

# Evaluation of Apartment and Condominium for Students: A case Study of Amakubo 2-Chome, Tsukuba

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## 1. Introduction

In recent years, the number of foreign students in the University of Tsukuba shows a continuous growth. At the same time, many of them select to live in an apartment/condominium outside the campus for a better living condition. Therefore, how to choose a nice apartment has become a common question for students, and has significant importance.

## 2. Objective

The main purpose of this study is to evaluate the attractiveness of apartment/condominium in the Amakubo 2-Chome Area.



Figure 1. Apartment in Amakubo 2-Chome

## 3. Study Area

In order to achieve the purpose of the study, Amakubo 2-Chome area was selected as the study area. As far as I know, it is a truth that this area is popular among students. Meanwhile, convenience stores (CVS), groceries and many restaurants are located in this area. The school bus also passes through this area, along with 2 bus stops. Furthermore, this area is just near the Dormitories area, so that the students who live outside can easily visit their friends who live inside the campus.

## 4. Methodology

- 1) Fieldwork: investigate and confirm locations of apartment/condominium by using GPS device and attribute the data of them (price, size & construction year).
- 2) Questionnaire: conduct a questionnaire with a question of "what is the order of these factors when you select an apartment" to obtain the valuation of each factor.
- 3) Laboratory work: deal with the data collected by "Survey 123" app and calculate the closest route to the nearest bus stop & CVS, then calculate the evaluation of each apartment & condominium.

## 5. Results and Discussion

A total of 20 students have conducted the questionnaire. According to the result (Figure 2), Price is the most important factor that 14 out of 20 students selected it to the first place in the Ranking. The

distance to the bus stop is at the second place, followed by size, construction year and distance to the CVS. Besides, the score and the coefficient of each factor were calculated. According to the coefficient, the evaluation map of apartment & condominium was conducted (Figure 3). As summarizing the recommended apartments are those near the Amakubo 2-Chome bus stop and those near the Oikoshi Dormitory East bus stop and the CVS of Lawson100 & Seven-Eleven. Furthermore, construction year and size are usually considered by foreign students.

Order/Factor	Price	Size	Year	Bus Dist.	CVS Dist.
1st(14times)	14	5	0	2	1
2nd(4times)	4	6	4	3	4
3rd(2times)	2	1	5	10	2
4th(2times)	0	8	8	2	5
5th(2times)	0	4	5	2	10
Score	92	58	48	60	83
Total	1st	2nd	3th	4th	5th
Coefficient	0.3	0.19	0.16	0.21	0.14

Figure 2. Ranking of the factors from the Questionnaire

$$\text{Evaluation} = 0.3 * V_p + 0.19 * V_s + 0.16 * V_y + 0.21 * V_b + 0.14 * V_c$$

$V_p$ : Value of price (if price<3万円,  $V_p=3$ ; if 3万円<price<4万円,  $V_p=2$ ; if price>4万円,  $V_p=1$ )

$V_s$ : Value of size (if size>25 m<sup>2</sup>,  $V_s=3$ ; if 25 m<sup>2</sup>>size>20 m<sup>2</sup>,  $V_s=2$ ; if size<20 m<sup>2</sup>,  $V_s=1$ )

$V_y$ : Value of construction year (if year>1991,  $V_y=2$ ; if year<1991,  $V_y=1$ ) (yrs)

$V_b$ : Value of bus stop distance (if bus stop distance<200m,  $V_b=2$ ; if bus stop distance>200m,  $V_b=1$ )

$V_c$ : Value of CVS distance (if CVS distance<150m  $V_c=2$ ; if CVS distance>150m  $V_c=1$ )

Figure 3. Calculation of the Evaluation

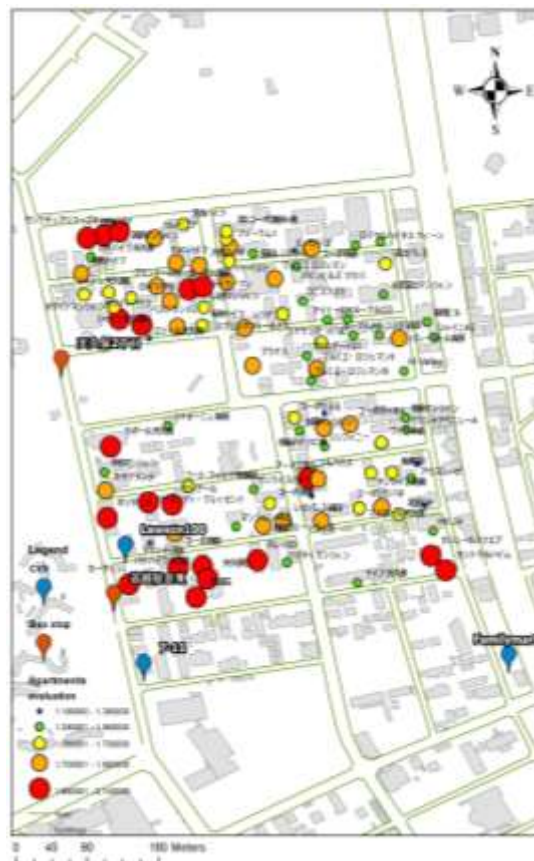


Figure 4. Evaluation map of apartment & condominium