

# **Area Development Guidelines to Support the Open-Air Markets in Thammasat University, Rangsit Campus**

## **แนวทางการพัฒนาพื้นที่เพื่อรองรับการค้ารูปแบบตลาดนัดในมหาวิทยาลัยธรรมศาสตร์ ศูนย์รังสิต**

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### **Abstract**

The objectives of this research article are to 1) study physical characteristics, patterns and factors having an impact on sales and services in open-air markets, 2) study behaviors and attitudes of buyers and sellers, and 3) propose area development guidelines to support open-air markets in Thammasat University, Rangsit Campus. From research results we have found that the Inter Zone and Thammasat University Hospital open-air market have different physical characteristics. The Inter Zone open-air market has a serious accessibility problem. When considering patterns and factors of sales and services, it is found that factors having impact on sales in the both open-air markets are physical characteristics, diversity and numbers of sales and services, management of open-air market area. For behaviors and attitudes of buyers and sellers, it is found that buyers from Inter Zone open-air market want to see improvements of organizing pedestrians and transportation routes, providing more parking areas, increasing facilities for pedestrians, and more caring of trash disposal. Buyers at the Thammasat University Hospital open-air market see that market problems are in a low-to-medium level. From sellers' data, it is found that the most important factor that sellers pay attention to is a convenient access to the open-air markets for buyers. Sellers from the two zones of open-air markets see that market problems are in a low level for every issue. Finally, area development guidelines to support open-air markets in Thammasat University, Rangsit Campus are proposed and divided into 3 main aspects; facilities for open-air market area, development of goods and services, and management of the open-air market area.

### **บทคัดย่อ**

บทความนี้มีวัตถุประสงค์เพื่อศึกษาลักษณะทางกายภาพ รูปแบบและปัจจัยที่มีผลต่อการค้าขายและการให้บริการของตลาดนัด พฤติกรรมและทัศนคติของผู้บริโภคและผู้ค้า และเพื่อเสนอแนะแนวทางการพัฒนาพื้นที่เพื่อรองรับการค้ารูปแบบตลาดนัดในมหาวิทยาลัยธรรมศาสตร์ ศูนย์รังสิต ผลจากการวิจัยพบว่า ตลาดนัดทั้งสองแห่งมีลักษณะทางกายภาพที่แตกต่างกัน โดยตลาดนัดอินเตอร์โซนประสบปัญหาค่อนข้างมากในเรื่องการเข้าถึง เมื่อพิจารณารูปแบบและปัจจัยของ การขายและบริการ พบว่า ปัจจัยที่มีผลต่อการค้าของตลาดนัดทั้งสองแห่ง ได้แก่ ลักษณะทางกายภาพ ประเภทและจำนวน ของการค้าและบริการ การดูแลสถานที่และการจัดการภายในของตลาดนัด สำหรับพฤติกรรมและทัศนคติของผู้บริโภคและ ผู้ค้า พบว่า ผู้บริโภคตลาดนัดอินเตอร์โซนมีความคิดเห็นว่ามีการดำเนินการแก้ไขปรับปรุงมากที่สุดในเรื่องการจัดระเบียบ

เส้นทางเดินเท้า การจัดระเบียบเส้นทางเดินรถ การจัดทำพื้นที่จอดรถเพิ่ม การเพิ่มสิ่งอำนวยความสะดวกในการเดินเท้า และการดูแลการกำจัดขยะให้มากขึ้น ในขณะที่ผู้บริโภคตลาดนัดโงพยาบาลมีความคิดเห็นว่าปัญหาต่าง ๆ ในตลาดนัดมีระดับความรุนแรงน้อยถึงปานกลางเท่านั้น ในส่วนข้อมูลผู้ค้า พบว่า ปัจจัยที่ผู้ค้าให้ความสำคัญมากที่สุดคือ ความสะดวกในการเข้าถึงของลูกค้าและผู้ค้าในตลาดนัดทั้งสองแห่งคิดว่าปัญหาทุกเรื่องมีระดับความรุนแรงน้อย ซึ่งแนวทางการพัฒนาพื้นที่เพื่อรองรับการค้ารุปแบบตลาดนัดในมหาวิทยาลัยธรรมศาสตร์ ศูนย์รังสิต สามารถแบ่งออกเป็น 3 ด้านหลักด้วยกัน คือ ด้านการอำนวยความสะดวกภายในพื้นที่ ด้านการพัฒนาสินค้าและบริการ และด้านการบริหารและจัดการตลาด

#### **Keywords (คำสำคัญ)**

Area Development (การพัฒนาพื้นที่)

Open-Air Market (ตลาดนัด)

Thammasat University, Rangsit Campus (มหาวิทยาลัยธรรมศาสตร์ ศูนย์รังสิต)

## 1. Introduction

Natural increase in population and labor migration into a city cause population growth in urban areas and trigger several problems, especially poverty and unemployment. Therefore, a job in the informal economy is a good alternative causing employment and income distribution to people living in a city. An important area for distribution of goods and services in the informal sector is an open-air market.

When considering the open-air market in Thammasat University, Rangsit Campus, there are in total 4 open-air markets in Thammasat University, Rangsit Campus: Inter Zone open-air market, Thammasat University Hospital open-air market, Graduate Volunteer Office open-air market, and Gymnasium 5 open-air market. Among them, Inter Zone open-air market and Thammasat University Hospital open-air market have been operated for more than 5 years with more than 200 sellers. There are various goods, such as clothes, jewelry, food and beverages, stationeries, cosmetics, and more in the markets. These lead the markets to be a well-known market among students both inside and outside the university. The markets also generate income and jobs for people living around the university, and help staff and students to buy goods with cheaper prices.

However, both open-air markets still face many problems, such as irregularity of stores and spaces, shortage of parking areas, traffic jams, solid waste management, et cetera. In addition, the management system in the past failed to consider satisfactions and needs of buyers and sellers. Therefore, area development to support the open-air markets in Thammasat University, Rangsit Campus has never been addressed.

This research article will study 1) characteristics of the open-air market in Thammasat University, Rangsit Campus, 2) patterns and factors having an impact on sales and services in the open-air markets, and 3) behaviors and opinions of buyers and sellers.

These will result in a proposal of area development guidelines to support the open-air markets in Thammasat University, Rangsit Campus.

## 2. Objectives of the Study

- 1) To study patterns of sales and services in open-air markets in Thammasat University, Rangsit Campus.
- 2) To study behaviors and opinions of buyers and sellers in Thammasat University, Rangsit Campus.
- 3) To propose area development guidelines to support open-air markets in Thammasat University, Rangsit Campus.

## 3. Scope of Work

### 3.1 Sites of Study Aspect

We will focus on 2 open-air markets located in Thammasat University, Rangsit Campus; Inter Zone open-air market with an area of 5,300 square meters, and Thammasat University Hospital open-air market with an area of 260 square meters. This is because both open-air markets are the most famous markets, and there are more than 1,000 buyers per day, as well as operating over 5 years for their services.

### 3.2 Content Aspect

- 1) We will focus on behaviors and opinions of buyers in terms of consumer behaviors, problems occurring in open-air market areas, and attitudes of area improvement and development.
- 2) We will study behaviors and opinions of sellers in terms of business nature, problems occurring in the open-air market area, and attitudes on area improvement and development.

## 4. Study Procedures

The research procedures are divided into 6 key steps as follows: 1) review theory and concept of area development guidelines to support the open-air

market fair, 2) collect general information of the university and open-air market, 3) survey and observe physical characteristics and current conditions of open-air market areas, 4) conduct questionnaires to collect information about behaviors and opinions of buyers and sellers, 5) analyze patterns and factors having an impact on sales and services including behaviors and attitudes of buyers and sellers, and 6) purpose guidelines of area development to support the open-air market in Thammasat University, Rangsit Campus (Figure 1).

## 5. Framework

The area development guidelines to support the open-air market in Thammasat University, Rangsit Campus are analyzed using the following 3 frameworks: 1) concept of relevant theories including informal economy, location, business activity, temporary open-air market, behaviors and attitudes of buyers

(Chorley & Haggett, 1967; Srikan, 2005), 2) patterns and factors having an impact on sales and services in the open-air market, and 3) balance of needs among buyers, sellers, and relevant agencies responsible for open-air market management (Authayananonth, 1983). Data analysis will be used to propose guidelines of area development to support open-air market in Thammasat University, Rangsit Campus (Cbavavesskul, 1997) (Figure 2).

## 6. Tools for Collecting Data

Tools are divided into two parts: 1) collect physical information and the current situation of the open-air market area. We will collect data about location from the two open-air markets. Then we record physical information, area characteristics, and the current situation of the area to obtain a preliminary data for designing questionnaires and to analyze a balance of needs between buyers and sellers, and

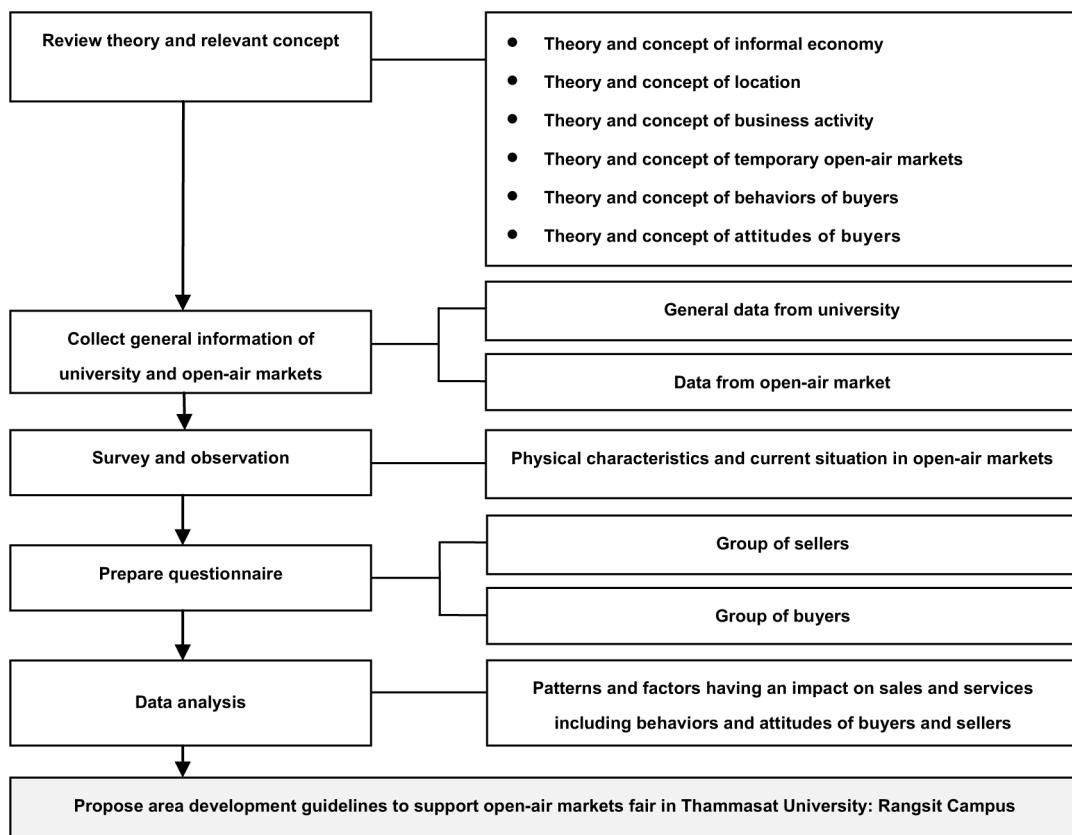


Figure 1. The research procedure.

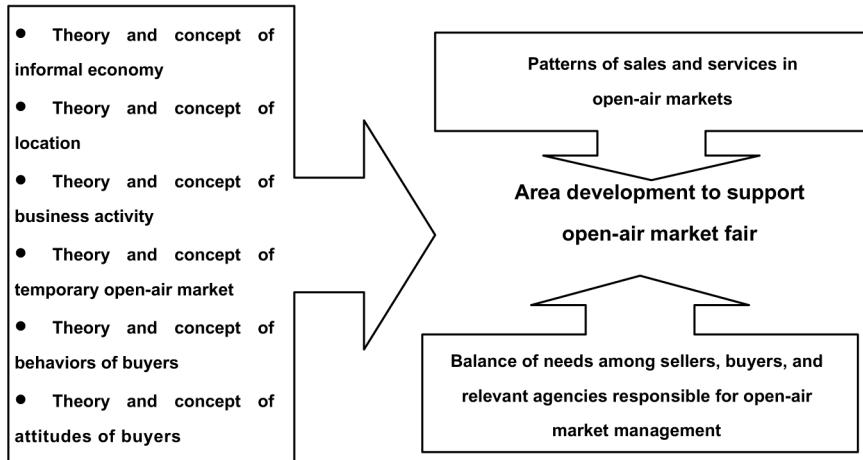


Figure 2. The research framework.

2) conduct questionnaires to collect information about behaviors and opinions of buyers and sellers. We divide the existing population of the area into 2 groups: buyers including staff, students, and other groups accounting for 80%, and sellers accounting for 20%.

We collect questionnaires administered in the open-air markets every market opening day: Monday and Thursday. Samples of the sellers are based on the representativeness of the homogeneousness of stores with the same products category and shop location. Therefore, there are approximately 62 persons. We use simple random sampling. Numbers of buyers are considered as 80%. By using determination of sampling group from Yamane's formula, numbers of buyers are approximately 246 persons including 123 buyers (or 50%) from Inter Zone open-air market and 123 buyers from Thammasat University Hospital open-air market.

## 7. Results

The research results are divided into 3 main issues: 1) physical characteristics of the open-air markets, 2) patterns of sales and services in the open-air markets, and 3) behaviors and attitudes of buyers and sellers.

### • **Physical Characteristics of the Open-Air Markets**

The physical characteristics of open-air market can be divided into 3 main issues: 1) layout planning, 2) accessibility to the open-air markets, and 3) population distribution surrounding the open-air markets.

- *Layout planning.* Thammasat University Hospital open-air market is located at a corridor between Kitti Wattana Building and Dul Sopak building. The layout of this open-air market has a linear pattern along a pedestrian way. The store arrangements are set at one side and on the left another side serves as an aisle for passersby. Inter Zone open-air market is located at both sides of Yung Thong Road, between the front side of Inter Zone building and the Office of Property Management. The store arrangement of this open-air market is set as many dual rows. (Figure 3 and Figure 4)

- *Accessibility to the open-air markets.* The convenient access to 2 open-air markets is different. In other words, Thammasat University Hospital open-air market is very convenient to access in terms of entrance-exit routes, parking lots, and transportation types and timing for accessing to the open-air market. Inter Zone open-air market faces a problem of traffic jam (because the market shares the same entrance-

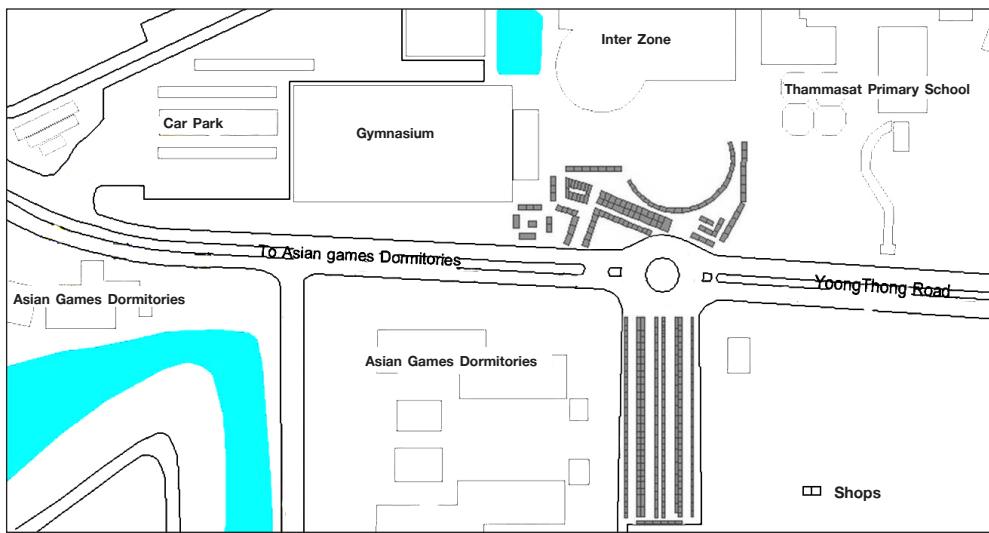


Figure 3. The layout of Thammasat University Hospital open-air market.

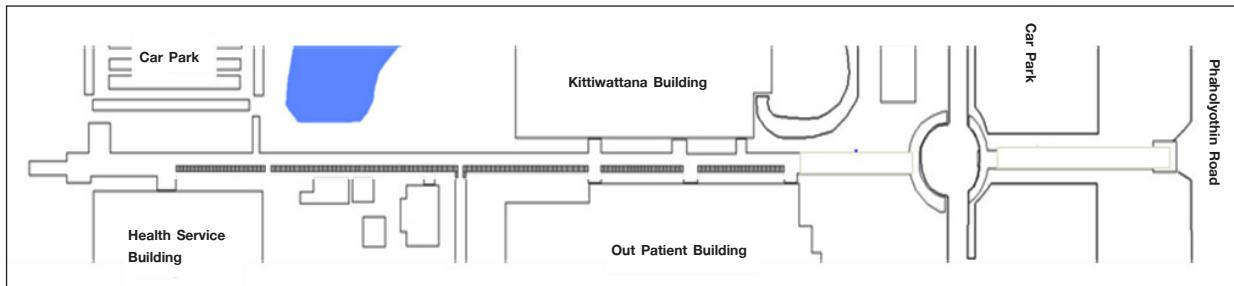


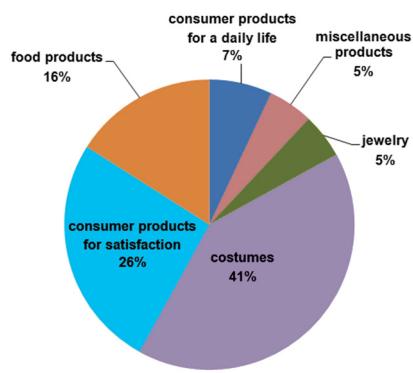
Figure 4. The layout of Inter Zone open-air market.

exit route with Asian Games Dormitories), a problem of crowded people using public bus services to access the open-air market, and a problem of a parking area located far away from the open-air market. Then, convenient access to this open-air market is not so effective.

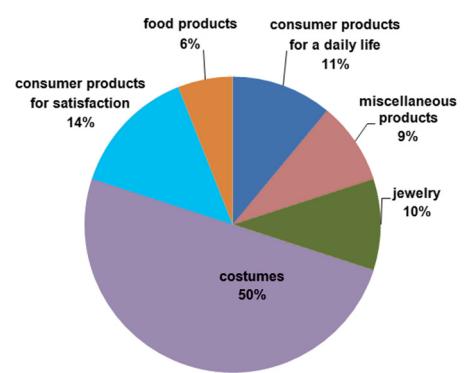
*- Population distribution surrounding the open-air markets.* When considering population distribution around the open-air markets, it is found that there are so many people living in the surrounding area of the markets including staff, students in the university, and people who live in the communities nearby mainly living around Bang Kan and Tarad Thai. Large population distribution living near the open-air market leads to a convenient access for buying and selling goods in the open-air markets. These also encourage the two open-air markets to get a good economic turnover.

- **Patterns of Sales and Services in the Open-Air Market**

It is found that product categories in the open-air market mainly focus on consumer products for daily life. The numbers of stores in Thammasat University Hospital open-air market are 137 shops, whereas numbers of stores in Inter Zone open-air market are 341 shops. The stores are divided into 6 types according to product categories, such as food products, consumer products for satisfaction-snacks, costumes, jewelry, consumer products for a daily life, and miscellaneous products. The goods having the highest number of stores from both open-air markets are clothes (50% for Thammasat University Hospital open-air market and 41% for Inter Zone open-air market) (Figure 5 to Figure 8).



**Figure 5.** Percentage of stores at Thammasat University Hospital open-air market, by categories.



**Figure 6.** Percentage of store at Inter Zone open-air market, by categories.



**Figure 7.** Product categories of Inter Zone open-air market.

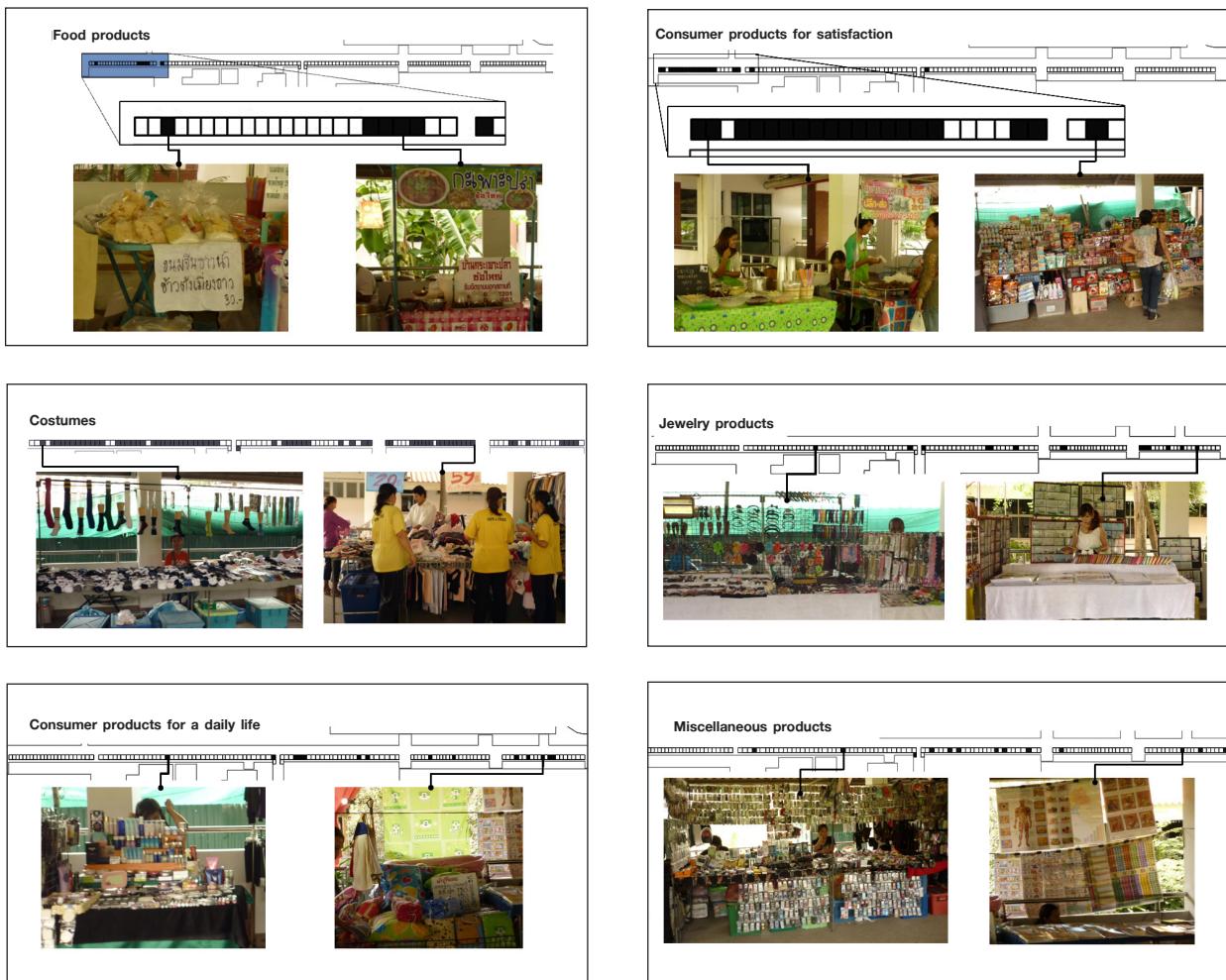


Figure 8. Product categories of Thammasat University Hospital open-air market.

- **Behaviors and Attitudes of Buyers and Sellers**

Data from questionnaires for the 2 open-air markets are concluded as follows:

- *Data from buyers.* Buyers from the open-air markets are mostly female with average age of 15-25 years old. Mostly they are students living outside the university. When considering about using services in the open-air markets, it is found that buyers always visit the open-air markets when they are available. Buyers prefer to take public bus services or walk to Inter Zone open-air market with a time duration of less than or equal to 10 minutes. On the other hand, buyers mostly use a car to access Thammasat University Hospital open-air market with a traveling time of about 10-20 minutes.

Buyers from Inter Zone open-air market pay attention to a variety of goods, while buyers from Thammasat University Hospital open-air market focus on a convenient access to the open-air markets. In consideration of activities and purchase of goods, it is found that buyers from Inter Zone open-air market mostly buy food and clothes with a cost less than 200 baht for each time. Buyers from Thammasat University Hospital open-air market mostly buy food with a cost less than 200 baht for each time, too.

When considering buyers' opinions on open-air market problems, it is found that buyers from Internet Zone open-air market see very serious problems in the open-air market including crowded space, shortage of parking area, and a narrow pedestrian way. Buyers need to see an improvement of organizing the

pedestrian way, transportation routes, more parking spaces, increasing facilities for pedestrians, and more caring of trash disposal. For buyers from Thammasat University Hospital open-air market, they see that the open-air market has problems in the low-to-medium level. However, they request further improvements of organizing sales spaces, proving more parking areas, increasing facilities for pedestrians, improving the security system in the open-air market area, increasing opening hour, increasing the number of stores and goods, increasing the recreation area, and more caring of trash disposal.

- *Data from sellers.* Sellers from both open-air markets mostly are female with the average age of 31-40 year olds. Most of them have the level of education below Bachelor's Degree. They are generally people living outside university, and they mostly have a business dealing with more than one open-air market. Sellers from both open-air markets mostly sell clothes. When considering factors on running business in the open-air market area, sellers from both open-air markets pay more attention to a convenient access for buyers. Regarding remuneration in terms of average profit per time, 33.3% of sellers from Inter Zone open-air market get profit per day with the amount of approximately 500-1,000 baht and more than 2,000 baht with the same ratio. Sellers from Thammasat University Hospital open-air market get average profit per day with the amount of approximately 500-1,000 baht and 1,501-2,000 baht with the same ratio of 30%. The average profit of less than 500 baht rarely finds from both open-air markets.

Considering sellers' opinions on open-air market problems, sellers from both open-air markets see that market problems are in a low level. The attitudes of area improvement and development in the open-air markets are then in a low-to-medium level for every issue.

## 8. Conclusion and Recommendations

From the above-mentioned data results, we

come to the conclusions as follows:

**1) Physical Characteristics of the Open-Air Markets.** Both open-air markets have different layout planning. That is, Thammasat University Hospital open-air market has a linear pattern along the sidewalk. Inter Zone open-air market has a dual row pattern and many directions. The accessibility problem to the open-air market only exists for Inter Zone open-air market because this dual row pattern is located along a main road heading to dormitories resulting in a traffic jam. For the population aspect, buyers and sellers of the open-air markets live both inside and outside university.

**2) Patterns of Sales and Services in the Open-Air Markets.** Product categories in the open-air markets mostly focuses on consumer products for daily life. More than 50% of buyers from Inter Zone open-air market see that the serious problems are crowded space, shortage of parking space, and narrow sidewalks. They need improvements of organizing pedestrians, organizing transportation routes, providing more parking areas, increasing facilities for pedestrians, and more caring of trash disposal. More than 50% of buyers from Thammasat University Hospital open-air market see that market problems are in a low-to-medium level. However, they need further improvements of organizing sales areas, providing more parking space, et cetera. For sellers' opinions from both open-air markets, they pay attention to a convenient access to the open-air markets for buyers. More than 50% of sellers see that open-air market problems are in a low level for every issue, and it is then not necessary to improve the open-air market area.

The area development guidelines to support the open-air markets in Thammasat University, Rangsit Campus are as the following details:

**1) Facility for the Open-Air Market Area**  
including place organization, development of access routes, and development of public utility.

• *Area organization.* Product categories should be separated in an appropriate zone and stores

should be re-organized. We must clearly determine size of store, and zone of store according to its product category. We should specify at least 7 categories of goods, such as ladies' clothes, men's clothes, shoes and bags, jewelry, beverages, food, and miscellaneous products. In addition, we should provide shade for the places in order to respond to the need of buyers, particularly ones in the Inter Zone open-air market (Figure 9).

• *Development of access routes.* We should focus on the Inter Zone open-air market facing problems of traffic jam and non-safety for buyers crossing a road to buy goods. We should manage

the traffic system for Inter Zone open-air market by allowing bicycles, motorcycles, and public bus services to use in Yung Thong Road from 5-7 p.m. during opening day of the open-air markets. At the same time and date, the other vehicles are permitted in Asian Games road, Pen Suk road, and Rom Yen road, instead. About the narrow pedestrian way together with crowded buyers in Inter Zone open-air market, we should clearly define and re-organize shops and aisles to keep more space for pedestrians. In addition, we should group similar product categories in the same area. This can help sellers to target their goods, not to walk in around open-air market

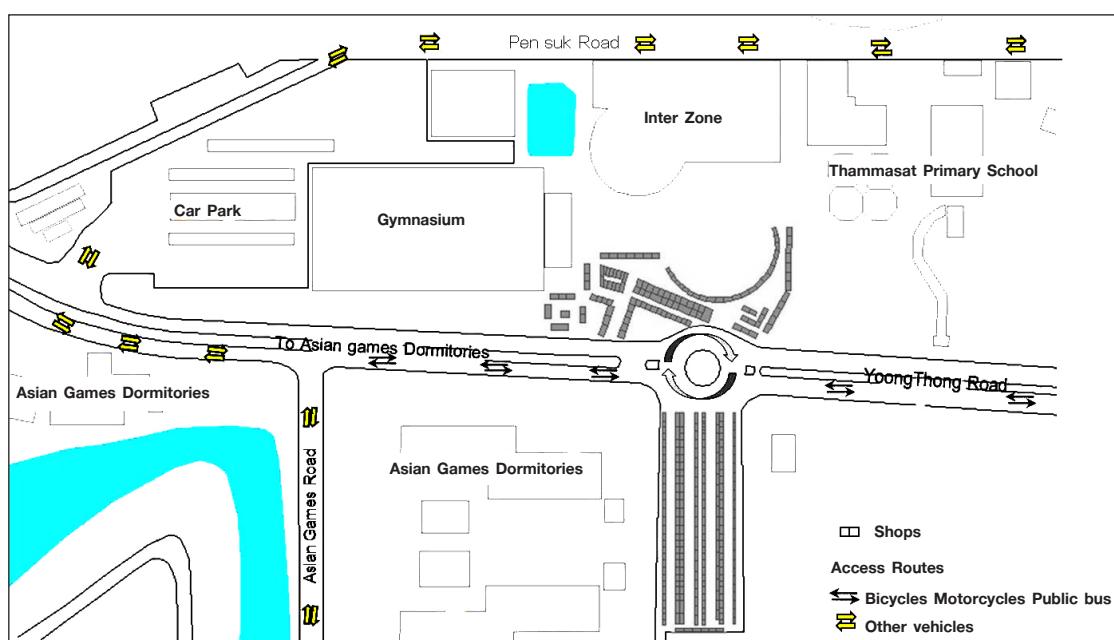


Before



After

**Figure 9.** Example of grouping and shading in Inter Zone open-air market.



**Figure 10.** Concept of development of an access route in Inter Zone open-air market.

areas. This is another way to reduce congestion in the open-air markets (Figure 10).

- *Development of public facilities.* We should provide more trash points to solve problems of big garbage volume in the open-air market area. Thammasat University Hospital open-air market should provide a trash point every 100 meters. Inter Zone open-air market should define a trash point for every end of the streets of the stores located at an opposite side of Inter Zone building. We should also develop

a rest area at both sides of bus stops and at parking area for bicycle. Moreover, the sitting areas in the park should have more shading area as well.

In addition, we should increase recreation areas to support numbers of buyers and sellers in the open-air markets, such as seats for resting and eating, area for other activities, et cetera. These can be done by putting seats around a walkway, at the end route of the open-air markets, and at small parks (Figure 11 to Figure 13).



**Figure 11.** Concept of trash bin arrangement and increasing seats in Thammasat University Hospital open-air market.



**Figure 12.** Concept of shading at a small park in Thammasat University Hospital open-air market.



Before



After

**Figure 13.** Concept of shading and increasing seats in Inter Zone open-air market.

### **2) Development of Goods and Services**

• *Determination of standard of product price and product quality.* Even though the price of products in the open-air markets is not very high, which match the needs of buyers, students and staff of Thammasat University, we should encourage sellers to pay attention to their product quality for sales. These will increase more numbers of buyers and create a reputation of both open-air markets.

• *Creation of product variety.* Product category in Thammasat University Hospital open-air market is mostly sold for workers, while product category in Inter Zone open-air market mostly focuses on students. To expand a group of buyers, we should encourage sellers to sell a variety of products, such as creative products, products from students (to further promote skills development and knowledge in academic field), et cetera. These will lead to investment and expansion of a group of sellers and increase an option for sellers.

### **3) Market Management**

• *Improvement of sales and services period.* If we consider the date and time for sales and services of the 2 markets, it is found that services properly cover numbers of days and opening time. At present, there are other open-air markets covering numbers of days and time for university to ensure their services for buyers. Therefore, timing and selling from both open-air markets are suitable.

### *• Development of students' participation.*

Considering a role of students from both open-air markets, it is found that students are involved as buyers. We should encourage students to participate in the market management or to distribute of their goods and services. These will further support them to learn and have an experience. The development of students' participation may begin with campaign, public relation, encouraging them to participate in activities, opening for volunteers to manage events and space, and offering them a loan for investment.

• *Allocation of benefit for sellers.* The allocation of benefit for sellers should apply for ones following open-air market rules by reducing rent rates, and extending contracts. This will increase a sense of belonging among the sellers and encourage them to take a good care of the markets. It is also an incentive for the sellers to provide products with better quality and service in the future.

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