Determinants of golden locations in Chiang Mai city:
A photographic approach with Binary Logit analysis

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ABSTRACT

This study investigates determinants of golden locations in Chiang Mai city. It surveys 100 locations with 50 golden and 50 bad locations. It takes photographs of the locations and figures out the characteristics of them. It uses Binary Logit to classify between the golden and bad locations. The results reveal that being located near the road or street is a major factor of being the golden piece of land. Moreover, insufficiency of parking lots is also a signal of the golden location. In contrast, being located below the road or street and near pollutions definitely classifies bad locations.

Keywords: Golden location, Real estate, Classification, Urban economics, Chiang Mai city,

JEL Classification: R52, R32, R33

1. Introduction

The severe flood in Central Thailand last year affected many industries and the whole economy of Thailand. Economists predicted that consumer behavior might change such that people would move to better locations with less risk of flooding especially many locations in the North of Thailand. Chiang Mai is a beautiful city with high level of investment. She has a long history and is famous for abundant natural attractions, traditional way of life and unique arts and culture. Moreover, she has good infrastructure and facilities such as international airport, public transportation and different kinds of living places. These factors stimulate a continuous increase in demand for residential places in Chiang Mai.

Real estate is therefore a huge business in Chiang Mai. The correct decision in classification of golden location is tremendously important for the real estate business. This study will reveal the determinants of the golden locations in Chiang Mai city by using Binary Logit model.

2. Literature review

The research paper of Sornprasit (2001) showed the basic needs of buying houses in Chiang Mai and causes of deceleration of the buying. Significant factors are land price and the style of houses which are preferable to consumers.
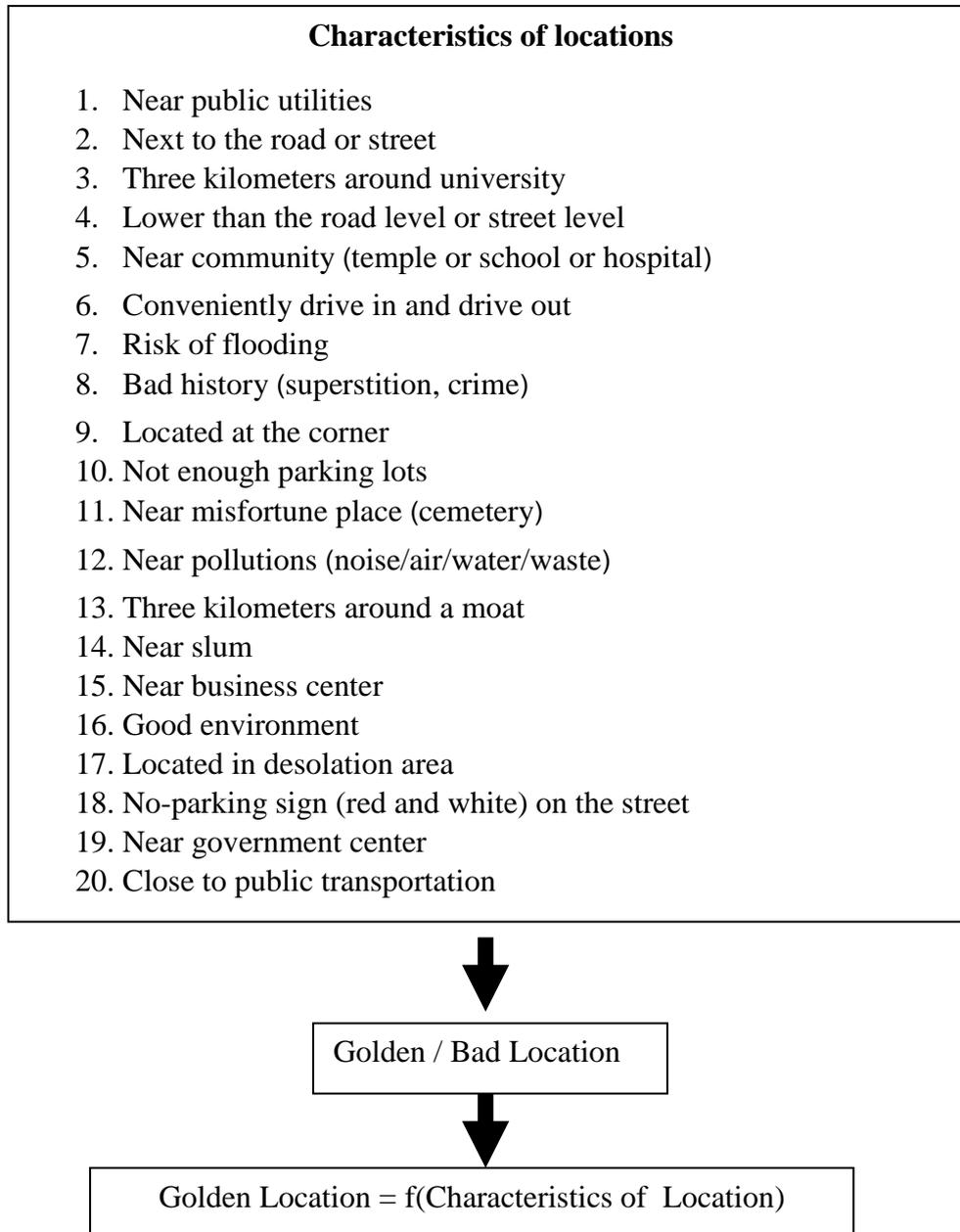
The work of Decho (2003) was on factors influencing the purchase of second-hand houses in Chiang Mai. It aims to study the problems and threats of the purchase.

Kasikorn Research Center (2011) studied the trends of real estate market. They mentioned that, by believing that the subsidy for the first house will increase the growth in real estate market and business, the government reduces tax to stimulate consumers who have financial security to buy their first houses.

3. Methodology

The study applies Binary Logit model (Suriya, 2010) to classify between golden location and bad location (dependent variable is 1 for golden location and 0 for bad location) with 20 characteristics of locations as independent variables as listed in figure1.

The golden location is defined as a place that many people flow around that enhance businesses to grow up very well. It creates plenty of activities for people or customers. The bad location is defined as a place that is the ruin-like, abandoned, no customer, no flows of people or vehicles and hopeless for business opportunity.

Characteristics of locations

1. Near public utilities
2. Next to the road or street
3. Three kilometers around university
4. Lower than the road level or street level
5. Near community (temple or school or hospital)
6. Conveniently drive in and drive out
7. Risk of flooding
8. Bad history (superstition, crime)
9. Located at the corner
10. Not enough parking lots
11. Near misfortune place (cemetery)
12. Near pollutions (noise/air/water/waste)
13. Three kilometers around a moat
14. Near slum
15. Near business center
16. Good environment
17. Located in desolation area
18. No-parking sign (red and white) on the street
19. Near government center
20. Close to public transportation

Golden / Bad Location

Golden Location = f(Characteristics of Location)

Figure 1. Conceptual framework

4. Data

The samples on this research are 100 locations in Chiang Mai city. The first author drove a car to survey the location by dividing 2 types of locations which are 50 golden locations and 50 bad locations.

5. Results

The results reveal four significant characteristics of locations. The positive significances are for the locations that located near the road or street and not enough parking lots. The negative appears for locations that are lower from the road or street and located near pollutions. Other sixteen characteristics of locations are not significant.

TABLE 1. Classification between golden location (y=1) and bad location (y=0) using Binary Logit model

Variable	Coefficient	Standard error	z-statistics	Prob.
Near public utilities	-0.014591	1.398894	-0.010430	0.9917
Near the road or street	**5.527258**	2.226192	2.482831	**0.0130**
3 kilometers around university	-0.136753	1.525708	-0.089632	0.9286
Lower the from road or street	**-4.902802**	2.138045	-2.293124	**0.0218**
Near community (temple or school or hospital)	-0.015602	1.577694	-0.009889	0.9921
Conveniently drive in and drive out	-1.745319	1.884968	-0.925915	0.3545
Risk of flooding	-1.91949	1.594701	-1.203671	0.2287
Located at the corner	1.758723	1.662489	1.057885	0.2901
Not enough parking lots	**3.389453**	1.456878	2.326517	**0.0200**
Near pollutions (noise/air/water/waste)	**-4.252624**	1.463679	-2.905435	**0.0037**
3 kilometers around a moat	-1.986446	1.447597	-1.372237	0.1700
Good environment	-0.457225	1.933499	-0.236475	0.8131
Located in desolation area	-2.669427	1.723508	-1.548833	0.1214
No-parking sign (red and white) on the street	-1.954761	1.523916	-1.282722	0.1996
Near government center	0.868349	1.374432	0.631788	0.5275
Constant	-0.748098	1.573808	-0.475342	0.6345
McFadden R-squared	0.756142			
Obs with Dep=0	50			
Obs with Dep=1	50			
Total obs	100			

Source: Calculation using Eviews 3.0

6. Discussions

The author would like to discuss about four types of locations which are the location near the road and street, having not enough parking lots, the location which is lower from the road and street and near pollutions. First, being near the road and street is one

of the good reasons for a good location. Road and street always bring people to come around their businesses.

Second, for the positive significance of the not enough parking lots, this might be against the sense but it is very often that good locations do not have enough parking lots. For example, various businesses concentrate along Nimmanhaemin Road and it is difficult to find a parking spot there. In contrast, some locations have a big parking lots that is enough for people to park but the place is not good to start a business with many reasons such as flooding and the long distance from main roads.

The location below the road or street is absolutely a bad location. It is risky for being flooded. Even though Chiang Mai is a mountainous city, its main river – Mae Ping- usually floods the area along the river every year. Another reason is that the when the owner of the land would like to sell the piece of land, he or she must spend money to buy soil to add into the area to level the land to the height of the road. Otherwise, the price of the land is low.

The last characteristic of locations is the location near pollutions. Nobody likes pollutions. Some locations located close to an industrial factory, landfill, club, etc. will get disturbed from noise, smoke, polluted water and waste which will definitely affect people who live nearby.

7. Concluding remarks

This study surveys and takes photographs of 50 golden locations and 50 bad locations in Chiang Mai city in Thailand. Then it uses Binary Logit model to classify between the golden and bad locations. It investigates 20 explanatory variables which might be the determinants of the golden location. The result reveals that there are four significant factors. The locations near the road or street is a positive one. The location with not enough parking lots is also positive. The reason behind this is that the insufficiency of parking lots is a signal of good business location. In contrast, the location which is located below the road or street and near pollutions is a bad location.

For the further study, it is interesting to treat the explanatory variable "not enough parking lots" with IV Probit model. This is due to the two-way causality and the possible endogeneity problem between the golden location and the insufficiency of the parking lots. The result from the IV Probit model will make it clearer for the determinants of the golden location in the city.

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