Chapter 6
Conclusion

6.1 Summary

The application of hedonic pricing model in real estate market has a long history with the plenty of studies to estimate the relationship between housing value and related characteristics. However, the selection of variables is distinguished in various studies as a result of the preferences of the characteristics is not the same for the geographical feature and unique culture in the various places. A typically example is the climate factor in Kunming, due to the mildest climate in Kunming, the cooling system or central air condition are not necessary and applicable in condominiums, thus this factor hardly effect on the household preference in Kunming. On the other hand, it has a great impact on households' preference in other cities, such as Beijing and Shanghai in China.

This study applied the hedonic pricing model on housing market in city of Kunming in China. The collection of data focused on the housing units transacted during 2009, the housing type of condominium in urban area of Kunming, to make sure the homogeneity of sample housing units. The main objectives of this study are to find the housing characteristics which significantly impact on the housing price in city of Kunming and how these characteristics effect on the housing price by hedonic pricing model. Based on the survey, the study selected 12 characteristics as independent variables and the housing price as the dependent variable to construct the model. It identified the distance to CBD, the number of bus routes within 500 meters around the communities, floor area, housing age, housing orientation, floor level,

structural quality, environment quality around and inside the communities, the total distance to the nearest life establishments, the nearest educational services and the nearest entertainment facilities as the independent variables and the prices of housing units as the dependent variable. The models were conducted to examine the significance of housing characteristics which impact on the housing price and the relationship between these characteristics and the housing price by applying the linear functional form, log-log functional form and semi-log functional form. Finally, the study compared the results of regression by these three functional forms.

The results of the filed survey showed that, most of the sample households were consist of 3 members, the head of households mostly work in the government sector and most of them have the undergraduate educational level, the average income of the sample households is about 3919 Yuan per month. The price of housing samples is ranged from 178,000 to 1,200,000 Yuan with a mean price at 504,000 Yuan. The floor area of the housing units were ranged from 43 square meters to 177 square meters with an average of 78.69 square meters. The age of housing units were ranged from 1 year to 17 years old with a mean of approximate 7 years old. Most of the housing samples were the south facing direction, and the most of housing units on fourth floor to seventh floor at a relatively low level.

The results of regression demonstrate that R square and adjust R square of three functional forms were all very high that quite close to 1. This indicated that the housing price can be explained by the independent variables in Kunming very well. The coefficients of housing characteristics entered into the model were same sign as the expected of hypotheses by all three functional forms. In summary, there are 8 variables into the model by linear functional form, 9 variables entered into the model

by log-log functional form, and 10 variables entered into the model by semi-log functional form. Especially, the R square and adjusted R square of log-log functional form was the highest among all, and the VIF of the variables were all lower than 5 at an acceptable level, even though it still has some limitations compare with others. The housing characteristics of floor area and the distance to CBD are topmost in importance that impact on housing price in Kunming, they respectively took the first and second places in significance on effecting the housing price in Kunming in all three functional forms. Although the other characteristics were ordered in different place in three functional forms, they are still partially contributed to the housing price of the housing market in Kunming.

6.2 Limitation of the study

The application of the hedonic pricing model based on some assumptions. However, the housing markets in the real world are difficult to entirely satisfy all these assumptions due to the housing markets are more complex than the theory in real economic world. The empirical results of the study show that there exists a multicolinearity in the variables: the variable of the distance to CBD with a VIF of 6.432 both in the linear functional form and the semi-log functional form, which indicated that it has an intercorrelation with other characteristics because of its high convenience by concentrating many supporting facilities. But due to it is an essential characteristic affecting the housing price, it cannot be cancelled. Besides, this study applies the cross-section data which ignored the time factor effecting on housing price, but in the real economic world, the housing price would increase over time or fluctuate during a period.

6.3 Recommendations

According to the empirical results of study, the following recommendations would be useful for the housing producers, consumers, local governors in Kunming and the future researchers.

For housing producers, they can improve the new housing constructions to satisfy the consumers' preference to maximize the profits. According to the empirical result, producers can focus on the housing characteristics that significantly affect on housing price such as the distance to CBD and floor area of the housing when they are planning to construct the new condominiums. Besides, improving the structural quality of housing units, make the inner environment of the communities more beautiful and clean and adding more convenient facilities around the communities to increase the utility of housing units to satisfy households' preference.

For consumers, the results can help the consumers understand how the housing characteristics impact on the housing price in Kunming. According to the empirical results, the characteristics of floor area and distance to CBD were significantly impact on housing price, the consumers can estimate the value of a housing unit along with the other characteristics which impact the housing price when planning to invest or sell a housing unit in Kunming.

The local governors can improve the macro-controlling on the housing market in Kunming. For example, the local governors can improve the construction of the infrastructures and strengthen the public security administration to reduce the crime rate and better the public environment around the residential areas. In addition, the constructing more convenient facilities and amenities around the communities which

far away from CBD or increasing the number of bus routes around these communities also a good way to solve the problem. Besides, the local governors can macro-control the housing price by shrinking the land supply, especially the residential land in the central place, to sustain the price of new built housing units.

Finally, suggestions to the future researchers, this study applied the hedonic pricing model to estimate the significance of the selective characteristics and the relationship between these housing characteristics and housing price by OLS. According to the results of the study, the future researchers can improve from two aspects. Firstly, the researcher can select more or less variables to construct the hedonic pricing model and estimated how these characteristics significantly impact on housing price, secondly, researchers can measure the housing characteristics in a different way to get new findings in the housing market.