

P08 – Where?

E352 – Retail Logistics



SCHOOL OF
ENGINEERING

Selection of Retail Location (Area)



- Evaluating a specific area (6 factors)
 - Economic Conditions
 - Competition
 - Strategic Fit
 - Operating Costs
 - Economics of scale from multiple stores
 - Cannibalization



Selection of Retail Location (Area)



- Economic Conditions
 - Setting up a shop involves long term commitment of resources
 - An area with population that is fully employed will they have a higher purchasing power
 - Also must consider the economic growth of the area, how long will it continue and how does it impact the merchandise sold



Selection of Retail Location (Area)



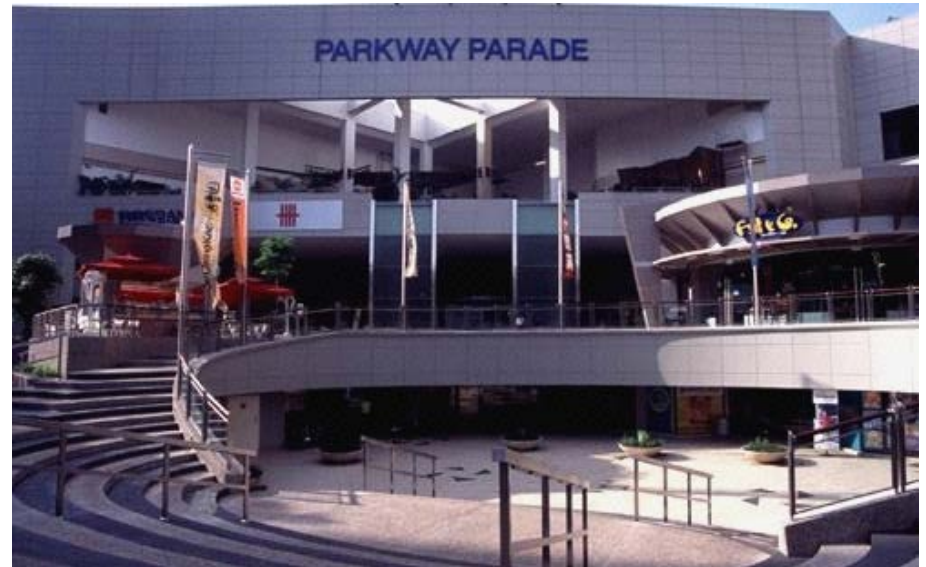
- Economic Conditions (Cont)
 - Does the area has a diversity of economic activities?
 - If the area depends on only one economic activity, and if this industry falls, the economic in that area will also fall, and this will impact your retailing business.
 - In most cases, areas with large and growing population are preferred to those with declining populations.



Selection of Retail Location (Area)



- Competition
 - Competition clearly affects a retailer.
 - Setting up in areas that do not have shops that sell similar merchandise will see no competition.
 - Eg, our neighbourhood shopping centers.



Selection of Retail Location (Area)

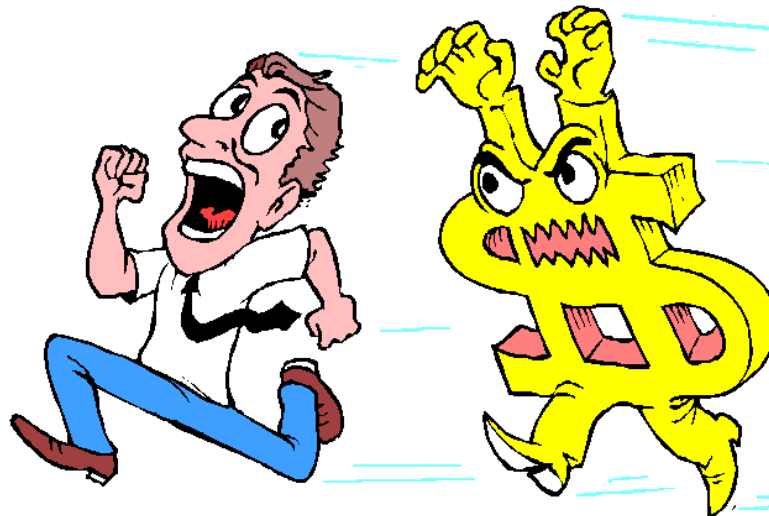


- Strategic Fit
 - After considering the economic conditions and competition:
 - Retailers also need to make sure that the consumers in the area are of their target customers.
 - No point setting up a shop in a place where there is a large population, with good economic and no competition but selling something that the population are not interested in.
 - Therefore the area must have the right demographics and lifestyle profile that suits the products that the retailers are selling.

Selection of Retail Location (Area)



- Operating Costs
 - Rental
 - Different location will have different rental cost.
 - Usually places with denser population will demand for a higher rent.
 - Close proximity to distribution centre
 - Being close to your distribution centre will mean shorter distance travelled. This will save on the cost of shipping.



Selection of Retail Location (Area)



- Operating Costs (cont)
 - Legal and regulatory environment of area
 - Laws can also impact operating cost.
 - Examples,
 - Areas that have laws that requires employers to pay OT even for managers
 - Have laws that dictates minimum wages
 - Environment that makes it very easy for employees to sue employers
 - This examples will raise the operating cost and retailers may not like these places.

Selection of Retail Location (Area)



- Economics of scale from multiple stores
 - Having multiple stores in the same area will help to reduce promotional and distribution cost.
 - Eg, having a newspaper advertisement for 20 stores in the same area will cost the same as running the same advertisement for 1 store.



Selection of Retail Location (Area)



- Cannibalization
 - Having store too near to each other will cause cannibalization.
 - Customers from that patronise shop A now patronise shop B although there are the same retailer.
 - So what is good about have shops close to each other?
 - If the sales volume is big enough, have shops close to each other will reduce congestion in the shops and customer will feel more comfortable shopping in a less congested shop.
 - It also makes it more difficult for competitors to enter the area.

Selection of Retail Location (Site)



- After the area is decided, the retailer must now select the site in the area.
- The site characteristics that should be considered are as follows:
 - Traffic Flow and Accessibility
 - Location Characteristics
 - Restrictions and Costs

Selection of Retail Location (Site)



- Traffic Flow
 - Most important factor affecting sales
 - Is about the number of people and vehicles passing the site
 - The greater the traffic the more customers are likely to stop and shop.
 - Note that more traffic is not always better
 - If the traffic is so much that it causes congestion, Customers may not want to come



Selection of Retail Location (Site)



- Accessibility
 - As important as traffic flow
 - It is about the ease of customers getting to the shop.
 - Sites located near major highways, on uncongested highway, with proper roads and lanes leading to the site give good accessibility.



Selection of Retail Location (Site)



- Accessibility (Cont)
 - Barriers are against accessibility
 - Natural barriers
 - Rivers, mountains
 - Artificial barriers
 - Railroad
 - Limited access highways
 - Parks
 - Barriers will impact the site but it depends on the merchandise and service provided.
 - If the appeal is strong enough, customers will cross the barriers to come to the site.

Selection of Retail Location (Site)



- Location Characteristics
 - These is further split into 3 areas:
 - **Parking**
 - No parking or parking too far from store will discourage customers to come
 - **Visibility**
 - Refers to customer's ability to see the store from the street.
 - Good visibility is less important to stores with well established and loyal customers, but most stores still wants good visibility.



Selection of Retail Location (Site)



- Location Characteristics (Cont)
 - Adjacent Tenant
 - Locations with complementing, as well as competing adjacent retailers, will have a potential to build up traffic.
 - This give convenience to shoppers.



Selection of Retail Location (Site)



- Restrictions and Costs
 - If the rental is so high that it does not make economic sense then of course you will not choose the site
 - Some sites may have restriction on the types or number of the some kind of retailers



Huff Gravity Model



- Where
 - P_{ij} = Probability that customer i shop at location j
 - S_j = size of the store at location j
 - T_{ij} = Travelling time for customer i to get to location j

$$S_j / T_{ij}^\lambda$$

$$P_{ij} = \frac{S_j / T_{ij}^\lambda}{\sum (S_j / T_{ij}^\lambda)}$$

Huff Gravity Model



- λ reflects the relative effect of travel time versus store size.
 - $\lambda = 1$ means store size and travel time have equal but opposite effect.
 - $\lambda > 1$ means travel time has greater effect
 - $\lambda < 1$ means store size has greater effect
 - Generally, travel time is more important for convenience store as compared to specialty shops, thus a greater value of λ will be assigned to convenience store.

Suggested Solution



- There are 6 factors to consider when selecting an area.
 - May not need to consider cannibalisation and the economics of scale factors as currently there are no All Have in the area.
 - Will need to consider the other 4 factors.
- After deciding on the area, Joanne will have to decide on the exact site.
 - All the site selection factors are important and must be considered.
 - For example visibility, as shown in the video, out of sight, out of mind. This will impact sales.

Huff Gravity Model



- Based on concept of gravity
 - The bigger the store the stronger the pulling power
 - The further away, the lesser the pulling power.



Suggested Solution



Assume $\lambda = 2$

- Convenient store, distant is important, so λ must be greater than 1*

Probability of sales site A from Clementi	0.38
Probability of sales site A from Jurong	0.50
Probability of sales site B from Clementi	0.29
Probability of sales site B from Jurong	0.45

Suggested Solution



- Site A Potential Sales
 - $0.38 \times 35\text{mil} + 0.5 \times 22\text{mil} = 24.3\text{mil}$
- Site B potential Sales
 - $0.29 \times 35\text{mil} + 0.45 \times 22\text{mil} = 20.2\text{mil}$
- Based on Huff Gravity Model, **Site A** is a better site as it has greater potential sales.

Learning Outcomes



- Explain and apply the factors affecting the selection of an area
- Explain and apply the factors affecting the selection of a specific location
- Application of the Huff Gravity Model