

Management -Marketing Environment in Pharmaceutical Industry in transition countries

Prof. dr Veselin Dickov

ABSTRACT: Background: Management is a social process manifested on the market. Methods 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. Results: 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. Conclusion: 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: business ethics, pharmaceutical market, marketing of pharmaceutical industry, management environment

INTRODUCTION

Analyzing the functioning of pharmaceutical companies, Campbell (2005) 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 purpose of business ethics is to establish a productive dialogue of parties with conflicting interests through the development of moral integrity and responsibility to individuals, corporations and health, the welfare of the world of business and society at large. Business ethics is attempting to rebuild and strengthen the intrinsic sensitivity to issues of social value and the human understanding of modern business, as a possible answer to the open resolution of paradoxes. The way out of the labyrinth of the growing crisis can only be found if corporate culture activities are designed on the principles of responsibility and values such as trust, honesty, fairness and respect for human dignity. Social responsibility and ethical principles are becoming a business imperative, and the global idea of responsible business and sustainable development of moral management is becoming a priority of the transitional countries. This paper points out the great social and moral responsibilities of managers of the countries in transition, some of which required ethical and responsible behavior in carrying out business activities while leading healthcare companies, in order to preserve the personal values which a certain society fosters. 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. 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. 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.

METHODS

In the decision-making process and management today, it is very important to include the ethical dimension (the global economic crisis, whose consequences will certainly be felt for much longer, and can clearly be seen as a warning to us of what could happen when there are no considerations of the ethical dimension of the process) while on the other hand and just as important, is the ethical conduct of all employees in the organization [1]. Business ethics are concerned with philosophers, academics and critics of society so that most of today's literature on business ethics is not suitable for the practical needs of leaders and managers, precisely the people who are primarily responsible for the ethical management. 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 prescribers and health care payers. In its original meaning, the role of prescribers 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. Pharmaceutical market is a complex system in which a large number of stakeholders strive to achieve their interests. 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, as suggested by Porter (2008, p. 91). On the one hand, when the buyer is an individual consumer/patient, purchasing a small quantity of product in commercial packaging through an extensive distribution channel (of pharmacies), the producer can use extensive promotion, whereas if a hospital is cast in the role of buyer, the applicable conditions and rules remind of the B2B (corporate) market. Geographical definition of the industry – local or global – results from differences existing in the structure of the industry/market at different geographic levels. From the aspect of a pharmaceutical company, Porter's revolutionary view of five forces shaping a company's strategy, set as early as 1979, is a useful and logical tool for understanding the competitive environment and an efficient tool in considering and defining business strategy. The specific features of the competitive environment of the pharmaceutical industry are analyzed in detail as specific features on the supply side, while marketing mix instruments are the subject of the subsequent chapter of the study. [1] [2] 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 [3] [4] [5].

RESULTS

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 the 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 of socially relevant phenomena, which are not characteristic only of an individuality found more or less expressed in all or most members of a society or group.' (Rot, 2004, p.365). 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 is 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 in their environment, society they live in, nature, and the general view of the inverse (based on Kotler, Armstrong, 2001). Modern Western culture has brought about a general socially adopted pattern of seeking solutions to everyday problems by seeking medical help. To take the example of a person suffering from workplace-related stress, lack of time and tension, the person's quality of life is at risk, and (s)he decides to consult a physician (as lack of time, stress and tension acquire the epithet of a treatable pathological condition). The existence of identical (or better to say similar) problems in another society will probably be solved differently, so that assistance may be sought within the family or another social group;

assistance may be religious, and a primitive society may resort to magic. Society's response to a perceived problem with a certain solution is, essentially, a demonstration of socially acceptable behavior [6][7].

Legal and Political Environment

According to Kotler and Armstrong (2001), 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.

Czinkota *et al.* (2006) point out that legal and political environment make 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). Bone 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. The specific nature of products and their use requires regulations in the industry

Which should, at the same time, protect the public/society by providing safe and efficient drugs, preventing marketing practices which mislead in terms of efficiency and effectiveness of a drug, while on the other hand it should 'pave the way' to the market for essential required therapies with a potential to improve the quality of life, or even save lives. Smith *et al.* (2002) present a chronology of the development of legislation regulating the production of and trade in pharmaceuticals on the US market, which is a specific chronology of the relationship between the pharmaceutical industry and its environment, abstracting the key interests of society/the public and the formation of a quantum of information on pharmaceuticals and their impact on the organism. [8] [9]. 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.'

Economic Environment

The relationship between pharmaceutical industry and the economic environment is best described within a 'fact of life' (Smith *et al.*, 2002, p. 45) – 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 (Kotler, Armstrong, 2001). 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 (Czinkota *et al.*, 2002). 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. At the same time, those with good medical services (or insurance) plans in the USA seek professional help for minor health problems as well, as this is guaranteed by their insurance, which also covers the costs of visits to doctors. In addition to patients, economic environment also greatly influences health care payers such as the state or insurance companies. Health care cost control is done through defining the so-called drug formularies – positive lists of drugs (but also treatment types, such as surgical interventions) financed from health care plans. Costs of drugs (and treatment) not included in drug formularies are fully covered by end users, i.e. patients. Payers' decisions thereby indirectly affect the choice of drugs (therapies) made by prescribers. In his article 'Uncertainty and the Welfare Economics of Medical Care' (1963), The issue of health care and its availability within national borders, but also as an important issue for

mankind, will remain controversial from the aspect of the confrontation between the purpose and logic of health care, and the fact that it has a price (or at least costs) [10] [11] [12] .

Technological Environment

Kotler regards technology as 'one of most dramatic forces shaping people's lives.' (1997, p. 158), and nowhere is the illustration of the positive effects of technological advances so important as in the extension and improvement of quality of human life through advances in medicine and pharmacy. Considering one of the primary objections to marketing – that it creates new needs – the defense of marketing is often based on the argument that needs are as old as humanity, and progress makes it possible to meet the primeval needs in a new, more efficient and effective way. 'Technology leads to new goods and services, it also improves existing products, offers better customer service, and often reduces prices through new, cost-efficient production and distribution methods' (Boone, Kurtz, 2004, p. 77). 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 [13][14].

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 (Kotler, 1997, p. 158). 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.

Viewed from the aspect of geographic and climatic conditions, natural environment is a vital element affecting the culture of living on a particular area, which undoubtedly affects mortality statistics. Extremely high air temperatures in Europe in the summer of 2008 caused 35,000 deaths more compared to the same period the previous year. Certain diseases regarded as directly dependent on climatic conditions – such as malaria, diarrhea, or malnutrition due to decreased protein intake – are the deadliest diseases of the underdeveloped part of the planet; in 2008, these took over 3.3 million lives, where Africa was affected most. High blood pressure, obesity, insufficient physical activities, high blood lipid levels, tobacco consumption and diabetes, combined with socio-economic status are direct risk factors for the incidence of heart disease and strokes, and a substantial part of risk factors result from the eating culture of particular geographic regions [15][16].

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. W. Osler's position that it is '... much more important to know what sort of patients has a disease than what sort of disease a person has' speaks in favor of the proposition that, among others, demographic parameters can serve as a significant guideline in determining and forecasting the demand for particular types of therapy (and particular forms of health care). Morbidity and death rate statistics provide explicit evidence of diseases, the causes of death, and vital statistics affecting the incidence of disease in particular patient categories, i.e. by age group, gender, marital status, etc. Research has shown that women use more drugs than men, and married people tend to adhere to therapy more than singles (Smith *et al.*, 2002). The same source lists children and the elderly as the most prominent consumers of pharmaceuticals. The survey 'Attitudes Towards Health and Pharmaceuticals US', (Mintel, January 2005) explicitly lists demographic factors as those affecting the consumption of pharmaceuticals such as the growth in the population aged 65+; the fact that after the age of 45 population structure shifts significantly in favor of females; that 100 women in their late 60s are matched by only 60 men; and that education levels are a significant factor in terms of visits to doctors, use of pharmaceuticals, patient compliance and understanding complex health problem [17][18].

DISCUSSION

Ethics is defined as a discipline that deals with the study of meaning and moral goals, and human behavior as a set of observations with moral habits. During the delivery period of intensive movement of the transition between the years of 1980 to 2000, there were many discussions on the problems of good and bad, honesty and dishonesty, admissible and inadmissible behavior. We contributed to the changes around us and the rapid development of medical ethics, bioethics and deontology, which deals with the legal principles at a particular time and place and attempts to equalize judicial laws, regulations and moral principles. Morale, morality and ethics during the history of humanity were embedded in the laws and values, and were also woven into Hippocrates' oath, which dates from the fifth century BC, and which is still sworn in by doctors when receiving the diploma of the Faculty of Medicine. It is the physicians who seek high ethics in their own lives, according to the patients and teachers, and they point out that such behavior will not inflict moral and material damage to either the patient or his family with respect for their colleagues. Another important thing to emphasize is the present economic thought of methodology of positive economics, which is characterized by formality and abstraction, as well as elements of normative analysis that inevitably include value judgments and recommendations for future economic and social development. Questions of morality and ethics are of crucial importance for the success of economic and political transition. Morality and ethics of the policy makers directly affect their reputation and credibility in the eyes of the public, which determines the success of economic policies that are implemented. Morality and ethics should also be determinants of institutional changes necessary for the development of market economy. Although quick and decisive steps of building a market economy were frequently advocated, implementation of new liberal approaches can lead to opposite effects in the form of public discontent due to allowing the citizens harsh actions without proper market regulation. Market conditions, however, if there was no appropriate institutional change, often do not mean "free and fair competition" in competitive markets, but exactly the opposite - the harsh competition and often "rigged" results arising from the privileged position of individual economic entities. Key factors of the new market economy are the lack of legal regulations and violations of the law, but also morals and ethics playing key roles in these circumstances. Program management ethics primarily have to increase the number of ethical issues that they are going to be dealing with because people are more sensitive to their appearance. In accordance with these, there must be more opportunities to label someone's unethical behavior. Therefore it is necessary to help employees to recognize and highlight their mistakes and then support them in their efforts to try to act in an ethical manner. It is much more important to employees that they try to act ethically, and not let the mistakes of the past affect this direction. Privatisation presents the most important process by which the depth and the quality of the transitional movements are measured. Transition is a systematic transformation of the society, typical especially for the post-socialist states, and under it we consider transfers from the non-market economy to the market economy. Privatisation is an important element and one can not talk about actual establishment of trade economy within the health system without it. Political decisions to start the privatisation process are necessary but are not sufficient for successful completion of the transition process. In order for the transition to be successful, development of the capital market is indispensable. Experiences of the countries in transition have so far shown that the privatisation model which approached the problem from the point of demand and not from the point of request brought success. 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 (from Lat. *Patiens*) 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. 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. As our analysis of the environment has covered (or at least tried to cover) some of the above mentioned factors and their impact on the 41 parallel – substitute;

Key points

A drug with the same action, pharmaceutical market, the following segment is devoted to the 'buyer's black box'.

One of the first models used in micro-economics is that of Input-Output, which considered economic factors on the input side and exhibited behavior on the output side,

Highlighting consumers' rationality, and ignoring mental processes and differences between individuals which is very important implication for public health policy and practice.

REFERENCES

- Dickov V., A. Dickov, S.Martinović-Mitrović „The issue of applying marketing on the pharmaceutical market in Serbia,, „ European Review for Medical and Pharmacological Sciences 2011. 15 (3): 275-283
- Dickov V., Kuzman B. „, Analyzing Pharmaceutical Industry,, National Journal of Physiology, Pharmacy and Pharmacology. NJPPP. 2011; 1(1): 1-8
- Dickov V., Kuzman B., Tomic S., „NEW PHARMACEUTICAL PRODUCT DEVELOPMENT,, International Journal of Novel Drug Delivery Technology (An official publication of Pharmaceutical Scientist Group) IJNDDT. 2011; 1(1): 47-62
- Dickov V., Kuzman B. „, Specific Features of Pharmaceuticals Marketing Mix,, Journal of Management & Marketing in Healthcare Volume 4, Number 3, August 2011 , pp. 160-167(8)
- Dickov V., Kuzman B. „,Health care institutions in Vojvodina - management approach,, International Journal for Agro Veterinary and Medical Sciences. IJAVMS, Vol. 5, Issue 1, 2011: 22-29
- Dickov V., Mitrovic D., Kuzman B., „HEALTHY IN TRANSITION - Private or government health institutions - Patient choice,, Case Study Case Rep. 2011; 1(2): 61-73.
- Dickov V., Nerandjic B.and Perovic V: Ekonomika moderna, Stilos, FTN, Novi Sad (2004) pp 9-23.
- Dickov Veselin „Pharmaceutical Market Is Directly Linked To The Healthcare System In Some Countries. Journal of Medical and Pharmaceutical Sciences. 2011; 1(2): 15-22.
- Franklin J. Carter, Ravindra Chitturi, Segmentation Based on Physicians Behavior: Implications for Sales forecasting and Marketing-mix Strategy; Journal of Personal Selling & Sales Management, winter 2009, Vol. XXIX, No. 1.pp.123-134.
- Gagan Bhalla, Theodoros Evgeniou, Leonard Lerer, Customer Relationship Management and Networked Healthcare in the Pharmaceutical Industry; International Journal of Medical Marketing, 2004, Vol. 4, 4. pp. 34-35.
- Gary P. Pisano, Science Business: The Promise, the Reality, and the Future of Biotech; Harvard Business School Press, Boston, Massachusetts, USA, 2006. pp. 94-97
- Gregory T. Gundlach, The American Marketing Association's 2004 Definition of marketing: perspectives on Its Implications for Scholarship and the Role and Responsibility of marketing in Society; Journal of Public Policy & Marketing, Fall 2007, Vol. 26 (2).pp.234-245.
- Henry Mintzberg, James Brian Quinn, Sumantra Ghoshal, The Strategy Process; Prentice Hall Europe, Hertfordshire, UK, 1998.pp.76-78.
- Kate Gillespie, Jeannet Jean-Pierre, Hennessey H. David, Global Marketing; Houghton Mifflin Company, Boston, USA, 2004. pp. 60-62.
- Mickey C. Smith, Pharmaceutical Marketing – Strategy and Cases; Pharmaceutical Products Press, New York, 1991. Pp. 77-78.
- Orville C. Walker Jr., Harper W. Boyd Jr., Jean-Claude Larreche, Marketing Strategy: Planning and Implementation; Irwin McGraw-Hill, Boston, Massachusetts, USA, 1995. pp. 88-90.
- Orville C. Walker Jr., Harper W. Boyd Jr., John Mullins, Jean-Claude Larreche, Marketing Strategy: A Decision-Focused Approach; McGraw-Hill Irwin, New York, USA, 2003. pp. 223-229.
- Sandier S., et al: Health Care Systems in Transition, Edited by: Sarah Thomson and Elias Mossialos , WHO - Regional Office for Europe (2004) pp. 45-51.