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STRATEGIC MANAGEMENT OF THE AGRARIAN SECTOR OF ECONOMY BASED ON THE ANALYSIS OF VALUE CHAINS

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Abstract: *The agrarian sector of economy is a core segment, which defines preconditions of the food security, well-being and the employment level of rural population, sustainable development, provides great budget receipts of the State, etc. One of the main mechanisms of strategic management and public administration of the agrarian sector of economy is using the concept of the analysis of value chains creation. The methodological basis for the analysis of value chains in the agrarian sector of economy is investigated. The methodical approach to the calculation of multipliers of gross value-added is improved. Basing upon the modified technique, we estimated losses in the gross value-added of the agrarian sector of Ukraine got due to its export-raw orientation and global economic integration, which in 2016 amounted to about 47.4 % of GDP. The analysis of intersectoral balances of Ukraine in 2001-2015 showed that the reason for most of the crisis phenomena in the agrarian sector of economy is its systemic disintegration, which is accompanied by significant disproportions in the value-added. Sectoral redistribution of gross value-added takes place on the base of permanent destruction of direct inter-sectoral production ties. At the same time, low rates of development of indirect ties of the agrarian sector show its de-industrialization and a significant decrease in production intensity, which would be sufficient for intermediate consumption of crop raw materials as the products of the first technological repartition. The concept of the strategic management of the agrarian sector of economy under the conditions of deepening integration and neoindustrialization is suggested. In turn, realization of this concept is possible in centralized and decentralized modes, which are very useful during current reforms and making decentralization of the government in Ukraine.*

Keywords: *strategic management, value chains, agrarian economy*

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1. Introduction

Nowadays the agrarian sector of the economy of Ukraine is a key one. A break of intersectoral ties, which existed in agro-industrial production before the reforming of the agrarian sector, became one of the reasons of the crisis occurred within it.

Effective socially-oriented development of the agrarian sector has to be based on the progressive forms of integration under the conditions of neoliberal globalization and transition of national economy to decentralization and self-organization.

At the same time, we need more sophisticated tools, based on the analysis of value chains creation, for the adoption of relevant strategic decisions.

2. Methodology

All strategies of national and sectoral development of Ukraine contain goals of ensuring economic growth and increasing welfare of the nation.

As it was mentioned by Seo [23], the world leaders are multinational corporations, which are focused on maximizing of newly created value in the long-term, not on the short-term profit.

The keynote of such economic model is to maximize interests of all participants of the integration relations, to remunerate workers for their contribution to the development of a company.

Actually, the capitalist increases a norm of exploitation of workers to assign an unpaid part of newly created value by providing the maximization of the profit.

At the same time, workers are not interested in the improvement of the quality of production that was made by them, because their salary is fixed and rated.

If it is not a profit maximized, but a newly created value is, then, on the one hand, existence of a profit will be a condition of a payroll.

This cardinally changes the attitude of workers to their duties.

On the other hand, the capitalist also cannot maximize the benefits without proportional increase in the salary level and social standards, because his profit directly depends on the interest of staff in the results of production.

Besides, maximization of newly created value leads to an increase in annual cash flows and investments into innovative development.

This is caused by the necessity of growth of an organic structure of capital in the processes of public reproduction.

At macro level, the economic growth was thoroughly investigated at first time by Feldman [6].

Having analyzed the growth rates of the national income he proved that increase in consumption rates of the population does not depend on labor productivity growth and labor productivity is a function of capital per one worker [6].

Besides, the rate of increasing the consumption by the population rises with the reduction of a share of the cumulative consumption in national economy caused by an increase in capital accumulation.

Also Feldman [6] noted that for the maximum and fast expansion of the production it is necessary to increase not labour productivity and profit, but the efficiency of capital use.

Profit can increase itself due to the reduction of labour costs during the change of the capital structure [6].

Having formalized the above-stated conditions of GDP (national income) growth and making elementary

transformations, we will get such ratio:

$$\Delta GDP \to \max\left\{\frac{v+m}{v}, v>0\right\}, \qquad (1)$$

where:

ΔGDP is change of GDP (Feldman's national income);
c – fixed capital;
v – variable capital;
m – value-added.

From formula (1) it is clear, that maximization of the profit through the increase in the norm of additional cost (m / v) will not lead to the GDP growth in a long-run, as well as reduction in the cost of labour (the value of variable capital) does not.

Later Feldman [6] concluded that efficiency of the cumulative capital of national economy is defined not by rate of return, but by the ratio of newly created value to the advanced capital: $(v+m)/(c+v)$.

In turn, increasing the efficiency of cumulative capital use is possible only under conditions of its extended reproduction and innovative development.

In 1936, Keynes came to almost similar conclusions. Particularly, he noted that the growth of aggregate demand is equal to an increase in the total investments multiplied by the marginal propensity to savings [17]. Considering that the aggregate demand is quantitatively equal to GDP calculated by the production method, Keynes [17] de facto substantiated its maximization, using, by and large, the same approach as Feldman [6] when he was maximizing the rates of the national income.

In the neo-industrial paradigm of sustainable development of the agrarian sector of the economy, one of the basic principles is to ensure the extended reproduction of sectoral capital and the innovative modernization of production. The key idea is to construct such an economic system of intersectoral relations, when the rates of capital formation are maximal. According to Gubanov [10], for achieving such goals, it is necessary to minimize the duration of the reproduction cycle of technologically related capitals that are used in production of a certain final product. In this case, such conditions must be met: the amount of an in-fact used capital does not exceed an advanced one; at each link of the value chain the consumption of production capital is as close as possible to the advanced capital amount; the profit on capital is an integral value, and the amount of partial profits is equal to the mass of integral income [10]. In sum, the scientist concluded that the rate of turnover of sectoral capital is minimal when the integral income arises and is appropriated in a final link of the reproductive process [10]. Thus, Gubanov [10] proved the interconnection between the development of integration relations and reproduction. Based on the models of [6], [10], [17], it is possible to claim that these are investments and high rates of fixed capital accumulation, sufficient for innovation jumps, which are the basis for the growth and neo-industrialization in the agrarian sector. As Kondratiev [18] correctly mentioned the basic precondition for the sustainable industrial development of national economy, in whole, and the agrarian sector, in particular. It is such a ratio of growth rates in industry and agriculture, which provides

non-crisis sectoral development, the highest growth rates of GDP (national income), guarantees fast return on invested capital, and creates additional job places [18].

In its turn, a sustainable development of national economy is impossible if the rates of investment into the production of capital goods does not correspond to the size of real accumulation of capital (private and public); if there is no proportionality between the production of capital and consumer goods; if there are disproportions in the relations between the processing industry and agriculture; if the rates of industrial growth do not correspond to the growth rates of production of agricultural commodities; if there is a disproportion between production of industrial and agricultural products and their export and import [18].

Today it can be stated that the ideas of Kondratiev [18] are not only relevant, but also have a wide-world approval.

One of the main mechanisms of strategic management and public administration at the macrolevel is using the concept of the analysis of value chains creation.

M. Porter proved that every firm is a collection of activities (discrete production functions), which are performed to design, produce, market, deliver, and support its product [22].

In addition, he marked out five the main business-functions as inbound logistics, operations, outbound logistics, marketing and sales, service [22].

Decomposition and the inductive analysis of value chain make possible to determine what types of production have the highest norm of value-added and the cost of what a final economic effect is created.

The theory of the analysis of value chains creation was developed by [9], [13], [16], [20-21] and others, was having created its modern paradigm.

At the same time, the main directions of the analysis are simple structural cost analysis of value-added and the analysis of input-output balances.

As it was mentioned by Hugos [12], management practice measurements are value-added percentage, build-to-order percentage, build-to-stock percentage, percentage of manufacturing order changes due to internal issues, and work in process inventory [12]. In OECD and WTO experts analyze the "input–output" tables with the main criterion of total value-added generated in each country by each industry [25].

Besides, the analysis of Leonieff's matrices makes possible to calculate the large number of indicators that directly or indirectly measure industry diversification [2], vertical fragmentation of production and distance to final demand [5].

In 1939, Fisher developed a structural model of the economy, which consists of three sectors of activity. Thus, the scientist included the agricultural, forestry, fishery, hunting and mining industry to the primary sector; to the secondary sector he attributed processing industry and construction; to the tertiary sector – all other types of economic activity, which form a services sector [7].

Subsequently, in 1953, Foote and Hatt [8] isolated from the tertiary sector the quaternary sector (information and telecommunications, financial and insurance activities, transport, warehousing, postal and courier activities, wholesale and retail trade) and the quinary one (education, professional, scientific and technical activities) [8].

While researching the changes in the sector structure of production and employment, Clark [3] proved that the structural dynamics of economy is evolutionary.

Thus, in pre-industrial era the primary sector occupied the largest share, in the industrial – secondary one, in the post-industrial – tertiary sector [3].

Besides, the share of the agrarian sector of economy in gross output and gross value-added should decrease alongside with the transition from one technological process to another [3].

Thus, Fisher-Clark's structural model of economy describes the genesis of strategic-based sectoral and integration development: during disintegration the primary sector and de-industrialization prevail, during deep integration – the post-industrial economy of knowledge does.

Following this, to estimate sectoral integration ratios at macro-level, it is necessary to correlate the value-added formed in the highest technological repartition of value chain creation (VA_{HT}) and the value-added got from raw materials (VA_{RM}):

$$MVA = VA_{HT} / VA_{RM}, \quad (2)$$

where: *MVA* – multiplier of value-added of the finished product produced in value chain.

For the assessment of quantity proportion between sectors of national economy, and to determine the potential losses from export and raw orientation of the country, Ledeneva [19] suggested to calculate multipliers of value-added of the processing industry (MVA_{PI}) and of the whole primary sector of economy (MVA_{PS}) [19]:

$$MVA_{PI} = \frac{GVA_A + GVA_{FR} + GVA_{FS} + GVA_{MI} + GVA_{PI}}{GVA_A + GVA_{FR} + GVA_{FS} + GVA_{MI}}, \quad (3)$$

$$MVA_{PS} = \frac{TGVA}{GVA_A + GVA_{FR} + GVA_{FS} + GVA_{MI}}, \quad (4)$$

where:

GVA_A, GVA_{FR}, GVA_{FS}, GVA_{MI}, GVA_{PI} are gross value-added of agriculture (*A*), forestry (*FR*), fishery (*FS*), mining industry (*MI*) and processing industry (*PI*);

TGVA – total gross value-added in the national economy.

Having considered the agrarian sector of economy as a combination of agricultural and fishing economic activities $\left(GVA_{AS} = GVA_A + GVA_{FS}\right)$ it becomes possible to calculate partial multipliers of value-added, using formulas (3) and (4):

$$MVA_{AS}^{PI} = \frac{GVA_A + GVA_{FS} + GVA_{FI}}{GVA_A + GVA_{FS}}, \quad (5)$$

$$MVA_{AS}^{PS} = \frac{TGVA}{GVA_A + GVA_{FS}}, \quad (6)$$

where: GVA_{FI} is gross value-added of food industry.

Having taken the methodical approaches of Ledeneva [19] and Hutorov [14] as a basis, we modified them to

estimate total potential losses (gains) of gross value-added (LGVAAS) from disintegration of the agrarian sector of economy under the conditions of its export-raw orientation:

$$LGVA_{AS} = \left(MVA^{\circ} - MVA^{UA}\right) \times \times GVA_{AS}^{UA} \times \left(E_{AS}^{UA} - I_{AS}^{UA}\right) / O_{AS}^{UA}, \quad (7)$$

where:

MVA^{0}, MVA^{UA} are values of *MVA*, those which are the basis for comparison ("*0*") and the actual ones in Ukraine in the reported year ("*UA*") calculated by the formula (6);

GVA_{AS}^{UA} – gross value-added of the agrarian sector of Ukraine;

E_{AS}^{UA}, I_{AS}^{UA} – volumes of export and import of the agrarian products (commodity groups I–II in the Ukrainian Classification of Commodities for Foreign Economic Activity);

O_{AS}^{UA} – total output of the agrarian sector of Ukraine in value terms in the reported year.

If $LGVA_{AS} > 0$, it indicates losses in the gross value-added; if $LGVA_{AS} < 0$ – there are additional gains from foreign trade in raw materials and semi-finished products; if $LGVA_{AS} = 0$ – the volumes of exports and imports are equal or the levels of innovative development of the compared countries (regions) are the same.

Taking into account the partial multiplier of value-added of the agrarian sector of economy (5) and substituting its value into the formula (7), we will receive the volume of the gross value-added, which is half-received in the food industry owing to positive export surplus of agricultural raw materials and semi-finished products.

3. Results

Market transition in the agrarian sector of the economy of Ukraine alongside with the processes of the neoliberal globalization had an ambiguous influence on the national economy.

On the one hand, transition to a market economy, decentralization, free choice of a type of business activity, to competition had place.

Besides, the pricing was completely deregulated, international commodity, capital and services markets were opened, etc.

On the other hand, market economic mechanisms completely disabled a possibility of planning of the State food supply, led to profits maximization at the extent of deterioration of social-and-ecological responsibility, to the development of monopolies, disintegration of economy and, as a result, to its deindustrialization and export-raw orientation.

As it is shown in our calculations, sectors with a low norm of value-added prevailed in the economy of Ukraine in 2016.

Whereas in the developed countries of the European Union it was the knowledge-intensive branches and productions of the highest technological repartitions.

So, the share of the primary sector in the economy of EU member states on average was more than 10.1 times less than in Ukraine. At the same time, the share of the secondary sector was bigger by 4.7 p.p. than in Ukraine, the share of the quinary sector – by 1.5 times, respectively, etc. (Figure 1).

The information, which was provided by Heets [11], shows that the economy of Ukraine in 2006-2007 corresponded to the third and fourth technological modes.

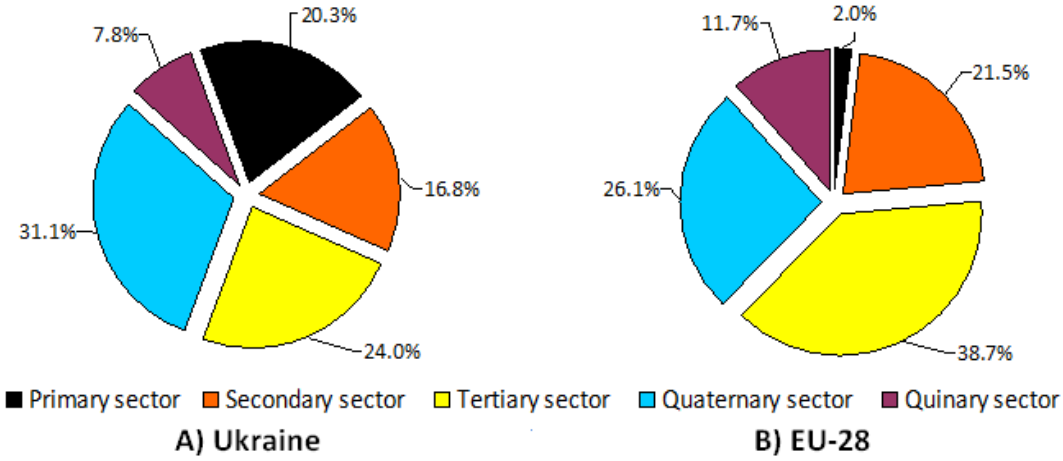

Fig. 1. *Sector structure of the national economy of Ukraine and EU Member States (on average in the EU-28) in 2016 (Source: calculated by authors according to* [25])

The rates of changes in the main macro-indicators give the grounds to characterize it as "necroindustrial" (deindustrialization of economic sector of the third and fourth technological modes).

Besides, during the years of independence of Ukraine there was no inversion of social and economic, relevant transformation of neoliberalism and neoglobalism policies [11] that caused a long recession and economic growth without development.

Such economic systems, according to classification of Bell [1], are pre-industrial, characterized by raw orientation, low standards of living and potential for endogenous growth.

The calculations, which are carried out according to the above-stated methodology, show that Ukraine significantly lags behind to most economies of leading countries not only in the rates of economic development, but also in its structure (Table 1).

Thus, in 2016 the share of the gross value-added of the agrarian sector of the economy of Ukraine was more than 9.2 times higher than that of the European Union, and more than 23.0 times higher than that of Germany, etc. Besides, the Ukraine accession to the WTO at the beginning of 2008 led to the annual growth of the share of the agrarian sector in GDP (during 2008-2016 by 1.7 times), thereby creating a strong basis for the de-industrialization and orientation of the branch to the raw materials (Figure 2).

The value of the multipliers of value-added of Ukraine, in comparison with the other countries in the World, is too low, and characterizes the national economy as disintegrated.

So, in 2016, Ukraine's processing industry produced $1.7 of value-added per $1.0 of raw materials used, thereby hasn't even crossed the threshold of the second technological repartition of the value chain.

This value is 5.3 times lower than the average one for EU-28, 18.8 times - than of Germany, and so on.

Intersectoral ratios in the specific countries Table 1
(Source: calculated by authors according to [25])

Country	Share of the gross value-added of the agrarian sector of the economy in the GDP, %			Multiplier of value-added of the processing industry (MVA_{PI})			Multiplier of value-added of the primary sector of the economy (MVA_{PS})		
	2001	**2010**	**2016**	**2001**	**2010**	**2016**	**2001**	**2010**	**2016**
Australia	4.3	2.4	3.0	2.2	1.6	1.6	4.7	4.9	5.8
Austria	1.9	1.4	1.2	10.0	10.9	12.5	4.4	4.9	5.1
Czech Republic	3.3	1.7	2.3	6.7	9.0	10.0	3.3	3.8	3.4
Denmark	2.7	1.4	0.9	4.1	3.8	8.3	4.6	5.8	5.7
France	2.3	1.8	1.6	7.1	6.9	7.5	5.6	7.6	7.6
Germany	1.2	0.7	0.6	17.6	24.4	31.9	4.2	4.3	4.2
Hungary	5.6	3.5	4.4	4.8	6.8	6.2	3.6	4.0	3.6
Italy	2.8	2.0	2.1	6.9	7.9	8.1	4.5	5.5	5.4
Latvia	5.0	4.4	3.9	3.9	3.7	3.8	4.9	5.5	6.0
Netherlands	2.4	1.9	1.8	3.9	3.4	4.7	5.0	6.0	6.5
Switzerland	1.0	0.7	0.7	17.2	23.5	23.9	4.8	4.9	5.2
United Kingdom	0.8	0.7	0.7	5.4	4.5	6.3	6.0	7.8	8.4
EU–28, total	2.2	1.6	1.5	7.0	7.3	9.1	4.7	5.6	5.5
USA	1.2	1.2	1.0	7.1	4.7	5.9	6.0	6.3	6.9
Ukraine	**16.4**	**8.4**	**13.8**	**1.9**	**2.0**	**1.7**	**2.5**	**3.4**	**2.9**

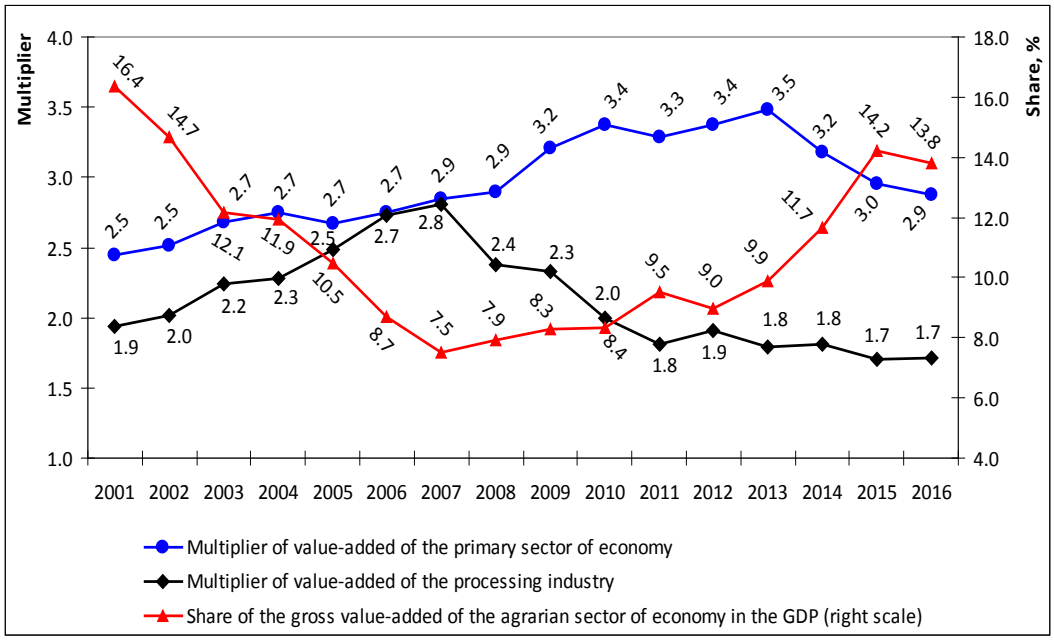

Fig. 2. *Dynamics of intersectoral ratios in the economy of Ukraine (Source: calculated by authors according to the OECD and the State Statistics Service of Ukraine databases.)*

The dynamics of this indicator shows that the low rates of the development of intersectoral relations in 2001-2007 has changed sharply since the beginning of 2008. This tendency lasts to this day.

We estimated the losses (underproduction) of gross value-added of the agrarian sector of Ukraine on the example of the accession to the WTO (2008) and the association with the EU (2014).

It must be emphasized that the decision on the free trade between Ukraine and EU was made under the conditions of the multiple lags in technical and technologically potential and actual lack of the closed value-added chains creation.

Finally, economic integration led to a bigger disintegration of the agrarian sector of economy and processing industry, and to the drastic change of the specialization of agriculture (Table 2).

Table 2

Multipliers of value-added and potential losses (gains) of gross value-added of the agrarian sector of the economy under the conditions of export-raw orientation of foreign trade of Ukraine with EU (Source: calculated by authors)

Indicator	Year									
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Multiplier of value-added of the agrarian sector of the economy, times										
–total, Ukraine, (6)	13.9	13.1	12.4	12.4	10.9	11.6	10.4	8.8	7.3	7.5
–partial, Ukraine (5)	1.6	1.6	1.8	1.5	1.4	1.4	1.3	1.4	1.3	1.3
–total, EU-28 (6)	67.4	67.4	73.8	69.0	67.2	67.9	65.3	69.7	73.4	75.4
–particular, EU-28 (5)	2.4	2.4	2.6	2.4	2.4	2.4	2.4	2.5	2.6	2.6
Share of the potential losses (gains) of gross value-added of the agrarian sector of the economy of Ukraine, %										
–in GDP, total	0.7	12.2	9.3	-0.5	13.8	22.8	19.6	35.4	59.7	47.4
–in the gross value-added of the primary sector, specifically	0.0	0.6	0.5	0.0	0.9	1.5	1.4	2.3	3.9	3.0

At the same time in 2007, before the Ukraine-WTO accession, there were no losses in gross value-added. It is explained by the fact that foreign trade was conducted mainly with the CIS countries, which have approximately equal integration potentials

Since 2008, except for 2010, the value of half-received gross value-added promptly increased, reaching 47.4% of GDP in 2016.

In whole, the data on losses in national welfare correlate with sizes of the shadow economy of Ukraine.

Meanwhile, the most “shadow” sectors are the mining industry, processing industry and logistics, where the export of raw materials and semi-finished products is carried out at transfer prices (Figure 3).

The analysis of intersectoral balances of Ukraine in 2001-2015 showed that the

reason for most of the crisis phenomena in the agrarian sector of economy is its systemic disintegration, which is accompanied by significant disproportions in the value-added. Thus, in the post-reform year of 2001, the value-added in the agrarian sector of economy was created mainly by the industry itself, the processing industry, trade and transport. During the period under consideration, the value-added of trade increased 2.4 times, thus, displacing the center of capital accumulation into the non-productive sphere [15]. At the same time, value-added in the financial sphere, as well as in the sphere of outsourcing, has also significantly increased.

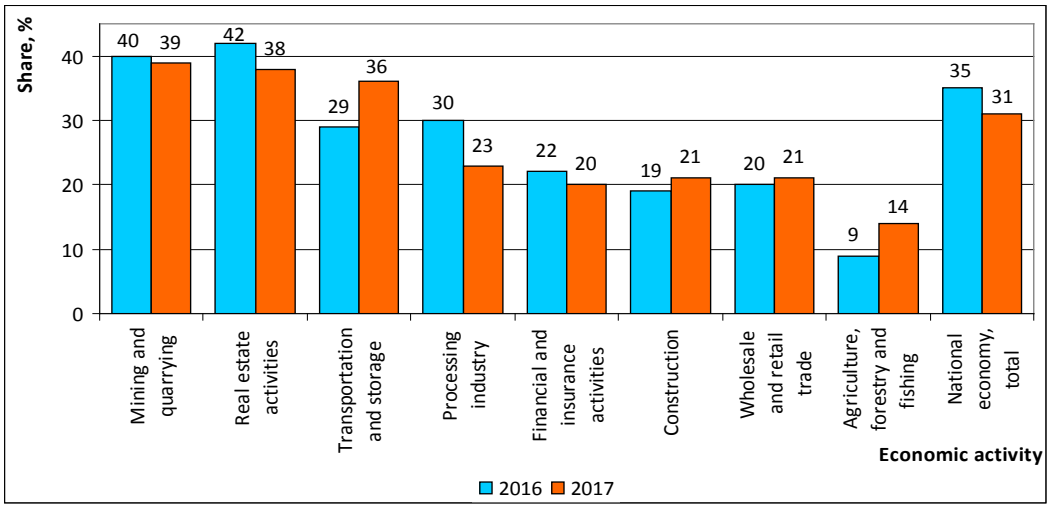

Fig. 3. *Level of shadow economy by types of economic activity in Ukraine in 2016-2017*

(Source: constructed by authors according to the data of the Ministry of Economic Development of Ukraine – [26])

Sectoral redistribution of gross value-added takes place on the base of permanent destruction of direct inter-sectoral production ties: their measure is decreasing with an annual rate of -1.3%. At the same time, low rates of development (+0.6% per year) of indirect ties of the agrarian sector show its de-industrialization and a significant decrease in production intensity.

The negative value of branch diversification index indicates its export and raw orientation, switch in the general type of Ukrainian agriculture to crop one. In turn, this served as the reason of decrease in livestock and poultry, which would be sufficient for intermediate consumption of crop raw materials as the products of the first technological repartition.

Besides, the signed international agreements actively oblige Ukraine to sell abroad unprocessed agricultural products, thereby, on the one hand, creating an outflow of value-added to other countries of the world, on the other hand, – reducing the potential for the development of own processing industry and of numerous branches connected with the agrarian sector of economy. That is why we completely advance a view of Duval et al. [4], which fragmented supply chains, may

have far reaching implications for a broad range of economic issues, call forth of output synchronization and business cycles [4].

Among many types of strategies, the most complex are integration ones that are based on value chains creation. A choice of a strategy of integration interaction depends on the level of stability or volatility of competitive conditions in the commodity market. Our conceptual model of development of the agrarian sector, which is based on integration and neoindustrialization, in whole, follows the law of vertical integration. It provides forming of public and corporate value chains and its assignment at a final stage of technological repartition, thereby ensuring extended reproduction of a capital, socialization and institutionalization of economic relations. It hierarchically subjects private interests to public ones in such a way, that it guarantees national food and economic security and competitiveness (Figure 4).

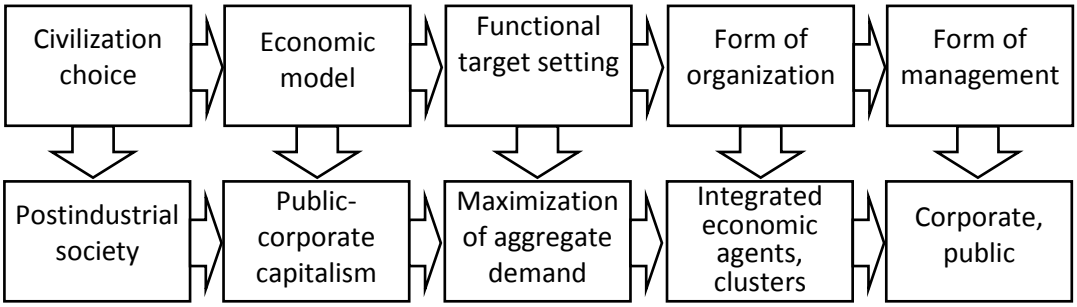

Fig. 4. *Conceptual base of strategic management of value chains and development of the integration relations in the agrarian sector of Ukraine*

(Source: developed by authors)

In turn, realization of this concept is possible in centralized and decentralized modes.

The centralized model is based on a leading role of integrated economic agents of private, state and mixed forms of ownership. Public and corporate organization function on a "just in time" basis, satisfying final consumer demand.

However, centralization essentially depends on institutional environment, high-quality administrative personnel and lack of motivation to opportunistic behaviour. It needs optimization at all steps of the closed technological process.

The decentralized model provides flexible forms of interaction between counterparties of integration, is based on concepts of spatial development, therefore it is especially relevant to Ukraine that is in the process of administrative-territorial reform.

It gives opportunities to local authorities to use all capacities of rural areas for the solution of socially important problems of sustainable development.

Strategic management of value chains in the agrarian sector of economy is the prerogative of the State, should be carried out by the Ministry of Agrarian Policy and Food of Ukraine under the scientific support of National Academy of Agrarian Sciences of Ukraine.

Its mechanism covers motives, factors and the purposes of agroeconomic integration evoked by the interests of

stakeholders, a strategic set, organization of integration relations and of control over their realization under the conditions of effective public control over governmental authorities and economic agents.

4. Conclusions

Nowadays, the agrarian sector of the economy of Ukraine is one of the system-building, strategically important segments of the national economy.

Food security of the State, the well-being and the employment level of rural population, as well as of workers from related industries, the health of the nation, etc. depend on the level of its development.

It is proved that the intensive economic growth in the agrarian sector of economy is possible only in case of system development of the integration relations, and has to be followed by neoidustrialization.

The system of administrative and public decision-making on the development of the agrarian sector of economy has to be based on the analysis of value chains creation where the main indicator of integration depth is the multiplier of gross value-added.

As our research shows, the economy of Ukraine is disintegrated now. Particularly, the agrarian sector and the food industry form only one-and-a-half technological repartition.

This contributes to further degradation of interindustry relations, to growth of disparities in exchange and deindustrialization.

Besides, under the conditions of neoliberal globalization, particularly under strategic course of Ukraine towards European integration, the national agrarian and processing branches are, in most cases, noncompetitive in the world market.

Therefore, the main receipts from foreign trade are got from export of raw materials and semi-finished products.

In turn, it leads to considerable losses in the form of the half-received value-added, which in 2016 amounted to about 47.4% of GDP only due to export orientation of agriculture.

The methodology of analysis of agrarian value chains and intersectoral integration, which is described in the article, completely characterizes the dynamics of this process at the macro-level, is statistically significant and reliable for the adoption to appropriate managerial decisions on its base.

A civilization choice of Ukraine has to be made in favour of neoindustrialization, forming of closed food-based value chains that will guarantee sustainable sectoral development, food and economic security, high social standards of living, international competitiveness, etc.

The main indicator and purpose of such system is the maximum of cumulative value-added at all levels of economic hierarchy.

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