Boarding House Preferences by Middle Up Class Students in Surabaya
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ABSTRACT
The growth of public universities and private universities in Surabaya causes many temporary residents with educational aims. This temporary resident certainly needs a temporary residence such as a boarding house. Boarding house investment offers passive income that is not small, especially the boarding house with middle up segmentation. However, the costs involved in developing a boarding house are very large, so it is necessary to study what the prospective customer prioritize in deciding the decision to choose a boarding house. Quantitative approaches are used in determining influential factors and determining preferences. The survey was conducted with respondents from 100 middle up class students.

The results of this study indicate that the factors which influence the choice of boarding houses are security, price, location, facilities, environment, reputation, reference and service. Advertising factor is a factor that has no effect. Preference for boarding houses produced in general are some of them including CCTV boarding houses; low, tenuous and transparent fence model; the boarding house is located at a location less than 1 Km from the campus area and has a front road between 3-5 meters wide where 2 cars can pass intersection; daily cleaning staff; silent boarding house acoustic conditions; limited car parking; electronic TV and AC facilities; additional bathroom inside; Mattresses, study tables, chairs and wifi; communal living room and kitchen; minimalist design theme and room size 3x4 meters (12 m2); the surrounding environment is in the form of formal housing; absence of security services; service with water pumps and separated electricity systems.

Key Words: Preferences, Boarding House, Student.

1. INTRODUCTION
Surabaya City has a very strategic position on a regional and national scale, namely as a center for trade and services within the scope of East Java, and as a center for the development of the eastern part of Indonesia [1]. The plan to develop high school or universities area was established in the UP (Unit Pengembangan) area whose land use for high school education facilities included UP I Rungkut, UP II Kertajaya, UP III Tambak Wedi, UP IV Dharmahusada, UP IX Ahmad Yani and UP X Wiyung. In this area has developed public universities and private universities. This causes temporary residents with education aims. This resident certainly needs a temporary residence.

Rental housing is a residence that is rented partially or entirely by the owner to students as consumers. The reason of living conditions by renting is the existence of temporary living needs for a certain period in a location [2]. Definition of boarding houses is a type of rental room that is rented (booking) for a certain period of time in accordance with the agreement of the room owner and the agreed price. Generally, room bookings are made for a period of one year. However, there are also those who only rent for one month, three months, and six months, so that the designation becomes annual, monthly, tri monthly, and mid-year rents. Less rental than at that time students prefer at the inn [3].

Boarding houses have the same concept with the hotel which is both as temporary residence. According references [4] said that the design of the hotel both from the physical spatial and social aspects can be a communication tool regarding the segmentation of the intended customers. A house can have various functions and it is a heterogeneous product in a special market. This makes measuring housing preferences a complex problem. However, this is also very important because housing is one of the main necessities of life. This is the way that people's preferences are included in the maintenance, planning and development of real estate and the built environment which ultimately provides the greatest benefits for those who take refuge in their homes [5].
The increasing number of boarding houses in Surabaya, the more variety of facilities and prices offered. Ranging from facilities to just rooms and beds to complete facilities such as air conditioning, cabinets, bathrooms to free wifi. Boarding house investment offers passive income that is not small, especially the boarding house with middle to upper segmentation. But the costs involved in building a boarding house are very large, so it is necessary to know what is the preference of prospective customer in determining the decision to choose a boarding house.

2. LITERATURE REVIEW

2.1 Preferences Theory

Based on Kamus Besar Bahasa Indonesia [6], preference is privilege, prioritization and can also mean the preferred one. Preference has a close relationship with respondents or subjects, where in this study used middle up class student subjects.

According references [7] provides an ideal description of individual preferences for alternative consumption items in two laws (revealed preferences), namely axioms of comparison and axioms of transitivity. The axiom of comparison is that every two different items (such as items A and B) can be compared to preferences by individuals. Each comparison definitely leads to one of the following three things:

a. item A is preferred to item B;
b. item B is preferred to item A; or
c. goods A and B are the same.

Whereas the axiom of transitivity is when there are three items, namely A, B, and C. If item A is preferred from item B and item B is preferred to item C, then item A is preferred to item C. Both of these axioms will be in the form of proportions when combined. sorting preferences is all existing items are consistently sorted in the order of preference by a person, this ordering is called the preference function. Based on [8] there are three basic assumptions in consumer preferences, namely:

a. consumers can rank a complete order of preferences for all goods on the market. The preference sequence shows the level of relative pleasure regardless of the price of the item;
b. preference is transitivity. This assumption allows people to have rational and consistent preferences; and

c. consumers will prefer goods in large quantities rather than fewer items.

Simply explained by references [9] defining preferences is liked, choice or something more liked by consumers. Research on consumer preferences for a product has been done before, in several different studies and companies. This indicates that consumer preference is an important thing in marketing because it is closely related to the success of the company to achieve its objectives, namely purchasing decisions made by consumers on the basis of consumer preferences.

2.2 Boarding House (Rumah Kos)

Based on Kamus Besar Bahasa Indonesia [6], rumah is a building to live in. In addition, a house is a building that functions as a habitable residence, a means of fostering a family, a reflection of the dignity of its inhabitants, and assets for its owners [10]. In addition, rumah is a building, where humans live and live their lives [11].

Kos derived from the word indekos. Based on Kamus Besar Bahasa Indonesia [6], indekos means to stay and eat (by paying); lodging, by paying every year or every month. In this study, rumah kos called as boarding house. Boarding houses have many names, such as transient housing [2], halls of residence [12], student housing [13], and university accommodation [14].

2.3 Middle Up Class College Student

Based on Kamus Besar Bahasa Indonesia [6], college students are people who study in college. Class means community. While middle comes from the middle word which means place (direction, point) between two edges (boundary). The middle up class in question is a community group from the midpoint to the top. Based on references [15], criteria for residents based on per capita expenditure per day can be divided into 5 classes, namely, the poor class with expenditure of less than $2 per day, lower middle class with expenditure per day $2-4, mid-middle class for $4-10 per day, upper middle class with spending $10-20 per day and affluent class with spending more than $20 per day. Community classes based on expenses per day can be seen at Tabel 1.1.

Table 1.1. Community Classes Based on Per Capita Expenditures according to Asian Development Bank

<table>
<thead>
<tr>
<th>Order</th>
<th>Per Capita Expenditures Per Day</th>
<th>Community Classes</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>&gt;$20.00</td>
<td>Affluent</td>
</tr>
<tr>
<td>II</td>
<td>$10.00 – $20.00</td>
<td>Upper-middle</td>
</tr>
<tr>
<td>III</td>
<td>$4.00 - $10.00</td>
<td>Mid-Middle</td>
</tr>
<tr>
<td>IV</td>
<td>$2.00 - $4.00</td>
<td>Lower Middle</td>
</tr>
<tr>
<td>V</td>
<td>&lt;$2</td>
<td>Poor</td>
</tr>
</tbody>
</table>

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The middle up class referred to in this study are class III to I (based on Table 1.1), namely the population class with per capita expenditure per day of more than $ 4 or Rp. 58,000.00 (with a rate of $ 1.00 = Rp. 14,500.00). According references [11], human needs level for houses according to their level of income namely physiological needs (shelter, rest, etc.), security (storing goods), social needs, self-esteem needs, self-actualization needs and aesthetics (beauty).

2.4 Factors Affecting the Choosing of Boarding Houses

According references [16], factors affecting the choosing of boarding houses are:

1. Service
   Services in the form of services to support tenants such as the existence of boarding house owners / guards.

2. Facility
   The main good boarding house facilities such as bedrooms and bathrooms. In addition, it includes supporting facilities such as mattresses, air conditioning, wifi, lemari and others.

3. Environment
   Environmental conditions around boarding houses such as luxury housing or informal settlements.

4. Security
   Security from theft offered by boarding houses. It is a safe house fence and CCTV facilities.

5. Location
   The strategic location of boarding houses adds to the advantages of boarding houses. This is indicated near the center of education and trade activities.

6. Reputation
   The image of a boarding house obtained from the experience of consumers who have rented the boarding house.

7. Price
   The value of the rental price of the boarding house and the payment system.

8. References
   The reference in question is the reference to boarding house information obtained by prospective customers. Reference information obtained from family and friends is more trusted by prospective customers.

Whereas according to references [17], the preference for boarding houses is influenced by internal and external factors. Internal factors that influence are consumer characteristics, while external factors that influence the selection of boarding houses are divided into four factors including physical factors, accessibility factors, environmental factors, and boarding house facilities. Whereas according references [18] in the Analysis of Factors Affecting Student Decisions in Choosing Boarding Places in East Surabaya Region, the factors that influence are factors of location, advertising, facilities and prices.

The description of the study of interrelated literature has an important role in the discussion of this study, especially regarding consumer behavior in making decisions to choose boarding houses. Consumers have different preferences for the factors of choosing a boarding house. The owner of a boarding house as a boarding house service provider must be able to know and understand the preferences of tenants because it allows different consumers to have different preferences for the factors of choosing a boarding house. The following is the elaboration of the factors used as variables in this study which have been synthesized from various theories and previous studies presented at Table 1.2.

<table>
<thead>
<tr>
<th>No.</th>
<th>Variable</th>
<th>Indicator</th>
<th>Literature Sources</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Factors that influence middle up class students in choosing boarding houses</td>
<td>Facilities</td>
<td>Clean boarding environment</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>The boarding house is conducive to rest and study</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Parking space is quite large and can accommodate the needs of consumers</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Additional facilities such as television, air conditioning and water heater</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Boarding House is equipped with a bathroom and kitchen</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Complete boarding facilities include mattresses, study tables, cabinets, chairs and wifi</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Boarding houses equipped with communal space in the form of a living room, kitchen and mosque</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Boarding house design</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Boarding room size</td>
</tr>
<tr>
<td></td>
<td>Price</td>
<td>Rental rates for boarding houses</td>
<td>[16], [18]</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Boarding payment system</td>
<td></td>
</tr>
</tbody>
</table>
3. RESEARCH METHODOLOGY

This study uses an explanatory paradigm, namely research that looks at the relationships between factors [19] and is a quantitative study in which the data collected will be analyzed quantitatively [20]. Quantitative approaches are used in determining influential factors and determining preferences. The survey was conducted with respondents from 100 middle up class students. Data was obtained by frequency statistical analysis. Preference formulation is done by selecting respondents on alternative variables for choosing boarding houses.

4. RESULT

4.1 Factors that Influence the Boarding Houses Choosing

In identifying the factors that influence the boarding houses choosing, a questionnaire survey was conducted to middle up class student respondents with 46 male and 54 female from several universities such as Universitas Negeri Surabaya, Institut Teknologi Sepuluh Nopember, Universitas Pembangunan Nasional, Universitas Airlangga and others. Factors of choosing boarding houses as a result of literature review include facilities, prices, references, location, service, security, reputation, environment and advertisement. In the questionnaire, a linkert scale of 1 to 6. was used. The number 1 shows that it is very ineffective and 6 shows very influential. From the surveys that have been conducted and processed with SPSS software, the average value (mean) is obtained from each factor. The average value of a factor sorted from the largest to the smallest is the security factor (4.9800), the price factor (4.7900), location factor (4.7100), facility factor (4.6900), environmental factor (4,5300), reputation factors (4,3500), reference factors (4,0400), service factors (3.8900) and advertising factors (2,2900). The average value of influential factors can be seen at Figure 1.2.

![Influence Determining Score](image)

Figure 1.2 Factors that Influence the Selection of Boarding Houses
From the linkert scale used, the number three (3) is determined as the determining score for influence. The score is less than 3 (<3) so it has no effect and a score of more than 3 (> 3) is influential. Based on the average value of the 9 factors resulting from the literature review, it becomes 8 factors that influence the selection of boarding houses. Ad factors are factors that have no effect. The influential factors are safety, price, location, facilities, environment, reputation, reference, and service factors.

4.2 Boarding House Preferences

The preference of middle up class students in the boarding houses choosing will be discussed in each factor.

4.2.1 Preferences of Security

Safety factor is a factor that is considered the most influential by respondents. The safety factor is supported by the presence of CCTV and the house fence model. The questionnaire results stated that 75 respondents (75%) preferred boarding houses with CCTV. While 25 respondents (25%) prefer boarding houses without CCTV. Regarding the fence model, 60 respondents (60%) prefer boarding houses with tenuous and semi-transparent boarding houses. While 40 respondents (40%) preferred boarding houses with high-closed and closed boarding houses.

4.2.2 Preferences of Price

The price factor is a factor that is considered the second influential by the respondent. The price factor includes the recommendation of the rental price of the boarding house that is expected by the respondent and the system for the period of payment for the rental price of the boarding house. The results of the questionnaire stated that 50 respondents (50%) preferred the cost of renting a boarding house between Rp. 750,000.00 and Rp. 1,500,000.00. 47 respondents (47%) preferred the price of rental housing less than Rp. 750,000.00 and 3 respondents (3%) prefer the rental price of boarding houses in excess of Rp. 1,500,000.00. Regarding the payment term system, 55 respondents (55%) preferred the short-term payment system (per month), 35 respondents (35%) preferred the medium-term payment system (per 3 months) and 10 respondents (10%) preferred the system long term payment (per year).

4.2.3 Preferences of Location

Location factors are factors that are considered to be the 3rd influential by respondents. Location factors include the distance to the boarding house to campus and the width of the road in front of the boarding house. The results of the questionnaire stated that 59 respondents (59%) preferred the location of boarding houses that were less than 1 km from the tertiary institution, 32 respondents (32%) preferred boarding houses between 1 and 3 km from tertiary institutions, and 9 respondents (9 %) prefer boarding houses more than 3 km from the college. Regarding the width of the front street of the boarding house 79 respondents (79%) preferred the width of the road 3 to 5 meters where 2 cars could run in a crossroad, 15 respondents (15%) preferred the width of the road less than 3 meters where the car could only pass in one direction and 6 respondents (6%) prefer the width of the road more than 5 meters where the road can be passed by more than 2 cars.

4.2.4 Preferences of Facilities

Facility factors are factors that are considered to be the 4th influential by respondents. Facility factors include cleaning facilities, acoustic conditions, parking facilities, electronic facilities, additional room facilities in rooms, equipment facilities, communal space facilities, design themes and room sizes. Regarding cleaning facilities for boarding houses, the results of the questionnaire stated that 48 respondents (48%) preferred cleaning staff every day, 37 respondents (37%) preferred cleaning staff regularly (weekly) and 15 respondents (15%) preferred cleaning boarding house by the tenants themselves.

Regarding acoustic conditions that can affect learning and resting in boarding houses, the results of the questionnaire stated that 65 respondents (65%) preferred silent acoustic conditions in boarding houses and 35 respondents (35%) preferred free acoustic conditions to enjoy music and noise.

Regarding parking facilities, the results of the questionnaire stated that 61 respondents (61%) preferred limited car parking (only some tenants), 23 respondents (23%) preferred to park motorbikes only, and 16 respondents (16%) preferred parking 1 car for each tenant.

Regarding electronic facilities in rooms, the results of the questionnaire state that 49 respondents (49%) prefer medium electronic facilities (television and AC only), 31 respondents (31%) prefer minimal electronic facilities (television only) and 20 respondents (20%) prefer choose complete electronic facilities (television, AC and water heater).

Regarding additional room facilities in the room, the results of the questionnaire stated that 53 respondents (53%) preferred additional room facilities in the form of an en-suite bathroom and 47 respondents (47%) preferred additional room facilities in the form of a bathroom, sink and kitchen.

Regarding equipment facilities, the results of the questionnaire stated that 65 respondents (65%) prefer complete equipment facilities (mattresses, study tables, chairs, cabinets and wifi), 32 respondents (32%) prefer medium 1 equipment (mattresses, cabinets and wifi), 1 respondent (1%) prefers medium 2 equipment facilities (mattresses and cabinets), and 2 respondents (2%) prefer equipment facilities by their own tenants (kosongan).
Regarding communal space, the results of the questionnaire mentioned 59 respondents (59%) preferred medium communal space (living room and kitchen), 30 respondents preferred a complete communal room (living room, kitchen and mosque) and 11 respondents (11%) preferred space minimal communal (only living room).

Regarding the design theme, the results of the questionnaire stated that 43 respondents (43%) preferred the theme of minimalist design, 24 respondents (24%) preferred the contemporary modern design theme, 24 respondents (24%) preferred a simple design theme and 9 respondents preferred the industrial unfinished design theme.

Regarding room size, the results of the questionnaire mentioned 59 respondents (59%) preferred rooms with a size of 3x4 meters (12 m²), 34 respondents (34%) preferred rooms with a size of 4x6 meters (24 m²) and 7 respondents (7%) preferred rooms with a size of 3x3 meters (9 m²).

4.2.5 Preferences of Environment

Environmental factors are factors that are considered the 5th influential by respondents. The results of the questionnaire stated that 85 respondents (85%) preferred boarding houses with formal housing conditions and 15 respondents (15%) preferred boarding houses with neighborhood conditions.

4.2.6 Preferences of Reputation

Reputation factor is a factor that is considered the 6th influential by respondents. Questionnaire results stated that 77 respondents (77%) preferred long-term reputable boarding houses (boarding houses that have been operating for more than 1 year) and 23 respondents (23%) preferred a reputable boarding house not long ago (boarding house new / operating less than 1 year).

4.2.7 Preferences of References

The reference factor is a factor that is considered the 7th influential by the respondents. The results of the questionnaire stated that related to boarding references from classmates, 68 respondents (68%) preferred boarding houses from reference to classmates and 32 respondents (32%) preferred boarding houses that were not referenced by college friends. Regarding the reference to boarding houses from non-college friends, 54 respondents (54%) preferred boarding houses that were not from non-college friends' references and 46 respondents (46%) preferred boarding houses from reference from non-college friends. Regarding the family boarding house reference, 60 respondents (60%) preferred boarding houses from family references and 40 respondents (40%) preferred boarding houses that were not from family references.

4.2.8 Preferences of Service

Service factor is a factor that is considered to be the 8th influential by respondents. Questionnaire results stated that related to safeguards, 56 respondents (56%) preferred the absence of boarding house owners and 44 respondents (44%) preferred the boarding house owners / guards who lived in boarding houses. Regarding clean water services, 90 respondents (90%) preferred boarding houses with water pumps and 10 respondents (10%) preferred boarding houses without water pumps. While related to electricity services, 61 respondents (61%) preferred the electricity system per room and 39 respondents (39%) preferred the centralized electricity system.

From the explanation 4.2.1 to 4.2.8, the preference for boarding houses by midle up class students in Surabaya City has been recapitulated to Table 1.3.

<table>
<thead>
<tr>
<th>Factor</th>
<th>No</th>
<th>Preferences Variable</th>
<th>Preferences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Security</td>
<td>1</td>
<td>The existence of CCTV</td>
<td>Boarding houses equipped with CCTV</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>Fence Model</td>
<td>The model of the boarding house fence is low,</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>tenuous and semi-transparent</td>
</tr>
<tr>
<td>Price</td>
<td>3</td>
<td>Monthly Expectation Rental Prices</td>
<td>Recommended rental rates per room between Rp.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>750,000,- and Rp. 1,500,000,-</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>Payment term system</td>
<td>Short-term payment system (per month)</td>
</tr>
<tr>
<td>Location</td>
<td>5</td>
<td>Boarding houses distance to campus /</td>
<td>The distance between boarding houses and</td>
</tr>
<tr>
<td></td>
<td></td>
<td>college</td>
<td>colleges is less than 1 km.</td>
</tr>
<tr>
<td></td>
<td>6</td>
<td>The width of the road in front of the</td>
<td>The width of the road in front of the boarding</td>
</tr>
<tr>
<td></td>
<td></td>
<td>boarding house</td>
<td>house is 3-5 meters where two cars can pass</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>intersection</td>
</tr>
<tr>
<td>Facilities</td>
<td>7</td>
<td>Cleaning facilities for boarding houses</td>
<td>There is a janitor every day</td>
</tr>
<tr>
<td></td>
<td>8</td>
<td>Acoustic conditions</td>
<td>The silent acoustics of the boarding house</td>
</tr>
</tbody>
</table>
## 5. CONCLUSION

Some boarding house preferences can be used in the design of boarding house development. Preferences related to the design of boarding house development are factors of safety, location, facilities, environment and service. From the security factor can be developed boarding houses equipped with CCTV and have a low and tenuous fence. From the location factor, boarding houses are developed at locations less than 1 km from the campus area and have a front road between 3-5 meters wide where 2 cars can pass intersections. From the facilities factor, the house developed must have a janitor every day; silent dormitory acoustic conditions that support learning and resting activities; have a limited car park so some tenants can park their cars; boarding house with AC and TV electronic facilities; boarding houses are also equipped with in-room bathrooms; equipment in the form of mattresses, study tables, chairs, cabinets, wifi; communal facilities in the form of a living room and kitchen; the theme of minimalist design and room size 3x4 m (12 m²). Regarding environmental factors, boarding houses developed are in formal residential areas. Regarding the service factor, a boarding house without an owner / guard who also lives in a boarding house; boarding houses are equipped with water pumps and separate electricity systems per room.

## ACKNOWLEDGMENT

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