Creation of value chains and cooperation of machine builders within the Eurasian Economic Union

Creation de cadenas de valor y cooperación de constructores de máquinas dentro de la Unión Económica Euroasiática

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ABSTRACT:
The development of international value chains is an outstanding feature of the world economy. In the non-favorable economic environment and increasing competition the main goal of the Eurasian Economic Union (the EAEU) companies in the sphere of machine-building products producers is to increase their competitiveness. The solution of this problem requires the formation of a methodical approach to assessing and analyzing the real instruments for creation international value chains. This article describes various instruments for restoring and creation industrial cooperation of machine-building products producers within the EAEU. Within the framework of the Union, conditions have been created for the free movement of goods, services, capital and labor. The formation of a single space within the EAEU was analyzed, and the instruments that weren't available earlier, are revealed. Analyze allowed identify specific instruments, which will lead to the activation of industrial cooperation in the scientific, technological and innovative production spheres. Achieving deep economic integration is an advantage - Member-States can build a common industrial policy aimed at stimulating the most modern forms of cooperation and limiting unjust competition among industrial enterprises throughout the whole Union. Some instruments were created, including the decision of the presidents of Member-States, which allowed ensuring the leveling of the conditions for the functioning of car assembly plants operating in the "industrial assembly" regime within the EAEU. The policy of import substitution promotes the development of assembly plants created on the territory with the participation of foreign investors.

Keywords Industrial policy of the EAEU; value chains; conditions for the industrial cooperation; Eurasian network of industrial cooperation.

1. Introduction

The Eurasian Economic Union was established in 2014 by the three countries as an international organization for regional economic integration with the aim of integrating post-Soviet states into a new cohesive economic entity. The parties established the Eurasian Economic Union for ensuring free movement of goods, services, capital and labor within its borders, as well as coordinated, agreed or common policy in the economic sectors determined under the Treaty and international treaties within the Union (Dragneva and Wolczuk, 2017). The EAEU is being created to comprehensively upgrade, raise the competitiveness of and cooperation between the national economies, and to promote stable development in order to raise the living standards of the peoples of the Member-States. Among the goals of uniting the EAEU, a particularly important role is played by the revival of value chains destroyed by the collapse of the USSR which are necessary for manufacturers of engineering products (Eurasian economic..., 2016).

Value chains are a broader concept, since they encompass a full range of production operations throughout the product life cycle. The use of the instruments considered is an important condition for the development of value chains. It is useful to consider the process through which value chains became mainstream in policy thinking.

The purpose of the research presented in the article is to research modern mechanisms and instruments of international industrial cooperation to restore and form value chains for manufacturers of engineering products within the EAEU.

The value chain theory developed by Michael Porter in 1985 (Kalnina, 2016) arose and was initially applied to the industries that produce material goods. Later, Western researchers paid much attention to features and evolution of value chains. Value chains were describing as a the full range of activities requiring to bring a product or service from conception, through the different phases of production, delivery to final consumers, and final disposal after use (Kaplinsky and Morris, 2012). The governments of different countries paid attention at the instruments of creation of value chains. When countries join in alliances and Unions, they have largely open borders; have more instruments and opportunities to create value chains (The Pacific Alliance..., 2016). Researchers, studying the specific features of value chains formation, do not take into account interaction's specifics of Member-States that are formed as a result of the Union formation (Elms and Low, 2013, p. 61; Todeva and Rakhmatullin, 2016, p. ). Some authors analyze the creation of the EAEU as a “tendency for states to form regional groupings” in order to receive protection from the negative impacts of globalization by institutionalizing relationships (Dragneva and Wolczuk, 2014, p. 84). The economists did not conduct studies on identifying the features and instruments for industrial cooperation to restore and form value chains for manufacturers of engineering products within the EAEU.

Today there are five Member-States in the Eurasian Economic Union, they provide for free movement of goods, services, capital and labor, pursue coordinated, harmonized and single policy in the sectors determined by the Treaty and international agreements within the Union. The machine building sectors in Member-States are, to a large extent, a legacy of Soviet times, and, correspondingly, they have retained a significant role in industry. The countries still find themselves in the process of structural adjustment as they move from a Soviet-type industry to a market-based one, although the pace of transformation is different in each country.
The EAEU Member-States have developed trade and customs tariff policy, public procurement, technical regulation, business development, transport and infrastructure in order to increase the competitiveness of products produced on the domestic market. For the development of industrial cooperation at the supra-national level of the EAEU, it is necessary to create favorable conditions for cooperation of machine builders from the countries of the Union. The special measures of trade policy and regulations allow achieving promoting a better understanding of trade policy, which can enable countries to achieve export success (Belyakova and Fokina, 2014, pp. 181-183).

The creation of value chains will increase the competitiveness of the machine manufacturers of the Eurasian Union and promote economic growth. In the Eurasian Economic Union there is an advantage - Member-States can build a common industrial policy aimed at stimulating the most modern forms of cooperation and limiting unjust competition among industrial enterprises throughout the whole Union.

Currently, there are two areas of the industrial policy of the EAEU are of particular importance for the development of value chains in the Eurasian Union:

1. Creation of conditions for the cooperation of industrial enterprises of the EAEU countries;
2. Leveling the conditions for competition in the unified market of industrial products of the EAEU.

It is necessary to create conditions for the engineering workers of the EAEU to function not just as participants of a unified market, but as a unified economy where enterprises can freely organize production regardless of national borders. The practice of developing value chains around the world has shown that this leads to an increase in the competitiveness of products. The Industrial Policy Department of the EAEU carried out a comprehensive work to identify the most promising industries in terms of cooperation. According to Director of the Department Nikolay Kushnaryov, the priority areas of industrial cooperation, which are of interest to our countries, are (Eurasian economic commission):

- automotive industry;
- agricultural machinery;
- production of building materials;
- electrical machines;
- electrical equipment;
- light industry;
- metallurgy;
- machine-tool construction.

Today, a number of areas have developed measures to support them and are preparing strategies for their development, taking into account the interests of Member-States. So, during 2015 - 2016 years the Industrial Policy Department together with the governments of the Member-States adopted decisions in the automobile and agricultural machinery, machine-tool construction, they are working on deepening cooperation, modernizing production facilities, increasing localization, solving the tasks of import substitution and increasing exports. For example, in the automotive industry, the conditions for the application of the preferential regime for the "industrial assembly of motor vehicles" and the rules for the circulation of vehicles manufactured in this mode on the single customs territory of the Union are regulated.

As a result, a number of decisions were made at various levels, including the decision of the presidents of Member-States, which allowed ensuring the leveling of the conditions for the functioning of car assembly plants operating in the "industrial assembly" regime within the EAEU.

The conditions for ensuring free circulation in the territories of other Member-States are also determined. Thus, starting from January 1, 2015, investors got free access to the markets of other Member-States provided that the basic rules of production were provided in the preferential mode of "industrial assembly".

The rules on industrial assembly, which provide for a customs rate of 0% for certain car components, were recently amended by a Joint Order of the Ministry of Economic Development, the Ministry of Trade and Industry and the Ministry of Finance. In particular, the amendments decreased the required percentages of local production to: 45% (previously 50%) for the fourth year since entry into an additional agreement on extending the initial industrial assembly agreements, and 50% (previously 55%) for the fifth year since entry into an additional agreement on extending the initial industrial assembly agreement (Kalina, 2016).

In the automotive machinery industry - measures are taken to develop import substitution, harmonization of interstate and national standards of Member-States with international standards. In the light industry, it is the deepening of cooperation, the introduction of new technologies, and the promotion of exports. In these sectors, development is carried out in selected areas and new promising forms of industrial interaction.

Despite achieved successes, there are some questions on the problematic positions on which the Parties have no common opinion. Within the framework of the Union, conditions have been created for the free movement of goods, services, capital and labor, in practice, there are such negative situations when one of the Member-State is not ready to move forward with a view to deepening industrial integration and it is not always possible to ensure agreements to the fullest.

The Commission together with the Member-States and the business community on a systematic and regular basis is constantly working to identify and remove barriers that impede the free movement for manufactured goods.

President Putin on the meeting with Government members had said "Import Substitution Working" (Meeting with Government members, 2017), and the implementation of the initiative of import substitution in the EAEU, which was announced by the head of the Russian state, includes proposals for 25 industries, including machine building, machine tool, radio electronic, chemical, petrochemical and light industry, metallurgy and agricultural machinery. These proposals are sent to the other four members of the Eurasian Union for consideration and identification of their interests and opportunities for participation. For manufacturers of engineering products of the EAEU, import substitution is not only an opportunity of reduction of the import component in the products produced by our producers, but also the modernization of industry, the joint development of new export-oriented goods based on the deepening of innovative cooperation between the industrial complexes.

The policy of import substitution promotes the development of assembly plants created on the territory with the participation of foreign investors. A purposeful work to replace the units and components supplied to such production from abroad, quality products produced in the EAEU, will create new production and value chains.

In the automotive industry, in the current legal field of the Union and taking into account the existing measures of state support, there are proposals for further building and developing cooperative chains. Deeper production cooperation in the automotive industry will contribute to the effective development of economies of member states, as well as mutual trade between them. Value chains and cooperation will create conditions for reducing dependence on imports for most types of automotive components and their parts; will expand the production of modern high-performance competitive goods of related industries (metallurgy, polymer production, etc.) within the framework of the EAEU.

The development of value chains will increase the competitiveness of the Union's industrial products through a mechanism for promoting products jointly produced by Member-States to the markets of third countries. On the international market there will be a strengthening of the term "Goods of the Eurasian Economic Union". The criteria for determining such products are the conditions if a certain part of the added value is created in the territory of the member countries, or certain technological operations are performed.

In other words, it is necessary to form a regulatory framework for the use of the mechanism for recording technological operations for the determination of jointly produced products. This is the strongest cooperative incentive, which allows to spread effective support instruments to jointly produced products, to apply joint measures of state support to producers of this product (preferential access to government purchases, allowed subsidies) and create additional incentives for cooperation and development of value chains in priority industries.

Russian Federation has already worked out a set of measures to implement the concept of "Russian goods", but also incorporated the integration motives for the products of participating countries. For example, there is a requirement for the production of an engine for machine-building products in Russia.
There is an alternative - the engine produced in Belarus will also be counted as Russian. Thus, additional motivation has been created for the use in the production of goods of other Member-States. The practice of developing value chains around the world has shown that this leads to an increase in the competitiveness of products. In this case, the aim of industrial policy is to promote the production and circulation of such products, which are "made in the EAEU".

The development of value chains and cooperation will help to equalize the conditions for competition in the single industrial goods market of the Eurasian Economic Union. The machine-building industry in the Member-States has traditionally developed with the active support of the states. In the conditions of the general market, the financial support of enterprises in one state of the EAEU gives them a non-market advantage over similar enterprises in other member states. The purpose of a unified industrial policy in the Union is to ensure that state support is provided taking into account the interests of industrial development throughout the whole of the EAEU and does not distort the conditions for fair.

The Eurasian Economic Commission develops and applies instruments of the industrial policy for development of value chains and cooperation. An existing set of tools, some of which create incentives, while others set limits. In the first case, there are tools encouraging promising forms of cooperation, production in priority sectors, in the second case, there are tools limiting the use of state support measures that distort normal market relations and ultimately hamper the development of value chains (Decisions, orders and...). One of the tools for the development of production cooperation and creation of value chains is the Eurasian Development Bank ("EDB" or the "Bank") (Eurasian Development Bank). This financial agent has few opportunities for financial support for integration projects. Work is underway to use the instruments of the Eurasian Development Bank in the priority funding of joint programs and projects with a cooperative effect.

At present, the Eurasian Economic Commission, together with the Bank, are studying the issues of determining criteria for selection of cooperation projects, as well as the procedure for the interaction of the Commission, Member-States and the Bank in these areas. The most important tool for stimulating value chains is the creation of institutions aimed at developing new forms of industrial cooperation. It can be safely said that the modern production world is an era of international production chains; fragmentation of the production process is taking place everywhere. To facilitate these new forms of cooperation in the Union, the Eurasian Economic Commission outlined a work plan for the establishment of such development institutions as:

- Eurasian technological platforms;
- creation of a technology transfer network;
- development of a network of industrial cooperation and subcontracting;
- The Eurasian engineering center.

One of the most effective tools for commercializing the achievements of science and technology are the technological platforms. The next Council of the Eurasian Economic Commission the issue of creating the Eurasian technological platforms will be considered.

The technical platforms will work in such promising areas as space and geo information technologies, biomedicine and biotechnology, supercomputers, photonics, solid mining technologies and other areas. They unite leading scientific and industrial organizations of member states. Within the framework of the technical platforms, it is planned to implement joint innovation projects.

Currently, the Commission actively conducts comprehensive systematic work on the creation of a business innovation environment - the development of a Eurasian technology transfer network.

In the near future, work is planned on the development of a concept for the creation of an Industrial Cooperation and Subcontracting Network.

Member-States together with the Commission are carrying out procedures for the formation of the Eurasian Engineering Center for Machine Tool Building. In accordance with the Concept developed by us and approved by the heads of governments, the Member-States of the Union have already decided on the national coordinators authorized to create it.

Such a center will contribute to the activation of innovative activities in the allied machine tool building, the increase in the output of high-tech products and its introduction into the engineering industries of the Union in order to modernize them and enhance competitiveness.

It is worth paying attention to restrictive tools, among which we can mention the use of the "early warning" mechanism for measures in relation to sensitive products (Li, 2013). In order to implement this provision of the Agreement on the Main Directions of industrial cooperation in the framework of the EAEU, Decision of the Eurasian Intergovernmental Council established the list of sensitive goods and the procedure for consultation and mutual notification regarding sensitive goods.

The Decision taken by the Eurasian Economic Commission (EEC) envisages an official notification to the parties of the need to mutually inform on sensitive goods in advance.

It is also necessary to analyze and unify the rules for the provision of industrial subsidies in the EAEU. Member-States have to use the discipline in the field of providing industrial subsidies in accordance with the Treaty on the EAEU, and they have the opportunity for applying to the EEC if specific industrial subsidies are requiring.

Minister of Industry and Agro industrial Complex of the EEC Sergey Sidorskiy says "Application of the mechanism of a voluntary approval with the Commission of specific subsidies will provide principles of fair competition. Thereby, the state that applied to the EEC will be insured against the risk of subsequent introduction of a compensatory measure in respect of the recipient of such a subsidy by any of the Union Member-States" (EEC Continues Expert Work...).

In order to avoid a violation of fair competition in the industrial goods market of the Eurasian Economic Union, state bodies and local governments of Member-States should be guided by uniform rules for granting subsidies to industrial enterprises. Such rules have been agreed and accepted by all the participants of the Union, and the Eurasian Economic Commission monitors their observance.

Thus, every Member-State has a clear understanding of what financial support measures are allowed and does not raise questions among the partners in the Union, and which can lead to objections from partners and controversial situations. Moreover, now the Commission is developing an agreement of the Member-States on the preliminary coordination of specific subsidies and on the procedure for dealing with violations of the rules for granting industrial subsidies.

The Department of Industrial Policy of the Eurasian Economic Commission has planned to study various aspects of the operation of value chains and forms of production cooperation on the territory of the Union in cooperation with leading research organizations of member states.

At present, for the development of value chains and the formation of the Eurasian network of industrial cooperation and subcontracting, automakers implement the following measures:

- create a common information system for the search and organization of orders in industry (databases on industrial enterprises and products, production capacities and available resources);
- organize and conduct subcontracting exchanges (a platform for finding partners, negotiating and signing preliminary contracts);
- organize the holding of consultative support of industry enterprises in search of partners in cooperation.

The Eurasian network of industrial cooperation and subcontracting is a mechanism for building cooperation ties between enterprises of the industry of the Member-States, involving small and medium-sized enterprises in production chains. The basis of the Eurasian network of industrial cooperation and subcontracting is the creation and functioning of national segments (national networks) of industrial cooperation and subcontracting within the EAEU.

2. Materials and methods

The method for conducting this research was a morphological approach. Morphological approach allows considering the EAEU as a system of inter-state...
cooperation in the field of economics and technology, which has well-established nomadic ties and grounds. The morphological approach allows authors to study various aspects and elements of the interaction system of Member-States within the Union, taking into account their available developmental features and to obtain systematized information on possible solutions. Using the morphological approach, it becomes possible to define the mechanisms and tools that can be used to obtain the desired result - creation value chains for manufacturers of engineering products within the EAEU, taking into account information about features and approaches of Member-States’ cooperation, as well as an overview of the complete chain of consequences resulting from this cooperation.

A purposeful work to replace the units and components supplied to such production from abroad, quality products produced in the EAEU will create new production and value chains. Policy of import substitution pursued by the Member-States promotes the development of assembly plants created on the territory with the participation of foreign investors, with the help of this policy, the value chains grow. Creation Eurasian network for the transfer technology, industrial cooperation and subcontracting is one of the instruments for restoring and creation industrial cooperation of machine-building products producers within Eurasian Economic Union. The using modern instruments and elimination trade and political barriers, as well as the construction of a unified technological platform will allow the formation the recognizable and positive brand “made in the EAEU” in the international market of machine-building products in the short term.

3. Results and discussion

The development of relationships and the revival of lost value chains are an interest for machine-building enterprises of all countries of the post-Soviet space, for example Moldova and Ukraine (Naúrodski and Babicki, 2016, p. 113). There have been attempts to revive the shattered value chains of machine builders of countries in the post-Soviet space, but the creation of the EAEU allows to use new instruments and undoubtedly to get the best results for the development of cooperation.

In accordance with the article 92 “Industrial Policy and Cooperation” of the EAEU Treaty (Decision of the Eurasian…), the Eurasian Intergovernmental Council (Treaty on the..., 2014) approved the main directions of industrial cooperation within the frameworks of the Eurasian Economic Union. One of the priority directions of industrial cooperation within the framework of the EAEU is the modernization (technical re-equipment) of existing production facilities and the creation of new innovative sectors of industry of the Member-States. The currently created Eurasian network for the transfer of technology, industrial cooperation and subcontracting will lead to the activation of industrial cooperation in the scientific, technological and innovative production sphere, as well as become a condition for the transformation of industry and the formation of a single digital space for the EAEU industry.

Examination of the relation’s system between Member-States within the Union, when available development features of different elements of the cooperation have been taken into account, it becomes possible to define the instruments and mechanisms which can be used to obtain the desired result - restoring and forming value chains for manufacturers of engineering products within the EAEU.

The new frameworks of the Single Economic Space allow develop the regulatory and legal basis for the formation of the Eurasian Network for Industrial Cooperation and Subcontracting. Taking into account systematized information about the integration of cooperation ties between enterprises, possible instruments and methods can be resulting as well as an overview the consequences from using modern instruments.

It is assumed that for the formation and subsequent use of the Eurasian network of industrial cooperation and subcontracting, on the basis of national systems Member-States have to create and use the following instruments:

- national segments of the subcontracting system;
- system common network for the search for contractors, subcontractors;
- integration the Eurasian network system into an international system.

Having considered relation’s system between Member-States within the Union, it was concluded that the creation of the concept of the Eurasian network of industrial cooperation and subcontracting developing by the Commission have to be continued. Member-States have to independently develop and form they own national segments - national networks of industrial cooperation and subcontracting.

International experience in the formation of network structures based on the combination of national tools and systems for supporting industrial cooperation demonstrates that one of the key success factors is the availability of detailed developed and agreed principles, formats and mechanisms of interaction and functioning within a single network. With respect to the network of industrial cooperation and subcontracting, this includes the elaboration of joint decisions on the following issues:

- network management system (coordination at interstate and national levels);
- principles and mechanism of selection of participants in the network;
- standards and regulations for the provision of services and their content;
- networking tools (system of events, information and communication platform, information object formats, etc.)
- the monitoring and evaluation system for the effectiveness and efficiency of the network;
- mechanisms for financial support of the network.

Measures to implement the main directions of industrial cooperation within the framework of the Eurasian Economic Union, approved by the decision of the Council of the Eurasian Economic Commission (Decision of the Council, 2016) provide for section I. “Establishment of a Eurasian network of industrial cooperation and subcontracting”, one of whose activities is the development of the concept of creating a network of industrial cooperation and subcontracting, including the procedure for its formation and financing.

4. Conclusions

It is necessary to develop coordinated mechanisms and approaches to the development of value chains and cooperation ties between manufacturers of engineering products in the EAEU countries, based on a thorough study of current international experience and examples of best practices. Special instruments of industrial cooperation that allow to restore and form value chains for manufacturers of engineering products in the EAEU. All instruments for creating and developing value chains are used by various countries’ associations, for example, the European Union. This global experience should be studied and applied in developing national modern instruments. The mechanisms developed should be based on taking into account the specifics of the national systems for supporting industrial cooperation and subcontracting in the Member-States of the Union. It should be borne in mind that the mechanisms for the development of value chains and cooperation ties between manufacturers of engineering products should have a long-term horizon for planning the network’s activities (7-10 years) and are of an international and infrastructural nature.

It is necessary to develop the concept of establishing a Eurasian network of industrial cooperation and subcontracting, including the procedure for its formation and financing, within the framework of special research and development work (R & D).

The elimination of trade and political barriers, as well as the construction of a unified technological platform will allow the formation the recognizable and positive brand “made in the EAEU” in the international market of machine-building products in the short term.

Bibliographic references


Decisions of the Eurasian Intergovernmental Council September 9, 2015 No. “On the main directions of industrial cooperation within the framework of the Eurasian Economic Union” Retrieved from: http://www.eurasiancommission.org/ru/act/prom _i_agroprom/SiteAssets/%D0%B1%D1%80%D0%BE%D1%88%D1%8E%D1%80%D0%B0%2D%D0%B6%D0%B3%D0%BB%20OK%20NEW.pdf (accessed July 25, 2017).


Eurasian economic integration: facts and figures library of eurasian integration. (2016). Retrieved from: http://www.eurasiancommission.org/ru/Documents/%D0%91%D1%80%D0%BE%D1%88%D1%8E%D1%80%D0%B0%20%D0%A6%D0%B8%D1%84%D1%80%20%D0%B8%20%D0%BA%D1%82%D1%8B%20%D0%B8%D1%82%20(%D0%90%D0%BD%D0%B3%D0%BB).pdf. (accessed April 13, 2017).


