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Catching Up Along the Global Value Chain in Asia: Strategies and Implications

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The international business landscape as well as local economic development has been profoundly influenced by the development of GVCs that define nation and industrial progress. This new form of trade fragmentation consists of a complex web of interdependent activities that span multiple countries, sectors, and value chains, enabling efficient production and distribution of goods and services at the global level. The increasing integration of developing countries into GVCs has had a transformative effect on the global economic and political stage, in addition to its larger impact on the catching-up and upgrading processes. Moreover, the transformation of GVCs is taking shape with new technologies and the new global order.

Scholars have taken different approaches and emphases on understanding the catching-up process and GVC. On the one hand, the catching-up process tends to be approached from a country or sector perspective to examine the factors that can promote technological progress

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in developing and emerging economies (Yap & Rasiah, 2017; Choi et al., 2020; Lima & Lee, 2023). Work on GVCs, on the other hand, which focus primarily on the governance structure (Gereffi, 1994; Gereffi, at al. 2005), has since evolved to examine the impact of governance on upgrading (Gereffi, 1999; Gereffi, 2018). For many Asian countries, participation in GVCs has opened new opportunities, accelerating exports, boosting manufacturing growth, and catalysing knowledge diffusion (Crescenzi & Harman, 2023). By leveraging linkages and interactions with firms from developed countries, many Asian firms have established themselves as competitive suppliers in a variety of industries. Despite the many benefits that GVCs bring to Asian economies, challenges remain. The heavy reliance on GVCs led by advanced economies makes them vulnerable to shifts in global demand, supply chain disruptions or changes in policies of dominant countries within value chains (Pahl et al., 2022). Moreover, certain regions and industries may experience rapid growth and development, while others may struggle to benefit from value chain integration, leading to unequal income distribution between countries. Indeed, the complex nature of GVCs requires effective policy coordination among participating countries. As Asian economies strive to catch up and participate in GVCs, it is often a challenge to acquire and upgrade the necessary technological capabilities and skilled labour (Hollweg, 2019). If countries fail to close the technology and skills gaps, they can remain in low-value, labour-intensive segments of GVCs, limiting their ability to catch up with the more advanced economies (Cirera & Maloney, 2017). To effectively participate in GVCs and move up the value chain, robust policies are needed to promote technology adoption, build domestic innovation capacity, and facilitate the diffusion of knowledge from more advanced economies.

This special issue on catching up along the GVCs in Asia provides an understanding of the impact of integration in GVCs on those economies and how their firms strategically build technological learning. The articles in this issue bridge two streams of literature: one on catching up and one on GVCs. Special attention is given first, to the role of firms in GVC entry, learning and improvement within GVCs, and second, the impact of the catching-up process at the country level on the economy. Indeed, new developments, including the COVID-19 pandemic, have played a crucial role in transforming GVCs. These include the reorganisation of international production in the wake of the new industrial revolution, growing economic

nationalism and the sustainability agenda, which make it difficult for developing countries to integrate into GVCs.

The first article in this special issue deals with Thailand as a case study. Written by Korwatanasakul and entitled 'Thailand and the Middle-Income Trap: An Analysis from the Global Value Chain Perspective', the study examines the relationship between the middle-income trap (MIT) and Thailand's participation in GVCs. It provides a critical analysis by matching GVC data at the firm, industry, and country levels with the country's economic development path. The results indicate that participation in GVCs plays a crucial role in initial industrialisation and economic development. However, the analysis shows that Thailand has relied on foreign inputs and technologies without sufficiently developing domestic industries and innovations. As a result, the country has fallen into the MIT and has been unable to sustain growth and catch up with the more innovative advanced economies. The article concludes with a recommendation for policy action to address the challenges of inadequate knowledge and technology transfer and the need to strengthen the capacity of local enterprises.

Hue and Korwatanasakul's article entitled "Global Value Chain Participation and Labour Productivity Among Manufacturing Firms in Vietnam: Firm-Level Panel Analysis" examines the extent of GVC participation among manufacturing firms in Vietnam and assesses the impact of such participation on firm performance. The study is unique in that it matches two datasets, the Vietnam Technology and Competitiveness Survey and the Vietnam Enterprise Survey from 2009 to 2018. The paper distinguishes between the types of participation in GVCs by assessing the roles of backward linkages and forward linkages to explore the importance of the "learning to learn" and "learning through exporting" hypotheses on firm performance. The results suggest that forward linkages (using both proxies) are critical for participation in GVCs, supporting the learning through exporting hypothesis, while backward linkages are positively significant only when the variable is treated as a dummy variable. In addition, there is evidence that research and development (R&D), digital technology and foreign investment are other factors that are crucial for promoting labour productivity.

The article by Ming, Kong, Chandran and Baskaran titled "Upgrading and Reconstruction of Global Value Chain: Case of Chinese Firm's Catching Up Trajectory" uses a case study approach to assess the learning trajectory of

the Chinese chip manufacturer in climbing up the value chain. Interestingly, the study sets out the need to reconstruct the GVC perspective considering the emergence of Industry 4.0, trade conflicts and other developments. The reconstructed GVC framework offers new perspectives for understanding the firm's trajectory. Similarly, tracking the progress of firms in an evolutionary sense provides a comprehensive understanding of the upgrading process within their operations. This is crucial as insights into what is happening within the firm (the so-called black box) provide a better understanding of how firms are managed, which can also help developing countries adopt better policies to upgrade at each node of the value chain. Using a single case approach, the paper demonstrates how a Chinese firm optimised the new business opportunities that arose from the industrial revolution, which led to an improvement in its position within the value chain. The firm's focus on a differentiation strategy, open innovation, ability to overcome bottlenecks and demonstration of entrepreneurial qualities enabled the company to improve its position in the value chain. The paper concludes with some theoretical and practical implications.

The fourth article by Chandran, Sonia, Pui Wah and Sarpaneswaran on "Spatial Re-localisation in Global Value Chain and Global Production Networks: Path Creation Perspective" examines the development of the solar industry in Malaysia in the context of the GVC and Global Production Network (GPN) by uniquely combining the arguments on institutional path creation for catch-up and upgrading. The authors have vividly illustrated the importance of policy and institutions in building the solar industry ecosystem in Malaysia. However, given the speed of technological advancement in the industry and the integrated governance structure of the solar industry value chain, they also discuss the limitations of institutions and policies in promoting value chain upgrading. Moreover, the political economy of trade policy has had various impacts on the GVC and GPN structures. The highly capital-intensive upstream industries continue to be largely driven by foreign direct investment (FDI), while the proliferation of downstream industries, particularly system balance and system integrators, opens new opportunities for the expansion of services within the region. The limitations of FDI-dependent and export-oriented strategies have been further discussed in the context of catching up in building sectoral progress and competitiveness.

The final paper, "Upgrading within Global Value Chains and Innovation Capabilities: Lessons from Indian Information Technology Sector"

authored by Mehta and Baskaran, looks at India's information technology (IT) sector and provides a unique perspective by examining the nature of upgrading within value chains, combining the innovation systems literature. The findings reveal an interesting dichotomy where the IT industry has gradually evolved to provide all value chain services. Most importantly, the innovation and technological upgradation of Indian industry IT, achieved by strengthening technical R&D and innovation activities, have contributed to its increased role in GVCs. Critical in bringing innovation to upgrade is to foster partnership with technology leaders, start-ups, academic institutions, and acquisition. The paper concludes with policy recommendations from the insightful findings.

The special issue provides a comprehensive examination of the implications of GVC and strategies of catching-up along the GVC in Asia. With a focus on different business models for entry, learning and improvement, the issue sheds light on the complicated process of catching up at the national level, from sectoral and firm perspectives. By closely examining the successes and challenges that specific Asian countries have experienced in navigating the GVC landscape, valuable insights into potential avenues for further progress and collaboration in the region are derived. The findings provide policy direction on innovation and shared progress in Asia through the GVC path.

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