

## **The Gap between Government, Industry, and Academia: A Study of Industry-Academia-Research Collaboration in the Greater Bay Area from the Perspective of the Triple Helix**

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### **Research Domains**

Academic practice, work, careers and cultures (AP)

### **Abstract**

This study explores the collaboration between government, industry, and universities and how these collaborations facilitate better cooperation for enterprises operating in the Greater-Bay-Area of China using the flexible grounded theory approach. Interviews and focus groups with 36 participants from Government, industry and universities reveal that small and medium-sized enterprises face challenges in cooperation with universities and government, such as resource constraints and communication issues. Universities struggle with employee attitudes and lack of entrepreneurial ideas, while government organizations help stabilize partnerships. These findings underscored the intricacies of collaborative efforts and illuminated the existing gap, emphasising the necessity for reforms in evaluation mechanisms. The study warrants the urgent need for addressing talent retention and fostering innovation and further recommends investigating the more support for small and medium-sized enterprises to engage in academia-industry partnerships in order for more effective collaboration.

### **Full paper**

In response to China's 19th Communist Party Congress and the "One Country, Two Systems" policy, the Guangdong-Hong Kong-Macao Greater-Bay-Area (GBA) was established in 2019. This initiative encompasses 11 cities across a vast 56,000 square kilometers and represents a strategic and economically dynamic region that is crucial to China's development strategy. The GBA's focus on higher education, technological advancement, and economic growth are underpinned for tripartite collaboration among government, industry, and universities. This tripartite collaboration brings unique strengths to the integrated development of the area.

To achieve these integrated developments, the study poses two critical research questions:

What is the perspective on GBA's government, industry, and academia on industry-academia-research projects ?

What are the factors that lead to divergent viewpoints among these stakeholders across the cities of region?

The literature review lays a foundation for this study while discussing the Triple-Helix theory. This theory advocates for a collaborative model where government, industry, and universities interact based on dynamic market demands. In the 1950s, The Triple-Helix theory originated within the field of biology. Theory aimed to explain the interplay between organisms, genes, and their environment (Strand and Leydesdorff, 2013). However, in 1995, the American scholar Henry Etzkowitz and Dutch scholar Loet Leydesdorff first applied the Triple-Helix theory to sociological research (Etzkowitz and Leydesdorff, 1995). The Triple-Helix theory is the era of the knowledge economy, where the tripartite organizations of government, industry, and universities are connected according to market demand (Wang, 2018). This theory has evolved and influenced societal and scientific communities. Additionally, the review examines the policy directions for educational reform in China and further emphasizes market-oriented reforms and the need for depoliticizing and decentralizing institutions to meet economic development needs.

The study adopts the qualitative methods approach. The data were gathered through indepth interviews and focus groups without any predetermined hypotheses. This approach allowed the researchers to answer research questions based on empirical data which focused on the experiences and attitudes of representatives from government, enterprise, and university sectors. The conception framework built upon the Triple-Helix theory, which suggests a collaborative model where government, industry, and universities interact based on market demand. This model has evolved through various stages which influences societal and scientific communities.

The research findings within the GBA highlight a multifaceted collaboration between government, industry, and universities. Enterprises seek technical and strategic support from universities but encounter challenges in aligning expectations and overcoming resource limitations. It advocates for clear policies and regulations from the government to foster a harmonious public-private partnership.

Universities which provide higher education aim for long term industry partnerships particularly facilitating research and education. There is a call for equal pay for equal work. However, Universities also face the pressure to conform to government policies which may restrict academic freedom.

The government is expected to play a crucial role in talent retention and development within enterprises and to support universities in their mission to serve society. However, the government's policies sometimes lack the clarity and sustainability for effective collaboration. The study identifies end-specific issues such as performance conflicts within the government, undefined roles for universities, and a weak sense of social responsibility among enterprises. It also observes cross-end issues which include two distinct collaboration models : government and state-owned enterprises model and another model is between government and elite universities.

The causes of these issues are attributed to government policies, industry specifics, and cultural factors, which shape the preferred models of collaboration. The potential consequences of not addressing these issues include inequitable resource allocation, divergent objectives, inefficient project execution, and communication barriers. To mitigate these, the study proposes solutions such as reforming the project evaluation mechanism, introducing corporate metrics in university evaluations, and supporting small and medium-sized enterprises in academia-industry collaboration.

The study concludes that the Government-Industry-Academia collaboration in the GBA is a complex framework with significant potential for innovation and economic growth. It addresses the perspectives of stakeholders on collaborative projects and the reasons behind differing views. Enterprises are challenged by capacity constraints and a need for greater social responsibility, which can impede project efficiency. Universities must navigate cultural biases and commercial undervaluation to enhance their contributions to research and talent development. Governments, despite their role in fostering collaboration, struggle with performance conflicts and policy coherence, which are essential for a supportive environment.

The finding of this study emphasises that respecting the rules of the free market is crucial for the development of industry-academia-research integration in the GBA. Resolving these issues may lead to achieving harmonious collaboration to support the region's long-term prosperity and sustainable development.

## References

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