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ARTICLES

COMMENTS

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Comment on "Industrial policy for innovation: why does it matter?"

Emmanuel S. de Dios*
University of the Philippines

This paper postulates that the lack of domestic innovation has "resulted in low productivity levels" and that this is a crucial barrier to industrial transformation and inclusive growth. However, an important distinction should first be made between innovation, on the one hand, and adoption and adaptation, on the other. Innovation in the Schumpeterian sense is the introduction of a product or process that is novel from the viewpoint of what is globally known technologically; it means pushing the product- or process-frontier outwards.

Viewing the Philippines's position on the technological ladder, however, it cannot be said to be at or close the frontier. A good deal (and indeed the bulk) of future productivity gains for the country is likely to be attained by moving the country closer to the frontier rather than by pushing the frontier itself. This can occur through what Mokyr [1990] calls Smithian or Solovian, rather than Schumpeterian growth. We can move people from lower- to higher-productivity sectors, e.g., from the informal to formal sectors, or say, from traditional to modern agriculture. Or we can promote the wider use of existing technology by encouraging investment in existing capital equipment and digital applications (ride-hailing software easily comes to mind). Perhaps "upgrading" rather than innovation may be the more appropriate term in both cases. At any rate, the barriers to productivity growth in these instances do not typically relate to a lack of new knowledge per se but rather to mundane but thorny issues like lack of credit, property-rights questions, sunk or legacy investments, intrafirm governance structures, regulatory rigidities, or cultural or social inertia.

This is not to deny there may be some industries or sectors where true innovation can indeed be achievable domestically. This might be possible, for example, in software development, which avoids many of the hurdles faced by manufacturing production (such as small domestic supplier base, high energy costs, etc.). But exactly how important these are, how much their success might contribute to aggregate productivity, and whether they ought to be the focus of industrial policy—in the sense of laying claim to a major part of public resources—these are completely different issues. The article speaks of an "innovation-based industrial strategy" and mentions a number of "priority

* Address all correspondence to esdedios@up.edu.ph.

industry clusters for development"—presumably meant to constitute the focus of industrial policy. Offhand, however, one must remark that the enumeration is too rich and includes almost all economic sectors (e.g., from manufacturing, to telecoms, to creatives, to agriculture). As has been rightly observed, however, if there are too many priorities, then there is really no priority.

The paper's point might be saved if there were some general "innovation" investment, say some generic R&D labs or staff training, that could serve the needs of all the sectors nominated. But that is hardly the case. The skills and equipment needed by an AI app developer, for example, are quite different from those of an engineer trying to improve an auto factory's robots, or a system design engineer trying working on a new graphics processing unit (GPU). For industrial policy, there is no escaping the need for specificity or focus on investment—which is also the reason it carries risk.

If at all, industrial policy should be designed prudently with detailed information on the country's position on the technological ladder, the target industry's current technological trajectory (see, e.g., Dosi [1982]), its main agents globally, and whether and how far the country wants to join the value chain. This is especially true since a good deal of advanced technology today is proprietary and controlled by specific firms. (Think of NVIDIA's hold on the GPU technology used in AI.) This is unlike the 19th or early 20th century when much industrial technology was virtually a public good and innovation could occur autonomously or at least with a choice of different partners.

The upshot is that moving towards the technological frontier and getting a reasonable shot at true innovation entails first attracting the leading firms who possess the desired technology. As with most foreign investment, this is usually done by providing the matching inputs (e.g. specific types of labor, infrastructure, and local partners) or the environment in which these leading firms can thrive. The firm-specificity of many advanced technologies, however, means that the locational inputs to be provided must also be firm-specific and at scale—with the concomitant risk that this will be viewed by the public as biased and discriminatory.

In exchange, the government needs to be clear-headed about the milestones such favored firms are expected to achieve in terms of both technology transfer and market access. (Past programs like the government's various attempts to incentivize car manufacturing have failed both in terms of vision and scale.) Apart from proprietary technology, a further aspect complicating relationships with leading firms is the inherently limited degree of autonomy allowed to local partners in global value chains (GVCs), which can be a barrier to the development of local capacity to innovate or upgrade [Mendoza 2024]. For industrial policy to be effective, even this must be negotiated. The scale of incentives and nature of the terms given to NVIDIA to secure its recent commitment to build an AI chip factory and AI R&D center in Vietnam are probably worth studying, if not emulating.

The need to commit significant resources, the specificity of investment, and the rapid pace of technological change—all of which raise the cost of error—underscores the need for careful prior study of any sector targeted for industrial policy. In this respect, one must question whether government—and a good deal of local academic opinion—is not still working with a too narrow and anachronistic a focus on what “industrial transformation” means. From the handwringing and self-flagellation that accompanies any presentation of statistics of Philippine manufacturing, one gets the impression we are still working on the need to emulate the industrialization path followed by the newly industrialized economies (NIEs) five decades ago.

In considering any industrial policy, however, it is not the history but the trajectory of global production processes that must be considered. Baldwin et al. [2024] and Rodrik and Sandhu [2024], among others, suggest we instead consider what the services sector can contribute to future development—and conversely realize the limits to the old model of traditional labor-intensive manufacturing. Bangladesh, for instance, despite its foothold in the garments and textiles, now struggles to take the next step since it cannot meet the industry’s requirements for a more educated labor force. Here at home, it has been obvious for some time that the IT-BPM sector is the most competitive and innovative sector of the economy. By its nature, this sector has avoided many of the problems plaguing manufacturing, such as the liberal trade and exchange-rate regime, the high costs of unskilled labor, of energy, and of metropolitan real estate. Yet this sector has been taken for granted, regarded as a mere cash cow, and has received less strategic attention and visioning than some industrial sectors. (See the paper of Serafica [2024] in this issue however.) If there is any silver lining in the threat AI poses to IT-BPM, it is that government has been forced to focus on understanding the industry’s technological trajectory and to begin adumbrating a forward-looking strategy. (Even here, however, Vietnam seems to be several steps ahead.) One can only hope this time government “industrial policy” to promote the services industry will be informed by a strategic vision, coherent, implemented at scale, and sustained. Any effort short of this would be merely performative and better set aside.

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