

# Chapter 15

## Singapore: A Model for Knowledge-Based City

Caroline Wong  
The University of Queensland, Australia

### ABSTRACT

*Singapore's commitment to knowledge-based economy (KBE) development in the past decade has enabled it to make a rapid and successful transition to knowledge-based city. This chapter focuses on how Singapore government has forged an environment that is conducive to innovations, new discoveries and the creation of new knowledge. In the process, Singapore has emerged as one of the top knowledge-based cities in the world through various frameworks used globally. In this period, Singapore strengthened its engagement with the global knowledge economy developing a creative industries development strategy which endorsed the importance of creative industries, aiming to position Singapore as a 'new Asian creative hub' (ERC Report, 2002, p.8). The Singapore experience represents one of few examples of how knowledge can become the driving force of economic growth and transformation. It provides valuable insight into how public policies have successfully negotiated the current global network economy to suit economic changes. Although Singapore's developmental model has created benefits in many ways, it had also negatively constrained its development particularly in the area of knowledge creation and application to entrepreneurship and creativity.*

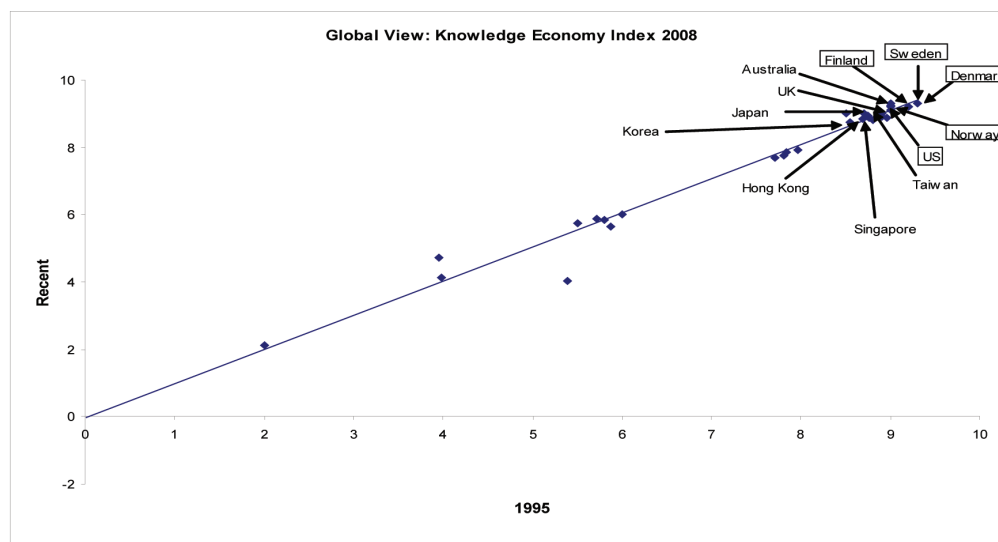
### INTRODUCTION

Singapore is an interesting case study as its status as a most admired knowledge-based city reflects how government policies have successfully negotiated the current global network economy to suit economic

changes. Singapore's commitment to knowledge-based economy (KBE) development has won her recognition for being the most admired knowledge city (MAKCi) in the World Capital Institute and Teleos ranking<sup>1</sup> for the two years running in 2007 and 2008. Singapore relied on many aspects of the capital dimensions listed in the MAKCi framework<sup>2</sup> as a spring board to trigger its knowledge-based

DOI: 10.4018/978-1-61520-721-3.ch015

Figure 1. Global view: Knowledge Economy Index by countries and regions, 1995 and the most recent year 2008



Source: World Bank-Knowledge Assessment Methodology. [www.worldbank.org/kam](http://www.worldbank.org/kam).

development. The MAKCi framework includes eight knowledge capital dimensions that stand as indicators for the MAKCi exercise as the visible drivers of collective capital creation in knowledge-based development city-regions and they include identity capital, intelligence capital, financial capital, relational capital, human individual capital, human collective capital, instrumental-material capital and instrumental-knowledge capital. The details of the indicators in each of the capital dimensions can be located in the 2008 MACKI Report. However, while Singapore ranks high on human capital (which is one of the key traits of a knowledge-based economy) and technical infrastructure in the MAKCI framework, international observers have pointed out that there is a “complete absence of independent media” (Reporters without Borders, *World Press Freedom Ranking 2006*) which reflects on the city’s insufficiency of spaces for critical discourse and breath of opinions and views amongst its stakeholders (2008 MAKCI Report).

The Singapore experience, however, represents one of few examples of how knowledge can be-

come the driving force of economic growth and transformation. It has also been ranked amongst the top 25 in the World Bank’s Knowledge Economy Index<sup>3</sup> (KEI) in the 2008 World Bank comparisons (See Figure 1 below).

The KEI is constructed as the simple average of 4 sub-indexes, which represent the following 4 pillars of the knowledge economy<sup>4</sup>:

- Economic Incentive and Institutional Regime (EIR)
- Education and Human Resources
- National Innovation systems
- Information Infrastructure

This framework consists of a set of 80 structural and qualitative variables that benchmark how an economy compares with other countries. Table 1 below shows that the Nordic countries remain among the best performers in the KEI with Denmark, Sweden, and Finland taking up the first three positions followed by Norway taking up the 5<sup>th</sup> position. Singapore is ranked 24<sup>th</sup> among the 140 countries covered in the KEI ranking for 2008.

15 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage:  
[www.igi-global.com/chapter/singapore-model-knowledge-based-city/41696](http://www.igi-global.com/chapter/singapore-model-knowledge-based-city/41696)

## Related Content

---

### Why do People Share?: A Study of Intrinsic and Extrinsic Motivation to Share Knowledge in Organisations

Nelly Todorova and Annette M. Mills (2018). *International Journal of Knowledge Management* (pp. 1-20).  
[www.irma-international.org/article/why-do-people-share/210683](http://www.irma-international.org/article/why-do-people-share/210683)

### Exploring the Impact of Web 2.0 on Knowledge Management

Thomas Bebensee, Remko Helms and Marco Spruit (2012). *Knowledge Management 2.0: Organizational Models and Enterprise Strategies* (pp. 17-43).  
[www.irma-international.org/chapter/exploring-impact-web-knowledge-management/59856](http://www.irma-international.org/chapter/exploring-impact-web-knowledge-management/59856)

### The Readiness of IDSC to Adopt Knowledge Management

Ahmed A.K. Hussein and Khaled Wahba (2003). *Knowledge Management: Current Issues and Challenges* (pp. 239-262).  
[www.irma-international.org/chapter/readiness-idsc-adopt-knowledge-management/25371](http://www.irma-international.org/chapter/readiness-idsc-adopt-knowledge-management/25371)

### Knowledge-Based Assessment Applied to Lean Brazilian Toyota Plants: Employees' Perceptions

Jorge Muniz Jr., Vagner Batista Ribeiro and Ninad Pradhan (2021). *International Journal of Knowledge Management* (pp. 1-22).  
[www.irma-international.org/article/knowledge-based-assessment-applied-to-lean-brazilian-toyota-plants/273186](http://www.irma-international.org/article/knowledge-based-assessment-applied-to-lean-brazilian-toyota-plants/273186)

### The Ethics of Knowledge Management

Frank Land, Urooj Amjad and Sevasti-Melissa Nolas (2007). *International Journal of Knowledge Management* (pp. 1-9).  
[www.irma-international.org/article/ethics-knowledge-management/2693](http://www.irma-international.org/article/ethics-knowledge-management/2693)