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THOUGHT LEADERSHIP BRIEF

Innovation Policy Within the Greater Bay Area: Hong Kong and Shenzhen's Cross-Border Regional Innovation System

Naubahar Sharif

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KEY POINTS

- The innovation policy landscapes in Hong and Shenzhen differ considerably, with Hong Kong's largely fragmented and duplicative and Shenzhen's concentrated but less extensive
- Together Hong Kong and Shenzhen constitute at best a weakly integrated cross-border regional innovation system
- The two cities should pursue opportunities for policy coordination regarding overseas talent recruitment, collaborative R&D, strengthening regional competitiveness, and supporting start-ups

ISSUE

In 2019 the Chinese government launched the Greater Bay Area (GBA) initiative, a program designed to link major municipal economies in southern China to form an integrated business hub and in particular to create a major global center of innovation. The GBA will include eleven municipalities, including Hong Kong and Shenzhen. In a recent study I and my coauthor focused on these two cities to examine the relationship between innovation policies in Hong Kong and Shenzhen. The study's findings shed light on the current state of innovation in an important part of the GBA and generate policy implications with relevance to the GBA initiative.

The theoretical basis of the research reflected a recent development in innovation studies, which focuses on what are known as innovation systems. Our study of Hong Kong and Shenzhen focused on innovation policy through a relatively new innovation-studies lens provided by the concept of a cross-border regional innovation system (CBRIS). A CBRIS involves innovation-related economic relationships that cross borders, usually national borders. In our case, though, various factors suggest that differences between Hong Kong and Shenzhen – especially cultural and political differences – make it plausible to treat any coordination of economic activity between the two cities as contributing to a cross-border relationship.

The key issues driving the study were, first, the relationship between innovation policies in Hong Kong and Shenzhen and, second, whether – and the extent to which – the two cities' efforts to spur innovation constitute a CBRIS. The task then was to identify the stage of development that this CBRIS has reached and to consider its future prospects given the current state of affairs in Hong Kong and Shenzhen.

ASSESSMENT

The CBRIS literature identifies five tasks that must be completed to establish a vibrant CBRIS, which include socializing the public to embrace the idea, promoting a regional identity, using policy to incentivize two-way knowledge flows over the border, establishing organizations to facilitate the bridging of gaps in innovation on either side of the border, and stimulating dialogue between cross-border policy networks and civil society actors. The first two of these tasks contribute to promoting the idea of a CBRIS-oriented relationship politically, while the fourth and fifth encourage communication and cooperation. Taken collectively, those four tasks suggest that creating a vibrant CBRIS depends on policy coordination and proactive communication between the relevant institutional actors. Standing in the way of these goals is knowledge asymmetry across the border. To gauge the degree of knowledge asymmetry between Hong Kong and Shenzhen, we focused our study on the third of these five tasks, seeking to understand the extent to which innovation policy in Hong Kong and Shenzhen either does or could be made to drive knowledge flows between the two municipalities.

To address this question we first assessed the state of the innovation policy landscape in the two cities. While policies alone are unlikely to resolve all the differences that might affect a regional innovation system, they play an indispensable role and we therefore sought to measure the nature and extent of collaboration between policy actors in Hong Kong and Shenzhen, the contributions that relevant organizations make to such collaboration, and linkages between both existing and emerging policy spaces.

Hong Kong and Shenzhen differ along many regional dimensions, including history, culture, economic structure and performance. They also differ along key socio-political dimensions, in particular regarding the respective configurations of their social and governmental institutions. Their relationship was driven initially by a bottom-up process that saw Hong Kong manufacturers relocating low-value-added industries to Shenzhen following the opening-up in 1979. This process played out against a backdrop featuring little in the way of formal contact between governing authorities, and even after the 1997 handover of Hong Kong to China there was much greater enthusiasm for the relationship in Shenzhen than in Hong Kong (spawning references to "fortress Hong Kong"). This arrangement began changing following the 2003 SARS outbreak, as the two cities formally adopted innovation initiatives in 2006 and 2007.

For its part, Hong Kong's innovation policy apparatus, which began emerging in 1997, languished for years as it functioned reactively rather than proactively and was almost always behind the curve in supporting innovation. More importantly, it has suffered from a chronic lack of policy coordination across the government agencies that have been responsible for devising and implementing policy. Shenzhen, on the other hand, has largely adhered to central government policy directives regarding science, technology, and innovation, although it must be acknowledged that it has enjoyed a greater degree of autonomy in this respect than other major Chinese cities. This has nevertheless resulted in a top-down approach in which the government plays an active role in providing direction for certain economic sectors.

To measure the degree of policy coordination between comparable agencies in Hong Kong and Shenzhen, we employed an analytic technique known as hierarchical cluster analysis (HCA). Using HCA, were able to map the innovation policy landscape across the Hong Kong – Shenzhen CBRIS to identify areas in need of development as well as opportunities to enrich the regional innovation system. We focused on innovation policies in the two cities for the period running from 1 January 2013 through 31 December 2018. For this study, a "cluster" is a group of policies/agencies that are similar in focus. Figure 1 outlines the structure of the analysis schematically.

Regarding innovation policy in Hong Kong, our analysis revealed that its innovation policy landscape features many policies and agencies with little interagency coordination. In spite of this fragmentation, however, there is considerable overlap across agencies in terms of innovation focus. It is therefore not unusual to find multiple agencies in Hong Kong embracing the same responsibilities while focusing on the same policy objectives. Innovation policy in Shenzhen is, however, highly concentrated, reflecting the top-down structure of its policy landscape. As a result, there is considerably less overlap in the responsibilities that individual agencies assume to devise and implement innovation policy. In short, then, Hong Kong's and Shenzhen's innovation policies are markedly different from one another. Hong Kong's innovation policies are multitudinous, fragmented, and overlapping, whereas Shenzhen's polices are more specifically targeted and more clearly differentiated.

Figure 1. Methodological Approach to CBRIS Analysis

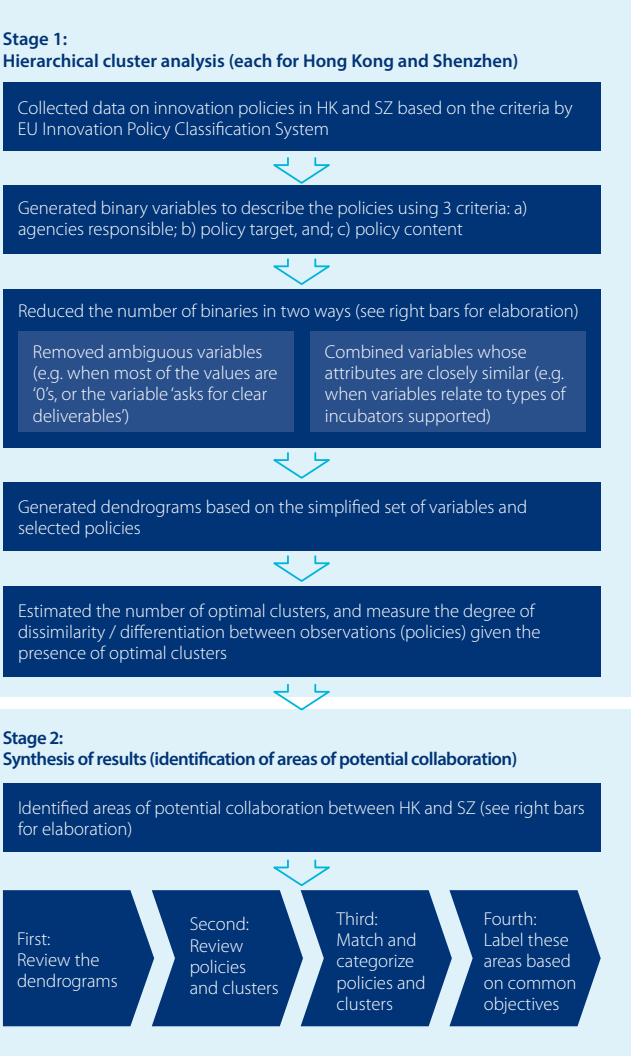

Table 1. Opportunities for Policy Collaboration between Hong Kong and Shenzhen

Common Collaboration Area	Clusters of Innovation Policies (HK)	Clusters of Innovation Policies (SZ)
1. Overseas talent recruitment	Visa schemes to attract talent	Funding incentives for overseas returnees and talent and start-up activities
2. R&D in science, technology, and innovation	Applied R&D and technological innovation	Funding and other support for applied R&D or science/technology-related activities
	R&D intermediaries Research funding for universities	
3. Enterprise competitiveness	Enterprise competitiveness and upgrading	Enterprise competitiveness (non-technical, mainly for small businesses)
	Financing schemes	
	Technology development (for enterprise competitiveness and skills enrichment)	Enterprise competitiveness (technical)
4. Support for start-up development	Incubation support for start-ups	Funding incentives for overseas returnees and talent and start-up activities
	Internship program for start-ups	

The extent to which Hong Kong and Shenzhen can further establish and strengthen their mutual contributions to what is now a weakly integrated CBRIS depends, critically, on identifying areas in which their innovation policies can be aligned through collaboration. We identified four such areas: 1) talent recruitment from overseas; 2) joint R&D in science, technology, and innovation; 3) enterprise competitiveness; and 4) support for start-up development. The accompanying table summarizes these opportunities.

RECOMMENDATION

Leveraging cross-border cooperation to build a thriving CBRIS depends on governance based on trust, learning, partnerships, and flexibility. Encouraging such cooperation is challenged by historical tensions and the dynamic, constant reconfiguration of distinct actors with divergent interests. We argue that policymaking agencies in Hong Kong and Shenzhen must focus on aligning diverse stakeholder interests and reform policy incentives to complement those interests. In this regard, strengthening two-way exchanges between stakeholders requires long-term investments in building regional social capital and embedding stakeholders in the system.

Any given agency may be responsible for multiple areas of policy implementation and delegate the corresponding responsibilities to multiple divisions, potentially creating communication gaps. Improved within-agency as well as interagency cooperation across the Hong Kong–Shenzhen CBRIS would help to defragment innovation policymaking. This process should begin with the four areas of opportunity summarized above. There is considerable space for extending cooperative actions with respect to recruiting overseas talent, incentivizing collaborative R&D, strengthening regional competitiveness, and fostering a strong start-up culture.

Naubahar Sharif is Professor of Public Policy at The Hong Kong University of Science and Technology (HKUST). His research interests include science, technology and innovation (STI) policy in Hong Kong and within the 'Greater Bay Area' of Southern China; automation in China; and the 'Belt and Road' initiative. In 2011 he completed the Executive Education program in Innovation for Economic Development at Harvard University. At HKUST, Naubahar has been nominated for the Michael G. Gale Medal for Distinguished Teaching, also having won the Interdisciplinary Programs Office's Teaching Excellence Award (in 2020), the School of Humanities and Social Science (SHSS) Best Teacher Award (twice, in 2009 and 2016), and one of his courses was nominated for the Common Core Excellence award. Naubahar has been awarded both 'Public Policy Research' (PPR) and 'General Research Fund' (GRF) grants by Hong Kong's Research Grants Council (RGC). Currently, Naubahar is a co-investigator for two 'Strategic Public Policy Research' (SPPR) grants awarded by Hong Kong's Policy Innovation and Co-ordination Office (PICO) as well as a cross-institutional 'Collaborative Research Fund' (CRF) grant also awarded by the RGC. Naubahar's research has had a demonstrable impact on business and his research was one of HKUST's few 'impact case study' submissions (sole-authored) for its 2020 Research Assessment Exercise (RAE).

Reference:

Sharif, Naubahar and Kevin Chandra. "A Comparative Analysis of Innovation Policies in Hong Kong and Shenzhen Within the Greater Bay Area Initiative." *Science and Public Policy* (2021): DOI: https://doi.org/10.1093/scipol/scab059

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INSTITUTE FOR EMERGING MARKET STUDIES

T: (852) 3469 2215
E: iems@ust.hk
W: http://iems.ust.hk
A: Lo Ka Chung Building, The Hong Kong University of Science and Technology, Clear Water Bay, Kowloon

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