

Identifying Target Markets in the Development of Rehabilitation Methods for the Patients Based on Phytocomplex Phonophoresis Method

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Abstract

The successful introduction of new rehabilitation methods in practical health care, setting their competitive advantages and compliance with the medical organizations' strengths requires the identification of the target markets for these methods in the development phase. The scope is to show the possibility of market segmentation in developing the rehabilitation methods for patients based on the phytocomplex phonophoresis method with the establishment of target segments and their analysis. Materials and methods. The Russian market of the phytocomplex phonophoresis - the new method for rehabilitation of patients - was segmented in two strategic groups based on the results of the structured direct survey of 62 doctors using the developed questionnaire. The market was segmented by the complex faceted multifactor method. Target segments were analyzed by individual numerical score followed by calculation of integral indicators. Results and Discussion. Segmentation of the market by the new method for rehabilitation of patients-phonophoresis phytocomplex - resulted in 162 segments. Target segments have been established and their main characteristics have been studied on two aspects: by the attractiveness of segments and their compliance with the medical organizations' strengths. Based on the results of the portfolio analysis of target segments the most attractive ones (winning segments) have been selected for further marketing research. The data obtained do not deny the possibility of using the rest of the target segments for marketing activities. Conclusion. The possibility of market segmentation in the development of patients' rehabilitation methods has been shown based on the phytocomplex phonophoresis method in two strategic groups. The boundaries of the target markets in each strategic group have been established, and their analysis has been carried out.

Keywords: development of medical services, medical service, segmentation, target market, target market segments.

INTRODUCTION

In the modern market economy environment, each medical service should have its target market. A target market is a group of consumers who are approached with the main marketing efforts [1, 2]. The details of such components of the medical organization strategy as the definition of the scale of work, the assessment of the opportunities provided by unfilled niches in the market of medical services, the reaction to the actions of competitors, and the allocation of resources depend on how the boundaries of the target market of medical services will be defined [3].

The works [4-9] quite fully reflect the issues of market segmentation of the existing goods and services. However, there are few works that determine the target market for the products and services being developed, including medical ones, with the analysis of target segments, and as a rule, such works are fragmentary in nature [10]. Hence it is clear that a solution to the issues of establishing target markets at the development stage of medical services is currently relevant.

Marketing research was conducted based on the new patients' rehabilitation method - phytocomplex phonophoresis. Phytocomplex represents a dry extract from the raw material of marsh cinquefoil (*Herba et radices Comari palustri*), alfalfa (*Herba Medicaginis sativae*) and hops (*Strobili lupuli Humuli*) (TU 9375-021-00003938-11 'Dry extract from cinquefoil, alfalfa and hop (phytocomplex)'). The main active components of the phytocomplex are flavonoids, polysaccharides, cumestans, phenolcarboxylic acids, macro- and microelements, vitamins, which contribute to anti-inflammatory, analgesic, antioxidant and other effects [11]. The phytocomplex phonophoresis can be used in medicine for injuries and inflammatory-degenerative diseases of the musculoskeletal system.

The scope of the work is to show the possibility of market segmentation in developing the rehabilitation methods for patients based on the phytocomplex phonophoresis method with the establishment of target segments and their analysis.

MATERIALS AND METHODS

The Russian market of the new patients' rehabilitation method - phytocomplex phonophoresis - was segmented in two

strategic groups: Group 1 - patients from two sanatoriums in Moscow and Tula oblasts, Group 2 - patients from two clinical hospitals in Moscow with the Physiotherapy Department as an independent structural unit. The results of the previous SWOT analyses were taken into account.

The market was segmented by a complex faceted multifactorial method upon the criteria given in Table 1.

The doctors of the medical organizations being examined have been surveyed about possible target patients of the new rehabilitation method - phytocomplex phonophoresis - using the questionnaire developed by the authors. A total of 62 people took part in the survey.

Target segments were analyzed by individual numerical score followed by the calculation of integral indicators.

RESULTS AND DISCUSSION

Figure 1 shows the results of the segmentation of the market of new patients' rehabilitation method - phytocomplex phonophoresis - in two strategic groups.

The target market segments were determined by the results of the questionnaire analysis and the study of the patient's medical records in each medical organization under study, then generalized and processed by strategic groups.

The target segments were analyzed on two aspects: by their attractiveness and by the degree to which segments corresponded to the strengths of medical organizations. Table 2 shows the results of the evaluation of the attractiveness of the 6 target segments (T1-T6) of the new patients' rehabilitation method - phytocomplex phonophoresis - in the 1st strategic group (Figure 1, A) as an example. The groups of patients with diseases of the musculoskeletal system and connective tissue aged from 46 to 65 with high incomes (T1, composite parametric index - $P_n = 7.0$; T3, $P_n = 8.5$) have been most attractive for further marketing research. These market segments also fully corresponded to the strengths of the 1st group medical organizations (T1, $P_n = 6.8$; T3, $P_n = 8.0$; Table 3). Strengths and favorable opportunities for the marketing environment for the medical organizations under study have been established earlier using SWOT analysis.

Correlation of the attractiveness of segments and strengths of medical organizations of the 1st group made it possible to compile a portfolio of target segments of the new patients' rehabilitation method - phytocomplex phonophoresis - in this group (Figure 2). Segments T1 and T3, which hit the top left-hand square, were the most attractive target segments for the marketing activities (winning segments). The segments located in the lower right-hand square had less attractive features, and the reasons for

their low score were presented in Tables 2 and 3. However, it should not be forgotten that these segments had just less attractive opportunities for marketing research and were not necessarily unattractive at all. For example, target segments T2 and T4 had the average indicators of compliance with the medical organizations' strengths (Figure 2). In addition, it should be borne in mind that the segments and their assessment are volatile and require constant systematic correction.

Table 1. Criteria for segmenting the market for the new patients' rehabilitation method – the phytocomplex phonophoresis

Parameter	Attribute	Variable	Symbol	Total number of segments (C_n)
Demographic	Age	below 18	Y1	162
		18 – 45 years	Y2	
		46 – 55 years	Y3	
		56 – 65 years	Y4	
		66 – 75 years	Y5	
		76 years and older	Y6	
The economic average	Level of income per family	Above the average	AA	
		Average	A	
		Below the average	BA	
Medical	Nosology	Diseases of the musculoskeletal system and connective tissue	N1	
		Diseases of the digestive system	N2	
		Diseases of the genitourinary system	N3	
		Diseases of the respiratory system	N4	
		Diseases of the endocrine system, eating disorders and metabolic disorders	N5	
		Diseases of the circulatory system	N6	
		Diseases of the nervous system	N7	
		Injuries, poisonings and some other consequences of external causes	N8	
		Other diseases	N9	

Note. $C_n = P_1 \cdot P_2 \cdot P_3$, where P_1 is the number of variables based on "age"; P_2 is the number of variables based on "income level"; and P_3 is the number of variables based on "nosology".

Table 2. Evaluation of attractiveness of target segments

Factor		The size of the segment, the number of people	Segment growth rates	Level of competition	The possibility of receiving a paid service	The uniqueness of the new method	The availability of the new method	
Score	10	>100	High	Low	Big	High	High	
	5	80-100	Average	Average	Average	Average	Average	
	1	<80	Low	High	Little	Low	Low	
W_i		0.30	0.10	0.20	0.20	0.10	0.10	
Target segment	T1	A_i	5	5	5	10	10	
		P_i	1.50	0.50	1.00	2.00	1.00	1.00
		P_n	7.0					
	T2	A_i	5	1	5	5	10	5
		P_i	1.50	0.10	1.00	1.00	1.00	0.50
		P_n	5.1					
	T3	A_i	10	5	5	10	10	10
		P_i	3.00	0.50	1.00	2.00	1.00	1.00
		P_n	8.5					
	T4	A_i	5	5	5	5	10	5
		P_i	1.50	0.50	1.00	1.00	1.00	0.50
		P_n	5.5					
	T5	A_i	1	1	10	5	5	5
		P_i	0.30	0.10	2.00	1.00	0.50	0.50
		P_n	4.4					
	T6	A_i	1	1	10	1	5	5
		P_i	0.30	0.10	2.00	0.20	0.50	0.50
		P_n	3.6					

Note. Here and in Table 3: W_i is the factor weight; A_i is the score (10, 5, 1); P_i is the parametric index, $P_i = A_i \cdot W_i$; P_n is the composite parametric index, $P_n = \sum P_i$

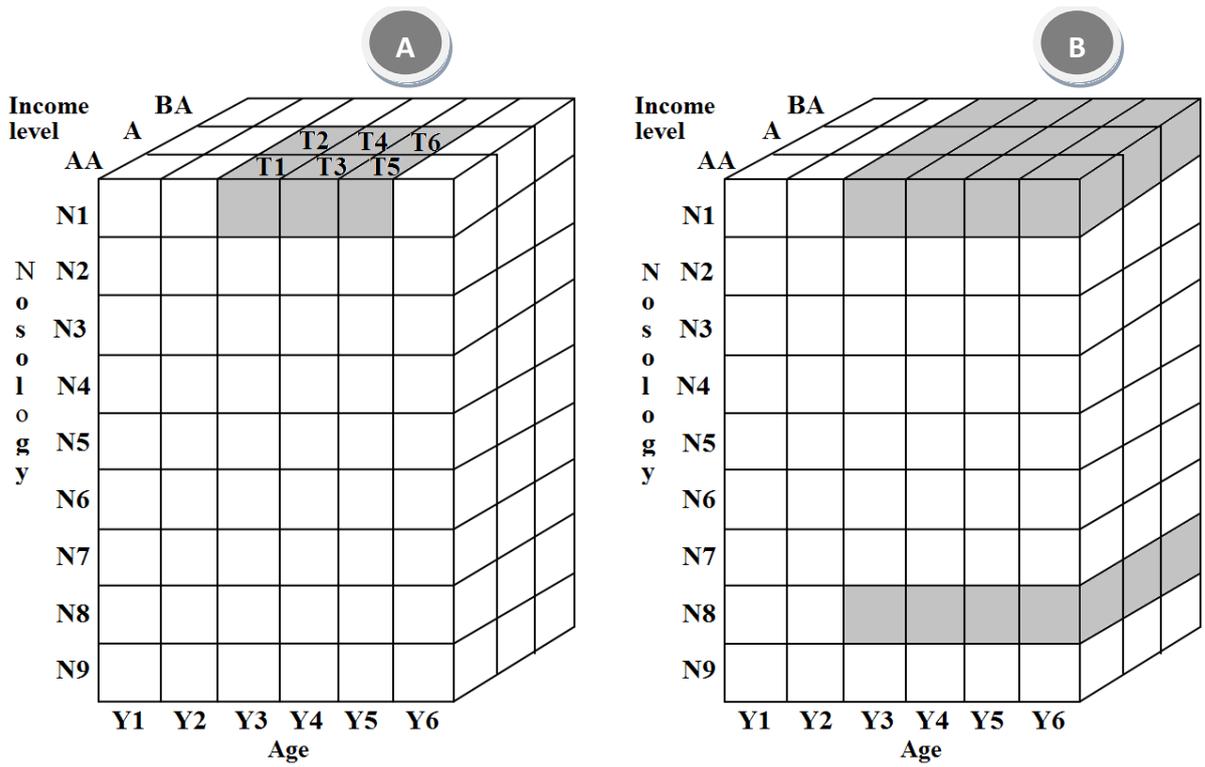


Figure 1. The segmentation of the market of the new patients' rehabilitation method - phytocomplex phonophoresis - in two strategic groups: Group 1 – A, Group 2 – B
The dashed line indicates the target segments. Explanation of the symbols is given in Table 1.



Figure 2. Analysis of the target segments' portfolio

Table 3. Evaluation of the degree of correspondence of target segments to strengths of medical organizations

Factor		Market share	Segment availability	Preparedness of personnel for the provision of services	Differentiation	Technological capabilities of the medical organization for the service provision	
Score	10	Big	High	High	Low	Big	
	5	Average	Average	Average	Average	Average	
	1	Little	Low	Low	High	Little	
W_i		0.30	0.20	0.20	0.10	0.20	
Target segment	T1	A_i	1	10	10	5	10
		P_i	0.30	2.00	2.00	0.50	2.00
		P_n	6.8				
	T2	A_i	1	5	10	5	10
		P_i	0.30	1.00	2.00	0.50	2.00
		P_n	5.8				
	T3	A_i	5	10	10	5	10
		P_i	1.50	2.00	2.00	0.50	2.00
		P_n	8.0				
	T4	A_i	1	5	10	5	10
		P_i	0.30	1.00	2.00	0.50	2.00
		P_n	5.8				
	T5	A_i	1	1	10	1	10
		P_i	0.30	0.20	2.00	0.10	2.00
		P_n	4:6				
	T6	A_i	1	1	10	1	10
		P_i	0:30	0:20	2:00	0:10	2:00
		P_n	4:6				

CONCLUSION

The study has shown the possibility of market segmentation in the development of patients' rehabilitation methods based on the phytocomplex phonophoresis method in two strategic groups. Target segments have been established, and their main characteristics have been studied on two aspects: by the attractiveness of segments and their compliance with the medical organizations' strengths. Based on the results of the portfolio analysis of target segments, the most attractive ones (winning segments) have been selected for further marketing research. The data obtained do not deny the possibility of using the rest of the target segments for marketing activities.

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