

Current relevance of pharmaceutical economy

Kh. O. Darmanov

e-mail: khakim.darmanov@mail.ru;

Tashkent Pharmaceutical Institute;

5th year student of the Faculty of Pharmacy

Abstract: Emerging markets represent an exceptional opportunity for the pharmaceutical industry. Although a precise definition is not yet available, economists define emerging markets as developing prosperous countries in which investment is expected to result in higher income despite high risks. Qualifying a market as emerging is not merely based on the economic status of the country, but also on several criteria that render the definition applicable to each country. Jim O'Neil, retired chairman of asset management at Goldman Sachs, identified leading economies of emerging markets: Brazil, Russia, India, and China (BRIC) and later Brazil, Russia, India, China, and South Africa (BRICS) and then Mexico, Indonesia, South Korea, and Turkey (MIST), which followed years later as the second tier of nations. Sales of the pharmaceutical markets in BRICS and MIST countries doubled in 5 years, reaching a market share of approximately 20%. The shift toward these new markets has been attributed to the large populations, growing prosperity, and increasing life expectancy in BRICS and MIST countries. In addition, companies are experiencing flattened growth of developed markets, expiration of patents leading to the up-selling of less expensive generic drugs, and tight regulations enforced in mature markets.

Key words: : Emerging Markets, Developed Markets, Pharmaceutical Companies, Drugs and Disease, BRICS, MIST

INTRODUCTION

The pharmaceutical industry is one of the fastest growing knowledge-intensive sectors of the global economy, which has undergone significant changes in recent years. The purpose of this work is threefold: first, to evaluate some trends in the development of the pharmaceutical industry; second, to trace the dynamics of mergers and acquisitions in the pharmaceutical market; third, to identify the features of the development of pharmaceutical R&D outsourcing into China. Based on the research, the authors come to the following conclusions. The leading countries in the global pharmaceutical market (in terms of the share of healthcare costs in GDP and in terms of pharmaceutical output) are the USA, Switzerland, Germany, France, Japan, and, in recent years, China. To strengthen their positions and gain control

over other companies in the industry, pharmaceutical multinationals (MNCs) from the leading countries increasingly use the M&A tool, the development of which has become an important trend in the pharmaceutical market. To increase financial stability and reduce R&D costs, pharmaceutical MNCs are also expanding the use of R&D outsourcing. In recent years, China has become the main market for the outsourcing operations of the largest pharmaceutical MNCs, which actively cooperate with Chinese contract research organizations. The economic policy of the Chinese government has become one of the most important factors influencing the accelerated development of China's pharmaceutical industry. The rapid growth of pharma emerging markets has been attributed to several factors. The first factor is the patent cliff affecting several branded drugs that have been in the market for decades. Second is the shift toward the use of generic drugs in developed and developing countries, as well as the increasing availability of biosimilar drugs. The third factor is the change in disease patterns in emerging countries. Finally, the significant differential between manufacturing costs and prices was a critical factor for pharma growth. Those of us in the pharmaceutical industry frequently find ourselves having to develop a primer on the industry, its economics, and the nature of the discovery process. There is very little recognition, for example, that the R&D risk is enormous in our industry. Few people realize that it takes an average of 12 years and \$230 million to develop a new drug (1). Nor do people realize that 7 of every 10 products that do reach the marketplace never recover the average cost of development. Most discouraging is that the message must be repeated in so many different ways. In the light of much-needed academic analyses—now planned or under way—of such subjects as the pharmaceutical industry's risks versus returns, I am hopeful that the economics of innovation in medicine will some day be better understood.

In the meantime, several broad-based initiatives are essential for drug innovation: we need increased government collaboration and support of basic biomedical research; we need better and broader science education at all levels; we need more equitable treatment for U.S. industry in world trade; and we need stronger worldwide protection of intellectual property—patents, copyrights, and trademarks. These are the specific issues of this paper.

Progress on these issues rests first on public policy, and any policy actions that affect the research-based pharmaceutical industry should be grounded firmly on an understanding of the economics of innovation in medicine. Merck & Co., Inc., the

world's largest prescription drug company, is well positioned to contribute to such understanding. Merck has first-hand knowledge of the realities of the global marketplace, the challenges of research, and the economic policy environment that is conducive to success in business competition and in fighting disease.

CONCLUSION

The best way to reduce the cost of disease is to find cures. Makers of public policy should bear in mind that Alzheimer's disease costs the United States \$88 billion a year because there is no effective treatment (15). Smallpox, in contrast, costs the world not one penny because it has been eliminated by medicine.

If Merck or any other drug company could discover an effective drug for Alzheimer's, it would reduce health care costs by billions of dollars and end untold suffering. Public policy should be aimed at encouraging this kind of outcome rather than primarily at cutting costs.

Studies of the kind mentioned above will be critical in enlightening legislators and the public about all facets of the economics of the pharmaceutical industry. In addition, such findings will help Merck and other companies move into the twenty-first century as members of a vital and viable industry, serving society by meeting the needs of patients everywhere.

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