Chapter VII
Queensland’s Smart State Initiative: A Successful Knowledge Based Urban Development Strategy?

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ABSTRACT

During the last two decades, knowledge-based development has become an important mechanism for knowledge economies. In a knowledge economy, information and communication technology is extensively seen as a potentially beneficial set of instruments, which may improve the welfare and competitiveness of nations and cities. At present, both public and private actors aim to exploit the expected benefits of information and communication technology developments. These technologies offer unprecedented promise for social and economic development on all global, national, regional, urban, and local levels. Therefore, this chapter seeks to investigate the potential of information and communication technology policy at both regional and urban levels, and, in particular, to shed light on various factors that influence urban information technology policies in the public domain. The chapter sets out to explain the knowledge-based urban development processes and challenges and opportunities in information acceptance and use in urban policy-making in Queensland, Australia. This chapter draws on providing a clear understanding on policy frameworks and relevant technology applications of the Queensland Smart State experience.

INTRODUCTION

Many cities worldwide face the prospect of major transformation in the 21st century as the world moves toward a global information order (Castells, 2000). In this new era, already upon us, urban economies are being radically altered by dynamic processes of economic and spatial restructuring.
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(Graham & Marvin, 1996). The result is the creation of informational cities or with the new and more popular name knowledge cities.

For the last two centuries, social production had been primarily understood and shaped by neo-classical economic thought that recognized only three factors of production: land, labor, and capital. Neo-classical economics considered knowledge, education, and intellectual capacity as secondary, if not incidental, parameters of production (Knight, 1995). Human capital was assumed to be either embedded in labor or just one of numerous categories of capital. In the last decades, however, it has become apparent that knowledge in and of itself is sufficiently important to deserve recognition as a fourth factor of production. In the globalizing world, knowledge and information, and the social and technological settings for their production and communication are now seen as keys to development and economic prosperity (Lever, 2002).

The rise of knowledge-based opportunity has, in many cases, been accompanied by a concomitant decline in neo-classical industrial activity (Burton-Jones, 1999; Drucker, 1998). The replacement of physical commodity production by more abstract forms of production (e.g., information, ideas, and knowledge) has, however, paradoxically, reinforced the importance of central places and led to the formation of knowledge cities.

It is mainly in cities that knowledge is produced, marketed, and exchanged. Therefore, knowledge cities aim for a knowledge-based urban development (KBUD) that assists decision-makers in making their cities compatible with the knowledge economy and thus able to successfully compete with other cities. Knowledge cities provide their citizens with enabling conditions that foster knowledge creation, knowledge exchange and innovation (Ergazakis et al., 2004). They also encourage the continuous creation, sharing, evaluation, renewal, and update of knowledge.

To compete nationally and internationally cities need knowledge infrastructures (e.g., universities, research and development institutes); a concentration of well-educated people; technological, mainly electronic, infrastructure; and connections to the global knowledge economy (e.g., international companies and finance institutions for trade and investment). Moreover, knowledge cities must not only possess the people and things necessary for the production of knowledge but, as importantly, they must function as breeding grounds for talent and innovation (Winden & Berg, 2004).

The economy of a knowledge city creates high value-added products using research, technology, and brainpower. In the knowledge city, the private and the public sectors value knowledge, spend money on supporting its discovery and dissemination and, ultimately, harness it to create goods and services (Carrillo, 2006). Although many city initiatives call themselves knowledge cities, currently, there are only a few cities around the world (e.g., Barcelona, Delft, Dublin, Montreal, Munich, and Stockholm) that have earned that label. Many other cities aspire to the status of knowledge city through urban development programs that target KBUD (Ergazakis et al., 2004). Examples include: Copenhagen, Dubai, Manchester, Melbourne, Monterrey, Singapore, and Shanghai.

During the last two decades, KBUD has become an important mechanism for knowledge economies of cities. In a knowledge economy, information and communication technology (ICT) is extensively seen as a potentially beneficial set of instruments, which may improve the welfare and competitiveness of nations and cities. At present, both public and private actors aim to exploit the expected benefits of ICT developments. ICTs offer unprecedented promise for social and economic development on all global, national, regional, urban, and local levels. This chapter seeks to investigate the potential of ICT policy for KBUD at both regional and urban levels, and, in particular, to shed light on various factors that influence urban ICT policies in the public domain that targets transforming cities into knowledge cities.