THE IMPLEMENTATION OF THE IMPORT SUBSTITUTION STRATEGY AS THE KEY TO THE DEVELOPMENT OF EXPORT POTENTIAL OF INDUSTRIAL ENTERPRISES

The article deals with backgrounds to realize import substitution strategy at the level of industrial enterprise. The choice of perspective directions to realize import substitution strategy, is grounded that allows to select the best decision considering criteria, which have impact on them.

Key words: export, import, strategic development of enterprise, strategy formation, import substitution strategy, product portfolio control, matrix, perspective direction.

Problem statement. Industrial complex is significant for economy of any country. Foreign policy situation in Ukraine lead more industrial enterprises to declining and bankruptcy stage. Low level of management concerning industrial enterprises strategic management processes, protectionism absence on the part of state demand from administration to make modern strategic decisions of fast and efficient development at deserted production capacity to manufacture goods, which are able to compete and to be demanded at the European market. This vector of state economic condition improvement is perspective, because it is necessary to redirect native producers to find European partners because of political situation impact. One of the alternative directions is to form import substitution strategy, i.e. redirection of production to provide production capacity process modernization and to create competitive product by own powers.

Analysis of the latest research and publications. Question of perspectives for native enterprises development, their crisis recovery is widely revealed in works of the following scientists: І.Z. Lokzhansky [1], І.V. Dunayeva [2], S.M. Illyashenko [3], N.V. Kovalenko [4], А.А. Mazaraki [5; 6], Т.М. Melnyk [6; 7], О.І. Popova [8], L.І. Fedulova [9; 10], M.M. Yakubovsky [11; 12] and others. Their works show state and problems of the industrial enterprises strategic development, however today’s conditions require classical approaches improvement according to modern business-processes.

The mentioned above gives reason to confirm that there is necessity to form organizational and economic bases of import substitution strategy control in the machine building sphere through redirection of producers to productive capacity modernization and production constituents manufacture by own powers or with foreign partners’ help of the competitive goods and importing analogues substitution from native market.

The aim of an article is to ground reasonability to use import substitution strategy and its realization direction choice in order to provide export potential development at the industrial enterprise.

1 Original data of the article: Ващенко Т.В. Реалізація стратегії імпортозаміщення як запорука розвитку експортного потенціалу промислових підприємств / Т.В. Ващенко // Маркетинг і менеджмент інновацій. – 2015. – №3. – С. 200-211
Main material. Import substitution is one of the major tools to protect and to develop country economy. One can observe a lot of examples concerning countries experience, which used import substitution policy with purpose to native companies development and to state economy strengthening. Analysis of the world experience to realize import substitution strategy allowed to generalize motives, following that process, including: industrial and technological capacity development of the native enterprises, domestic market development, decrease of the external conjuncture factors impact. That’s why it is necessary to mention that import substitution policy has to be based on some conditions, which will provide its successful realization (Fig. 1). Protectionism policy use by state is an important factor of the import substitution success at the enterprise level, it may be observed through privileged credits extension, taxing system simplification, subsidization, SRRCW financing etc.

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Figure 1 – Prerequisites of success to realize import substitution [13]

Import substitution has to be an intermediate stage in the process of country economy restructuring, to be oriented to develop new directions in industry, to modernize producing processes, which provide transfer to export orienting model of economy development. Under such conditions state role will be decreased, and competition will have prior value. Economic transformation models, realized by different countries, may be divided into three groups (Fig. 2).

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Figure 2 – Models of the economic transformations [14]

As a rule, model of the developing country transformation is realized by the economically backward states. Its key element is industrialization as main mean to overcome economic backwardness and reduction of break with industrially developed states. Such strategy was realized with success in new industrial countries once. In general, this model can be shown
in two forms – expert orientation and import substitution.

Economic reconstruction model was successfully realized in West European countries and Japan after World War II. Postwar reconstruction too place in Soviet Union. Experience of Eastern and Central European countries, where economic system of the Soviet type was created, can be included to such model in some degree.

Model of the systematic transformations may be observed as combination of elements in the first and second strategy. But the difference is that systematic changes foresee transfer from administrative-command economy to the marketing economy system (where private property in all forms and vertical and horizontal interconnections form the basis of it).

Today countries in transition have interest to the import substitution policy, because they faced the problem of negative foreign trade surplus and problem of national goods low competitiveness at the international markets. That’s why import substitution is approach which can solve all these problems.

It’s necessary to mention that the concept have wide sense: if earlier import substitution policy was observed as policy of industrialization, nowadays import substitution is change of producing processes, introduction of new mechanisms, which allow to develop own productions [15].

Import substitution strategy is based on the production modernization, produced goods quality, enterprises technologies, innovations introduction. It is especially urgent for state, producing branches level of which lag behind countries level, with which it correlates.

Stage-by-stage realization of the import substitution strategy leads to positive shifts in the country, such as:

− growing of citizens employment and as a result decrease of the unemployment and life level increase;
− increase of scientific and technical progress level and as a result education level;
− strengthening of economic and food security in the country;
− saving of currency gain in the country and as a result increase of currency reserves and improvement of commercial balance in the country;
− increase of demand for goods of domestic production, that stimulates economy development in the country, productive capacities extension.

Today modernization of production is an urgent topic in economic and political circles, because high part of raw material in export turns our country into raw place for developed countries, and high dependence on world conjuncture, prices for oil and gas hurts national producer. One has also to consider that fact that many countries are involved into world economy during globalization process. Taking into account all this information it is necessary to concentrate all efforts to develop innovations in the producing processes of state major budget revenue generating branches.

One of the most important tasks is to develop export. Main goal is maximal integration of world labor division, orientation on the most competitive goods. Export ramp up and GDP increase cause import growth, because there is high part of import constituents in the ready production structure. That’s why activity on production import capacity decrease is important and urgent, because its task ignoring leads to that fact that macroeconomic problems will be complicated while economic increasing in the country. One of tasks of import substitution is to decrease GDP import capacity and export.

Machine building is base of economy industrial development in any country. At the same time raw material resources export as strategic direction and basic variant to develop national
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economy, has great impact on the machine building branch, causes its quick degradation and liquidation. Machine building as strategic branch of the modern economy, determining scientific, technological, productive and personnel potential in the country, and also sustainable functioning of all industrial branches, is main platform to boost economy and to give it innovative character.

Advancing development of the machine building saturates producing processes with technical means and technologies, is main source of the innovative development and further economic growth in the country, increase of social labor efficiency and people’s prosperity. However, almost all native branches endured stagnation period. Moreover, there is no developed state industrial policy in the country, that doesn’t involve main tools and mechanisms of the innovative development.

It is necessary to mention, that the main and initial cause of such condition is absence of the only one state strategy concerning machine building native producer transformational and advancing development, based on the achievements of science and technique.

Besides, Ukraine has all necessary conditions for advancing development in machine building branch. It is first of all own raw material base, sufficient scientific, intellectual, productive and other potentials. But the main thing is that state authority understands the situation and wishes to change it for better. Nowadays it is necessary to redirect native machine building to the intensive, advancing development way, that foresees necessity to solve stored interconnected problems of the technological, technical, legislative, regulatory, financial and economic, educational, personnel and other areas.

It’s a pity that the most important branches in modern native machine building have the only one problem, i.e. global dependence on import of not only main elements, but also goods, and the problem of implemented components confrontation in the real production. In such situation import substitution will initiate fight with import dependence. In future decrease of dependence on import is possible owing to innovations, investments stimulation and new innovative productions creating.

Therefore import substitution policy results in growing of the native goods competitiveness through stimulation of the production technological modernization, its efficiency increase and new competitive types of products with high added cost mastering. Product release with high added value is key point here. Therefore economic, social and strategic reasonability and the problem to provide stability foreign trade balance, are main criteria in the import substitution process.

Increase of the ready goods added value is possible while increasing the native producer competitiveness. Accordingly one has to modernize production and to use advancing mechanisms to promote goods.

Import substitution strategy has to be based on the whole producing development, produced goods quality increase, technologies, used at the enterprises, innovations development.

We have also realize that import substitution is not only strategy of the catching-up development, which must lead not only to proper production setting, but to development of this production at the higher level, than competitors do. Only development of the high technological and science-intensive enterprises branch allows to enter world market and to shorten dependence on the raw materials markets.

Protection of the native producer has not to lead to business depression, because competition limitation on the part of foreign producers, may decrease enterprise wish to develop innovations, to increase competitiveness of the produced goods and cause total
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dependence on state subsidies. It is impossible to copy necessary productions, one has to develop own technologies.

Taking into account import substitution strategy, one has to realize that it is explicit form of “neoprotectionism”, which contradicts free international trade principles. Today national economy, which is dynamically changed, demands import substitution become the most important element in the economic policy and instrument to achieve main goal in state, i.e. to have positive international trade balance of goods and service.

State efforts to create conditions for own productions appearance in high technological sphere don’t compromise foreign producers, but protect national economy. Main feature of the import substitution policy is economy industrialization owing to import discrimination and limitations. Import substitution policy is based on available environment creation for national industry growing. In other words, import substitution policy provides creation of the artificial motives (foreign trade, currency, technical, administrative etc) to develop proper branches in the native industry with purpose to increase their competitiveness at the domestic market.

Today import substitution, as the most important factor to achieve balanced development of the industrial enterprises and state economy, is priority in the management policy. Wise sloving of the given problem will allow not only to decrease import, keeping great amount of currency costs in the country, but also to reduce the price on goods, to support native producer, to create new working places, to improve native engineering education. Main taks consists to increase investment attractiveness of the native industry and particularly high technological machine building industry. It is necessary to make deep stage-by-stage analysis in order to make managerial deceision concerning import substitution strategy formation. Block-scheme of such algorithm is presented in Fig. 3.

Previous data for strategic planning are results of trade policy analysis at the enterprise. Scheme of the import substitution strategy foresees stage-by-stage analysis and check of received results to make efficient managerial decisions concerning enterprise activity reorientation with purpose to provide its independence, competitiveness and profitability. After having received experience at the native market and having set the production innovative process of goods through perspective strategic development way has to be focused on export.

At the first stage of import substitution strategy formation qualitative analysis defines reasonability to use import substitution strategy. One uses methodic approach, based on uniting of three methods in complex strategic analysis out of the industrial enterprise, and allows to analyze strong and weak sides of the industrial branch, based on SWOT and to determine abilities and dangers to implement import substitution, on the basis of analysis to determine size of market environment factors impact on the industrial enterprise activity in order to define import substitution perspectives, on the basis of SPACE-analysis to define industrial enterprise development vector through import substitution.

At the second stage one estimates technical and economic state of the enterprise and chooses object to introduce import substitution strategy. Methodic approach foresees to unit tools of BCG modified matrix method, based on the internal information at the enterorise, and hierarchy analysis method (Saati), the final result of which is global priority value of the observed scenarios by all criteria considering their significance.

At the third stage one selects direction to realize import substitution strategy and to ground efficiency of its use. Investigated scientific and methodic approach provides to combine tools of the Markowitz portfolio investments theories, based on stocks optimal portfolio determination for investor considering concepts “profitability” and “risk”, but adapted to analysis base – group of the industrial enterprise product portfolio. Choice of the product groups, within which it is reasonably to implement import substitution strategy, is based on

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calculation of the market risk value ($R_m$) and additional income coefficient per investment risk unit ($K_{AI}$).

Figure 3 – Block-scheme of the import substitution strategy formation algorithm at the industrial enterprise (investigated by author)
In order to determine market risk value one suggests to define ratio between commodity groups growth rate and market increase rate in general, based on Beta coefficient method determination. This factor will give opportunity to check perspectiveness to invest in this or that commodities group

\[ R_m = \frac{\text{Cov}(R_g, R_s)}{\text{Var}(R_s)}, \]  

where \( R_m \) – market risk value; \( \text{Cov}(R_g, R_s) \) – covariance between rate of commodities group realization amounts growth \( (R_g) \) and rate of the realized production amount growth from the market sector \( (R_s) \); \( \text{Var}(R_s) \) – dispersion of the additions rate of the implemented goods from the market sector. If coefficient \( R_m > 1 \), it proves that under conditions of the market increase commodity group grows faster, if \( R_m \leq 1 \), commodity group doesn’t correspond to market demands.

Analysis of the additional income per invested costs risk unit is conducted for each industrial enterprise product portfolio, based on the approach to calculate Sharpe r atio, with purpose to define that group (groups), income of which will be more than zero. The coefficient is calculated on the basis of data about groups realization amounts increase rate in the product portfolio and NBU bank rate. Classical Sharpe ratio formula will have another form during analysis of the commodity groups at the enterprise:

\[ K_{ai} = \frac{R_g - R_f}{\sigma_p}, \]  

where \( K_{ai} \) – coefficient of additional income per investment risk unit; \( R_g \) – commodity group growth rate; \( R_f \) – risk free interest rate; \( \sigma_p \) – standard defection of the product portfolio increase rate.

Thus, choice of the import substitution strategy implementation direction at the industrial enterprise may be generalized as matrix of import substitution strategy realization direction choice (Fig. 4), built on the basis of data about:

1) group part in the product portfolio of the enterprise \((w_i)\). Product groups from zone in matrix BCG are observed – “Stars” and “Milch cows”. Commodity groups which are in zones “Dogs” and “Difficult kids”, are additionally checked by two filters, but they are not brought to the matrix;

2) degree of priority \((P_i)\) of the import substitution strategy realization direction by hierarchy analysis method.

In advance during data selecting to create matrix one has to take into account limitations of the factors end values:

– market risk value \((R_m > 1)\). It can be both negative and positive value. To build matrix we shall observe situation when market risk rate is more than 1, because investor is interested only in the commodity group, growth rate of which is more than market increase rate in general;

– additional income coefficient per investment risk unit \((K_{ai} > 0)\). One considers situation, when additional income per risk unit is more than 0.

Coordinate axes of the import substitution strategy realization direction choice describe variables \( w_i \) and \( P_i \). We don’t show value \( R_m > 1, K_{ai} > 0 \) on the axes, we consider only values which exceed critical edge of failure.
Thus, according to matrix (fig. 4) we distinguish five zones, by which one can choose direction to implement import substitution strategy at the industrial enterprise. Due to data about group part in the product portfolio, value of the global rank concerning import substitution strategy realization direction, diversification of the product portfolio, specialization and size of the industrial enterprise, management chain makes decisions concerning import substitution strategy implementation direction. Their possible combinations are shown in the Table 1.

Table 1 – Coordination “zone use-realization direction” of the import substitution strategy at the industrial enterprise (investigated by author)

<table>
<thead>
<tr>
<th>Zone</th>
<th>Producing of the utilities to satisfy personal needs</th>
<th>Producing of utilities for sales</th>
<th>Purchasing of utilities at the domestic market</th>
<th>Keeping of the ready production utilities existing structure</th>
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</thead>
<tbody>
<tr>
<td>Zone 1</td>
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<td>Zone 2</td>
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<td>Zone 5</td>
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The determination of perspective and profitable product portfolio groups at the enterprise provides efficient investment of costs into the development of the chosen direction. Managerial decision concerning costs investment shall to be grounded, just these factors show
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each investment project provide base to select investment projects and opportunity for their further introduction.

Conclusions. Generalized experience of various countries concerning import substitution use to renew native economy allowed to find problems and perspective to implement import substitution by the native producers of the machine building branch. Rational motives to form and realize import substitution strategy at the level of enterprise development management allows to form aims and tasks of advancing development at the industrial enterprise under unsteady external conditions. That’s why, one can generalize all mentioned above, that managerial decision making on strategic direction choice for enterprise development must be based on stage-by-stage analysis both of the enterprise activity, its interconnection with market, and product portfolio for its optimal ratio and further development of the enterprise goods. After deep analysis of the enterprise and its production there is a question to select investment project, classical approach to make decision is available and clear. It allows to estimate investment attractiveness of the selected directions.

Perspectives for further research consist in author’s investigation of instruments to form expert potential of the the industrial enterprises to provide adequate goods acceptance, produced by native branches, at the European market.


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