ORGANIZATION-ECONOMIC MECHANISM OF TECHNICAL REEQUIPMENT AND BUSINESS DEVELOPMENT PROGRAM BUILDUP

Glebova O.V., Mitrofanova M.N. Arzam Polytechnical Institute (branch) of Nizhny Novgorod State Technical University by R.E. Alekseev

Actions of technical reequipment and technological retrofit are quite diversified. That's why for their selection different methods are needed, and difficulties in applying one method may occur. While choosing methods and criteria of efficiency estimate and the following selection of actions of reequipment and technological retrofit level of action becomes determinative. In the article an organization-economic mechanism of technical reequipment and development of industrial business program buildup was described, methods and criteria were marked, on which basis actions of technical reequipment and technological retrofit of different levels of planning are selected.

A problem, connected with technical reequipment and technological business manufacture retrofit is a difficult, multiobjective goal. The difficulty is that actions of technical reequipment and technological business manufacture retrofit are quite diversified. They differ by the variety of input objects, the diversity of pursued aims, level of risk, the extent of influence on business strategy, level of planning. That's why different methods are required for their selection, and certain difficulties appear while applying only one method.

While choosing methods and criteria for estimate of efficiency and the following selection of actions of technical reequipment and technological retrofit, in our opinion, level of action becomes critical.

Management of investments of technical reequipment and technological retrofit is carried out on 3 levels: strategic, tactic and operational.

On strategic level there's buildup of strategic development plan of a business. In the plan there are determined long term aims of technical development, separate strategic objective norms and results which give opportunity to work out concrete solutions for organization-technical actions plan and technical development plan on tactic and operational levels and also realization of separate actions of technical reequipment and technological retrofit on operational level. Moreover, strategic development plan provides realization of concrete long term projects, which are strategic for the business. Included in the strategic development plan projects appeal to achieve significant competitive advantages and should promote business to come on new technological and technical level. While realizing strategic actions new innovation products may be worked out and implemented, heavy duty machine system may be obtained, automated control systems may be implemented. As the research shows, strategic projects, providing business development are characterized by high risk level, as investment opportunities with the most potential of value creation often appear in the circumstances of uncertainty, caused by technological and productive innovations, consumer behavior changes, deregulation processes in economics and etc. However, how paradoxically it may sound, uncertainty often creates opportunities for business, which can be realized only with the help of investments. Such projects contain opportunities of development which by analogy with financial options may be called development options. Thus, strategic development plan buildup may be concerned as buildup of future opportunities for business development or as buildup of development option portfolio. That's why while estimating economic efficiency of strategic actions of technical reequipment and technological retrofit, option apply as an instrument of strategic investment estimate, free from disadvantages

EUROPEAN JOURNAL OF NATURAL HISTORY Nº2 2010

of traditional methods, is possible. Apply of real option method while estimating economic efficiency of projects, aimed at production of new products and technologies, is more reasonable.

The worked out development strategic plan gets its following concretization in the process of current investment management of technical reequipment and technological retrofit by technical development plan and organization- technical actions plan buildup. Unlike strategic development plan, buildup of technical development plan and organization- technical actions plan is a medium term management process, realizing as part of strategic solutions and tactic investment opportunities. We should mark that though both plans are worked out for midterm, technical development plan may be designed for a longer term than organization-technical action plan.

Organization-technical action plan is traditionally worked out for one year. Technical development plan may be built up for the period 1-3 years, depending on lead time of action on technical reequipment and technological retrofit.

Technical development plan and organization- technical actions plan are closely connected with each other. Actions of strategic importance are included in technical development plan. These are actions of working out and implementation of new products and also modernization and constructive modification of ready products. Organization- technical actions plan has secondary meaning. It includes actions, which are necessary for realization of a technical development plan: equipment buy, necessary instruments and machining attachment buy and production, also a part of strategic actionsimplementation technological of new processes and perfection of the existing one. Besides it includes actions without opportunity of development but conducing keeping the existing business position- modernization and change of old equipment, instrument by new ones, more productive types, actions of quality improvement of the manufactured products. Actions of technical development plan and also some actions of organizationtechnical actions plan represent realized opportunities of business development, in other words they characterize extent and quality of using these opportunities, besides their realization increases business cost. That's why option method, method of economic value added EVA, method of share value added SVA are possible for their selection.

Other actions, containing organizationtechnical development plan should be selected using criteria based on discounting -NPV, IRR, PI, PP and also traditional activities of economic efficiency estimate – economy(nominally annual and from the time of implementation), cost saving for 1 ruble of market products and for 1 piece of a product, nominally-annual and from time of implementation economic effect, payback time.

In turn process of tactic management of technical reequipment and technological retrofit investment gets more detailed accomplishment in operational management of action realization of technical reequipment and technological retrofit. Operational management of action realization of technical reequipment and technological retrofit, orientating on business built up plan of organization-technical actions and plan of technical development and objectives of their management in short term period, provides working out of operational investment solutions in part of separate actions for reequipment and technological retrofit. These actions are planned for short term (up to one year) and comprise not the whole business but directed at improvement of separate manufactures, workshops, sections. There's no need to use lengthy calculations, to conduct marketing research and risk analysis. When estimating their economic efficiency it is useless to use criteria based on discounting NPV, IRR, PI, PP and etc. (considering short term planning - up to a year) and it is possible to use such traditional activities as economy (nominally annual and from the time of implementation), cost saving for 1 ruble of market products and for 1 piece of a product, nominally-

EUROPEAN JOURNAL OF NATURAL HISTORY №2 2010

Economic sciences

annual and from time of implementation economic effect, payback time.

References

1. Aniskin Y.P., Budarov A.Y., Popov A.N., Privalov V.V. Investment activity operating. Omega-L 2002. – 272 p.(Series "Business activity")

2. Blank I.A. Investment management: - Course of study - Elga-N, Nika-Centre, 2002. – 448p.

3. Kovalev V.V. Business assets management: textbook. – M: Velby, 2007. –392 p.

4. Economic analysis of real investments: textbook/ I.V. Lipsits, V.V.Kossov. – 3d edition, text revision/ - M: Magistr, 2007. – 383 p.

5. Bukhvalov A.V. 2004/ Real options in management: introduction into the problem// Russian magazine of management, № 1, 2004. P.3-32.

6. Bukhvalov A.V. 2004/ Real options in management: introduction into the problem// Russian magazine of management. - 2004. - N 2.

7. Kalinin D. New methods of company cost estimates and taking investment solutions// Stock market. - 2000. - N 8.