



Green Indulgence – Paradox of Doing Green Shopping Mall

IR YL LUM
Treasurer, PPK Malaysia 2014/2015
Past Chairman, METD, IEM 2006/2007


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IUS GBC
INTERNATIONAL URBAN SUSTAINABILITY & GREEN BUILDING CONFERENCE
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KUALA LUMPUR, MALAYSIA

Date:
4th & 5th March 2016
(Friday & Saturday)

Venue:
Kuala Lumpur Convention Centre (KLCC)
Plenary Theatre-level 3



SETTING THE SCENE

- The Industry
- The Consumption
- Indulgence vs green
- Demand side Management

THE INDUSTRY

STATISTICS

- **550 malls** in the country Serving 30.3 million population (approximately **136.4 million ft2-NLA** (Net Lettable Area) of shopping mall space, or national average of **4.5 ft2-NLA/person**.
- **218/550** malls in the country are in Kuala Lumpur, Selangor and Putrajaya where 7.7 million population shares 62.2 million ft2-NLA or **8 ft2-NLA per capita**,
- same as **Penang** where 1.7 million population enjoys 14 million ft2 of NLA equivalent to 41 malls.
- 16.8 million ft2-NLA is serving 3.5 million population in **Johor** giving **4.8 ft2-NLA/capita**, a current benchmark of southern region.

STATISTICS

- Average annual growth rate of Malaysia shopping malls over the past 10 years is **8.6%**,
- ironically KL/Selangor/Putrajaya, Penang (both 8.0 ft²-NLA per capita) and Johor (4.8 ft²-NLA per capita) are few of the lowest between **4.9%-8.6%** p.a. only,
- while the rests of the states are all experiencing **double digit growth** rate between 12% (Melaka) to 21.3% (Kelantan).

STATISTICS

- If we look at Terengganu & Sabah, these two states are still having **1.3 and 1.6 ft²-NLA per capita only** respectively, far below than national average of 4.5 ft²-NLA per capita, and incidentally both states are registering 18.8% and 14.3% mall space growth,
- Melaka the other tourism state too is registering 12% shopping mall space growth having 21 malls serving population of 0.9 million (**5.4 ft²-NLA per capita**), comparing with **8.2 ft²-NLA per capita** of 41 malls in Penang serving 1.7 million population.

THE CONSUMPTION

STATISTICS

- Monthly Electricity costs of Malaysia Shopping malls by ft²-NLA is **RM1.01/ft²**. From our sampling data, middle/middle upper and CP malls are having average electricity costs between RM 0.96-1.11/ft²-NLA. Particularly **Super Regional** and Luxury malls registers higher electricity costs up to **RM1.28-1.32/ft²** typically 18% higher than the rests.
- **Average Service & Promotional charge for these malls are RM2.25/ft-NLA**, taking average of the larger sampling group, middle upper positioning malls and CP malls are averagely having RM2.57/ft² & RM2.68/ft² while neighbourhood and non central region malls are ranged between 1.25/ft² to 1.94/ft². Superregional and luxury malls having average service & promotional charges up to RM4.55 & RM4.99/ft². That is an indication of the correlation between service & promotional costs and mall region, positioning & size.

Commercial Buildings in Klang Valley

NLA

- Office – approx. 83M ft²
- Retail – approx. 62M ft²

Energy consumption –

- Office – RM498,000,000 / yr
- Retail – RM744,000,000 / yr
- TOTAL = RM 1,242,000,000 / yr

Key Energy Components (Bld+Mall) (Big Ticket Items) RM 1,242,000,000 / yr

| Key Components | Est Energy Costs | If 15% savings |
|-------------------------|------------------|----------------|
| 30-40% Air Conditioning | RM496,000,000 | RM74,000,000 |
| 15-20% Lighting | RM248,000,000 | RM37,200,000 |
| 5-10% Lift / Escalators | RM124,000,000 | RM18,600,000 |
| | RM868,000,000 | RM 129,800,000 |

In Klang Valley Only

Energy Management Initiatives

- Office BEI : 200 to 300kWh/m2.yr
- Mall BEI : 280 to 316 kWh/m2.yr

(ref. Malaysia Shopping Mall Association PPK)

- Success Stories :
- LEED klia2
- GBI Platinum Sentral
- GBI Setia City Mall

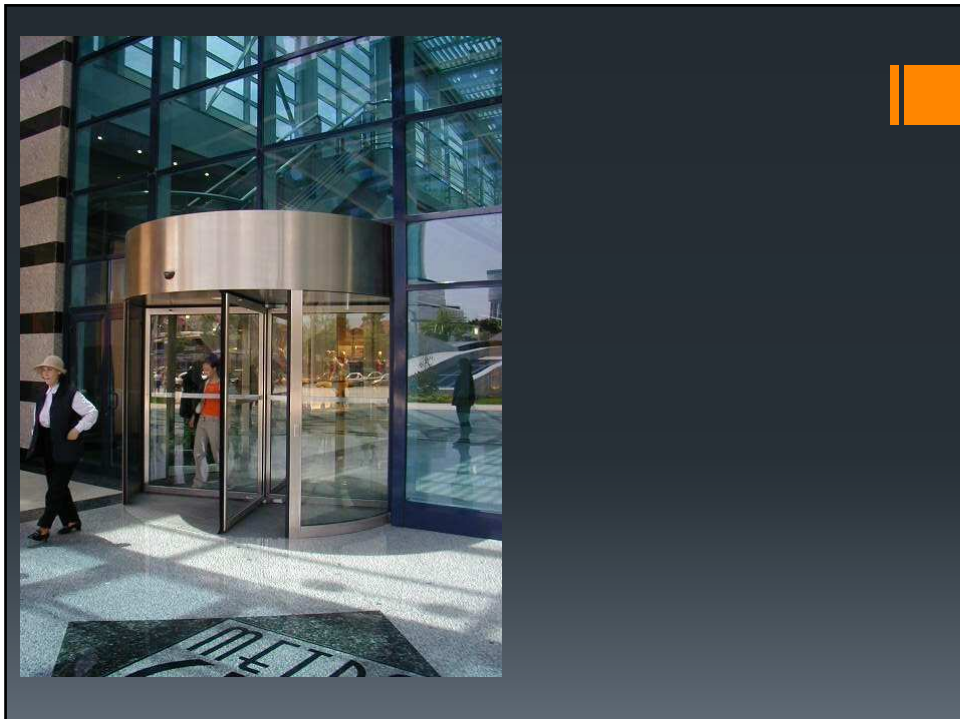
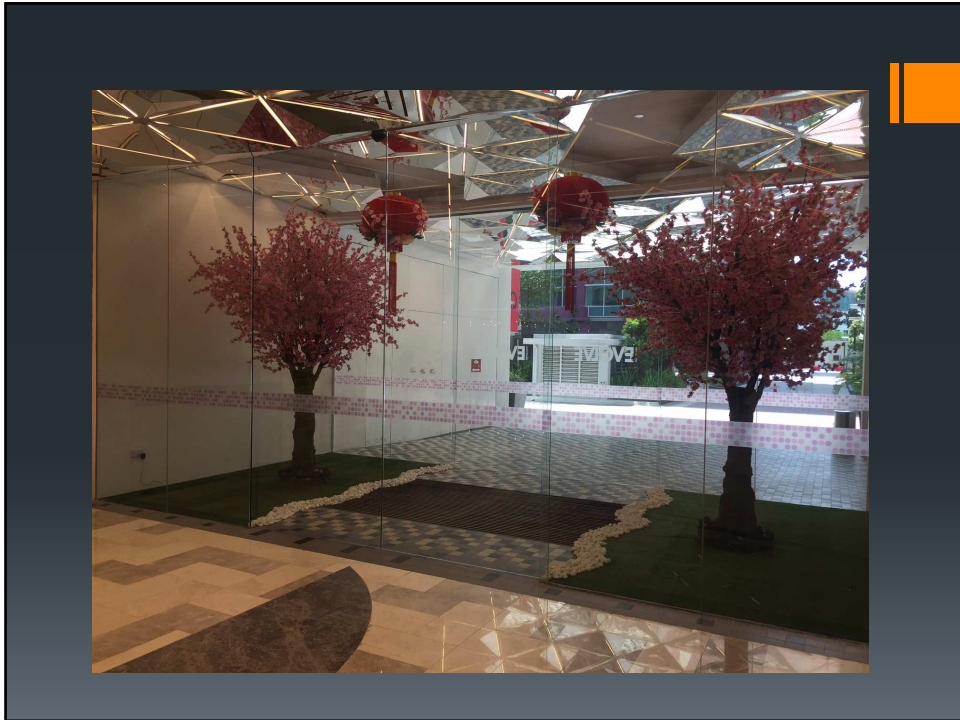


INDULGENCE
VS.
GREEN



DEMAND SIDE MANAGEMENT







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