***O.L. Goriacha,***

***I.A.Silchenko***

**INVESTMENT PROVIDING OF INNOVATIVE ACTIVITY OF**

**MACHINE-BUILDING ENTERPRISES**

**Annotation:** the Article is sanctified to consideration of theoretical positions and ground of the applied recommendations from the improvement of the investment providing of innovative activity of machine-building enterprises.

**Key words:** innovations, innovative activity, investment resources, machine-building enterprises, investment providing, indexes of evaluation, system of monitoring, innovative growth of enterprise fund.

**Background.** Realization of model of innovative development of national economy and subjects of menage decision character depends on a presence and availability of various sources of investment resources. With the special sharpness this problem appears for machine-building industry that is formative a fund and determines the level of technological development of other sectors of economy.

The crisis phenomena are in an economy, and in particular in an engineer, the level of wear of the fixed assets of enterprises of that on the average presents about 60%%, and quantity innovative active enterprises does not exceed 15%%, does not give an opportunity to carry out their alteration without bringing in of considerable volume of additional investments capable for short space to provide implementation of the accepted programs of innovative development. In the conditions of limit volumes of present investment resources an urgent requirement appears in the ground of the best method of their distribution, in particular, determination of rational part of investments, that it is expedient to point at development of innovative potential of machine-building enterprises.

Such home and foreign scientists worked on research of problem of the investment providing of innovative activity, as V. Аleksandrova, І. Аlekceev, O. Amosha, O.Volkov, V. Geets, А. Grenyev, M. Denysenko, S. Іlyachenko, S. Ilyenkovа, А. Kasich, С. Prince, V. Kоzik, N. Krasnokutskaya, A. Kuzmin, A. Lapko, P. Mykytyuk, L. Mikhailova, Y. Petro, І. Skvortsov, Yu. Stadnyts'kyj, V. Tviss, L. Fedulova, P. Khariv, V. Khobta, М. Khutchek, Н. Flay, I. Schumpeter, Yu. Yakovets, О. Yastremska et al.

However, without regard to the far of publications, their scientific and practical value, the package of questions in relation to the investment providing of innovative activity of machine-building enterprises requires clarification and new approaches. In particular, methods need further research and improvement analyses of factors, that influence on the volumes of the investment providing of innovative activity of machine-building enterprises, system of summarizing indexes of evaluation of such providing, mechanisms of monitoring and adjusting of process of investing of innovative activity of machine-building enterprises, methodical principles of rationalization of volumes of investment resources for financing of innovative activity of machine-building enterprises and others like that.

The necessity of further perfection of theoretical and methodical bases of the investment providing of innovative activity of machine-building enterprises determines actuality of research theme.

Research aim. The aim of the article are development of theoretical positions and ground of the methodical and appliedrecommendations from the improvement of the investment providing of innovative activity of machine-building enterprises.

On this time, inwardly economic and political instability that yet and increases a world financial crisis dominates a country. Therefore exactly now, the question of innovative development appears especially actual. The economy of Ukraine in the conditions of global financial crisis will not be able effectively to develop without development of innovations and introduction of new technological decisions.

An economic situation that was folded now to Ukraine is very difficult. Among totality of reasons that assisted an economic crisis and contain passing of Ukraine to the trajectory of the economy growing, how hardly not the most important is subzero innovative activity. In providing of exit of economy from the crisis state and her stable development plays a decision role scientifically - innovative politics of the state is reasonable. In Ukraine to this day it is not created reasonable system of state support of innovative activity of enterprises.

Modern economic development of Ukraine is impossible without the near-term revival of machine-building industry that is the source of providing of labour facilities. Exactly level of quality of machine-building products, her accordance to the modern requirements, mortgage bases of development of other industries of economy. Development of strategic plans, that must complex take into account internal and external factors, tendencies and features of economic processes, that take place in Ukraine and world, must become in modern terms the key constituent of development of enterprises of engineer.

The machine-building complex of Ukraine is presented by hundreds of enterprises of different scale and profile of activity, majority from that does not work or high-usage not complete power. Level of products that is produced by operating enterprises, mostly does not answer international standards and can not compete at level with western analogues. Yes, part of machine-building products in the structure of export of Ukraine folds 13,6 %%, that below world level on 40,5 %%.[2]

A problem it remains and absence of sufficient volume of investment resources necessary for the leadingout of machine-building industry, on the way of innovative-competition development. The government programs of innovative development do not provide the expected results often, ministries and departments encumbered with the social necessity of support of traditional productions do not have enough money for innovative transformations, and non-state commercial establishments can not carry out long-term projects that would provide base technological changes still. Slow development of machine-building enterprises in the field of innovations closely constrained with imperfection of the operating system of taxation. Yes, excessive tax pressure caused groundlessly by the high rates of taxes on a production and import of innovative products not only considerably slows innovative activity of commodity producers but also змушує much from them to go to shade with the aim of survival.

The variety of possible variants of realization of investment-innovative activity of enterprise, and also the far of associate factors that predetermine volumes of this activity requires going near the investment providing of innovative activity of enterprise as to the system.

Investment providing of innovative activity of enterprise, from one side, is the continuous, successive process of search, bringing in and use of different types of investment resources necessary for realization of innovative activity, and from other, is the difficult system, that embraces totality of sources of investment resources, corresponding forms and instruments that give an opportunity to ground, to choose the method of the resource providing, estimate his efficiency, and on the whole provide the complex going near a decision question investing.[3] On rice. 1 presented model of functioning of the system of the investment providing of innovative activity of enterprise, the constituents of that are evaluations of expediency and efficiency of the investment providing after the types of innovative activity of enterprise, and also expediency and efficiency of possible variants of bringing in of investment resources of enterprise.

Investments are in development

new and improved

types of products

Investments are in a production

new and improved

types of products

Investments are in acquisition

new progressive kinds

technicians and technologies

An evaluation of expediency and efficiency of the investment providing is after the types of innovative activity of enterprise

Information is about demand on innovative products

but about the requirements of enterprise in new progressive kinds

technicians and technologies

Results of evaluation of efficiency of innovative activity and her to the risk

at the different volumes of investing

in this activity

Information is about present

on an enterprise volumes

productive innovative resources (shots of developers of innovations, laboratory and others like that)

Information about efficiency of traditional directions of activity and her her to the risk

Forming of aims and criteria of choice of the best variant of the investment providing of innovative activity of enterprise

Ground

optimal part of investment resources of enterprise, that

it is expedient to direct

on investing

different directions him innovative activity

Results of evaluation of investment possibilities of enterprise

Evaluation of expediency and efficiency of possible variants of bringing in of investment resources of enterprise

Information is about the present volumes of investment resources of enterprise from internal sources

Information is about possibilities of enterprise to attract investment resources from outsourcing

Organizational mechanism of introduction of investment decisions

Evaluation of results of realization of investment decisions

Acceptance of investment decisions

Rice. 1. Model of functioning of the system of the investment providing of innovative activity of enterprise

*Source: [4]*

This model gives an opportunity to produce going near the ground of optimal part of investment resources of enterprise, that it is expedient to point at investing of different directions of innovative activity.

The analyses of dynamics of volumes and sources of the investment providing of innovative activity of machine-building enterprises of Ukraine in the last few years certify the negative dynamics of bringing in of general volume of investments and substantial changes in the structure of sources of money, in particular, increase of part of the bank crediting and reduction of part of investments of foreign investors.[5]

There are many factors that influence on an investment providing of innovative activity of machine-building enterprises. The selection of general lines and effectiveness gave an opportunity to classify factors on such signs : by the result of influence, mechanism of influence, belonging to the enterprise, mestome of origin of factors, degree of predictability, complication of the quantitative measuring (table. 1). The certain for every classification sign groups of factors express their belonging to the investment-innovative process, place, predictability, to complication of the quantitative measuring and others like that. [6]

The brought classification over of factors gives an opportunity to the managers and specialists of machine-building enterprises clearly present the state of investment-innovative activity on an enterprise, to estimate a situation and to man-hunt influence on end-point, taking into account a place, predictability of further activity of enterprise.

*Table 1*

**Systematization of factors that influence on the volumes of the investment providing of innovative activity of machine-building enterprises**

|  |  |  |
| --- | --- | --- |
| Classification signs | Group of factors | Examples of factors |
| 1. After the result of influence | 1.1. Factors that assist investing in innovative activity of enterprise | A presence of demand is on innovative products; experience of enterprise is in realization of innovative activity |
| 1.2. Factors that prevent to investing in innovative activity of enterprise | Risk of innovative activity; absence of state support of innovative activity |
| 2. After the mechanism of influence | 2.1. Factors, that determine the volumes of investments, that an enterprise inlays in realization to innovative activity, directly | Present financial resources of enterprise; part of financial resources, that is directed in investment activity of enterprise |
| 2.2. Factors that mediated influence on the volumes of investments in innovative activity of enterprise | Size of production capacity of enterprise; an attractiveness of investing is in this enterprise |
| 2.3. Primary factors | Propensity of proprietors of enterprise is to the risk; a size of the dissatisfied demand is on innovative products |
| 3. After belonging to the enterprise | 3.1. External factors | Present innovative resources of enterprise |
| 3.2. Internal factors | Demand is on the innovative products of enterprise |
| 4. At the place of origin of factors | 4.1. Factors that arise up at the level of enterprise | Level of technical development of enterprise; organizational structure of management of innovative activity of enterprise |
| 4.2. Factors, that arise up at the level of industry an enterprise functions in that | A level of competition is in industry; a level of scientific and technical progress is in industry |
| 4.3. Factors that arise up in contiguous industries | Demand is on the innovative products of enterprise; the state of affairs is on the markets of material, labour and technical resources |
| 4.4. Factors that arise up at macroeconomic level | State support of innovative activity; rates and proportions of the economy growing |
| 5. After the degree of predictability | 5.1. Factors are with the high level of predictability | Present innovative resources of enterprise are on a short-term period |
| 5.2. Factors are with the middle level of predictability | Norms of expense of innovative resources of enterprise |
| 5.3. Factors are with the low level of predictability | Demand and prices are on innovative products |
| 6. After complication of the quantitative measuring | 6.1. Factors that is directly subject to the quantitative evaluation | Present financial resources of enterprise; current profitability of innovative activity of enterprise |
| 6.2. Factors the quantitative measuring of that is possible with a limit level of exactness | Demand and prices a prognosis on the innovative products of enterprise |
| 6.3. Factors the quantitative measuring of that is possible only in the special scales (human factors) | Propensity of proprietors and managers of enterprise to the risk, their ability to develop innovative strategy |

*Source: [7]*

The most substantial reasons that restrain realization of innovative activity of machine-building enterprises are financial factors (insufficiency of the personal funds, too high innovative charges, insufficient sponsorship of the state, difficulties of bringing in of investment resources, is from other sources), investment obstacles (high risk of innovative activity, protracted lead-time and recoupment of innovations, vagueness of terms of innovative process), intensifying of market problems (difficulties with the search of partners to the collaboration, absence of money for customers, insufficient qualification of personnel, exact null information are about demand on innovative products and markets of sale, insufficiency of information about new technologies) and imperfection of legislative base of adjusting of innovative activity.

Determination of factors that restrain development of innovative activity of machine-building enterprises requires their taking into account at an analysis and evaluation of efficiency of the investment providing of innovative activity.

It is needed with the aim of arrangement of process of evaluation of the investment providing of innovative activity of machine-building enterprises, first of all, to distinguish basic four groups of indexes, namely:

1) indexes of volumes and structure of investment resources of enterprise, that head for innovative activity;

2) summarizing indexes of efficiency of the investment providing of innovative activity of enterprise;

3) indexes of sufficientness of the investment providing of innovative activity of enterprise;

4) indexes of quality of the investment providing of innovative activity of enterprise.

The improvement of management of innovative activity on an enterprise requires adjusting of account of innovative charges first of all. For this purpose on machine-building enterprises it is suggested to create an innovative growth fund for the accumulation of charges that head for realization of innovative activity due to the personal funds. Having regard to that it mainly charges on scientific research-and-developments and acquisitions of new technique and technologies, this fund must contain two constituents are charges on scientific research-and-developments and charges on acquisition of new technologies and technique for the production of new (improved) types of machine-building products.

The necessity of selection of such constituents is predefined by different functional character of innovative charges of enterprise. At the same time, the fund of charges on scientific research-and-developments embraces current and non-permanent innovative outlays, and fund of charges on acquisition of new technologies and facilities of labour for the production of new (improved) types of machine-building products - expense on acquisition of new technologies, technique, licenses and patents and expense on acquisition of technique and other capital assets for making of innovative products.

The constituents of innovative growth fund are distinguished contain positions that answer the different variants of grouping of innovative charges after directions of the investment providing of innovative activity of machine-building enterprise. It gives an opportunity, from one side, to represent the result of forming of investment resources with the aim of financing of innovative activity of enterprise, and from other - to systematize information on basic directions of such financing.

Grouping of investment resources of machine-building enterprise after directions of financing of innovative charges is the necessary condition of evaluation of efficiency of the investment providing him innovative activity. In a table. 2 brought indexes over of evaluation of economic effect from the investment of investments in innovative activity enterprises, that take into account the volume of innovative charges and results of realization of innovative activity not only for a current year but also for previous and next (prognosis) years.

*Table 2*

**Indexes of evaluation of economic effect are from the investment of investments in innovative activity of enterprise**

|  |  |  |
| --- | --- | --- |
| Indexes | Formula for settling | Denotation of symbols in formulas for settling of indexes |
| 1. A current effect is from realization of innovative activity |  | *Eni* – current effect from realization of innovative activity by an enterprise in a і-му period (year), thousand a hrn.;  *ТВі* – present cost of innovative projects of enterprise, that began to bring income in this period (year), thousand a hrn.;  *Кі* - is the combined investments, inlaid in these innovative projects, thousands of hrn.;  *Е* - is a rate of discount, part of unit;  *Тл*- is middle duration of investment chain, periods (years). |
| 2. Retrospective  effect from  realization of innovative activity |  | *Eрj* – retrospective effect from realization of innovative activity by an enterprise in a period (year), that began on *j* periods (years) before, than current period (year), thousand a hrn. |
| 3. Prognosis  effect from  realization of innovative activity |  | *Eпрj* – prognosis effect from realization of innovative activity by an enterprise in a period (year), that will begin on *j* periods (years) later, than current period (year), thousand a hrn. |
| 4. Combined  current effect  from realization of innovative activity |  | *Епз* – combined current effect from realization of innovative activity by an enterprise after *Т* of successive periods (years), thousands of hrn. |
| 5. Combined  retrospective  effect from  realization of innovative activity |  | *Ерз-* is the combined retrospective effect from realization of innovative activity by an enterprise after *Тр* of successive periods (years), thousands of hrn.;  *Тр* -is a segment of retrospective view, periods (years) |
| 6. Combined  prognosis effect  from realization of innovative activity |  | *Епрз* – combined prognosis effect from realization of innovative activity by an enterprise after *Тп* of successive periods (years), thousands of hrn.;  *Тп* - is an amount of prognosis periods (years) |
| 7. The combined effect is from realization of innovative activity |  | *Ес* – combined effect from realization of innovative activity by an enterprise after *Тр+Тп* successive periods (years), thousands of hrn. |

*Source: [8]*

**Conclusions.** Doing the analysis of the investment providing of innovative activity of enterprises, it be possible to say, that it is necessary to create corresponding terms, in that power, organs of local self-government and private sector, can maximally use all possibilities in realization of researches and introduction of innovations, the government of Ukraine, and also create the proper terms for functioning of innovative firms. It is expedient to use positive experience of the developed countries in relation to application of instruments of stimulation of innovative activity, in particular from put of charges on research-and-development to the productive charges of enterprises, establishment of the dedicaded modes of depreciation, tax deductions, application of state guarantees and favourable crediting of investment projects, forming of scientific and technical growth funds and other However measures that are used in different countries must be adjusted to the economic and legal terms of our country.

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