

Transit-oriented Development and Sense of Place: A Case Study of Tseung Kwan O New Town

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Research Background

- TOD primarily aims to promote more walking and transit riding and less driving
- Literature suggest that well-designed TOD should also foster a sense of place within the residents in the neighborhood, in addition to those primary aims
- Yet, scholarly attention on TOD design is lacking, as the major focus is on transit ridership
- No research in Hong Kong or overseas studies the direct relationship between TOD design and sense of place

Research Objectives

To evaluate the relationship between TOD and sense of place in TKO New Town

- To evaluate the TOD design in TKO New Town
- To explore the level of sense of place of residents of TKO New Town
- To examine the relationship between TOD design and sense of place in TKO New Town
- To provide recommendations on how future TOD design in Hong Kong can enhance residents' sense of place

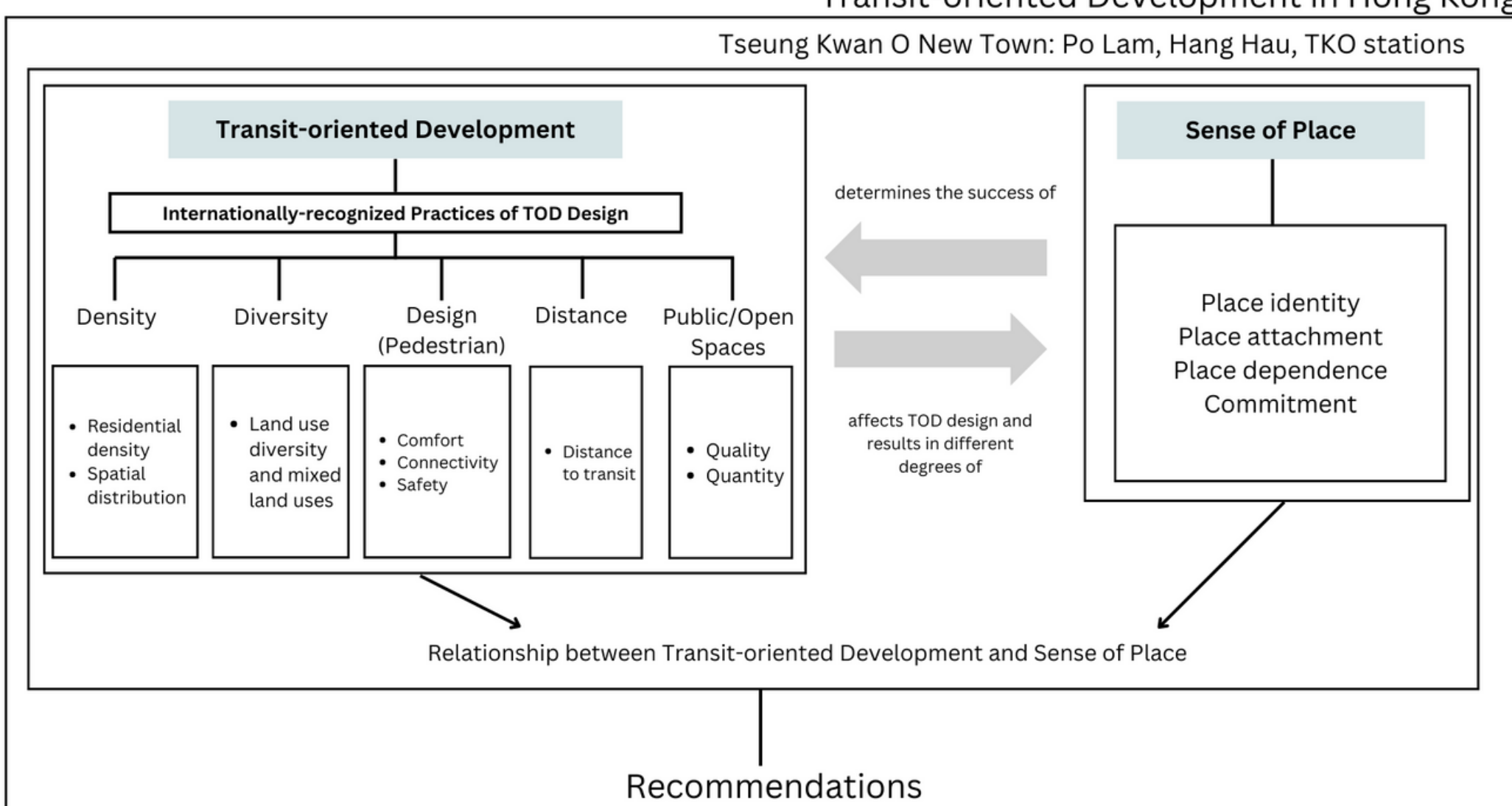
Research Questions

What is the relationship between TOD and sense of place in TKO New Town?

- To what extent does TKO New Town comply with the internationally recognized TOD design practices?
- What is the level of sense of place among the residents in TKO New Town?
- How do TOD design and sense of place correlate in TKO New Town?
- In what ways can TOD design enhance the sense of place of residents in Hong Kong?

Conceptual Framework

Transit-oriented Development in Hong Kong
Tseung Kwan O New Town: Po Lam, Hang Hau, TKO stations



Research Methodology

Field assessment: RQ 1

field audit sheets, photo-taking & note-taking

Interview: RQ 1, 3, 4

1 local TOD expert & 3 residents

Secondary sources

academic literature & books
websites & publications
e.g. PlanDept & MTR

Questionnaire: RQ 1, 2, 3, 4

online questionnaire; convenience, self-selection, snowball sampling

Sample Size: 703

Po Lam 41% Hang Hau 33% TKO 26%

Year of Residence	MTR Ride Frequency	(per week)
over 10 years	76%	7 or above
6-10 years	9%	4-6 times
1-5 years	13%	1-3 times
less than 1 year	2%	none
		0%

Major Findings

Evaluation of TOD design

Overall high compliance with internationally recognized practices

Attribute	Mean
Density_1	4.37
Density_2	4.35
Distance	4.29
Design_1	4.08
Design_2	4.04
Design_3	4.00
Diversity	3.8
Public/Open spaces_1	3.54
Public/Open spaces_2	3.46

all received mean score above 3

Ranking based on mean scores

Rank	TOD design dimension
1	Density
2	Distance to transit
3	Design
4	Diversity
5	Public/Open spaces

Evaluation of Sense of Place

Overall high level of sense of place
all received mean score above 3

Component	Mean	Aggregated Mean
Place Identity	3.86	3.83
	3.81	
Place Attachment	3.84	3.71
	3.87	
Place Dependence	3.65	3.50
	3.62	
Commitment	3.74	3.32
	3.25	
	3.36	
	3.27	

Relationship between the two

No statistically significant correlation, except for "diversity" and sense of place

TKO New Town (overall)

Diversity & Dependence → 0.413**

Po Lam

Diversity & Attachment → 0.403**

Diversity & Dependence → 0.436**

Hang Hau

Diversity & Attachment → 0.436**

Diversity & Dependence → 0.438**

** correlation is significant at 0.01 level (2-tailed)

Yet, a self-reported question suggested that there exists some relationship

Question	Results
TOD design of the neighborhood affects my level of sense of place	• 14% strongly agree • 60% agree

Implications

Diversity being associated with sense of place

- Diversity fosters sense of place by
- fulfilling residents' diverse needs: people can rely on the place they live (place dependence)
 - bringing convenience to residents: reduce the need to travel to other stations; walkable neighborhood
 - allowing more activities to happen: more experiences and memories; more social interactions
 - promoting visual variety: make the place look more appealing

Public/Open spaces: an important dimension yet poorly performed

Public/Open spaces ranked 2nd in terms of importance (in 5 dimensions) (from results of questionnaire)

Reasons of poor performance:

- limited size & unfriendly location: priority always given to residential development and supporting uses
- lack of inclusiveness: parks are the main form of public/open spaces so the main users are the children and the elderly; design and facilities do not facilitate social gatherings

Characteristics of HK residential TODs

- High density as a prominent feature in HK TODs
- Density always the highest near the station
- Presence of intensive mixed uses bringing convenience to residents
- Self-sufficient neighborhood enabled by "diversity"
- Footbridges enhancing connectivity & comfort
- Seamless connection between the station and the neighborhood

Recommendations

Emphasizing diversity

This study demonstrated the relationship between diversity and sense of place. Shopping malls, mixed uses, and other supporting uses should continue to be provided in future TODs so as to provide a self-sufficient neighborhood.

Improving public/open spaces

- Quantity is difficult to be improved given the limited size of neighborhood, but the quality can be improved by increasing inclusiveness
- more variety of amenities, e.g. picnic tables, public art installations
 - higher flexibility, e.g. moveable furniture, available to host events and activities