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Guest
Editorial

Outsourcing R&D

Corporate strategy in the U.S. places high importance on R&D because of its proven capability to improve competitiveness and profitability. However, research is becoming increasingly interdisciplinary and corporations can no longer house all competencies necessary to stay competitive. Further, new tools and growing complexity are increasing R&D costs. So although corporate labs spend as much as $800 million for a new drug, they are confronted with the law of diminishing returns. Pharmaceutical companies tripled R&D spending to $30 billion in the past decade, but could launch only 37 new drugs in 2001 — the lowest in 20 years.

Companies will need several strategies to overcome this crisis in R&D productivity because pursuing multiple R&D projects is critical to staying competitive in the long term. One strategy, to quote Harvard Business School professor Henry Chesbrough, is "open innovation," which includes embedding research labs at universities, turning customer-vendor relationships into partnerships, or simply outsourcing R&D.

Outsourcing is driven by cost, and R&D is no exception. Leveraging India's infrastructure and cheap, yet talented, labor to harvest new ideas is an attractive opportunity. Every year, India graduates 3,500 PhDs and 125,000 engineers. Some write code in Silicon Valley and work in Fortune 500 companies, while most populate India's first-class scientific infrastructure of 2,000 R&D institutions. Together, they could help accomplish outsourced R&D at 10–20% of the costs in the U.S.

India's success with information technology is widely known. In comparison, awareness of India's emerging contract R&D capabilities is limited. However, some companies have leveraged Indian R&D effectively for a long time. General Electric (GE) began collaborating with India's National Chemical Laboratory (NCL) in the area of polymer chemistry in the early 1990s. The relationship continues even today and has resulted in several patents, which have been assigned to GE.

However, nothing runs smoothly in India. Outsourcing R&D to India is fraught with issues related to intellectual property rights and the regulatory climate. India stopped honoring product patents in the early 1970s and patented products could be manufactured so long as a different process was employed. However, India has wisely adopted legislation committing itself to the World Trade Organization's intellectual property regime starting in 2005. In anticipation, companies have started ramping up Indian operations. For example, Eli Lilly and Pfizer are either planning to or already are leveraging India's large patient pool for clinical research trials. Such examples will multiply once the Indian government further simplifies regulatory issues related to clinical research.

If the Great Indian Rope Trick beguiled western scientists in ancient times, modern Indian science is no less fascinating. Labs in India could help U.S. companies discover drugs, develop materials, and design cars at a fraction of U.S. costs. This Great Indian R&D Trick could change the way U.S. companies innovate and invent.

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