The effects of activity centre design, ownership and governance on neighbourhood complexity in Singapore

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Activity Centres, Singapore New-towns, Neighbourhoods

BACKGROUND

Since 1993 Singapore has changed the design, ownership and governance of many newly developed town and neighbourhood centres from publicly owned precincts to privately owned shopping malls.

Previous research has demonstrated that the top-down control found in shopping malls reduces endogenous dynamism at the neighbourhood level. This results in a loss of subsystem complexity (connected diversity with a bottom-up endogenous dynamic) and lower amounts of mass in the form of premises, local businesses, and activity centre employment.

RESEARCH GAP

Scholars have looked at the effects activity centre design, ownership and governance has on neighbourhood complexity in Australia but not in Asia or Singapore.

FINDINGS

For ease of reference new town statistical planning areas have been divided into four categories. *Category One* are older central planning areas which are contiguous with the historical centre of the city developed before 1993 with old generation centres. *Category Two* are satellite new towns planned and substantially developed before 1993 with old generation centres. *Category Three* are satellite new-towns initiated before 1993 but with a balance of neighbourhoods developed before and after with both new and old generation centres. *Category Four* are satellite new-towns substantially or entirely developed after 1993 with only new generation centres.

Premises in old generation centres, markets, and hawker centres are publicly owned and rented subject to price and quality criteria. New generation centres are usually privately owned. Therefore, premises are let subject to top-down retail standards.
In all new generation town centres and most new generation neighbourhood centres over 90% of tenants are chains or franchises. In comparison, less than 20% of businesses in old generation centres are chains or franchises.
Category 1 & 2 planning areas have 2-5 times as many premises as category 3 & 4 planning areas (figure 1).
Category 1 & 2 planning areas have more than 3 times as much activity centre employment as category 3 & 4 planning areas (figure 2). An exception is Sembawang due to food wholesaling and processing facilities.
Category 1 & 2 planning areas have on average lower household incomes than category 3 & 4 planning areas.

Figure 1: Number of Premises per 1000 households

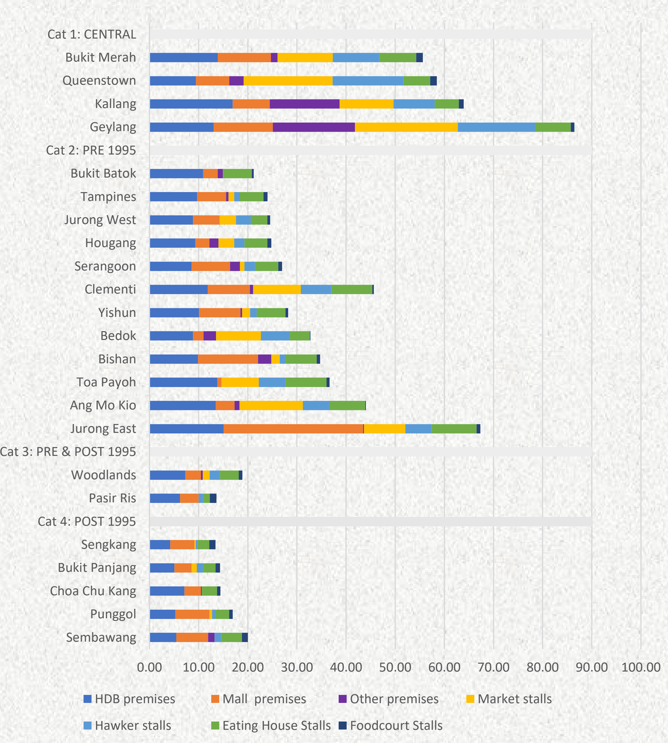
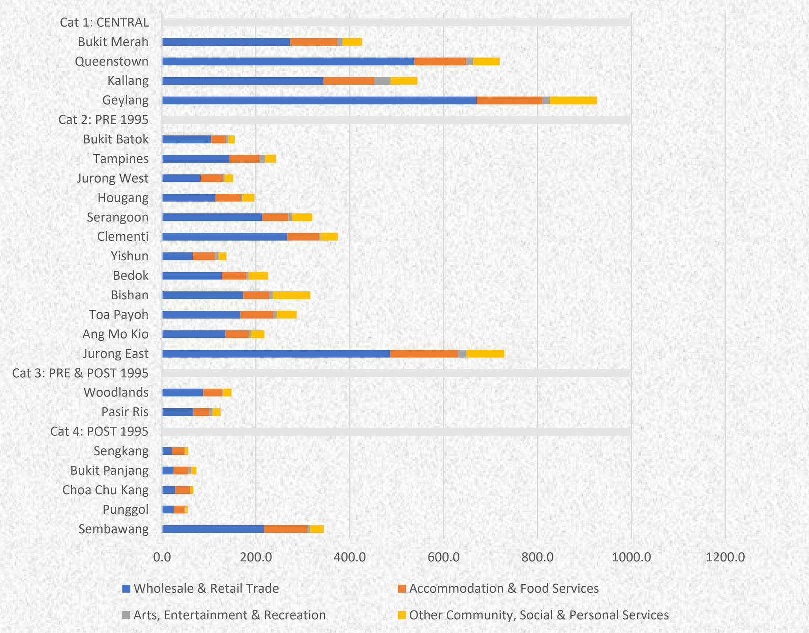


Figure 2: Activity Centres employment per 1000 households



AIM

To ascertain whether the change in new town activity centre design in 1993 has resulted in less complexity and consequently mass in the form of premises, local businesses, and employment.

METHODS

The research used quantitative date to compare numbers of premises, businesses, and jobs per 1000 households in Singapore's statistical planning areas. It also collated the proportion of exogenous chain and franchise businesses compared to endogenous independent retailers.

The number of premises and their ownership was gathered from National Environment Agency (NEA) data and Housing Development Board (HDB) data. Shopping mall premises and ownership data was scraped from websites and cross checked with business websites. Data from high streets was gathered via structured observational surveys from site visits, Google Earth, and Singapore Land Authority's OneMap, then cross checked with business websites.

The number of households, residents, and local jobs in new town neighbourhoods was gathered from Singapore Department of Statistics (DOS) census data. The activity centre employment categories used were:

- *Retail and Wholesale*
- *Accommodation & Food Services*
- *Arts, Entertainment & Recreation*
- *Other Community, Social & Personal Services.*

KEY DISCUSSION POINTS

Activity centre premises in old generation centres are more likely to be publicly owned than have diverse private ownership. While some new generation centres are also publicly owned most are privately owned. Despite this unusual ownership, the patterns observed in other jurisdictions of greater complexity from it in precincts compared to planned shopping malls hold.
Centre design and ownership can produce greater mass from inputs of capital by building complexity.

CONCLUSION

This research has shown that the design and governance of old generation activity centres constructed prior to 1993 enabled them to develop and evolve as complex commons with a diverse array of publicly owned premises connected by public spaces with a bottom-up endogenous dynamic created by a diverse array of independent businesses. Since 1993, Singapore's activity centres have been increasingly developed as new generation shopping malls with top-down control of the centre as a whole and individual chain stores within them. Therefore, they lack an endogenous dynamic.

As a result, conforming to previous research and the principles of complexity theory, pre-1995 areas with complex old generation activity centres and an endogenous dynamic have greater mass in the form of premises, businesses, and employment than post 1995 areas dominated by new generation activity centres and exogenous control. In Singapore, they also achieve this with lower household incomes.

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