2012 and 122 no of housing units from Millennium City and 85 no of housing units from Vilthera Uyana, selected as the sample for this study

16 no of variables in total, Quantitative variables are plot area, house area, age of house units, number of bedrooms, and number of bathrooms, distance from nearest bus stop, distance from nearest town/ shopping centers, distance to entertainment facility, distance to quality of public schools, distance to hospital & health centers and Qualitative variable are presence of garage, with a view of river or lake, close & view of mountains, affect noise from traffic, and affect crime & vandalism, security of housing scheme.

It was seen that housing price have a relatively positive correlation with the variables plot area, house size, no of bed rooms, no of bath rooms and negative correlation with the variables age of house, distance to bus stop, distance to town /shopping center, distance to entertainment facility, distance to public school, distance to health centers in Millennium City. On the other hand housing price have a relatively positive correlation with the variables plot area, house size, age of house, no of bed rooms, no of bath rooms and negative correlation with the variables distance to bus stop, distance to town /shopping center, distance to entertainment facility, distance to public school, distance to health centers in Vilthera Uyana.

In order to verify the characteristics of a house that most influence its price, it is proposed a hedonic regression model of house prices according to the characteristics of housing and the Linear functional form is used to proceed with the empirical study. The variables of PLOT, BAGE and BTHR in Millennium City & PLOT, HS, BAGE and BTHR in Vilthera Uyana which are positively contributes to the increase in the dependent variable and the variable DEF in Millennium City & variable of BDR in Vilthera Uyana having negative estimates coefficient value and produced the opposite effect

The results of the regression analysis revealed that there are 4 predictors common to both set of data (PLOT, BAGE, BTHR, and GR). In terms of differences, HS, BDR & VRL have a statistically significant in Vilthera Uyana but not in Millennium City. The CM & DEF were identified as significant in Millennium City and not in Vilthera Uyana. Based on this, it is not surprising that structural attributes were identified as a significant variable in both places.

Key words: housing attributes, hedonic model, real estate price indexes.

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CHAPTER 01

Introduction

1.1. Background of the Study

The housing sector is very much associated with the economic health and wealth of a nation. A high demand for housing would trigger growth in many other economic sectors. Thus, research into the variables that impact property prices is essential because the purchase of a residential property is both an investment decision as well as a consumption decision. In the endeavor to model the housing prices, two approaches have been widely used. The first approach is the monocentric model, where housing price is assumed to be a function of proximity to a single employment centre or workplace. The relative housing prices then reflect the relative savings in commuting costs associated with different locations.

However, unlike other consumption goods, the housing market is unique because it manifests the characteristics of durability, heterogeneity, and spatial fixity. Thus, to model this differentiation effectively, the second approach of the hedonic price model (HPM) has been introduced. The hedonic price model posits that goods are typically sold as a package of inherent attributes. Therefore, the price of one house relative to another will differ with the additional unit of the different attributes inherent in one house relative to another house. The relative price of a house is then the summation of all its marginal or implicit prices estimated through the regression analysis.

The fundamental idea of the HPM is as follows: commodities are characterized by their constitute properties, hence the value of a commodity can be calculated by adding up the estimated values of its separate properties. According to this informal definition, a couple of requirements need to be fulfilled in order to be able to calculate hedonic prices. Those are that the composite good under consideration could be reduced to its constituent parts and there is an implicit value for those constituent parts in the market.

This study is based on hedonic model of house prices. The hedonic price model, derived mostly from Lancaster's (1966) consumer theory and Rosen's (1974) model, posits that a good possesses a myriad of attributes that combine to form bundles of utility-affecting attributes that the consumer values. This study explores the potential applicability of the hedonic price model for estimation of implicit prices of the urban