

DEVELOPMENT OF AN INNOVATIVE PRODUCT BRAND POSITIONING ON THE EXAMPLE OF PILOTLESS BUSES IN THE RUSSIAN MARKET

Anna E. Gorokhova – Andrey A. Efremov – Vladimir D. Sekerin

Abstract

Now innovations are a significant source of competitive advantages of the companies. However development and removal on the market of innovations it is connected with high risk. One of the directions of decrease in risk of innovative activity is development of marketing ensuring commercialization of innovations.

In Russia the idea of pilotless bus development arose in 2015, and some companies became interested in this innovation. In paper the comparative characteristic of pilotless buses in the Russian market will be developed, the competitive profile of the pilotless bus of company NAMI is constructed, specifics of its positioning in the market are proved. In the paper the segmentation of the pilotless buses market based on two criteria will be carried out: amount of business and branch; key segments will be chosen. Strategic objectives of removal on the pilotless buses market will be proved. The positioning criteria will be proved on the basis of definition of competitiveness key criteria of pilotless buses and an expert assessment of their importance. In the paper attraction algorithm of target audience at sale of pilotless buses and sources of competitive advantages will be proved. They will allow to commercialization efficiency increase of company NAMI pilotless buses.

Key words: innovations, positioning, marketing, pilotless bus, segmentation

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Introduction

Now innovations act as a significant source of competitive advantages of the companies (Boyko, Sekerin & Šafránková, 2014). However development and removal on the market of innovations it is connected with high risk. According to the experts only 17% of innovations make success in the market (Byun, Sung, & Park, 2017). Therefore the researches focused on decrease in risk of the companies' innovative activity and increase of successful innovations

are actual (Gorohova, Šafránková & Sekerín, 2015). One of the directions of decrease in innovative activity risk is development of marketing ensuring commercialization of innovations.

For achievement of desirable results of the company it is necessary to have a clear idea of distinctive features of the developed innovative product, to understand needs of clients (Zhang & Yang, 2013). Therefore it is necessary that the interrelation of the company divisions with marketing department was debugged as carrying out the complex marketing analysis of innovative activity contributes to effective development of the company (Šikýř & Šafránková 2016).

Research objective is increase of marketing strategy efficiency of commercialization of an innovative product (the pilotless bus) on the basis of use of advanced economic tools taking into account perception of the developed product's quality (Zemlickiene & Maditinos, 2012).

When carrying out research the following methods will be used: comparisons, analysis and synthesis, PEST analysis, SWOT analysis, questioning, method of an expert assessment, strategic and situation marketing analysis (Frattini, De Massis, Chiesa, Cassia, Campopiano, 2012).

Subject of research is the innovative product – process of removal on the market of the pilotless bus of company NAMI.

Object of research are economic instruments of marketing strategy management of commercialization for the pilotless bus.

1 Analysis of external and internal factors of realization of the pilotless bus

In Russia the idea of development of the pilotless bus arose in 2015, and some companies became interested in this innovation: automobile corporation "Kamaz", BMG (Bakulin Motors Group) - "Volgabus" subsidiary, and also state scientific center of the Russian Federation NAMI.

Due to the emergence of a new prototype of NAMI pilotless route vehicle, it is expedient to carry out the analysis of external and internal factors on removal on the market of this product for the purpose of detection of competitive advantages of company NAMI before producers of analogs.

Key factors which can have impact on sales and profitability of the project of the pilotless bus of company NAMI presented at an exhibition to "the Expo Crocus" are given in

table 1 (PEST analysis). For the analysis 15 experts who gave an assessment on five ball scale on each of the offered influence factors where 1 means minimum and possible probability of change of a factor of environment, and 5 — the maximum probability were invited. Then the real importance of each factor was calculated (an assessment adjusted for weight).

Tab. 1: Determination of the importance of factors for the pilotless project

	Factors	Extent of influence of a factor	Expert assessment					GPA	Assessment adjusted for weight
			1	2	3	4	5		
P	Political factors								
	the legislation on quality control of production	3	3	5	4	4	5	4,2	0,28
	tax policy (tariffs and privileges)	2	5	3	4	4	3	3,8	0,17
	the legislation on environmental protection	1	2	2	4	3	1	2,4	0,05
	bad relationship between the Russian Federation and the countries where the main exporters settle down	2	4	4	2	3	3	3,2	0,14
E	Economic factors								
	course of the main currencies	3	5	4	5	4	3	4,2	0,28
	inflation rate	3	5	5	2	5	3	4,0	0,27
	level of differentiation of production in the market	3	5	5	5	5	5	5	0,33
	unemployment rate	2	4	2	3	2	2	2,6	0,12
	located income of the population / organizations	3	5	3	5	4	4	4,2	0,28
	limitation of suppliers' resources	3	5	5	5	4	5	4,8	0,32
S	Welfare factors								
	way of life and habits of consumers	2	2	3	4	1	3	2,6	0,12
	requirements to quality of production	3	5	5	5	4	5	4,8	0,32
	relation to import goods and services	3	5	5	4	3	4	4,2	0,28
T	Technology factors								
	level of innovations and technological development of branch	3	5	5	4	5	4	4,6	0,31
	access to the latest technologies	3	4	5	4	4	4	4,2	0,28
	extent of use, introduction and transfer of technologies	3	4	4	4	5	4	4,2	0,28
	expenses on researches and development	3	4	5	5	4	5	4,6	0,31
	Total:	45						67,0	

Source: authors, sources are used: (Carayannis & Grigoroudis, 2014), (Marx, Gans & Hsu, 2014), (Onetti, Zucchella, Jones, McDougall-Covin, 2012), (Schumpeter, 1996)

Having analysed table 1 it is possible to conclude that the following vernal factors will have impact on commercialization of the pilotless bus: The legislation on quality control of

production; Level of differentiation of production in the market; Requirements to quality of production; Level of innovations and technological development of branch; Expenses on researches and development.

By results of carrying out PEST analysis it is possible to draw a conclusion that further for a steady position in the market it is necessary to carry out regularly the analysis of expenses and if necessary to correct them, to support the former level of research costs and development or to increase it as far as possible, to pay attention to modernization to the developed model, and also to direct an investment into development of accessories by own forces.

However by means of PEST analysis it is impossible to analyse the internal environment of the enterprise, goods or service in branch. SWOT analysis (table 2) is for this purpose necessary.

Tab. 2: SWOT analysis

<i>Strengths (S)</i>	<i>Weaknesses (W)</i>
Automation	Rather high cost
Climatic service conditions	Absence of operational base
Quality of a product	Low level of trust to domestic automotive industry and technologies
Depreciation of transportation of freights and people due to economy on a salary of drivers	Lack of a source of raw materials
Decrease in probability of hit in road accident, at the expense of an exception of a human factor	Distribution of a product
Unification of details	Mistrust to innovations
<i>Opportunities (About)</i>	<i>Threats (T)</i>
Expansion of domestic sales markets and market of neighboring countries	Creation by competitors of more perfect or new product
Coverage of new target groups of consumers	Technological gap with the existing competitors
Expansion of the range of goods	Decrease in consumer ability of the population
Improvement of positions in the market of domestic automotive industry	Change of requirements to quality of production
Introduction of new technologies and improvement of the earlier used	Rejection of a product at target audience
	Deterioration of an economic situation in the country
	Increase of a rate of inflation
	Changes of course of the main currencies

Source: authors, sources are used: (Carayannis & Grigoroudis, 2014), (Marx, Gans & Hsu, 2014), (Onetti, Zucchella, Jones, McDougall-Covin, 2012), (Schumpeter, 1996), (Symeonidou, Bruneel, & Autio, 2017)

On the basis of SWOT analysis it is possible to draw a conclusion that the project of removal on the market of the pilotless bus is risky. For weakening of influence of threats and neutralization of the company weaknesses it is necessary to hold the following events: Decrease in expenses due to improvement of the applied equipment, reorientation to other suppliers, improvements of production and another; Professional development of employees; Carrying out active advertizing policy; Carrying out regular market researches; Formation of loyalty of clients; Improvement of price policy; Carrying out policy on toughening of measures behind quality control of production.

2 Assessment of competitiveness of the pilotless bus in the Russian market

The main competitor on release of pilotless buses of company NAMI is the BMG (Bakulin Motors Group) subsidiary with the commodity brand "Volgabus" - "Matryoshka M2B8"(Volgabus (BMG)).

On the basis of data of expert poll in table 3 comparison of NAMI pilotless bus and the competitor of " Matryoshka M2B8" is carried out.

Results of the carried-out analysis allow to draw the following conclusion: at NAMI pilotless bus indisputable advantages before " Matryoshka M2B8" are had, it indicate positive values of the considered criteria. NAMI pilotless bus slightly concedes to "Matryoshka M2B8" according to the following characteristics: Payload of the route vehicle; Admissible weight with freight; Maximum speed of the route vehicle; Accumulator charge time; Autonomous work.

Possibly to eliminate the allocated defects at modification of the vehicle and improvement of its technical characteristics. Also for increase of NAMI pilotless bus competitiveness, it is necessary to increase quality of raw materials that will improve its technical characteristics.

Tab. 3: Comparison of NAMI pilotless bus with the pilotless Matryoshka M2B8 bus with use of the "profile of requirements" method

№	Criteria of an assessment	worse			0	better		
		-3	-2	-1		1	2	3
1.	Payload of the route vehicle			◆				
2.	Admissible weight with freight			◆				
3.	Capacity						◆	
4.	Maximum speed of the route vehicle			◆				
5.	Time of a charge of accumulators			◆				
6.	Autonomous work			◆				
7.	Course stock							
8.	Platform modularity				◆			
9.	Existence of a ramp							◆
10.	Operation of the car in severe weather conditions							◆
11.	Design of the vehicle							◆
12.	Operation term							◆

Source: authors

For definition of target segments two main criteria were allocated: branch of the company and amount of business. 12 target segments five of which are the most attractive in this branch,

namely a segment 1,4,5,7,10 were as a result received. The allocated segments are presented in table 4.

Tab. 4: Segmentation of the pilotless buse market

segmentation criteria		Size of the company		
		the large	average	the small
branch	Activity in the field of health care and social services	Segment 1	Segment 2	Segment 3
	Activity in the field of culture, sport, the organization of leisure and entertainments	Segment 4	Segment 5	Segment 6
	Transport and communication	Segment 7	Segment 8	Segment 9
	Education	Segment 10	Segment 11	Segment 12

Source: authors

Segment 1. Branch of health care and social services. Target audience in this segment will be large hospitals and hospital complexes, boarding houses, resorts and sanatoria. The companies of branch of health care generally cooperate with producers low and average price category. Key parameters of a choice of the supplier are: the acceptable prices; safety; quality of production; comfortable conditions for patients and for persons with limited opportunities; operation term of the vehicle.

Segment 4. Sphere of culture, sport, organization of leisure and entertainments. Target audience will be the landscape parks, forest parks, reserved zones and objects of sports infrastructure focused on large volume of the consumed production. The companies in this branch cooperate with producers low and average price category. Key parameters of a choice of the supplier are: Safety; The Acceptable prices; Comfort; Passenger capacity; Climatic service conditions; operation term of the vehicle.

Segment 5. Sphere of the organization of leisure and entertainments. Target audience will be the thematic parks (amusement parks, zoos, etc.) focused on the average and insignificant volume of the consumed production. The companies in this branch cooperate with producers low and average price category. Key parameters of a choice of the supplier are: Safety; The Acceptable prices; Comfort; Passenger capacity; term of operation of the vehicle.

Segment 7. Branch of transport and communication. Target audience will be the international airports (for implementation of passengers' transportations in air terminals). These companies cooperate with producers, both low, and high price category. Key parameters of a choice of the supplier are: quality of production; safety; passenger capacity; loading capacity; operation term of the vehicle; exterior and interior; high-speed mode; comfort for persons with limited opportunities.

Segment 10. Education. Target audience will be the large educational institutions having the isolated territory with many buildings and constructions (campuses). The companies of this branch cooperate with producers low and average price category generally. Key parameters of a choice of the supplier are: quality of production; the acceptable prices; passenger capacity; safety; operation term of the vehicle.

The following segments which are more attractive were defined by results of the carried-out analysis:

- the landscape parks, forest parks, reserved zones and objects of sports infrastructure focused on large volume of the consumed production;
- the thematic parks (amusement parks, zoos, etc.) focused on the average and insignificant volume of the consumed production;
- large hospitals and hospital complexes;
- the large educational institutions having the isolated territory with a large number of buildings and constructions (campuses);
- the international airports (for implementation of transportations of passengers in the air terminal).

3 Development of effective commercialization model for the pilotless bus

At a development of effective commercialization model for the pilotless bus, it is important to operate with factors of the company leadership at sale of an innovative product. In table 5 it is representable effective criteria of leadership for pilotless bus in NAMI before his competitors.

Tab. 5: The effective factors of leadership applied at commercialization of NAMI pilotless bus

№	Name of a factor	Description of a factor
1	Privileges and competences	Increase of knowledge and competence of the client of branch;
		exclusive opportunities at introduction of new ideas;
		development of attractive offers;
		aftersales service
2	Cooperation	Direct contact with the client
3	Belief	Belief in the joint solution of problems and achievement of results
4	Mutual understanding	Ability to listen and understand the client's problems
5	Accurate concept of requirement	Granting that really is important and necessary for the client
6	Openness	The description of process of the transaction in details
Result		
Increase of loyalty of clients in a choice of an innovative product for pilotless bus in NAMI		

Source: authors

Thus, according to the revealed effective factors of leadership, there is an opportunity to create the working three-stage model of attraction and deduction of clients at commercialization of pilotless bus in NAMI.

At the first level of interaction with the client it is necessary to analyse needs of the client and to carry out communication with opportunities of the company. It is necessary to show interest to problems and difficulties of the consumer, to determine by what reason the client can refuse purchase of NAMI pilotless bus.

The second level consists in belief of the consumer as a result. As a rule, it is necessary to convince the client of three directions:

1. To show that their investments will bring return, and efficiency of purchase will be high;
2. To convince target audience of absence or the minimum presence of any risks;
3. To prove that, making the transaction with company NAMI upon purchase of the pilotless bus, consumers make a right choice as this pilotless bus is the best of all alternative.

And at last, at the third level it is necessary to develop the concept on interaction with the client in achievement of goals. Such actions will be able to result the company in unique advantage in branch, and also to create the loyal relation of future clients to the acquired product.

Conclusion

Thus, in paper the comparative characteristic of pilotless buses in the Russian market is developed, the competitive profile of the pilotless bus of company NAMI is constructed, specifics of its positioning in the market are proved. The segmentation of the market of pilotless buses based on two criteria is carried out: amount of business and branch; key segments are chosen. Strategic objectives of removal on the market of pilotless buses are proved. On the basis of key criteria definition of competitiveness of pilotless buses and an expert assessment of their importance criteria of positioning are proved. Algorithm of target audience attraction at sale of pilotless buses and sources of competitive advantages which will allow to increase efficiency of commercialization of NAMI pilotless buses are proved.

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Contact

Anna E. Gorokhova

Moscow polytechnic university,

107023, Moscow, Bolshaya Semenovskaya str., 38, Russian Federation

agor_80@mail.ru

Andrey A. Efremov

Moscow polytechnic university

107023, Moscow, Bolshaya Semenovskaya str., 38, Russian Federation

a.a.efremov@mospolytech.ru

Vladimir D. Sekerin

Moscow polytechnic university

107023, Moscow, Bolshaya Semenovskaya str., 38, Russian Federation

bcintermarket@yandex.ru