

MARKETING PLANNING OF INNOVATIVE PRODUCT DEVELOPMENT AERONAUTICS IN GLOBAL MARKET

This article is devoted to the problems of developing product strategy in the aircraft industry, the mechanisms of innovation development aircraft. The concept system "strategic planning in aircraft." Consider specific features of aircraft control systems; development tools identified core competencies and technologies of the industrial complex. In the article the concept of product marketing strategy in civil aviation and ways to improve the competitiveness of the sector of the aviation industry.

Keywords: *strategic planning in aircraft, product strategy, competition, aviation industry, «breakthrough» product*

Problem

The need to move the aviation industry in the innovative way of development is well recognized. However, in order to plan innovative breakthrough succeed, you must define the specific areas and mechanisms for innovative development of a particular industry. What should be the future of aviation - these issues address the aeronautical engineers, especially industry economists. It is both economic factors and the main driving forces of civil aviation, and limiters of this development. Ukraine lags behind the competition in terms of the technologies of civil aircraft and, more importantly, in terms of managing aircraft project, not able to immediately begin development work to create a "breakthrough" product.

Analysis of recent research and publications

Various aspects of marketing planning at work and practice paid attention in studies K. Shmidta, R. Reydera, I. Kobayashi, Eyhinmana R., K. Bogan, M .Inhlish, D. Maslov, E. Byelokorovina, N.Voyevodina, HJ Harrington, S. Mohamed, T. Stapenhursta and many others scientists. But at the same time is studied under the modern innovation of high-tech products, which also include aerospace products, is upgrading aerospace products based on marketing planning tools and tools to promote aerospace products in Ukraine to international markets, not enough investigated mechanisms benchmarking exercises in projects carried out in the framework of international industrial cooperation

Purpose of the article

The purpose of this study is to determine the strategic directions of aerospace industry of Ukraine based on the concept of strategic planning airlines of Ukraine, based on inherent mechanisms lean-technology and benchmarking, to develop the concept of product marketing strategy in civil aviation and ways to improve the competitiveness of the sector of the aviation industry.

The main material research

With the globalization of the priority of the state is to ensure the international competitiveness of domestic enterprises, backed by the necessity of developing the real economy country provision competitiveness and sustainable growth of enterprises, the leading high-tech industries, which include aircraft, is paramount national economic task Ukraine.

The basis reorientation aircraft building complex of Ukraine on a new type of production should be based on the concepts of management using modern approaches of marketing and management.

Recently, in business and public administration are increasingly using the term "strategic planning", which refers to a desired state of the economy is 20 or even 50 years. Strategic planning is the result of the calculation plan (trajectory) the best use of national resources is for the maximum acceleration of the movement in the desired direction. However, the extremely high duration of the life cycle of products makes the aircraft look ahead at 20-30 and even 50 years. Of course, such planning horizons hardly expect high accuracy and reliability of predictions. And yet, they need to build. The world enters the next era of technological change patterns, faces systemic global challenges in energy, environment, social sphere, etc. So do not rely on the fact that after 30 years of field work in substantially the same terms as 30 years ago. Analysis of the long-term prospects of the aviation industry goes beyond purely economic issues, as well as within the same industry. It must be integrated and interdisciplinary nature: it is necessary to take into account the physical foundations of aviation technology, problems of interacting fields - civil aviation, energy sector, etc., social, environmental and others. aspects. Clearly, a systematic analysis of long-term prospects of the industry conducted before and will not stop now.

Strategic management aerospace industry

Strategic management aerospace industry set based on the current tasks on the strategic goals of companies on the future structure, the future potential of the organization. Strategic management of aviation industry and a single airline to be based on selected development strategies [1,2]. Types of strategies presented in Table. 1. At present, the main problems of aviation-industrial complex of Ukraine and Russia may be formulated as follows: • lack of adequate modern requirements management and effective economic instruments can provide a stable and functioning of the industry and its investment attractiveness; • Why the scale and structure of the country's aviation-industrial complex, with its scientific, technological and production potential of the volume of effective demand for the products of the industry. To solve this problem at the moment is the integration of the major manufacturers of aircraft in a single industrial complex, which should be used rationally core competencies, which are preserved in the production and market opportunities [2,3].

Table 1

Types of strategies aerospace industry

<p><i>Product strategy</i> Aimed at determining the types of products that the company will be releasing in the future.</p>	<p><i>Marketing Strategy</i> Specifies the adaptation of firms to market conditions, taking into account the items on the market, the level of expenditure on market research, complex measures forcing sales, distribution of the funds allocated for marketing activities.</p>
<p><i>Competitive Strategy</i> Aimed at reducing production costs, improving product quality, price policy.</p>	<p><i>Innovation Strategy</i> This system is the management of change in organizations. This strategy directs the organization to create new products, technologies and other innovations, and their combinations.</p>
<p><i>Investment Strategy</i> Provides for determining the level of investment, depending on the scale of production, the organization as a whole.</p>	<p><i>Foreign strategy</i> Specifies how foreign trade, such as the establishment of production abroad, exports of goods and services, foreign licensing, etc.</p>
<p><i>Strategy</i> Aimed at ensuring sustainable pace of development and functioning of the organization.</p>	<p><i>Organizational strategy</i> It is the rules that are established relationships and procedures within the organization.</p>

The main instruments for developing core competencies (technology) are shown in Figure 1.

Yes, Lean-technology (lean manufacturing) - manufacturing enterprise management concept is based on a constant quest to eliminate all kinds of losses. Lean manufacturing involves engaging in business process optimization of each employee and maximum customer orientation. The starting point for the concept - evaluation at each stage of product creation value for the end consumer. As the main task concept involves setting process continuous elimination of - the eradication of any actions that consume resources but do not create value for the end user [2,3].

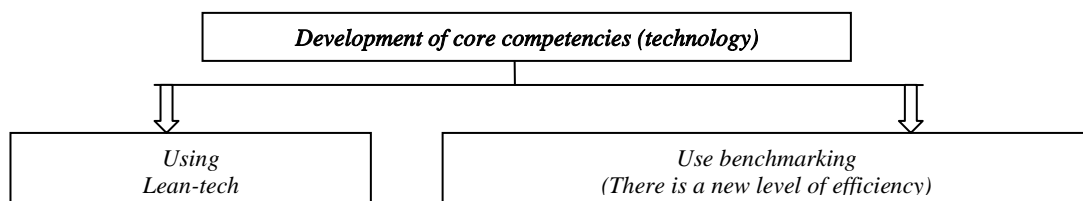


Fig.1. Tools of core competencies (technology)

The task of "lean manufacturing" is the systematic reduction processes and operations that do not add value. Application of Lean-technology makes it possible without additional investment to increase capacity high-performance equipment. Benchmarking (benchmarking) is a continuous process in which the measured data on processes and production technologies

for leading companies. According to the interpretation of the free encyclopedia, benchmarking - the process of identifying, understanding and adapting existing examples of effective functioning companies to improve their own work. [4] Benchmarking is often identified with a simple comparison of figures or analysis of competition. The usual comparison performance compared data relating to one time point, while benchmarking is carried out within a certain period. The analysis of competition comparison is made only with competitors. Using a benchmarking can find out which company is in a particular industry leading position and how this position won. Figure 2 shows the concept of management of aircraft the U.S. and EU. Analysis of international experience managing NTP suggests that the effectiveness of the integrated management structures Aeronautics ensured primarily developed technologies of strategic planning and conceptual design.

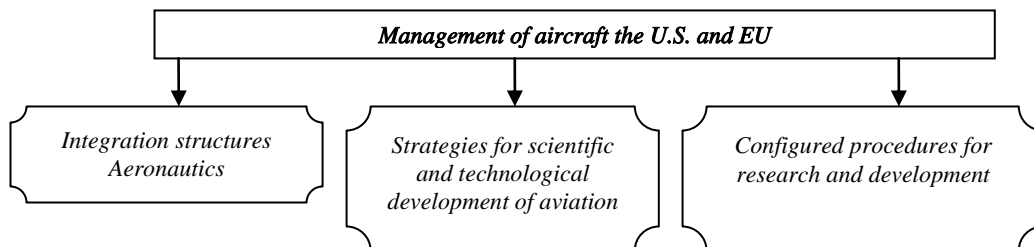


Fig.2. Management System aircraft U.S. and EU

In modern conditions of aerospace industry enough to have competitive advantages of its products, it is necessary to provide competitive advantages, which these products are developed and produced. Should be guided not only the technology of production, but management technologies. Technology management aerospace industry can be divided into the following segments:

1. Outline management system of continuous improvement activities (not only the organizational structure of the airline, but also complex plans and schedules to achieve their goals, these same goals that decompose the levels of control and monitoring system of key performance indicators (KPI) to measure the degree achievement.)
2. Creating effective training tools Lean.
3. Establishment of staff involvement in the processes of continuous improvement.

The organizational structure of the airline should be based on balanced matrix, which identified the strategy of continuous improvement, long-term and medium-term planning, methodical and informational support, and monitoring results, which must deal with office Lean Manufacturing (Lean-office). A practical implementation of lean manufacturing tools laid at Lean-managers, subordinate managers of functional units. Structure of the control system of continuous improvement should be in constant development and improvement. The basic principles remain the same, but improved: first, this procedure planning and monitoring - active development of targeted management practices that allow us to adjust the direction of development.

For example, experience in project management within the framework of international cooperation with companies Airbus and EADS demonstrates another aircraft manufacturers efficient production organization, approaches to manufacturing processes [5,7]. To succeed in the global market is not enough to have modern equipment and learn advanced technology.

For example Airbus pays much more attention and stability processes, their stability and repeatability, as well as the conditions of production. To become a long term partner of the company, should be largely reconsider their attitude to ensure product quality. For example, Boeing-777 was the first commercial jetliner, the 100% designed on computers. During the entire development was not released any paper drawing, it was made by a three-dimensional design system, now known as CATIA. The plane was pre-assembled on a computer that has allowed a large number of errors in the production of [8.7].

Particular attention should be paid to strategic planning, marketing plan airline. Thus, marketing plan airlines - an action plan for achieving the planned sales and gain maximum profit by satisfying market needs. It must be observed a clear customer orientation (knowing his needs, uniqueness and targeting products, services, quality service, reasonable price, on-time delivery, reliability, stability, etc.). The main purpose of the production aircraft is making a profit from the production and sale of competitive aircraft, and out of it on the international market. Prospects for market aircraft to predict an increase in sales and a corresponding utilization of production capacity. In the aircraft industry, as in other fields, the important role played by the company's image. If you understand why, we quickly move from image to rating - financially. This is not only a matter for cash, the issue of the possibility of large investments. Then the image is important that this business is based on very long-term relationships with customers. The airline is obliged to build long-term relationships with customers, sub-suppliers, partners and investors. Because the aircraft development cycle - 5-years old and operating cycle even more.

***Changing competitive position.
The product marketing strategy***

It should be noted that the achievement of a fundamental change in the strategic competitive position of Ukraine on the world market of civil aircraft may be achieved only if the necessary internal and external conditions of growth of production and sales of aircraft. The most significant increase in demand for aircraft, even in adverse market conditions traffic - achieved through qualitative change in the park, that early replacement of obsolete aircraft of new generation. But to ensure that airlines are economically interested in this substitution, the new generation should have a significant "breakthrough" in the economic efficiency advantage to being exploited aircraft. "Breakthrough" advantage means that at the time the new product on the market profitably operating organizations decommission old products, even if resources are not produced until the end. Thus the new type of products referred to a new generation. This criterion was proposed and justified by the Russian scientist T. Husmanovym [2,3]. Exactly «breakthrough» advantage is the most important cause of renewal of the fleet of aircraft carriers. The complexity of aerospace products, the importance of using it solved problems and related Requirements Engineering, a large amount of new knowledge that is necessary to acquire and apply when creating models of aircraft next-generation, high volume testing and control operations determines the long cycles of development and production. Planes new generation of fundamentally new engines, design and onboard equipment are 15 - 20 years [4].

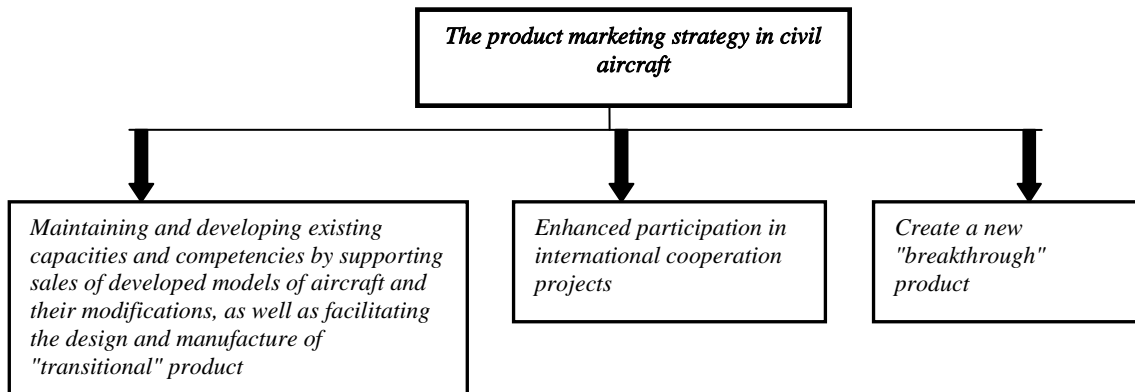


Fig.5. The product marketing strategy in civil aviation

Competitiveness Strategy aerospace industry the global market, "breakthrough" product Ukraine lags behind the competition in terms of the technologies of civil aircraft and, more importantly, in terms of managing aircraft project, not able to immediately begin development work to create a "breakthrough" product. In such a situation should be approached gradually, consistently implementing the following steps:

1. The development of modern culture, technology design and manufacturing, as well as systems management modern aircraft projects in the framework of international projects.

2. Development of the concept of "breakthrough" owned aircraft project, in which Russia and Ukraine in the future will be able to act as system integrator of next generation aircraft, complex technical and economic parameters which exceed 20-25% performance of modern aircraft.

3. Implementation of starting a new project to develop a new generation of aircraft, as an international cooperative project to create a commercial product, with world leading designers and manufacturers of components involved in the project based on the division of risks.

Conclusions

The most important element in the transformation of corporate executives aerospace industry in the coming years is to become an integrated structures in aircraft. Ensuring the competitiveness of the manufacturing sector of the aviation industry requires the construction of a more rational structure and improving its technological level. In the current situation seems appropriate: 1. Modernize the production of new types of aircraft at the leading enterprises in projects that are economically viable program output:- For example the current "LPs" a joint project of Ukraine and Russia for the production of military transport aircraft An-70, the cost of which is estimated at 67 million dollars .. should be in the shortest time, to conduct joint testing of this model and optimize the timing for its serial production, develop channels of promotion AN-70 on the world market;- Streamline and move to an earlier date to work on joint projects begin passenger aircraft An-148 and An-124 transport between JSC "United Aircraft Corporation" and SE «Antonov», which officially scheduled start only in 2016 in the event of start projects at least since 2014, already in 2020 can be made 19 sorties of AN-124, but because of the progress as of the date the agreements, the rate will be half. 2. The enterprises belonging to

the aviation industry should consider the establishment of centers of competence with certain technological areas and allotment, working in cooperation with the companies leading the aviation industry, both domestic and foreign. Thus, strategic management aerospace industry based on current tasks on the strategic goals of companies on the future structure, the future potential of the organization. Strategic management of aviation industry and a single airline to be based on the chosen strategy of development. Strategic planning of aircraft should be based on the methods of production. A management methods aerospace industry should be based on the development of new technologies and business processes, including: 1) Application of Lean-technology;

2) European production levels, not only on technology but also on the effectiveness of benchmarking;

3) The effectiveness of the equipment - to achieve synergies from the activities of various services (comprehensive assessment of the current situation: monitoring of all losses associated with equipment, combined with operational and taking corrective action warning;

4) Provision of additional cost for each operation, the maximum elimination of losses;

5) Improving logistics processes (both external and internal) in order to minimize losses in the flow of value creation;

6) Improvement jobs, improving ergonomics and safety. In modern conditions of aerospace industry enough to have competitive advantages of its products, it is necessary to provide competitive advantages, which these products are developed and produced. Should be guided not only the technology of production, but management technologies. The organizational structure of the airline should be based on balanced matrix, which identified the strategy of continuous improvement, long-term and medium-term planning, methodical and informational support, and monitoring results

REFERENCES LIST

1. Anshyn V.M. Innovative Management: Concept, strategy and mechanisms for innovative development: learning. Allowance / V.M. Anshyn, A.A. Dahaeva. – 3th ed., Rev., Ext. - Moscow: Delo, 2007. - 584 p.

2. Pravik J.M. Investment Management: Training. Guide. / J.M.Pravik - K.: Knowledge, 2007. - 431 p.

3. Fathutdynov R.A. Innovative Management: Textbook for Universities. / R. A. Fathutdynov. - 6th ed., - St. Petersburg.: Peter, 2008. - 448 p.

4. Bright J.R. Some Management Lessons from Technological Innovation Research // National Conference on Management of Technological Innovation. - University of Bradford Management Centre, 1988. - 208 p.

5. Academy Security Open Society [Electronic resource]. - Mode of access: <http://aoss.org.ua/cgi-bin/ruindex.pl?Page=amat&id=784> - free. - Dividers. screen (date of application 20.02.2013).

6. Director General. Business of analytical edition [Electronic resource]. - Mode of access: <http://director.com.ua/reitingi-i-statistika/realii-i-perspektivy-aviastroeniya-ukrainy784> - free. - Dividers. screen (date of application: 02/22/2013).

7. Wings. All about Ukrainian [Electronic resource]. - Mode of access: <http://wing.com.ua/content/view/7970/55> - free. - Dividers. screen (date of application: 02/21/2013).