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The Influence of Emerging Markets on the Pharmaceutical Industry



Maya Tannoury, Bs, Zouhair Attieh, PhD*

Faculty of Health Sciences, American University of Science and Technology, Beirut, Lebanon

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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. Particular attention must therefore be given to these emerging markets. The strategies adopted by pharmaceutical companies that want to expand in these markets must be tailored to the pace of development of each country. These countries need drugs against infectious diseases and communicable diseases such as sexually transmitted diseases. They are readily exploitable territories for the innovative products of pharmaceuticals. Nevertheless, with the increase in wealth and longevity, a change of lifestyle is occurring. These changes accompany a shift in disease patterns. A disproportionately fast rise in the incidence of noncommunicable diseases such as cardiovascular illnesses, diabetes, and oncologic diseases has been observed in emerging markets, mimicking their Western counterparts. The incidence of diabetes and oncologic diseases is expected to grow by 20% or more by 2030. This shows that pharmaceutical industries will also be able to market their global products in these new countries. Conquering emerging markets can be challenging for industries. These challenges can be grouped into 3 categories: infrastructure development, cost-containment policies, and value-driven drug evaluation. Top strategies considered to overcome these challenges include adequate tailoring and a gain in market. © 2017 The Authors. Published by Elsevier Inc. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

Introduction

As of 2016, a majority of the world's 30 megacities are in emerging markets.¹ According to *Forbes* magazine,² the term *emerging market* was introduced in 1981 by economists at the International Finance Corporation to promote the first mutual fund investment in developing countries. The term has been used widely since. Today, the *Financial Times* defines emerging market as a developing country in which investment is estimated to lead to high income but with great risk.³

In 2001, Jim O'Neill, former chairman of asset management at Goldman Sachs and current conservative government minister, identified Brazil, Russia, India, and China (BRIC) as the top tier of emerging economies at the beginning of the century.^{4,5} In December 2010, South Africa was added, despite O'Neill's disapproval. Later, O'Neill established a new tier of countries that he predicted would follow BRIC: Mexico, Indonesia, South Korea, and Turkey.^{4–6} Several economists at Hongkong and Shanghai Banking Corporation (HSBC) tried to adapt the same strategy to group similar emerging markets. These efforts resulted in 2 new groups: Colombia, Indonesia, Vietnam, Egypt, Turkey, and South Africa, and Bangladesh, Egypt, Indonesia, Iran, Korea, Mexico, Nigeria, Pakistan, the Philippines, Turkey, and Vietnam.⁴

According to a report published in January 2015,⁷ developing countries are the driving force for the growth of health and

* Address correspondence to: Zouhair Attieh, American University of Science and Technology, Alfred Naccache Ave, Achrafieh, Beirut, Lebanon.
 E-mail address: zattieh@aust.edu.lb (Z. Attieh).

wellness sectors and are forecasted to account for 49% of the market share by 2019. However, this growth in market share is not restricted to the health and wellness sector but includes other sectors such as the pharmaceutical industry. The market prognosis of Intercontinental Market Services estimated pharma market development to be worth \$1,190 billion in 2016, with emerging markets accounting for 30% of that market.⁸

The pharmaceutical industry in emerging markets

Also known as pharma, the pharmaceutical industry is defined as the industry that involves the process of discovering, developing, and manufacturing drugs by both private and public organizations.⁹ The pharma industry, was established in the 19th century after several health challenges stimulated research into the medicinal properties of plants, minerals, and animals. The industry is estimated to be worth \$300 billion per year, and that figure is expected to rise.⁹

According to the World Health Organization (WHO), a comparison between G7 countries (ie, Canada, France, Germany, Italy, Japan, United States, and the United Kingdom) and E7 countries (Brazil, China, India, Indonesia, Mexico, Russia, and Turkey) showed that the latter countries had higher percentages of private health expenditures. Between 2015 and 2020, pharma sales growth estimates scored higher in emerging countries than in developed countries, with BRIC-MT (Mexico and Turkey) countries ranking first with a 9.3% growth in sales.¹⁰ In 2011, countries such as France, Germany, Italy, and Canada witnessed marked stagnation in their pharma markets, with a growth not exceeding 5%, whereas the US pharma market regressed.¹¹

Trends influencing pharma growth: Paradigm shift

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.

Emerging countries are solid markets for drug formulae that have been selling for decades. This significantly boosts the chances of succeeding in launching new products tailored especially for these markets. Such niche products will undoubtedly increase the profits of big pharma industries.¹² With the spread of globalization philosophy, pharma companies are establishing specific footprints with product ranges that suit all populations.

Emerging markets are not only attractive for investment, but also the increasing income, availability of human capital, and low-cost wages within these countries also make them strong markets for outsourcing.¹² Costs of production, research, and development are on the rise. Studies have shown that performing clinical trials in emerging countries is less costly and can reduce drug development costs significantly, making it easier to lower prices while maintaining gains.¹²

Between 2011 and 2016, patent protection was lost on brand-name drugs that accounted for more than \$1 billion per year of big pharma sales.¹¹ Due to the patent cliff, generic drug manufacturers can produce their own drug replicas for up to 80% lower cost and thereby provide generic variants at lower prices. According to Deloitte US Life Sciences Leader and Vice Chairman Terry Hisey, "Big pharma will lose market exclusivity on their products, which is going to result in a sharp price fall-off and loss of revenue."¹³ Big pharma industries will have to either move production of their

expired patented drugs to developing countries or invest in research and development on new, potentially patentable agents.¹²

Another factor influencing the increase in the size of pharma emerging markets is the up-selling of local generic drugs. As a consequence of aging populations and a rapid increase in cost, governments encouraged the use of generics in their health plans.¹⁴ On average, generics cost only 20% of their branded counterparts.¹⁵ A recent Intercontinental Market Services report suggested that generic drug sales would account for nearly 91% of the total prescription volume by 2020.¹⁴ For example, in 2007, Thailand purchased millions of doses of a generic version of Plavix (Bristol-Myers Squibb Company, New York, NY) that was manufactured in India for 3 cents per dose, whereas the equivalent dose of Plavix cost \$2.¹² The interest in development and sale of biosimilars is also on the rise in emerging markets.¹⁶ The US Food and Drug Administration defines biosimilars as biological products that possess high structural similarity to their approved reference products and no clinically significant differences in efficacy and safety.¹⁷ They are 20% to 35% less expensive than their branded counterparts.¹⁶ Because major emerging markets such as Brazil or Russia are dependent on foreign manufacturing of biological products, drug shortages and price inflation can jeopardize patients' access to these potentially life-saving drugs.¹⁶ This can be avoided by using biosimilar drugs. Moreover, biosimilars present an opportunity for emerging markets to compete for shares in the global pharmaceutical industry through the development of their biotechnology capacities.¹⁶

With prosperity and wealth accompanying the growth of emerging markets, spending on negative lifestyle habits such as consumption of fast food has increased.¹⁸ Hence, a shift in disease patterns has been observed.⁶ WHO statistics show an increase in noncommunicable diseases in emerging countries.¹⁰ Although infectious diseases are still predominant in these countries, non-communicable illnesses such as diabetes and cardiovascular conditions are increasing disproportionately.¹⁰ In a survey of 12 of the 15 global pharmaceutical players, approximately half surveyed estimated that the number of individuals with diabetes in emerging markets will reach 20% by 2030.¹⁰ According to The Global Use of Medicine report,¹² the prevalence of diabetes and cancer in India is expected to increase by 25% to 40% within the next 10 years. This is largely a reflection of the change in lifestyle in these markets. Therefore, pharmaceutical companies will benefit from the sales of both their existing and new products in these markets.¹⁰ For example, Novartis Foundation launched Community-based Hypertension Improvement Project (ComHIP), a community-based 2-year project that aims to educate the population to give them more control over hypertension, a lifestyle-related disease.¹⁹

Reversal of the paradigm shift

Although pharma emerging markets are viewed as the "promised land of big pharma companies,"¹⁰ these markets are facing considerable challenges, including underdeveloped health care infrastructures, cost-containment policies, time constraints, shortage of expertise, economic crises, and corruption.

The process of drug development is complex and requires several steps. From drug research and development to drug marketing, countries should have a solid health care infrastructure. This is a condition that emerging markets do not necessarily satisfy. A considerable number of cases of diabetes go undetected in China due to underdeveloped infrastructure.¹⁰ In addition, a lack of physician training in diabetes management and the unaffordability of insulin therapy have caused many Chinese patients to receive suboptimal treatment or no treatment.¹⁰

A top pharmaceutical executive once said, “Our biggest mistake was to treat emerging markets like mature markets. We were wrong. Pharmaceutical strategies have to fit a country’s individual needs and its development.”¹⁰ There is no 1-size-fits-all strategy for emerging markets. For hasty companies, the loss would be both in revenues and in confidence.²⁰ Strategies and timelines should be tailored to match the emerging market of choice. Failed past experiences should be lessons for future industries. In a survey by Strategy&, 25% of pharma industries surveyed attributed past failures to a lack of patience and long-term plans.¹⁰

Of all impediments that limit growth, talent retention is the greatest hurdle faced by pharma companies in emerging markets, because skills and expertise are scarce in developing countries. In fact, employee turnover rates are in the double digits due to loss of talent to fierce competitors.¹⁰ To ensure talent retention by companies in the long term, employee needs must be met and nurtured in a manner that is sustainable.²¹ Emerging markets will not remain bystanders in the upcoming decades; these markets will shift from bystanders to competitors capable of developing their own products.²¹ Such shifts are expected due to the anticipated doubling of the gross domestic product in these countries. The ensuing urbanization associated with education and innovation will pave the way for the development of competitors in the pharma industry.²¹ This transition will create an urgent need for managers; however, such qualified individuals are not readily available in the local markets. Consequently, the gap between university graduates and their ability to work in firms will widen further and place a heavier burden on pharma in these countries.²¹

An additional derailing factor is recruitment. Human resource managers are faced with the challenging task of hiring skilled *main d’oeuvre* and marketing teams with a long-term commitment in the local markets. Meeting this challenge will markedly limit talent attrition rates that have hindered the growth of pharma in emerging markets.¹⁰ To address this issue, human resource managers rely on recruitment from local universities and customized local training programs because expatriates are not the preferred solution.¹⁰ In fact, expatriates do not adapt easily to the cultures of developing countries and create the feeling in local employees that there is a ceiling to their potential within the company, thereby limiting their productivity.²²

As emerging markets are developing their health care systems, developing countries have established cost-containment policies to limit their expenses. For example, Vietnam is making drugs more affordable for patients to pay for their own treatments. China, on the other hand, adopted a unified pricing policy to reduce the gap between local generics and off-patent brands. Another simple way that governments limit health care expenses is to offer only partial reimbursement on treatments.¹⁰

Another public health issue is the spread of substandard generic and branded drugs due to corruption in emerging markets. Whether intentionally falsified or legitimately substandard, these medicines may lead to a public health crisis.²³ Poor-quality drugs are reaching the market due to 1 or more factors, including below-standard manufacturing practices, inappropriate quality control and storage, and unsuitable packaging.²³ According to the WHO, in 2007, 25% of marketed drugs in low- and middle-income countries were substandard.²⁴ In countries with limited vigilance of good manufacturing practices, corruption may occur in the form of bribery for certificates despite intended nonadherence to good manufacturing practices to reduce costs.²⁴ This may lead to an increase in morbidities and mortalities as well as antimicrobial resistance.^{23,24} Anticorruption measures should be enforced to guarantee the marketing of good-quality drugs. These policies include emphasizing transparency by publicly acclaiming compliant manufacturers and discrediting noncompliant ones.²⁴ Another strategy could involve implementing random inspections of

manufacturing sites by different or rotating inspectors. Inspectors need to be well trained and well paid to minimize bribery risks.²⁴

Additionally, the price collapse of oil, stability issues, and the disappointing performance of big pharma companies such as Merck and Pfizer between 2011 and 2012 might call for a hibernation of major companies in emerging markets.^{25,26} The World Bank and International Monetary Fund downgraded the emerging markets gross domestic product growth from previous expectations.²⁶

Conclusions

Pharma emerging markets carry high hopes for investors. With patent expiration, changes in disease patterns and the increasing sale of generics and biosimilars, pharma industry profits from these markets can be astronomical. The countries that constitute emerging markets expanded substantially recently. BRIC countries are still the leaders and are expected to remain in leadership until the end of the decade. However, challenges should be taken into consideration such as the fall of oil prices and abysmal performance by major pharmaceutical companies. The pharma industry progress in these emerging markets has been marred by substandard drugs and corruption scandals discouraging further investments. Pharma companies should tailor their strategies to fit local markets. They should also be armed with patience and strong recruiting skills. Moreover, strict quality control policies should be implemented to maintain quality standards for manufactured drugs.

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Conflicts of Interest

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