Adaptation of Physical Setting to the Appearance of the Jiung Night Market at Public Open Space in Jakarta

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Abstract Jiung is an informal market growing in public open spaces in Kemayoran, Central Jakarta, Indonesia. It consists of a row of non-permanent stalls and is also observed to be surrounding the densely populated settlements and four main Streets which are the Benyamin Sueb, Haji Ung, Kemayoran Gempol, and Bendungan Jago. Most of the traders come from the settlements behind the row of the market stalls and sell from morning to night except for those on the Kemayoran Gempol Street section, who are allowed to only trade up to late afternoon when traders with tents on the Street resume. These trading activities, however, lead to the closure of the Kemayoran Gempol Street and the tents used in the night market also cover the stalls of the Jiung Market merchant. Meanwhile, this market is acceptable to the residents and also the traders due to the long time existence of the Night Market activities in the place. There is, therefore, the need to understand the adaptation process to be implemented for the night market traders to be acceptable using the qualitative approach. It was discovered that a mutually beneficial relationship is the main reason the Night Market has survived up to the present moment. Moreover, the market was also found to have influenced the distribution of traders in several locations around the area but it is possible to inhibit the distribution growth through an architectural approach as a contribution towards the planning and design of urban public spaces in the country.

Keywords Informal Market, Adaptation, Urban Space, Public Open Space

1. Introduction

Cities are centers of growth characterized by the rapid development of several aspects [1] and [2]. These are, however, unable to be contained by the available formal spaces, thereby, leading to the growth of informal spaces [3] which are highly dependent on location, accessibility, mobility, and connectivity based on economic and strategic considerations [4]. This is observed from the fact that informal spaces usually develop in public open spaces due to high accessibility and low levels of supervision and control [5] and [6].

Public space is a city element with high proximity to the people [7] due to the existence of different activities such as recreation, sports, appointments, and commerce [8] with spontaneous [9]. Its use, especially for trading activities, is usually with low supervision and this causes the risk of losing the space due to the expropriation of rights by traders [10] and [11]. Moreover, the unofficial and unplanned change and takeover of the spatial functions have an impact on the environment [12] due to the fact that the informal activities usually conducted in the space have the ability to change its social and cultural conditions [13] and influence image of a Street [14]. Meanwhile, the limited availability of infrastructures caused by rapid and unplanned urban growth negatively affects traders through the pressure from formal and
non-formal actors [15] and low levels of security [16].

Several adaptations have, however, been made by the traders in an effort to deal with the pressures caused by environmental changes in order to survive and maintain privacy in public spaces [17] and have the potential to change the face of the city [18]. Meanwhile, adaptation has been defined by Altman (1975) in Rochimah and Asrinigpuri (2017) to be an adjustment or behavior orientated towards the changes in an environment [19]. The concept also indicates human actions in relation to physical activity as observed from their interactions with fellow humans or their environment [20] and [21].

Jiung Market is an area informally developed into traditional settlements and markets in the 1960s. Some of the residents engage in trading activities at the market using semi- and non-permanent stalls lining around the settlement from morning to night. However, a new traditional market appeared in the area in 1990 and was named the Jiung Night Market with most of the traders coming from outside the area, unlike the previous market. These traders sell in assembled tents from afternoon to evening, thereby, leading to closed traffic on Kemayoran Gempol Street, especially the Street on the west side of Sunter River. This also led to the closure of all the stalls along the Street to the main Jiung Market and also restricted access to the Jiung Settlements.

The creation of the Night Market in the middle of the settlements [22] and existing markets was reported to have led to social, environmental, biological, and physical changes [23]. The environmental changes were, however, observed to have affected the adaptation strategies in the community [24] and [25].

It is, therefore, interesting to study how the Jiung Night Market has survived in the middle of the Jiung Market up to the present moment as well as the acceptance of the migrant traders by the local population without conflict. This is more important considering the fact that the presence of the market led to the closure of the stalls on Kemayoran Gempol Street and most of the access to the settlement. Moreover, it is important to discuss the changes in physical space and the subsequent adaptation to these changes.

2. Materials and Methods

Jiung Market area consists of 3 main parts which are the settlement, market, and the night market. The social relationship between the settlement and market is almost without obstacles due to the fact that they are both operated by the same actors while the majority of the night market traders are migrants from outside the area. Therefore, this research was conducted to determine the adaptation strategy for the actors in the Jiung Market Area, especially those in the night market, based on functional, structural, and behavioral aspects [26]. This led to several observations made at the research location with the focus on the space, social conditions, and the relationship between these behaviors. According to Creswell (2017), qualitative research is a method used in exploring and understanding the problems of a group of people or society from a social or humanitarian perspective. Therefore, the stages involved in this research include the conduct of interviews, collection of data from participants, inductive data analysis, and interpretation [27].

Participant observation is also an important research instrument which involves active participation of the researcher in the research instead of being passive observers [28]. The purpose of this method is mainly to minimize the distance between the object and the research subject through the direct involvement of the researcher with the observation material. This technique has been developed for a long time by anthropological researchers that conduct research by living in a community or society for quite a long time [29]. This method was also applied in this research in addition to the previous strategies employed.

Jiung Night Market traders start selling from the afternoon and close by evening but the activities usually commence in the noon through the setting up of tents and preparation of wares. This period was considered the best time for the field observations [30]. Meanwhile, the traders are mostly busy during the daytime when they are installing their tent and also late in the evening when several buyers come to the market. This means the right time to conduct the quality interview was afternoon and before the closing time due to lesser business transactions at these periods.

The discussion is reviewed at the time before and after the Jiung Night Market stands to see the changes that have occurred so that it is expected to see an adaptation of the existence of the Jiung Night Market. The next discussion looks for whether there is a role for Jiung Market Settlements and Market in this adaptation.

3. Results and Discussion

3.1. Jiung Market Settlements, Market, and Night Market

The Jiung Market area is located at the southern end of Benyamin Sueb Street, precisely in Kebon Kosong Village, Kemayoran Subdistrict, Central Jakarta. It has 3 main parts which include the settlement, market, and night market as previously stated. The settlement contains densely populated permanent and non-permanent houses with a narrow alley circulated to be crossed by only pedestrians and motorbikes. Moreover, the settlement and market are directly adjacent to the apartment tower, thereby, creating a contrasting view between the two. This area is observed to be growing informally in the open
Jiung Market is a traditional market where varieties of household items are being sold from morning to night. It consists of a row of semi-permanent and non-permanent stalls surrounding the settlement behind it and also contains several accesses between the rows of stalls to the settlement for pedestrians and motorbikes as indicated in Figure 2. The market is located on four main Streets which are the Benyamin Sueb, Haji Ung, Kemayoran Gempol, and Bendungan Jago.

The Kemayoran Gempol Street is split by Kali Sunter which stretches from South to North to form the West and East sections of the Street. Trading activities were observed to have started on the west sections from noon with the setting up of tents by the Night Market traders that usually sell clothes and accessories on the Street from afternoon to late in the evening or night.

The Jiung Market Area was divided into 6 zones in this research to facilitate the analysis of adaptation to the night market as indicated in Figure 1. These include 4 zones on the 4 Streets surrounding the settlement which are Zone A on the West Kemayoran Gempol Street, Zone B on the Benyamin Sueb Street, Zone C on the Haji Ung Street, and Zone D on the Bendungan Jago Street. Meanwhile, the other two zones are the bridges connecting the west and east sections of the Kemayoran Gempol Street which is the site for the night market which is the Zones E and F respectively.
3.2. Adaptation in Zone A

Zone A is located on the west section of the Kemayoran Gempol Street and has two different markets with different operating times which are the Jiung Market and Jiung Night Market. The Jiung Night Market is temporary due to its placement on an active Street and this is the reason it is usually open for business from afternoon to evening as well as the implementation of temporary stalls. The Street is also used for public purposes from morning to noon when the market is not active. Most of the traders come from outside the area and this means they need a warehouse to store their tents and merchandise considering the larger amount of time and money it will take them to transport them every time from their towns. The people of Jiung Settlement captured this opportunity by turning part of their house and yard into a storage warehouse using a rental system.

The existence of the Night Market on both sections of the Kemayoran Gempol Street leads to the closure of the stalls in the main market and access for motorbikes owned by residents of the settlement. Meanwhile, the wider access is designated as a motorbike parking lot and this means Jiung residents with motorbikes can only access their settlement through the Haji Ung Street. There is also a badminton court which has been converted into a motorbike parking area close to this access.

The rows of tents on the right and left sides of the west section of Kemayoran Gempol Street leave a corridor accessible to only pedestrians while parking space is provided 2-wheeled vehicles at the southern end of the market and 4-wheeled vehicles usually pack in the surrounding Streets due to the absence of parking area. This condition was further exacerbated by the presence of several Street vendors and mobile carts on one side of the tent as well as several 2-wheeled vehicle users crossing the corridor and even shops while still on their motorbikes.

3.3. Adaptation in Zone B

Zone B is on the Benyamin Sueb Street which is a space formerly used as the Kemayoran Airport. The area has, however, been transformed into an office as well as for business and high-level residences since the closure of the airport while the airstrip was changed into a public Street known as the Benyamin Sueb. The Jiung market has been existing for long in this zone since the emergence of the Jiung settlement. The market was initially stretched along the Haji Ung Street but later split to the west and east sides of the airstrip runway when the airport stopped functioning. It is important to note that the Westside did not grow into a bustling market and was eventually closed down while the eastside developed to the present Jiung market.

This zone only has a few Jiung market stalls which look deserted despite the presence of a very wide main Street quite crowded with vehicles. This means most of the stalls open their business at noon with some of the traders admitting to having other businesses besides selling in the market.

3.4. Adaptation in Zone C

This zone is on the Haji Ung Street and has the highest vehicle traffic due to the fact that it connects the office and residential areas in Kemayoran to the East Jakarta, Pulo Gadung, Bekasi, and other areas using private vehicles or public transportation. Most pedestrians, however, avoid this Street due to the heavy traffic flow.

3.5. Adaptation in Zone D

Zone D is on the Bendungan Jago Street with a fairly high level of traffic density throughout the day. The Jiung Market traders sell from morning to night in this zone and several other traders also trade in front of the Jiung Market stalls and even up to the bridge connecting the West and East sections of Kemayoran Gempol Street during the night market. It was also observed that some motorbike owners park their vehicles on this bridge to shop.

3.6. Adaptation in Zone E

This zone is a connecting bridge for pedestrians crossing the Sunter River between Kemayoran Modern Market and Jiung Market. However, this bridge is also used as a motorbike parking lot while a trader also sells using a tent at the southern end towards the evening in line with the commencement of the night market.

3.7. Adaptation in Zone F

This zone is similar to Zone C being a bridge connecting Kali Sunter for pedestrians. It is, however, not accessible to motorbikes due to the presence of some quite high stairs. Moreover, the dimensions are also quite narrow to the extent that only three pedestrians can pass at a time while the damaged safety fence also makes it quite dangerous for pedestrians. It is important to note that the settings of this zone are not affected by the night market with the bridge observed to be continually functioning as a crossing path for pedestrians without any stall or Street vendor found on the bridge.

The adaptation in six zones can be seen in Table 1.
### Table 1. Adaptation of the space settings for the zones

| Zone   | Functional                                                                 | Structural                                                                 | Behavioral                                                                 |
|--------|-----------------------------------------------------------------------------|-----------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| A      | Jiung Night Market traders occupy the Kemayoran Gempol Street section, thereby, causing the Street to be closed and the traffic flow diverted to another Street. The night market is only allowed for pedestrian buyers while special parking is provided in the entrance area and several points in the market for those with motorbikes. However, some buyers still enter and transact in the market while on their motorbikes. | Provides benefits for the residents of Jiung Settlement when they rent out part of their house or yard for migrant traders to store their tents and merchandise. Provides seasonal employment for the residents to work as a motorcycle park guard. Improves the relationships between the traders, tents, carts, and stalls. | Weak territory boundaries as observed with the lack of special boundaries between business spaces. Weak privacy level as indicated by the allowance of buyers into the business space. |
| B      | The zone is not affected by the presence of Jiung Night Market. The night market traders are free to open their business from morning to night, although sometimes they do not sell. Traders in this zone have been selling at Jiung Market for a long time. | There is a smooth relationship between traders due to the absence of migrant traders. | Weak territory boundaries as observed with the lack of special boundaries between business spaces. Weak privacy level as indicated by the allowance of buyers into the business space. Very quiet traders. Their behavior shows they are sometimes lazy to open their stall because they cannot expect to wait for buyers to come. |
| C      | The traffic flow is very dense and busy in this zone, thereby, stopping the activities of Jiung Night Market traders. | There is a smooth relationship between traders due to the absence of migrant traders. | Strong territory boundaries as indicated by stalls with walls and, sometimes, doors in the places used as business space. Strong level of privacy. Only certain people have access to the business space. |
| D      | This Street section includes the distribution area of the night market and contains two types of business spaces which are the cart and stall. The night market traders in this zone do not close the stalls and public Streets unlike Zone A and also use carts without closing the stalls belonging to the main market traders. | The stall traders sit cross-legged while waiting or serving the customers while the cart traders sit on their cart benches. The traders are prone to rain and usually prepare tarpaulin materials to cover their merchandise. | The bridge, which is wide and fenced, provides comfort for vehicle owners to park their motorbikes. |
| E      | The bridge changes its function to become a parking area for motorbikes when the night market trading activities start. There is a Street vendor during the night market at the East end section of the bridge when the traders on the Kemayoran Gempol West section start trading. | Provides seasonal employment for the residents to work as a motorcycle park guard. | The bridge, which is wide and fenced, provides comfort for vehicle owners to park their motorbikes. |
| F      | This is the only zone not used as business or parking space in the whole of the Jiung Market Area. The small dimensions of the bridge and the absence of fences make it difficult for traders to sell and buyers to move around. The bridge is also quite high from the Street body and only accessed using stairs, thereby, making it difficult for motorbikes to pass and park. | It is only useful for pedestrians to cross the Kemayoran Gempol Street from the West to the East and vice versa. | Pedestrians need to be careful on the bridge due to its narrow width and absence of guardrails. |
3.8. The Influence of the Jiung Night Market Traders

Figure 3 shows about the Jiung Night Market is not only existing on the Kemayoran Gempol Street section but also observed to have grown at several other points such as the areas in Zones D and E. These two zones are actually far away from the busy traffic on Haji Ung Street while the traders of the main market and night market in Zone D were discovered to be working side by side even though they have almost the same type of business.

Figure 3. Traders Distribution

4. Conclusions

The existence of the Jiung Night Market and the migrant traders was observed to be accepted by the traders and residents of the Jiung Market settlement due to the benefits they enjoy. This, therefore, led to easy adaptation based on the mutually beneficial relationship they share to the extent that the residents and traders are even willing to "give in" to the closure of motorbike access to their settlement. Moreover, the use of easily detachable tents by the night traders provides another form of business for the people in the settlement through the conversion of some parts of their house and yard into a warehouse to store these stalls and merchandise at a fee.

The night market also brings about changes in space at certain points as indicated by the distribution of the traders in Zones D and E as well as several access Streets to the Jiung Settlement. Meanwhile, the traders in these zones were observed to be selling using carts and stalls on the side of the Street and apart from the other economic benefits previously mentioned, the night market also provides new jobs for residents as motorbike park guards.

The existence of the night market was, however, observed not to affect the existing space settings in some zones such as Zone F which has a bridge for pedestrians without any change in this function throughout the day due to the following conditions:

1. The bridge level is high from the Street and this means it is only accessed through stairs, thereby, making it difficult for motorbikes to cross but only accessible to pedestrians crossing to and from the West and East Street sections of Kemayoran Gempol Street.
2. The narrow dimensions of the bridge do not provide sufficient space for informal traders to sell and the buyers to move.
3. The damaged condition of the bridge safety fence makes it quite dangerous for pedestrians to cross and stand for a long time and this is the reason it is rarely used.

The findings showed the development of the informal space seems uncontrollable and needs to be overcome through limited access using architectural elements such as stairs and fences and spatial dimensions as indicated in Zone F.

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