

Impact of Strategic Changes in Pharmaceutical Industries

Husnija Bibuljica¹, Emin Neziraj²

^{1 & 2} University of Haxhi Zeka, Business Faculty Kosovo

Abstract

In this paper was presented pharmaceutical companies in Kosovo, their vital elements, manner of performing their activities, changes in pharmaceutical and health sector as well as global movement of industries and its impact on company business in Kosovo. Also research was done analysing impact of internal (within the company) and external factors (surrounding factors) which have crucial role on activities of modern pharmaceutical companies as well as the need for continuous strategic changes of pharmaceutical companies in Kosovo. The aims of this study is to determine development level of health sector in Kosovo and methods of treatment, verifying and defining the type and cause of changes in pharmaceutical industry, asses the maturity of companies for changes as well as determining the implementing of changes in Kosovo.

Key words: Change management, Pharmaceutical industry, level of development

INTRODUCTION

At the end of twentieth century and beginning of twenty first century all industries faced drastically changes. This phenomenon became expressive on seventies and eighties, of last century [1]. The agroindustry, telecommunication, banking, biotechnology, electronic industry and pharmaceutical industry changed from year to year. Changes include all aspects of business companies as improvement of products quality and services, adapting the new technologies, organizational changes, changes in line with changes in legal regulations and strengthening of competition [2]. Therefore in upcoming period companies will be forced to continuously adapt to new business conditions. Although in times of market changes, strengthening of competition, development of new products and more stringent legal regulations, if wanting to survive at the market it is necessary that modern pharmaceutical company constantly changes and adapts to new business conditions. In addition to development and production of medicines, a significant role in these companies has placement of products on the market [5][6].

Surely changing and adjusting business among other thing involves continuous adjustment and improvement of company's management mechanisms, which in accordance with activities of other parts of company will ensure its growth and development, profit to owners and a quality product for consumers. In the beginning of twenties century the pharmaceutical companies became global corporations with activities in all world markets [3].

The goal of this study is pharmaceutical companies in Kosovo, their vital elements, manner of performing their activities, changes in pharmaceutical and health sector as well as global movement of industries and its impact on company business in Kosovo [4]. Also research was done analysing impact of internal (within the company) and external factors (surrounding factors) which have crucial role on activities of modern pharmaceutical companies as well as the need for continuous strategic changes of pharmaceutical companies in Kosovo[7][9]

METHODS

Goal of the study is to determine development level of health sector in Kosovo and methods of treatment, verifying and defining the type and cause of changes in pharmaceutical industry, asses the maturity of companies for changes as well as determining the implementing of changes in Kosovo. Adequate management of changes in these companies is aimed at meeting consumers' needs for medical products and on the other hand enabling companies to profitably operate as well as their growth and development, while respecting legal frameworks on this field. Special attention has been paid to pharmaceutical industry in Kosovo and business of companies in this area at the beginning of twenty first century.

One of the goals of the study is design of strategic change management model in these companies in Kosovo. This model

will help to better understand all elements that affect activities of companies in this field. It will also provide a systematic approach to addressing strategic problems confronting these companies in Kosovo.

In relation to defined goal of research general hypothesis from which research is conducted are:

HO: Successful management of strategic changes in pharmaceutical companies in Kosovo implies application of an appropriate concept based on general principles of change management, but also specificities of pharmaceutical industry.

Particular hypothesis that will be tested in this research are:

H1: Level of development of health sector and method of treatment determine change activities and strategies in pharmaceutical companies.

RESULTS

After analysing sample structure was performed reliability of measuring scale using Cronbach Alpha coefficient. This coefficient examines degree of similarity of items in the scale. The reliability of measuring scale according to this test is over 0.877 (Table 1). Since values over 0.7 can be considered acceptable, one can conclude that there is a high degree of similarity as well as that there is a connection between variables and that same phenomenon is measured (DeVellis, 2003) [10][11] Table 2. Reliability of measuring scale

Table 1

Cronbach's	Cronbach's Alpha Based on	No of Items
.754	.773	64

Testing of normal distribution was done using Kolmogorov-Smirnov and Shapiro-Wilk tests. If the significance (Sig.) is greater than 0.05, it can be considered that there is a statistically insignificant deviation from the normal distribution, on the contrary it can be concluded that condition of the normal distribution of tested variables is not complacent. Therefore based on actual forms of distribution on histograms as well as on the shape basis of the curve normal probability (Norm Q-Q Plot) and the curve of detuned normal distribution it has been established that majority of points are fairly distributed and that points are not piled anywhere.

Research questions are grouped in six levels: level of development of health sector, method of treatment, strategy of pharmaceutical companies, level of maturity for changes, perception of strategic changes and their management and ultimately need to apply a model of managing strategic change in pharmaceutical companies in Kosovo. The indicators that will be tested in this study are:

1. Quality of services, patient satisfaction, equipment of institutions,
2. Use of modern equipment and medicines,
3. Improving sales orientation, improving marketing approach,

4. Understanding the necessity of change, cause of change as well as the level of implementation of changes,
5. Character of organization, portfolio management, dynamics of sales model and changes in key processes,
6. The need for systematic approach to change as well as their management.

In order to check the assumptions made in H1 were analysed the relationship between level of development of health sector, method of treatment and strategies of pharmaceutical companies in Kosovo. The determinants and issues involved in the research can be seen on Table 3. For assessing the level of development of health sector were used values of respondents on service quality on health sector, patient satisfaction and finally equipment of health institutions. Table 2 presents valuable views on issues related to perception of respondents on level of health sector development in Kosovo. The value of arithmetic average ranges from 3.54 (the lowest value) to 4.47 (the highest value). The nearest arithmetic average is closest to 4, while the highest arithmetic average is nearest to 5. The lowest value refers to accessibility of employees in health sector. According to above data, quality of services is at a relatively acceptable level (AS = 4.17, SD = 1.558). The result of measuring patient satisfaction shows that it is relatively low and as in the previous case there is space for their improvement (AS = 3.77, SD = 0.942). According to the research for equipping health institutions results are slightly better but they also move in similar frames (AS = 4.33, SD = 1.642)

Table 2. Descriptive statistics for issues related to level of health sector development.

	N	Min	Max	AR	SD
1	63	2	7	4.15	1.238
2	63	2	7	4.26	1.353
3	63	1	7	4.12	.420
4	63	1	7	3.75	.123
5	63	1	7	3.54	1.343
6	63	1	7	3.90	1.112
7	63	2	7	4.20	234
8	63	1	7	4.32	1.345
9	63	1	7	4.47	1.425

One-factor analysis of variance measured differences on variables with multiple modalities and tested statistical significance of these differences, respectively was examined whether there was a statistically significant relationship between the dependent

(questions from domain of perception) and independent variables. If significance level (Sig.) is less than or equal to 0.05, there is a statistically significant difference between the average dependent variable for each group. In this particular case analysis of variance researched relationship of position in company and development perception on level of health sector. On Table 2 can be seen that values of coefficient Sig. in principle below the value of 0.05, while in only two cases value of coefficient is above the limit value (Sig.1 = 0.083, Sig2 = 0.432).

Post Hoc test results show that exist significant difference between surveyed which are employed on positions of top managers as well as surveyed which are not in managerial positions. Based on the opinion of top managers the quality of services on health sector is 3.77, opposite of opinion of the surveyed who do not belong at this group (AS = 4.72). Regarding patient satisfaction the top manager's perception is 3.17, while perception of second group is 4.34. When it comes to top manager's rating it is 3.96 and those who do not belong to this group are 4.98

Likewise by correlation test was confirmed high level of correlation variables which they describe to methods of treatment and strategies of pharmaceutical companies in Kosovo (Table 4).

Table 3. Variance analyses ANOVA (position in company)

		Sum of Squares	Mean Square	F	Sig.
1	Between	10.730	5.115	2.550	.083
	Within Groups	200.585	2.006		
	Total	210.816			
2	Between	4.776	2.388	.868	.423
	Within Groups	275.146	2.751		
	Total	279.922			
3	Between	41.074	20.537	9.618	.000
	Within Groups	213.528	2.135		
	Total	254.602			
4	Between	22.514	11.257	8.869	.000
	Within Groups	126.922	1.269		
	Total	149.437			
5	Between	18.887	9.444	7.340	.001
	Within Groups	128.666	1.287		
	Total	147.553			
6	Between	25.566	12.783	6.222	.003
	Within Groups	205.463	2.055		
	Total	231.029			
7	Between	15.421	7.711	3.869	.024
	Within Groups	199.297	1.993		
	Total	214.718			
8	Between	26.639	13.320	4.661	.012
	Within Groups	285.788	2.858		
	Total	312.427			
9	Between	22.822	11.411	4.064	.020
	Within Groups	280.809	2.808		
	Total	303.631			

Table 4. Correlation of variables in the level of health sector development and company strategies

	1	2	3	4	5	6	7	8	9	15	16	17	18	19	20
1	1	.848	.523	.404	.243	.618	.705	.807	.783	.632	.686	.700	.697	.579	.661
2	.848	1	.588	.444	.302	.569	.814	.833	.821	.678	.675	.753	.761	.585	.719
3	.523	.588	1	.723	.632	.516	.670	.660	.656	.564	.630	.771	.611	.567	.624
4	.404	.444	.723	1	.695	.412	.521	.492	.484	.399	.485	.544	.483	.415	.471
5	.243	.302	.632	.695	1	.300	.380	.317	.302	.244	.268	.409	.280	.342	.384
6	.618	.569	.516	.412	.300	1	.656	.626	.625	.598	.541	.570	.605	.359	.497
7	.705	.814	.670	.521	.380	.656	1	.812	.804	.620	.716	.781	.771	.538	.673
8	.807	.833	.660	.492	.317	.626	.812	1	.866	.663	.716	.831	.780	.546	.677
9	.783	.821	.656	.484	.302	.625	.804	.866	1	.684	.770	.837	.798	.593	.719
15	.632	.678	.564	.399	.244	.598	.620	.663	.684	1	.760	.730	.686	.556	.627
16	.686	.675	.630	.485	.268	.541	.716	.716	.770	.760	1	.791	.699	.521	.656
17	.700	.753	.771	.544	.409	.570	.781	.831	.837	.730	.791	1	.772	.641	.748
18	.697	.761	.611	.483	.280	.605	.771	.780	.798	.686	.699	.772	1	.567	.673
19	.579	.585	.567	.415	.342	.359	.538	.546	.593	.556	.521	.641	.567	1	.786
20	.661	.719	.624	.471	.384	.497	.673	.677	.719	.627	.656	.748	.673	.786	1

By summarizing above results it can be concluded that development level of health sector in Kosovo is relatively low. Also a similar conclusion can be made for treatment methods. Activities of pharmaceutical companies are based on the use of proven marketing tools and sales are generally focused on the sale of older generation molecules with a particular focus on product prices. Therefore it can be concluded that development level of health sector and treatment methods largely determine strategies of pharmaceutical companies in Kosovo, thus proving H1.

CONCLUSION

Generally pharmaceutical industry is nowadays more than ever in the phase of continuous dynamic changes. Pharmaceutical industry has gone a long way from traditional way of making medicines in pharmacies to modern pharmaceutical giants. During this period pharmaceutical industry has gone through several key development points at the end of twenties century from thalidomide crisis to global integration and concentration of capital and biotechnology.

Pharmaceutical industry occupies an extremely important place in every health system of each country. In fact it represents a relationship between health system on one hand and end users and patients on the other. It represents not only movement of the medicine from manufacturer to the patient but also includes a series of additional activities from idea and concept of invention of new product through preclinical and clinical research to sales, marketing and post-marketing activities [13][14].

The fact is that pharmaceutical sector is constantly growing and developing. The main bearers of this growth and development are several global conglomerates whose main features are continuous processes of innovation and launching of new products on the market. Also must not be neglected development of new industries notably IT, the internet and communication. [8]

The subject of research is pharmaceutical industry, its basic elements, the way of performing activities, changes in pharmaceutical and health sector as well as global movement of industry and the impact on company operations in Kosovo. Also was analysed impact of internal (with the company) and external factors (surrounding factors) which have a crucial role on modern activities of pharmaceutical companies as well as the need for continuous strategic changes of pharmaceutical companies in Kosovo.

Goal of the study is identifying and determining the type and cause of changes in pharmaceutical industry, assessing the maturity of companies for changes and determining the degree of change implementation on Kosovo. Adequate management of changes in pharmaceutical companies is aimed at satisfying needs of consumers for medical products and on the other hand enabling companies to make profitable business as well as their growth and development, while respecting legal frameworks on this field. Special attention was paid to pharmaceutical industry in Kosovo and business of companies in this area at the beginning of twenty-first century.

One of the goals of the study is the design of strategic change management model on these companies in Kosova. This model will help better understanding of all elements which influence on activities of companies at this field. Also it will provide systematic approach in solving the strategic problems which companies are facing.

On previous times in Kosovo as well as globally changes mostly involved M&A, respectively M&A were mostly driving force behind strategic changes. However it is needed to make strategic changes even though did not come to M&A. Analysis of global trends in pharmaceutical industry especially on past three decades indicates large number of mergers and acquisitions of pharmaceutical companies by other pharmaceutical companies. The challenges faced by pharmaceutical companies are many. The

fact is that the end of blockbuster era has come, pressure of competition is enormous and the essence of stable growth and healthy business of pharmaceutical companies make up new molecules. The number of new products launched in the last decade indicates a crisis in this segment of companies' operations. In this matter one of the ways to increase their business performance is to buy companies, new markets or new products (pipelines).

Realized scientific contribution of proposed work is based on a detailed analysis of pharmaceutical industry and issues of pharmaceutical sector globally and in Kosovo. An analysis of key processes as well as models of operations in these companies has been carried out. The health sector and relationship between levels of development and strategies of pharmaceutical companies in Kosovo have been analysed. A significant contribution is proposal of strategic change management model in pharmaceutical companies in Kosovo.

Studying and using numerous literature as well as empirical research on the study was fully considered possibility of development and improving of pharmaceutical industry in Kosovo. In particularly scientific contribution of the study is reflected on following:

- was conducted analysis on pharmaceutical industry and impact of modern trends on business of pharmaceutical companies in Kosovo,
- was conducted research where was confirmed the maturity level of companies for changes in Kosovo,
- was conducted research on relationship of development level on health sector and strategy of pharmaceutical companies,

Analysing the current level of development of pharmaceutical sector, changes and their management it is being pointed out that there is insufficient existence of planned activities, as well as insufficiently adequate business strategies of these companies in the market of Kosovo.

The contribution and importance of this doctoral dissertation is reflected in applications of knowledge, such as:

1. Raising awareness about the importance and role of pharmaceutical industry in health system of Kosovo,
2. A set of strategic directions has been proposed for improving the capacity for strategic change in the pharmaceutical industry in Kosovo,
3. Internal and external parameters have been identified for managing the performance of pharmaceutical companies,
4. Encouraging a planned and systematic approach to changes in pharmaceutical companies, but also throughout the health sector in Kosovo
5. Opening a space for improvement of overall health system including companies in Kosovo market.

Social significance of the research can be presented by the fact of better understanding health system and pharmaceutical industry in Kosovo can help in bringing future decisions on this, for country very significant strategically field as well as to be a base for creating future health policy and improving of overall system of medicine supply in Kosovo.

The future research of the pharmaceutical industry and health sector should be based on the fact that level of importance of pharmaceutical sector in health system of Republic of Kosovo is remarkable. Also it is obvious that attention paid to problems in pharmaceutical sector is insufficient. A more intensive approach to pharmaceutical industry and focus on researching all of its elements is the only way to better understand it. The results of future research should help all stakeholders in the value chain to improve their business and the ultimate goal should be satisfaction of users of these products and services, or patients.

Kosovo as it was mentioned earlier is *branded generics* market. The growing problems of public finances, economic and political circumstances and other factors will have a significant impact on

direction and improving of development of pharmaceutical sector as a whole. It can be likely guessed that market in Kosovo on the next period will continue with the same model of doing business respectively there will not be significant changes or improving of company businesses.

Very significant role in defining business conditions has Government and ministries as well as institutions on this field. Implementation of one-sided measures (e.g. mandatory decrease of prices) without other activities can additionally increase problems in entire health sector. From all mentioned reasons is necessary strategic approach of changes not only in pharmaceutical industry but also transformation of entire health system in this country.

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