ANALYSIS OF CIRCULATION IN KENTUCKY FRIED CHICKEN RESTAURANT ON PANDANARAN SEMARANG

Kurnia Widiastuti^{1*}, Ayu Wandira P¹, Velma Nindita¹, M Agung Wahyudi1, Oohri Listiono¹

¹ Faculty of Engineering and Informatics, Universitas PGRI, Jl. Sidodadi TImur No. 24

*kurniawidiastuti@upgris.ac.id

Abstract. KFC Pandanaran is a fast food restaurant located on Pandanaran Street, Semarang, which has a variety of activities and behavior, including eating, hanging out, doing work, or just drinking coffee. These behaviors require a comfortable dining room as needed. on the integration relationship between space (spatial physical environment) with all activities of individuals/groups of individuals within a certain period. convenient and appropriate spatial planning is one of the advantages of a restaurant. circulation patterns and the characteristics of various restaurant users are things that should be considered to provide user comfort. therefore analysis of circulation patterns with the study of place-centered mapping behavior is needed to determine circulation patterns and user attributes for the convenience of users with a variety of characters. It is intended that the circulation patterns and attributes of restaurant users can be identified at the point of the problem.

Keywords: layout, behavior setting, attributes

1. Introduction

Kentucky Fried Chicken on Pandanaran Street is the one of fast-food restaurants in Semarang city. The main problem in this restaurant is an inappropriate layout by cause of the behavior of visitors that is influenced by the atmosphere of the room and also affects the atmosphere of the room. In this case, behavior is part of the process of interaction between the human personality and the environment. Stimulus arising from the environment is responded to by humans in the form of behavior. This reciprocal relationship is also influenced by interior design and the dominant characteristics of the humans who interact in it [1]. The quality of the environment is formed because the atmosphere of the space is perceived by the visitors which is reflected in their behavior. On the other hand, human activity or behavior also affects the atmosphere of the space. The area should be divided according to the visitors' needs to gain comfort. Each visitor has a different perception. Thus they can feel comfortable if they have a suitable environmental image to enjoy different dishes. The other problem is several spaces are

not of interest to visitors, which it might be caused by an unattractive space design and have poor circulation. The purpose of this study is to determine the behavioral attributes of visitors at Kentucky Fried Chicken (KFC) restaurant on Pandanaran by analyzing the layout of the space. The objective of this study isi the basis for a case study to design a comfortable and efficient space referring ti visitor behaviour patterns

2. Methods

2.1. Step

a. Data Collection

The method used a place-centered mapping study method, namely knowing the area or place you like or visit. This method is a mapping based on the place where the activity takes place. The purpose is to find out how humans or groups utilize, use, or accommodate their behavior in a particular time and place situation [2].

The concern of this method is a specific place either small, or large in a fixed setting which used the person centered mapping. This method emphasizes the movement of human in certain time periods [3]. It aims to determine circulation that occurs in a place, and areas whether they are congested or not.

b. Analysis

This stage is a description of the problem based on the data that has been collected and then analyzed based on the theoretical basis related to the problem. There are three components which influence the interaction between human and environment; setting, behavior phenomena (attribute) and organization (interaction between human and setting) [4]. These three components form the basis of this research analysis.

2.2. Data Source

Primary data were taken directly on the research material through direct observation at Kentucky Fried Chicken (KFC) Pandanaran and from interviews.

Furthermore, secondary data as supporting data relevant to the research problems in this study related to behavior setting theories.

2.3. Framework

The framework shows the flow of thought in a study and the main understanding that underlies other understandings. The frame of mind or framework of thought in this study uses qualitative research.

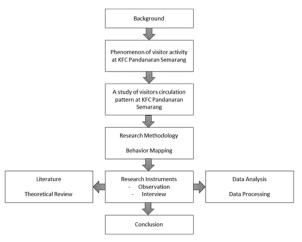


Figure 1. Framework.

3. Analysis and Discussion

3.1 Setting

Setting is defined as an order in an environment that can influence human behavior, In the same place human behavior can be different as well as the setting is also different [5].

Setting is used in architectural and behavioral studies which refers to the integration relationship between the spatial environment and all individual activities and individual groups within a certain period of time [2]. Based on Place centered mapping, the layout of the Kentucky Fried Chicken (KFC) serving room is divided into several areas, i.e. the kitchen and service area, the ordering area, the first-floor dining area, the second-floor dining area, the children's play area, and the terrace area. The ordering area is where customers order, pay and pick up dishes. This area is directly related to the service kitchen area





Figure 2. Layout plan of Kentucky Fried Chicken (KFC) Pandanaran

Legend:

- A, B, C, D, F: 1st floor Dining area (air conditioning).
- E: Terrace dining area (without air conditioning & Smoking Area).
- G, H, I: 2nd floor Dining area (air conditioning).
- J: 2nd floor Balcony dining area (smoking area)

3.2 Movement Pattern of Visitors

No	Time	Activities	Atmosphere
1	Morning	Parking-order- area A-B-C	quiet
2	Afternon	Parking-order- area A-B-C-D- E	crowded
3	Evening	Parking-order- area A-C-E-F	moderate
4	Night	Parking-order- area A-B-C-D- E-J-I	crowded

Table1. Activity pattern of visitors at Kentucky Fried Chicken (KFC) Pandanaran

Based on Person Centerd Mapping, in the morning and afternoon, the major activities at area 1 are drinking and eating. In addition, this place becomes the most mobile phone usage activity. Areas C and J are the areas with the most interaction activities.

Further, area 3 becomes the favorite place on weekdays and weekends in the nighttime. It can be seen from the number of visitors in area E during the observation time.

Visitors in areas A and B tend to be passive and more individualistic. In contrast, in areas B, C, D, E, J, the majority of visitors are more active and socialist, where they interact with each other.

3.3 Behavior when using space

Interior elements such as dining chairs affect the behavior of visitors. Based on the design and material, there are four types of chairs provided to visitors, i.e. sofa, vinyl chairs with iron frames, round sofa benches, and outdoor metal chairs.

Meanwhile, the behavior of visitors in choosing a sitting or dining position changes occasionally. Figure 3 and Figure 4 show the morning situation, visitors tend to choose a sitting position nearby the glass wall facing Jalan Moh Husni Thamrin or in the dining area C.

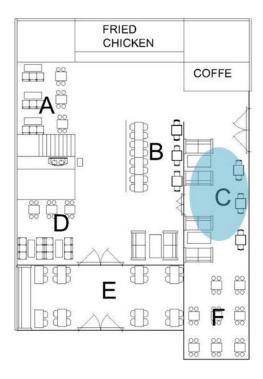


Figure 3. Area C is the favorite seat in the morning

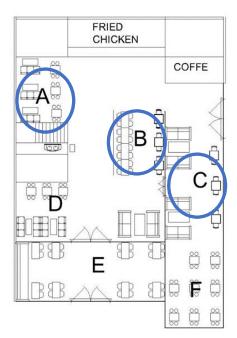


Figure 4. The favorite areas during the afternoon

Moreover, at lunchtime, the tendency of the visitor's sitting position changes. Visitors are evenly distributed in the main dining area, terrace, and additional dining area. However, the highest density of visitors was in the dining room sections of areas A, B, and C. During lunch hours or around 11:30 to 13:00 the density of visitors is high and evenly distributed in the indoor space on the 1st floor. On the balcony and terrace, the number of visitors sitting there begins to decrease because the atmosphere starts to feel hot and dazzling.

Furthermore, at night, from 18:00 to 20:30, the density of visitors occurs. The position of visitors is still evenly distributed. Visitors' seats tend to be fully occupied (see Figures 5 and 6). The crowd atmosphere is almost like during the day, but the difference is that the visitors' seats in the terrace and balcony areas are favorite areas at night. The interesting thing is that sitting in the cool indoor space is not preferable to sitting on the terraces and balconies.

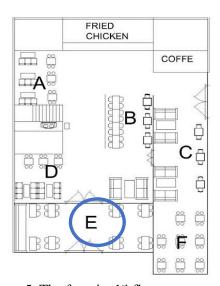


Figure 5. The favorite 1st-floor seat area at night



Figure 6. The favorite 2nd-floor seat area at night

3.4 Attributes

According to Weisman (1981), the attributes that emerge from the interaction consist of: comfortability, sociality, visibility, accessibility, adaptability, sensory stimulation, control, privacy, crowded, meaning, legibility, etc.

From the results of the discussion, it is concluded that the attributes that occur in KFC restaurants are as follows:

No	Attribute	Behavior	Area	Reason	Recommendation
1	Privacy	Behind the entrance	A, C, D, F, G, H, I	The view of people in and out of the restaurant	Given a barrier/partition to the chair and table area to obtain more privacy and comfort.
		Occupies a quiet area		More privacy and undisturbed from others	
		Take a seat close to the wall			
2	Territory	Sit and tell his friend to order food	A, C, D, E, J	Avoid areas that other people want to occupy	Providing uniqueness in each area so that visitors feel comfortable
				Some areas are favorites and have advantages	

3	Accessibil ity	Sit on the side of the outside area or terrace	A, B, C, E	Easy to get in and out of the restaurant	Provides a comfortable circulation
		Sit near the		Closer to ordering food	Provide comfort in the accessibility area
		ordering area			
4	Comfort	Sitting by the window	C, F, E, H, I, J	Get enough lighting	Get a view outside the restaurant
		Sitting on the balcony area		Get natural air as well as a smoking area	Get natural air and as a smoking area
5	Visibility	Sit near the entrance	E, C, F	Easy to see friends who awaited	Place the seating area facing the entrance and the wall clock
		Sit nearby the window area facing the parking lot			Provide a partition to stay comfortable

4. Conclusion

- a. The pattern that occurs when visitors come and choose a seat is that visitors prefer their favorite area, which is the 1st-floor indoor area with sofa and vinyl chairs, terrace area, and 2nd-floor balcony.
- b. The 2nd floor indoor is not the most favored area in the morning, afternoon, and evening by many visitors.
- c. The most influential attribute on the balcony area is comfort related to the view.
- d. The smaller the number of visitors in one group, the longer it takes to leave the restaurant after eating.

Reference

- [1] Hijaz, Taufan. 2007. Desain Interior dan Perilaku Pengunjung di Ruang Publik, Studi Kasus Kelapa Gading Mall Jakarta. Jurnal dimensi Interior No.2 Edisi Desember. ITB. Bandung
- [2] Haryadi dan Setiawan, B. 1995. *Arsitektur Lingkungan dan Perilaku*. Direktorat Pendidikan Tinggi Depdikbud. Jakarta.
- [3] Sommer, R. 1980. Behavior Mapping: Practical Guide to Behavior Research. Oxford University Press. New York
- [4] Weisman, J. 1981. *Modelling Environmental Behavior System*. Journal of Man Environmental Relation. Pennsylvania
- [5] Sarwono, Sarlito W. 2001. *Psikologi Remaja*. Raja Grafindo Persada. Jakarta