

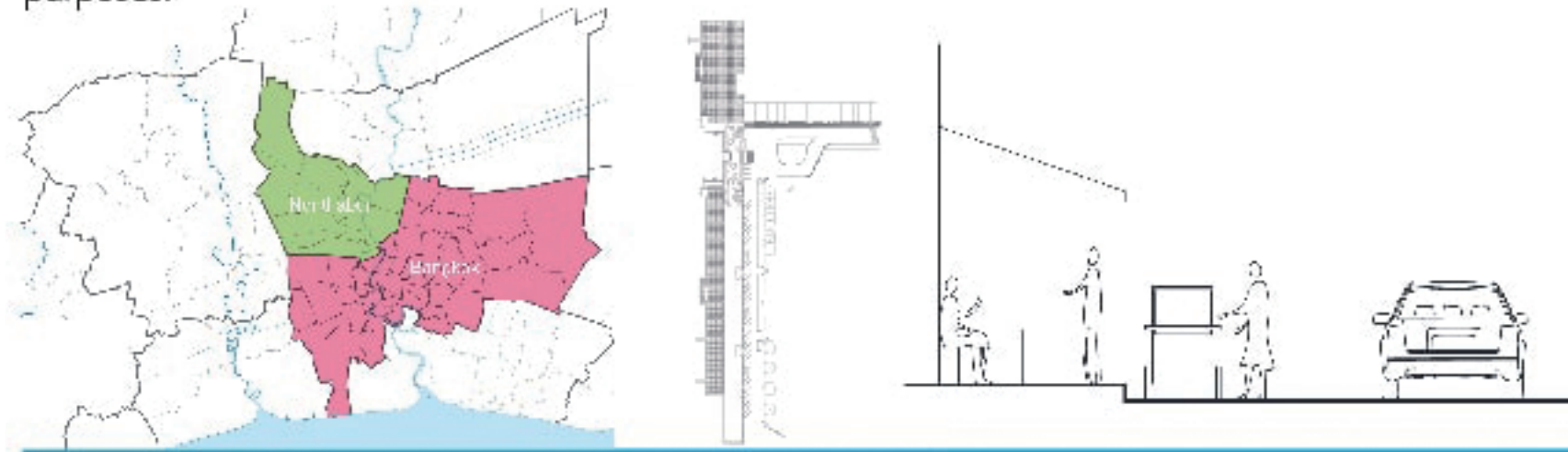
INVASION OF PUBLIC SPACE

The negotiation between invaded urban elements and remaining public space of Nonthaburi pier area, Thailand

Introduction

Street vending activity on the sidewalk is a common sight in Thailand's urban environment. Despite the fact that many street vendors occupy public space illegally, people continue to buy from them on a daily basis. Customers benefit from the convenience of purchasing items from the street, while vendors benefit from the opportunity to earn money. Many street vendors are living on the edge of subsistence, relying on their daily earnings to get by and cover the cost of their next day's stock.

The urban fabric of Thailand's capital city was transformed into a marketplace for all types of vendors. The changes that have emerged in public space as a result of street vendors are very dynamic, making it difficult to understand the efficiency of public space. This study aims to better understand the negotiation between remaining public space on the sidewalk and public space taken away for vending purposes.



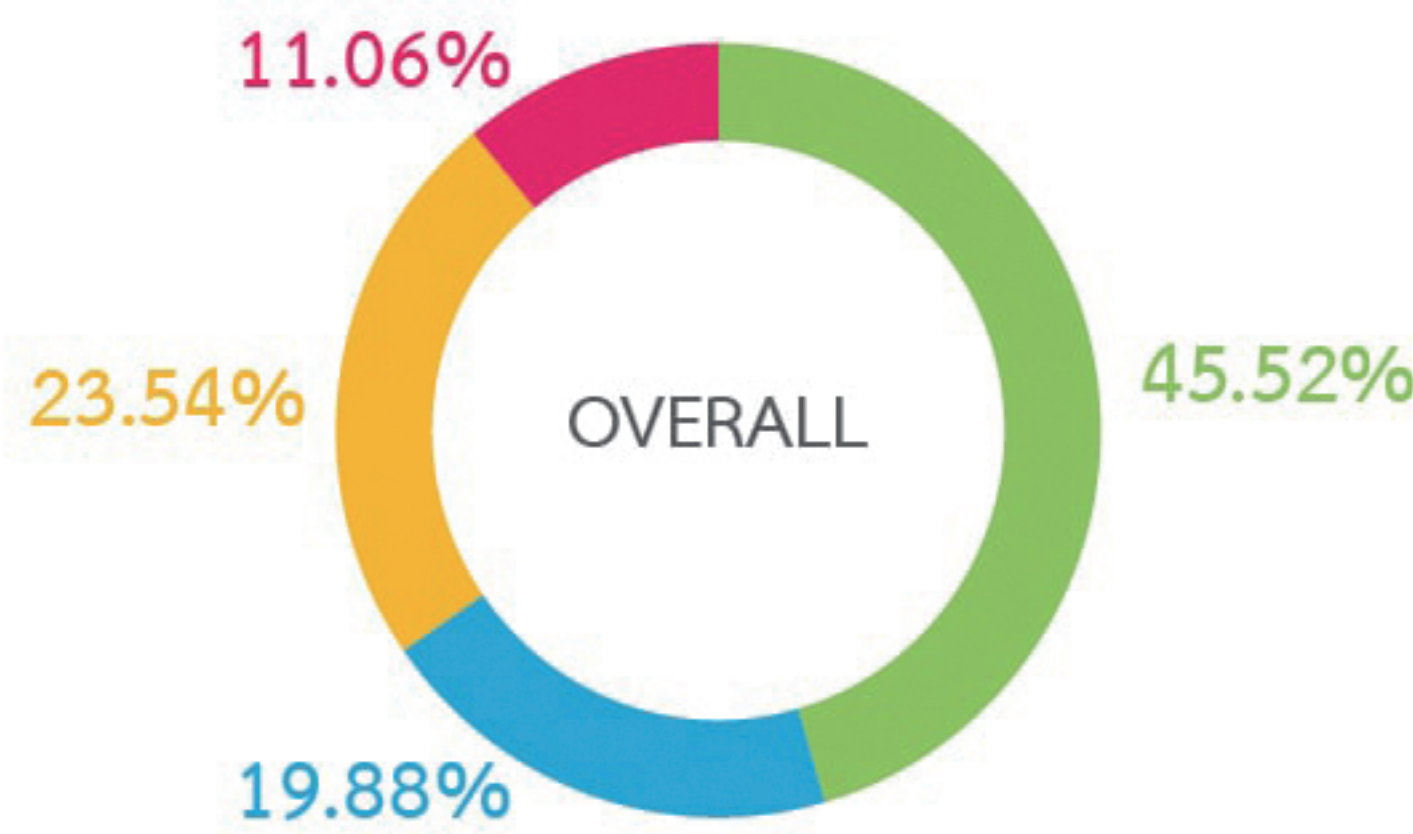
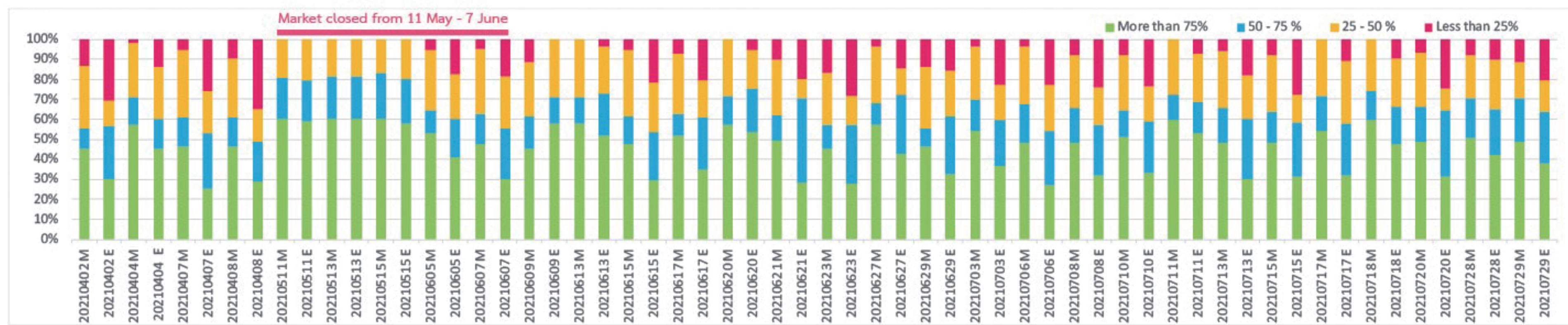
Research methodology

The research methodology is to observe the area of the study location that was invaded by urban elements from street vendors, as well as the remaining area of the sidewalk, for 30 days in the morning and evening. Then locate infiltrated urban elements such as a retail shop extension stall, a temporary vending stall, a vending cart, and a waiting area in front of the vending stall. Then, using color codes, divide the remaining width of sidewalk after invasion into four categories: 1) pink, ranging from 0 to 25% of the sidewalk's usable width 2) yellow, from 25 to 50 percent of the usable width of the sidewalk; 3) blue, from 50 to 75 percent of the usable width of the sidewalk 4) green, covering 75-100 percent of the usable width of the sidewalk.

Then, using this methodology, plot the data over thirty days of the sidewalk's layout to determine the actual remaining space and invasion pattern. In addition, the data will be analyzed by grouping it into four scenarios that reflect the differences in changes in urban space under different conditions.



Length of the sidewalk's usable width



Results

According to the statistical analysis, the sidewalk's width of 75-100 percent less than half of the total length of the sidewalk, which is 45.52 percent, during 30 days. After that, 25-50 percent is calculated as 23.54 percent of total length, 50-75 percent is calculated as 19.88 percent of total length, and 0-25 percent is calculated as 11.06 percent of total length.

The most significant area that was invaded by urban elements was displayed in the evening scenario after grouping data into four scenarios. Only 0-25 percent of the width of the sidewalk remained 16.41% of the total length. 25-50 percent and 50-75 percent of total length were respectively 20.01 percent and 24.47 percent. It left 39.11 percent of total length with a width of 75-100 percent.

The data from the morning scenario and the weekend scenario, on the other hand, showed that over half of the sidewalk is still over 75 percent, with 51.93 percent and 50.51 percent, respectively.

The morning scenario of the sidewalk was the least effective of the invaded urban elements displayed in the circle graphs, while the evening scenario was the most effective.

Discussion

The result shows that the sidewalk between the Nonthaburi pier and the bus stop is constantly changing. Except for extreme scenarios like market closure due to COVID-19, there was no consistent pattern in the short period of the graphs.

In general, the statistical analysis revealed that less than half of the total length of the sidewalk is still 75-100 percent usable. While 34.60 percent of the total length has been invaded, less than half of the total width has been left for passengers.

During the evenings and on weekdays, the amount of available sidewalk space for passengers is significantly reduced. Passengers are expected to have more difficulty accessing the sidewalk at a certain point in time.

Future studies may benefit from a better understanding of urban public space as it manifests itself differently in different situations. It is possible to identify the factors that contribute to or motivate changes in the urban environment. Furthermore, the findings of this study are significant in terms of urban design direction, as they help to understand the adaptation of public activities and to create a better urban environment that is appreciated by all.

