

Analyzing Pharmaceutical Industry

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Abstract

Marketing is a social process manifested on the market. Rather than in an isolated vacuum, organizations operate in a complex dynamic environment. Organizations' efforts are aimed at using business opportunities and averting (or neutralizing) dangers. A substantial number of top organizations are engaged in continuous efforts to influence a large number of factors from their environment so as to channel (or harmonize) their state and movement with their own interests. Within any organization, marketing bears the greatest responsibility for making insights into the environment and responding to challenges they face. A substantial part of sources dealing with the basics or principles of marketing is devoted to the analytic definition of environmental forces making a direct or indirect impact on business operations.

Key words: Pharmaceutical market, Marketing of pharmaceutical industry, Marketing Environment, Pharmacy – Novi Sad

INTRODUCTION

Analyzing the functioning of pharmaceutical companies, views the moving forces on the demand side and defines them through three key roles: physicians as prescribes, final consumers or patients, and organizations as payers that cover the complete or part of the costs of pharmaceutical products. The usual set of people in decision-making on the purchase of pharmaceutical products is divided into three key agents of demand on this market. Our target market is influenced by a set of external (macro-) environment factors, which are beyond the company's control, at least not in the short term and directly. These factors could be classified into several groups: social and cultural, legal and political, economic, technological, natural and demographic environment.^[1] Between the external environment (creating the dispositions of the target market) and the target market itself lies the mechanism of influence through variables that an organization can control, manifested as marketing mix instruments. With due appreciation of the key idea of marketing, the consumer/patient remains the central element, but their decisions to purchase and use pharmaceutical products (especially prescription drugs) are not independent; they are primarily determined by the influence of both prescribes and payers. All three actors on the demand side are influenced by a large number of (macro-) environmental factors, determining their process of information gathering, decision making and behavior on the pharmaceutical market.^[2] At the same time, designing marketing mix instruments, pharmaceutical companies strive to influence the agents on the demand side, in a complex competitive environment. Macro-environmental factors act as a specific 'prism', affecting directly and simultaneously the design of marketing mix (supply) and constituents on the demand side: prescribes, patients and payers. Pharmaceutical industry marketers must understand the influence of macro-environmental elements on the target market's decision-making process and, at the same time, incorporate the influence of these elements into the creation and delivery of value to consumers through an appropriate marketing mix.^[3,4]

STRATEGIC POSITION ANALYSIS

The final consumer of pharmaceutical industry products is the patient. Pharmaceutical industry and its marketers have the task of understanding the consumers in their patient role, their motivation and decision-making process, as these parameters will reflect powerfully on generating the appropriate marketing mix. As '...health care does not work like a normal market' (Feki, 2005, p. 3), generators on the demand side, and thereby the target market for pharmaceutical companies, also include the prescribes and health care payers. In its original meaning, the role of prescribes belongs to physicians, i.e. persons legally authorized to write a prescription, i.e. prescribe a drug. In a wider sense, we can also define the role of unofficial prescriber for over-the-counter product category, when the patients can be influenced to buy a drug by a pharmacist, or any other person from the patient's/consumer's environment whom (s)he trusts and believes that their advice may lead to the expected outcome. In a significant segment of pharmaceutical product range (especially by the criterion of sales value), the decision on which specific product a

consumer/patient will use is made by the prescriber.^[5] Health care payers, basically, define the availability of individual drugs to consumers, as they refund the cost of the given pharmaceutical or a part thereof. Motives guiding prescribers and payers significantly impact on the formation of demand for particular pharmaceutical products. A detailed analysis of patients, prescribers and payers as generators of demand on the pharmaceutical market will be presented in the subsequent sections, since the complex motives and influences of these groups make up the specific features on the demand side distinguishing the pharmaceutical market from the 'normal' market.^[6]

COMPETITIVE ENVIRONMENT AND MARKETING MIX

Pharmaceutical market is a complex system in which a large number of stakeholders strive to achieve their interests. Market supply is created by a huge number of pharmaceutical companies, but the product scope and the geographic scope, impose the conclusion that the definition of the pharmaceutical market is set at an individual company's strategic level. To paraphrase an analogy, if we speak of a very widespread, well-known and common product such as a pain killer, are we talking about the same market if we refer to the sale to a final consumer/patient, and the sale of this product to a hospital? Although it is the same product in terms of chemical composition, any similarity ends within the production cycle, and marketing this product towards target markets from that point on implies two separate strategies.^[7]

MARKETING MACRO-ENVIRONMENT

In respect of the macro-environment from the aspect of their influence on the market actors, both on the demand and the supply side of pharmaceutical products, a need is imposed for a detailed analysis of individual forces and influences on the pharmaceutical market. The macro-environment sets the overall framework of conditions and mutual influences determining all the aspects of behavior of market actors. Porter and Kramer illustrate the relationship between the individual elements of macro-environment and the company's competitive advantage, highlighting the importance of accomplishing the company's goals by accomplishing the goals of society.^[8]

Social Environment and Culture

Behavior of an individual within a society is, primarily, a behavior pattern acquired through the socialization process. Culture is the key and most comprehensive determinant of attitudes, values, preferences and behaviors. A person's actions in his numerous roles (s)he takes on in his/her daily life, including the role of consumer or patient defined by attitudes. Social attitudes are 'attitudes to socially relevant phenomenon, which are not characteristic only of an individuality found more or less express in all or most members of a society or group. In view of the fact that attitudes are an integrated form of three basic entail functions – cognitive, emotional and conative – meaning that the decision making process are related to a given situation/issue, and voluntary behavior can be determined by attitudes. When discussing socio-cultural environment in the marketing context, a special attention is paid to the fact that membership of particular groups

(nation, culture, sub-culture, religious nomination) determines the way people view themselves, others, organizations and their environment, society they live in, nature, and the general view of the inverse.^[9]

Legal and Political Environment

According to Kotler and Armstrong, the essential reasons for regulating business environment are contained in three assumptions:

- Providing competitive relations (protection of organizations);
- Consumer protection; and
- Protection of the interests of society as a whole.

Legal and political environment makes a direct impact on all marketing mix instruments. Through its provisions and prohibitions, legislation determines a large number of marketing decisions – ‘designing, labeling, packaging, distribution, advertising, and promotion of goods and services.’ (Boone, Kurtz, 2004, p. 68). Boone and Kurtz’s position is relevant to any product category, but in the pharmaceutical market domain, the influence of legislation can also be extended on R/D, obtaining sale licenses, even the production process itself. A certain level of regulation of the prices of pharmaceutical products is also commonly found. Health care and pharmacy are often a subject of lively debate in the political life of any country, as the availability of health care and access to pharmaceuticals are sensitive social issues, and in view of this, this subject becomes one of the central issues in electoral campaigns anywhere in the world.^[10] In Serbia, a set of laws and regulations defines the functioning of the health care system, as well as the production, distribution and trade in pharmaceuticals, where the key piece of legislation covering the functioning of the pharmaceutical market is the Law on Drugs and Medical Devices of 2004, and a direct impact is also made by a set of regulations on the pricing of medicines. This Law also established the Agency for Drugs and Medical Devices, as the basic institution regulating the pharmaceutical trade on the market of the Republic of Serbia. In view of such a structure of goals from the social point of view, a specific legislation was developed for chemical industry, which ‘...combines active company and industry self-regulation with governmentally enforced standards.’^[11] Often the standards imposed by the industry and various nongovernmental associations are more rigorous than the legislative provisions. In view of the high level of regulations pertaining to pharmaceutical production and trade, we can rightfully conclude that pharmaceutical products have the status of controlled substances. A separate aspect of legislation with a significant impact on pharmaceutical production and trade is legislation on the protection of intellectual property. Pharmacy as a science and trade has a long-standing tradition in this region, but the succession of institutions and industry is fragmented, i.e. interrupted by historical hardships and new beginnings in which this area has abounded.

Economic Environment

The relationship between pharmaceutical industry and the economic environment is best described within a ‘fact of life’ – the unlimited demand for health care is confronted with limited resources for its funding. Economic environment is defined by the changes in

revenues and changes in the structure of expenditure . In addition to revenue, Boone and Kurtz (2004) point out that economic environment is defined by the stage in the business cycle of an economy, by inflation and unemployment rates, and by resource availability, while some authors highlight the population's purchasing power and price of capital as the determinants of economic environment . In view of the complex nature of economic environment, its key feature is that it affects the availability of all product categories, including pharmaceuticals, i.e. the availability of health care. As an example illustrating the impact of economic environment on choices in health care, we could draw comparisons between treatment choices in the USA and Serbia. In search of solutions to health problems, people from lower income brackets in the USA often opt for self-treatment and OTC drugs, thereby avoiding the high costs of visits to medical practitioners; whereas our situation is reversed – non-affluent people try to find solutions to their medical problems through the national health care system which guarantees medical care and a certain level of treatment to all categories of population.^[12]

Technological Environment

Pharmaceutical industry is expected to provide new products, more efficient and effective in the struggle for life, free from biological limitations; it is expected to provide higher service levels, lower prices and extended drug availability. Pharmaceutical industry is a high-tech industry in the real sense of the word, which is reflected both in the complex R&D of new products and in high standards of pharmaceutical production and trade. If we were to define the leading market (Gillespie *et al.*, 2004) of pharmaceutical products – understood as one primarily orientated to research and development – then it would definitely be the US market. If we were to define the key arm of pharmaceutical industry from the aspect of radical technological innovation, then it would certainly be biotechnology. In view of the technologically (and capital-) intensive dimension of R&D process, the industry itself is polarized to innovating pharmaceutical companies (the so-called Big Pharma, or as Campbell (2005) terms them, total pharmaceutical companies) and generics producers. Technological advances seem to be the driving development force of pharmaceutical industry . The list of 20 companies with the highest investment in R&D includes as many as 7 pharmaceutical companies, investing the average of 13.3% of sales in R&D . The same investment rates are found in software and internet providers, while other industries invest much more modest share of their sales in R&D, such as computer and electronics industry with 7%, or automotive industry with a little less than 4%, while in consumer goods, R&D expenditure on average does not exceed 2% of company's sales. Development levels of the technological environment and availability of technology (as well as human resources capable of mobilizing technology so as to attain goals) define the capability to enter the highly competitive pharmaceutical market. Not without reason, three largest pharmaceutical companies in the region of former Yugoslavia continue their business in the sphere of generic products which are free from the need to mobilize cutting-edge technology in R&D; their market position is defined as follower/imitator rather than leader/innovator strategy. The technological 'infrastructure' of R&D in pharmaceutical industry requires developed institutions involved in basic research – producers' laboratories in their own R&D field, national institutions involved in primary research, universities *etc.*, and then the ability to translate the basic results to

the level of applied solutions and new product commercialization. The impact of technological environment on the industry is visible in the process of developing a new drug, where sophisticated computer programs enable researchers to direct the active substance to the desired biological target more efficiently. It is currently possible to test the action of a larger number of active substances over the same time span, while decoding the human genome leads to individually tailored therapies.^[13]

Natural Environment

Marketers in pharmaceutical industry are not exempt from paying due consideration to sustainable development, faced with concerns bothering all industries, as well as humanity as a whole: lack of raw materials, growing energy prices, growing environmental pollution and the fact that national regulations set increasingly strict environmental standards. Interaction between pharmaceutical industry and natural environment has complex implications both on the supply of and the demand for pharmaceutical products. In the case of biotechnology, the relationship between natural environment and man's ability (or open opportunity) to affect this environment raises controversial political, legal, ethical, moral, religious and other issues. The economic development of humanity and the natural environment seem to be pitted against one another, giving rise to a complex dilemma with no apparent solution – whether to keep high economic growth levels or protect the environment from further degradation. With its direct impact on man's daily life, natural environment remains a significant factor affecting the structure of demand for medical care and appropriate therapies. Socio-economic circumstances will determine whether demand will be met by adequate supply. From the aspect of relationship between natural environment and pharmaceutical market, we can conclude that certain natural conditions are exclusively matched by certain diseases, or that natural conditions significantly affect their incidence.^[14]

Demographic Environment

Demography is referred to as the science of population. We have used the quantitative and structural changes in demographic parameters as one of the basic arguments confirming the potentials of pharmaceutical industry and the growing importance of pharmacy (and medicine) in providing the quality of human life. Demographic transition is the result of huge advances in medicine and pharmacy, but also represents one of the key factors affecting the courses of development of this industry, as well as formation factor of demand for pharmaceutical products. It is enough to analyze the vital statistics of the Institute for Public Health of the Republic of Serbia and view the incidence of disease and causes of death across various age groups and gender. Pharmaceutical industry, by nature, shows a major interest in demographic trends, as demographic changes themselves will be a changing factor in the structure of demand for its products. Pharmaceutical industry functions in a complex and dynamic environment.^[15]

CONCLUSION

The basic task of marketing is to understand the consumer. The consumer of pharmaceutical products can also be referred to as the patient. The universal sense of this notion is questioned if we take into account the fact that a patient is ‘a person who bears, suffers (an illness)’, which does not necessarily refer to all categories of pharmaceutical product users, e.g. prevention products. Traditionally, pharmaceutical manufacturers’ marketing effort was aimed at prescribers, as the decision to use or choose prescription drugs is at their discretion only. Markets are comprised of consumers, and to define a market means to recognize consumers. In the case of pharmaceutical industry, the number of potential consumers equals the total population, But the total population can be divided into multiple segments, where numerous factors, such as demographic (including the nature of disease), sociological, psychological, geographic, economic (including welfare system or available medical insurance) can serve for better mapping of the target market at the level of individual drug classes and/or specific medicines.^[16] Marketers’ ability to understand consumers on the pharmaceutical market is conditioned by understanding consumers’ needs, primarily their motivation, as well as the factors affecting consumer behavior on this marketers will influence numerous consumers’ and/or patients’ decisions, starting from attitudes to symptoms, seeking information and appropriate help, through patient compliance to validation of therapy outcomes. The interest of marketing in studying the specific characteristics of consumers is defined by marketing’s task to create appropriate external stimuli under the control of pharmaceutical companies – more specifically the appropriate marketing mix, which is the result of accomplishing two goals:

1. Understanding why consumers on the market behave in a particular way when purchasing and using products;
2. Discovering ways of creating marketing stimuli in such a way as to produce the desired response in consumers.

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