

# Spatial Adaptation on Home-based Enterprises Development in *Kampung*

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**Abstract:** Housing for low income urban households in developing countries, including numerous *kampung* in Indonesia, does not only generate consumption but also becomes productive capital through business activities known as Home-Based Enterprises (HBE). The use of small home for business activities either directly or indirectly implies a disruption in domestic activities. The inhabitants adjust their house using many strategies to overcome the limited space. This article aims to explore adaptation strategies undertaken by households in the *kampung* regarding the use of space. This study adopted qualitative method focusing on activities and realities. Research data were collected using in-depth interviews, direct observation and participatory data collection, conducted through purposive sampling methods. This study elaborates the spatial implication of the dual function of housing in *kampung*. Sharing and shifting of space become general adaptation mechanisms in achieving suitable living in the *kampung*.

## 1 INTRODUCTION

The urban poor develop many strategies in order to survive living in cities. Housing does not only generate consumption but also become productive capital for low income urban households in developing countries, including numerous *kampung* in Indonesia. The phenomenon is widely known as Home-Based Enterprises (HBEs). Many scholars have observed that the house may not only be a place for domestic activities but can also function as a location for income generation, through business activities (Tippel, 2004; Kellett and Tippel, 2003; Kellett and Bishop, 2000).

Lipton (1980) emphasized that HBEs are qualitatively different from other informal economic activities because the enterprise activity is centred on family. The dwelling and the family are the traits of HBE. Strassman (1987) stated that HBE is not just a small business in a small structure but also a family operation in a dwelling. That definition focuses on the element of dwelling and family as the core of HBE. Another definition stated that HBEs are small-scale enterprises operated only by family members; others may be on a larger scale in terms of space and special

equipments, and conducted by workers external to the family (Gough and Kellett, 2001).

The implications of business in the house vary. The use of small home as business activity either directly or indirectly implies a disruption in domestic activities. The inhabitants need to adjust the conditions of the home environment for the supplementary activities. Many researchers suggest that spatial implications in the case of HBE still require further exploration. Kellett and Tippel (2000) have revealed the need for more comprehensive studies that examine the negotiation of resource allocation, particularly space, time, and labour, with a mutual influence between the business and domestic areas.

In many *kampung* in Indonesia, home is not only a place for social reproduction but also a place for production. HBEs' activities in the *kampung* varies not only in terms of the scale of the business, but also in terms of the size and type of domestic space used to it. The phenomenon of HBEs is also found among low income households in the *kampung* of Surabaya. There are many *kampung* developed as micro economic centres based on the local product called *kampung unggulan*. *Kampung kue* in Rungkut Lor is one of the *kampung unggulan* in Surabaya established

in 2000. Many households in this *kampung* produced many kinds of traditional dan modern cake every day. Houses in the *kampung* are used not only for domestic activities but also as production and distribution space. The inhabitants adjust their houses using many strategies to overcome the limited space in their house. The spatial implication perspectives of HBEs need to be elaborated more in depth, particularly the strategies regarding the use of space for business and domestic activities by households. This paper attempts to explore adaptation strategies undertaken by households in the *kampung* regarding the use of space.

The study focuses on the households' adaptation strategies used for domestic and business space. This study employs qualitative method focusing on a process and natural conditions. To understand the mechanism and capture the salient facts, this study uses in-depth interviews, direct observation and participatory data collection, conducted through purposive sampling methods.

## 2 THE CONCEPT OF HBE

HBE has been described in various terms according to different authors' points of view, although it basically has a similar meaning. According to Marsoyo (2012) 'home-based enterprise' indicates a practice within the informal sector. HBE can be defined as a small-scale, shared, economic activity in the dwelling and its surrounding space, which is managed by family members who lived in the house, where the workers are the family members, or other labourers, or both. There are three components of HBE, which are business activity, family and space/house (Figure 1).

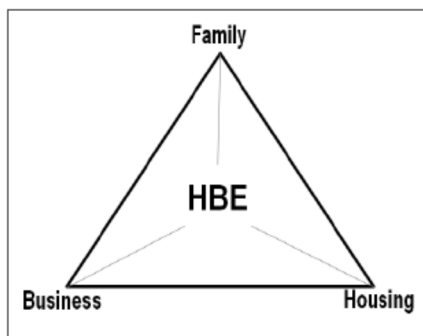


Figure 1: The Core of HBE (Marsoyo, 2012)

HBEs can be seen from two points-of-view, the micro and the macro. From the macro point of view, HBE partakes of two categories, namely, the informal sector in the urban economy and urban housing. From

the micro perspective it combines three aspects: business, family and space. Beyond these, of course, the definition of an HBE is rather complicated, debatable, and impossible to state as single formula. This is because of it encompasses a very broad range of activities, from simple through to complex (Marsoyo, 2012).

### 2.1 HBE in Many Perspective

#### 2.1.1. Economic Perspective

Some scholars consider the phenomenon of HBE viewed from the perspective of income. HBE is considered to be a form of domestic economic activity, due to its potential as a source of income for households and for its economic multiplier effect on families and communities. Tipple (2005) (Tipple, 2000) showed that the percentage of income from kampung's in Surabaya was found to be 60% higher than in India (58%). Its means that home-based economic activity will significantly contribute to the urban economy.

It is clear from the previous description that a sustainable household livelihood becomes important and the role of HBE cannot be separated from the process of economic activity itself. In this context, it is not only households who benefit from this, but there is an influence on the larger environment; at the local, urban, and national levels.

#### 2.1.2. Social Perspective

Kellett and Tipple (2000) and Tipple (2000) argue that a house used for HBE is not only important as a workplace but also as means of social interaction. In terms of social perspectives, HBEs play an important role for every households by providing daily necessities. The neighbours as buyers are not only buying, but also creating social relationships, both with other buyers and the operator. Its means that there is a reciprocal relationship between home-based economic activities and the consolidation of social networks.

#### 2.1.3. Urban Planning

Research on urban planning and management in developing countries still pays little attention to HBEs. Many argue that HBEs are recognized as facing many obstacles especially in relation to urban planning. It is because HBEs do not fully comply with urban planning standards, building codes, or zoning plans. Meanwhile, HBEs are considered as problematic, rather than as income generating to the

urban economy through providing livelihoods for low-income groups.

Along with the development of the urban planning system especially in developing countries, the real setting of the HBE needs to be included, because it provides a local service facility. Kellett (2000a) emphasised that HBEs are not only for income generation, but also have a role as a local service facility within a neighbourhood. The role of HBEs as local service facilities suggests that HBEs need to be supported and accommodated in the urban plan.

### 2.1.4. Housing Policy Perspective

In perspective of housing policy, the benefits of HBEs go beyond income generation and employment and the consolidation of housing. They can also contribute to upgrading and rehabilitating slums. Therefore, there are at least three benefits that can be considered in housing policy, as follows: first, HBE can be an asset in improving living standards; second, by improving living standards, people in low income groups can also gradually improve housing conditions in a way that has been referred to as housing consolidation; and third, their subsequent effects are able to improve the wider environment, such as through settlement upgrading and rehabilitation.

### 2.1.5. Environmental Effects Perspective

Some researchers argue that the informal sector, including HBEs, is assumed to be a problem for the environment. In fact, the domestic activities of the household such as cooking, sweeping, vacuum cleaning, painting, and redecorating can cause the release and spread of indoor pollutants at home. Those impacts will be worse if the household is occupied in motor servicing, small restaurant, or craft production. However, Perera and Amin (1996) and Tipple (2005a: 296) (Tipple, 1999) state that the negative impacts (pollution) on the environment of informal sector activities, including HBEs, are minimal.

### 2.1.6. Spatial Implication

The spatial implications of HBEs are related to the configuration of space, spatial organization, territoriality, and boundaries. Bishop and Kellett state that: *the line and boundaries between reproductive and productive activities are managed through a complex, culturally-embedded mechanism in which individuals, households and groups are continuously*

*negotiating and re-negotiating the relations and boundaries between themselves* (2000: 54).

The boundaries of the area for business and domestic use are largely determined by culture. According to Kent (1991), spatial boundaries, both conceptual and physical, are continuously changed and varied, differing from one culture to the other.

## 2.2 Adaptation Strategy

In numerous fields of social science, adaptation is considered as a response to risks relating to the interaction with environmental change, particularly changes in the physical environment such as in dwellings, urban areas, the state, or the world. Humans basically face the same adaptive challenges as all organisms, but humans are more varied because of different cultural influences. Human adaptation depends on cultural adaptation.

The descriptions of coping strategies so far have placed the emphasis on general applications, while Berry (1980) proposes a model with three basic elements of ecology, culture, and behaviour. Bearing in mind harmonious coexistence between the three elements, Berry (1980) formulates three adaptation strategies for coping with changing environmental conditions: adjustment, reaction, or withdrawal.

In the context of HBE, Tipple and Kellett (2003) have identified two categories of adaptation strategies which are sharing of space and extending of space based on their study in developing countries. In additional, Marsoyo (2012) formulate three adaptation strategies undertaken by households in relation to 'constructing spatial capital' in the case of HBE, that is (a) the sharing of space, (b) the extending of space, and (c) the shifting of space (Figure 2).

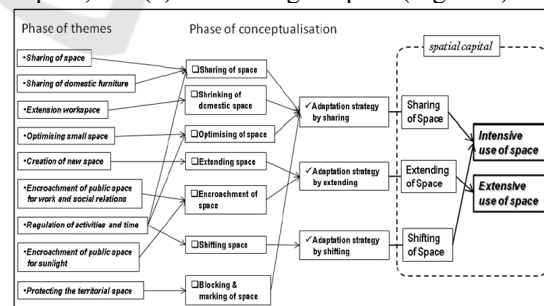


Figure 2: The Concept of Adaptation Strategy on HBE (Marsoyo, 2012)

Furthermore, these three categories of space use may be grouped into two basic patterns, namely: intensive use of space and extensive use of space. This grouping gives more detail about the use of space based on the physical aspects of the space. Thus, the sharing and shifting of space take place

without increasing the overall net floor area. For this reason, both categories are grouped into the intensive use of space. Conversely, the extending of space is automatically included in the opposite pattern, of extensive use of space (Marsoyo, 2012).

The 'sharing of space' is generally adopted by households to accommodate business activities at home, as this can be done in large or small housing. Households living in limited space generally employ a pattern of shared space, in which family interaction takes place in locations that are not exclusive or restrictive.

The 'extending of space' is the transformation of adaptation strategies undertaken by households in terms of expansion, or 'adaptation strategies by extending'. The household must invest great effort to make the separation of business and domestic activities more apparent. Extending space can be done by adding physical space horizontally and/or vertically, and may also include encroachment into public space. The latter requires a greater social than physical effort than the former, with social effort needing to be expended to assure neighbourhood relations.

The 'shifting of space' is a strategy used by households to accommodate business and domestic activity at different times of the day which accommodates the extremely small size of the house. The households become more creative in managing the space to accommodate the business activity. This means that the activities taking place within the space are segmented by time (Kent, 1993).

### 3 DISCUSSION

#### 3.1 General Condition of *Kampung Kue*

*Kampung Kue* is an urban settlement in Rungkut Lor Gang 2 Surabaya. Almost all of the households in this kampong have a side business, that is making cakes. All production processes starting from ingredients preparation, cooking, packaging and selling are done at their homes. Every cake production activity is carried out by themselves with the help from family members and some are assisted by workers. The idea of setting up to a cake village business was so interesting that the business became the main source of income for the majority of residents in the Rungkut Lor. For large-scale producers, the workers who helped the production process came from other cities, such as the Kediri and Solo. Some are from outside of Java. The workers lived and settled by rent a house

around the production house owned by residents in the Rungkut lor area because the production process was carried out every day.

From the production activities carried out by the producer assisted by the workers, there are some who do not carry out a complete production process until the production process is stored in a long time. Several categories of producers were obtained based on activities and business space used in their homes as shown in Table 1.

Table 1: Used of Space in Kampung Kue

Household	The space used	Business space category
1. Elva	Home storage space integrated with the kitchen	Own
2. Choirul	Home storage space integrated with the living room and dining room	Rent / board / contract
3. Ismail	Storage and packing space are in the bedroom which is also functioned as a work space / business	Rent / board / contract
4. Kinarti	Without storage because after the production process finished, the customer take it directly	Rent / board / contract

The used space for production activities of each producer in Rungkut Lor is a space for the production process and space for post-production. The space for the production process consists of dough preparation space, making wet cake and pastries space, frying steaming space, roasting space, packing space, and mixed space. The space for the post-production process consists of storage space, sales space or mixed space. The space used for business activities at each producer depends on the business space that is owned or the space that can be used, because not all producers carry out the entire production in full.

#### 3.2 Used of Space on HBEs Development in *The Kampung*

The data obtained from the survey show that the space for production is used routinely every day in the afternoon until early morning. The production process is carried out periodically in several small-scale producers that do not have storage space. They make cakes in small quantities and make more



quantities if there are orders. Direct production results are taken by customers or sold directly in the corridor area of the village. Some producers have a production scale that is large enough to reach approximately 1000 pieces everyday with various types of cakes, assisted by 2-4 workers. Their working time tends to be routine because the cakes are sold every morning. The following table presents the schedule of space use for cake production in *Kampung Kue* Rungkut Lor Surabaya

Table 2: Activity Schedule for Conducting HBE in Elya's House

Time	Activity	Room	User
10.00-12.00	Cooking	Kitchen, Washing room	Wife, grandmother, employee
15.00-16.00	Cake production preparation	Kitchen, Washing room, Bathroom	Wife, grandmother, employee
16.00-18.00	Cake production process	Kitchen, Dining room, Washing room, Bathroom	Wife, grandmother, grandfather, employee
18.00-19.30	Cake packaging	Kitchen, Dining room, living room	Wife, grandmother, grandfather, employee
19.30-21.00	Cake marketing via online	Dining room, Living room, Bedroom	Wife, husband, employee

From the results of the mapping on figure 3, it can be seen that the process of making cakes starts from preparation to marketing uses the space that is already in the house. Some parts of the room in the house are used as multifunction rooms according to the need to support the process of preparation to marketing the cake. They share their living room and dining room to produce cakes. Outside the production hours, they use the dining room and living room as their function



Figure 3: Used of Space for HBE in Elya's House

The function of space for production processes such as cutting material, measuring dough, etc. which is a dry activity mixed with dining room which is also used to gather and eat together. Then, there is a function of space for packaging and production marketing that mixes with the dining room and living room. This shared use of space shows that there is a portion of space in the house that is also used as the business space.

Table 3: Activity Schedule for Conducting HBE in Choirul's House

Time	Activity	Room	User
02.00-04.00	production preparation – session 1	Wet kitchen or dry kitchen	Wife, husband
05.30-06.00	production preparation – session 2	Wet kitchen or dry kitchen	Wife, husband, employee's,
10.00-12.00	Cooking and producing cakes	Wet kitchen and dry kitchen, washing room, bathroom	Wife, husband, employee's,
15.00-18.00	Cake production process	Wet kitchen and dry kitchen, dining room, washing room, bathroom	Wife, husband, employee's,
18.00-19.30	Cake packaging	Wet kitchen and dry kitchen, Diningroom, living room, terrace	Wife, husband, employee's,

Time	Activity	Room	User
19.30-21.00	Cake marketing via online	Diningroom, living room, bedroom	Wife, husband, employee's,

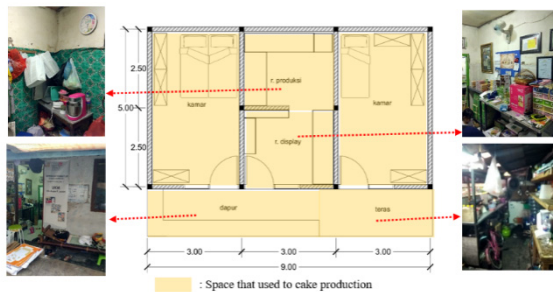


Figure 4. Used of Space for HBE in Choirul's House

The house has a limited space. The bedroom connected with the dining room and living room. Although it has a limited area, this house is used as production space and display. There is a sharing space and shifting activities between rest activities and cake production processes, some of which are carried out in the bedroom. In accordance with the timetable for space use, it can be seen that there are patterns of changes in activities in the same space. The TV room, living room, and terrace at 6:00 p.m. - 9:00 p.m. change function from the rest space to the space of packaging and marketing cakes

Table 4: Activity Schedule for Conducting HBE in Ismail's House

Time	Activity	Room	User
18.00-22.00	Preparation process to make dough	Terrace or kitchen	Wife, Husband
00.30-03.00	Frying	Kitchen	Wife, Husband
03.00-05.30	Packing	Bedroom	Wife, Husband and kids
	Marketing	Corridor in front of the house	Husband
15.00-16.00	Washing tofu and drying process (filtered until tofu not containing water)	Kitchen	Wife

From the mapping table 5, it can be seen that the production process, including cutting ingredients, packaging, etc., is carried out in a room which is also used to gather, watch TV and eat together. The use of the bedroom space for the other activities of cake

production process shows that there is a part area of the house which is sharing space and shifting time with the business space.

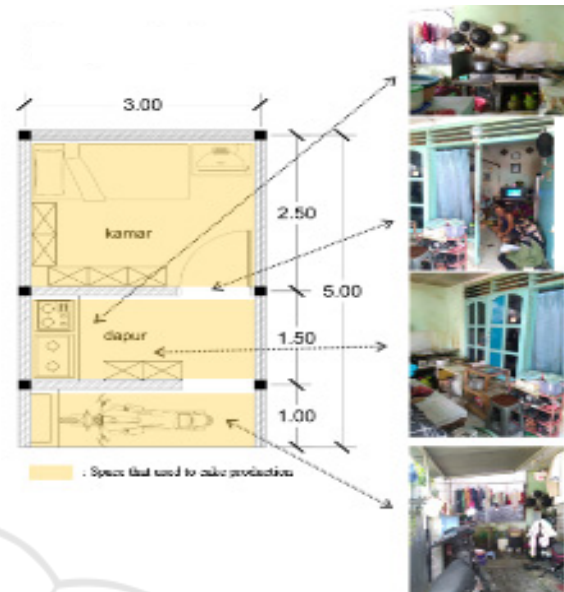


Figure 5: Used of Space for HBE in Ismail's House

Table 5: Activity Schedule for Conducting HBE in Kinarty's House

Time	Activity	Room	User
15.00-16.00	Cooking preparation	kitchen	Wife and husband
16.00-20.00	Making dough	kitchen	Wife
20.00-23.00	Cooking cake	kitchen	Wife and husband
23.00-01.00	Packaging	Kitchen, living room	Wife, husband and kids
03.00-03.30	Prepare to marketing	Kitchen, living room, terrace	Wife, husband
03.30-05.00	Marketing	Living room, terrace	Wife, husband

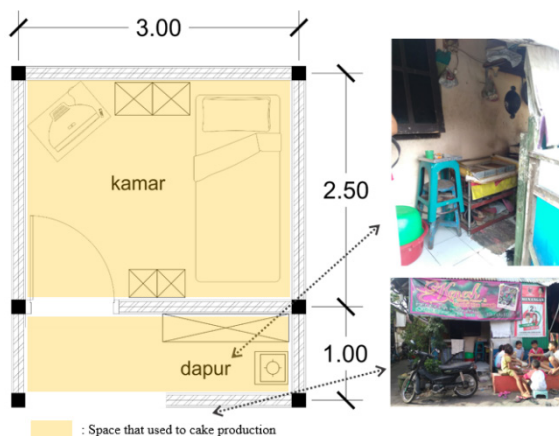


Figure 6: Used of Space for HBE in Kinarty's House

From the results of the mapping, it can be seen that family's activities to produce cake were not only carried out in the kitchen. At production hours, they also use the bedroom, living room and terrace. From the characteristics mentioned before, it can be seen that with the limited space, the cake production process, starting from preparation to marketing, can be done by switching or mixing the existing space in the house with the cake production activities. Dry activities in the form of preparation, packaging and marketing can be done in the living room, and terrace mixed with kitchen and bedroom. The wet activities such as washing, processing and cooking are still done in the kitchen.

### 3.3 Adaptation Strategy on HBE Development in *Kampung Kue*

The availability of space is a fundamental element in operating a business at home. There is no guideline about how large or small a space can be used for a business, because this will depend on the characteristics of the business type. Several types of business only need a small space and others need a large space.

Table 6: Adaptation Strategy on HBE Activity in *Kampung Kue*

Household	Used of Space for HBE	Adaptation Strategy
Elva	Uses only part of the house (dining room, living room, kitchen)	Sharing Space Shifting Space
Choirul Mahfudua h	Used all available space in the house	Sharing Space Shifting Space

Household	Used of Space for HBE	Adaptation Strategy
Ismail	Used all available space in the house	Sharing Space Shifting Space
Kinarti	Used all available space in the house	Sharing Space Shifting Space

These findings support the results of iElisa, E. (2016), Yandi, Yatmo, & Atmodiwiryo (2013), and Winarni, et.al. (2013) adaptation strategy expressed an innovation method to overcome the scarcity of space for daily activity. Kampung inhabitants have a great level of tolerance for overcrowding condition. In the context of HBE, Marsoyo (2012) stated that doing business in the house potentially creates greater crowding and higher densities. The use of space is not only related to space in the house, but also space outside the house.

The adaptation strategies are conducted by households as a response to multiple-activities in the limited space. Business activities in the home lead to a shift in the used of space. During the day, space in the house is more dominated by business activities. Based on the interpretation of the physical elements of the built environment, through such methods as interviews and other observations during the fieldwork, this study reveals two strategies in adapting a small house for business activities. The 'adaptation strategy by sharing' means that a domestic space in the house originally intended to be used for domestic activities is shared for business activities. Shifting strategy means conducting different activities in the same space at different time.

## 4. CONCLUSION

This study elaborates in great detail how households exploit space in their housing through creative and flexible actions to generate income as part of achieving balance between conducting domestic activity and business activity. Sharing and shifting space are two common adaptation mechanism implemented by the inhabitant in *kampung kue*.

Sharing space is done through flexible arrangement of the furniture. Moving furniture to expand the working space, positioning of other elements, and the vertical placement of furniture are also included in this category. Shifting space is done through scheduling of the use of space for domestic activity and business activity. During the midnight and early morning, extremely small spaces are exclusively used for business activities and when

activities are completed, these spaces take on domestic functions, for instance as a place for family interaction or sleep.

The use of space is not only related to the space in the house, but also the space outside the house, which might in some cases, be public space. This use of space requires the operator to follow the norms of life in the *kampung*.

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