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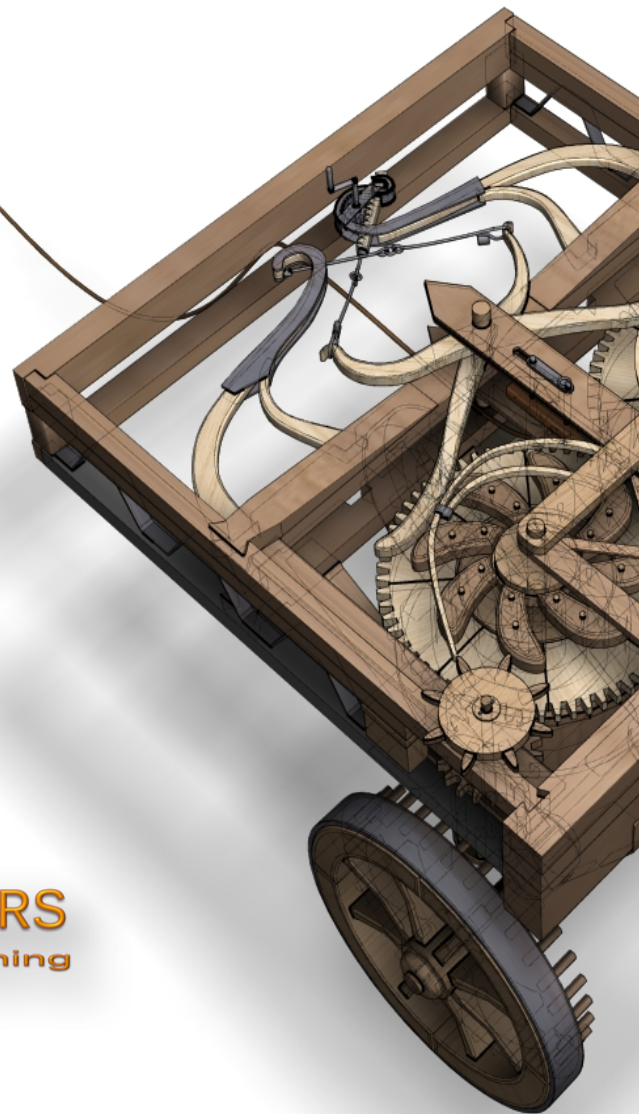
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## Volume VIII - Fall Issues 2017

### Journal of Environmental Management and Tourism

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## Analysis of the Agro Risks of Import Substitution of the Food Production

Alexander M. ZOBOV

Peoples' Friendship University of Russia, Russian Federation

[a\\_zobov@mail.ru](mailto:a_zobov@mail.ru)

Ekaterina A. DEGTEREVA

Peoples' Friendship University of Russia; Institute of Europe, RAS; MGIMO-University, Russian Federation

[degseb@mail.ru](mailto:degseb@mail.ru)

Veronica Yu. CHERNOVA

Peoples' Friendship University of Russia, Russian Federation

[veronika\\_urievna@mail.ru](mailto:veronika_urievna@mail.ru)

Vasily S. STAROSTIN

State University of Management, Russian Federation

[vs\\_starostin@guu.ru](mailto:vs_starostin@guu.ru)

Zhanna G. GOLODOVA

Peoples' Friendship University of Russia, Russian Federation

[golodova@yandex.ru](mailto:golodova@yandex.ru)

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### Abstract:

The relevance of the study is related to the current conditions of the functioning of the Russian economy. The objective of this article is to study the import substitution in terms of possible agro risks and threats caused by the economic and political situation. The analysis of the statistical data characterizing the import substitution in the food industry showed the inefficiency of the current forms and methods of state support. The main sources of risks of import substitution are defined. The change in the global situation and geopolitical realities, which are exacerbated by the low technical level of equipment and the lack of resources, allowed to ascertain that the goals of import substitution can be achieved only through the modernization of production and the introduction of innovative technologies in the food industry. The methods of modernization proposed in this article will make it possible to form a competitive agro-industrial complex able to provide the domestic demand and export supplies with food products.

**Keywords:** food security; risks; balance of resources; food products; agro.

**JEL Classification:** Q11; Q13; Q15.

## Introduction

For the economy of each state, the problem of modernization of the economy, contributing to the formation and wide dissemination of competitive productions, should be considered one of the key ones. The problem of national competitiveness and the level of innovative development of the economy is especially acute for Russia, which, being mainly an importer in the commodity markets of the manufacturing industries, is the largest exporter of raw materials in the modern world economic arena.

Currently, due to the serious internal and external circumstances, Russia has found itself in a difficult situation, facing a choice of the most promising trends of economic development. At the moment, it becomes clear that the measures taken to overcome the current systemic crisis do not yield serious results. Previously adopted numerous programs and projects of long-term development, designed to solve the internal problems (modernization, transition to the innovative development model, etc.), are not able to change the situation (Donnik and Voronin 2014). The efficient state policy is the most effective tool for the growth of the national economy. The strategy of import substitution provides an opportunity, first, to use the economic potential of Russian producers (Kuzmin 2016), and, secondly, to develop the real sector of the economy in modern conditions (Adushev and Lotkova 2015).

The above-mentioned circumstances provoke the aggravation of the economic uncertainty and risk (Kuzmin 2015b), which requires a scientifically grounded approach to their solution, as the reduction in the profit of the enterprises, the increase in the transaction costs, and the unstable financial position can provoke new crises, and often lead to bankruptcy. Therefore, the problem of the risk management becomes very relevant.

## 1. Background paper

The risk is peculiar to any trend in business activity; thus, its dynamics is influenced by many factors. As a result of the study of the theoretical bases of the essence of risks contained in the scientific literature and standards (Chirkova and Ermolaeva 2015, Donnik and Voronin 2014, Shatalov *et al.* 2015), the main concepts of risk have been systematized: first, it is a combination of the probability of an event and its consequences; secondly, it is a combination of the exposure of a subject to certain factors and general uncertainty. Moreover, the characteristics of risk as a general concept include the following: the random nature of the event, which determines which of the possible outcomes is realized in practice (the presence of uncertainty); the availability of alternative solutions; the prominence or possibility to determine the probability of the outcomes and expected results; the probability of the losses or additional profits.

Proceeding from the foregoing, the main risks and threats of import substitution in Russia should be understood as:

- the economic risks associated with the changes in the economic factors (the factors of economic nature), which mean the possibility of accidental occurrence of undesirable losses, measured in monetary terms;
- the legal risk arising in the absence of legal norms and legal requirements or their violation, as well as the unforeseen changes in the legislation;
- the risk of rationing, arising when it is impossible to meet the requirements of the regulatory bodies due to the violation of the existing requirements;
- the risk of natural and man-made disasters, which occurs in the event of force majeure (force majeure circumstances) affecting the operations of the company.

It is difficult to disagree with the point of view of the researchers that, in view of the increased risks, the strategy of import substitution in Russia must be combined with the mandatory management of various threats, taking into account the following factors (Baer 1972, Primo Braga 2006, Bogacheva and Subkhonberdiev 2015, Gvozdikova 2016, Fyodorov and Kuzmin 2013). First, the legal one, which means the stability of the state power and the related prospects for a radical review of the existing legal property relations. Secondly, the socio-economic one, which is due to the changes in the economic situation in the country and in the world; it takes into account the development of the external and internal operating conditions, the dynamics of changes in the interest rates on loans and the refinancing rates, the revision of the various standards. Thirdly, the rationality, which means the



analyzing of the level of ensuring of the rational amount of costs. Since the magnitude of the risks affects the economic development of the enterprise, the enterprise must strive to reduce the costs, to expand the sources of financial resources.

In such conditions, the issues of ensuring of the state security come to the forefront, with the priority being the problem of food security aimed at the independence of food supply, which means the sustainable production of food products in the volumes defined in the Food Security Doctrine of Russia (Collection of the Legislation of the Russian Federation 2010), within the threshold values of the specific gravity of each species of products in the commodity resources of the domestic market. The most important factor in ensuring of the food security is the import substitution, which is the most justified and likely strategy for the development of the food industry and economic growth (Lovtakov and Dovbiy 2015, 120-24). Many researchers adhere to the same point of view (Ivanova and Kuznetsova 2016, Ozhiganov 2012, Lipkovich 2016, Vanyurikhin 2013, Wallerstein 2014, Ivanov 2016) – that in modern conditions the import substitution should be considered as the effective economic tool for transition to the export-oriented development model.

The agro-industrial complex is one of the priority economic sectors, which has high economic and production potential in agriculture, as well as in the production and processing of raw materials. In accordance with the national strategic directions of sustainable socio-economic development, one of the fundamental problems of the functioning of the food industry in Russia is the need to ensure food security.

## 2. Materials and methods

The articles of the scientists dealing with the risk management, as well as the implementation and development of the import substitution strategy, are used as the theoretical basis for this study. In order to identify the specific features of the implementation of import substitution, the analysis of the statistical data on the functioning of the food industry has been conducted by the authors. At this stage, the development of the Russian food industry is characterized by a high level of imports of agricultural raw materials and products with a steady restriction of the domestic resources for production of the agricultural products. Tables 1 and 2 present the balances of the resources and the use of meat and dairy products in Russia.

Table 1. The balance of the resources and the use of meat and meat products in Russia, in thousand tons

Indicators	Value		in % to the resources	
	2015	in % to 2014	2014	2015
I. Resources				
Inventories at the beginning of the year	807	92.8	7.3	7.0
Production	9,473	104.4	76.3	81.6
Import	1,321	67.7	16.4	11.4
Total resources	11,601	97.6	100.00	100.00
II. Use				
Expenditure for production purposes	56	100.5	0.5	0.5
Losses	16	87.9	0.2	0.1
Export	143	106.0	1.1	1.2
Personal consumption	10,643	97.9	91.4	91.8
Inventories at the end of the year	743	92.0	6.8	6.4

Source: Federal State Statistics Service of the Russian Federation (<http://www.gks.ru>)

Table 2. The balance of the resources and the use of milk and dairy products in Russia, in thousand tons

Indicators	Value		in % to the resources	
	2015	in % to 2014	2014	2015
I. Resources				
Inventories at the beginning of the year	2,120	107.0	4.7	5.3
Production	30,781	100.0	73.5	77.1
Import	7,011	76.6	21.8	17.6
Total resources	39,912	95.2	100	100
II. Use				
Expenditure for production purposes	3,079	88.5	8.3	7.7
Losses	22	61.3	0.1	0.1
Export	602	95.6	1.5	1.5
Personal consumption	34,348	96.3	85.1	86.0
Inventories at the end of the year	1,861	87.8	5.0	4.7

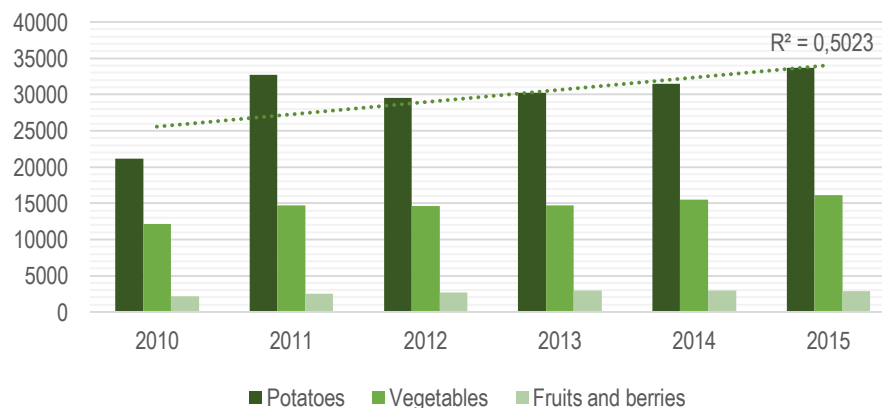
Source: Federal State Statistics Service of the Russian Federation (<http://www.gks.ru>)

The analysis of the data presented in the table suggests that until now the share of imports in the sources of the resources in the dairy and meat industries is quite high; despite the decreasing indicator, the share of imports in the meat industry in 2015 amounted to 67.7%, the share of imports in the dairy industry amounted to 76.6%. The share of production in 2015 in relation to the indicators of 2014 is of particular interest: the meat production increased by 4.4% and the dairy production remains at the level of the previous year.

For five years, the production of milk and beef (cattle) declines annually, the production of poultry and pork increases. This is due to the fact that meat and meat products from poultry and pork are the largest and most promising segment of the food industry, since the production period is shorter than the period of growing of the cattle. Russian agricultural enterprises are now able to provide only about 70% of the total domestic demand for beef, a similar trend is observed in the dairy industry, which causes the dependence of this segment of the food industry on the imports due to the various reasons (Eremchenko 2015).

The aforementioned decrease in the number of cattle, primarily of the dairy breeds, contributed to a serious reduction in milk production in Russia. Moreover, the Russian dairy complex is in a difficult situation due to a serious shortage of raw materials for the production of dairy products; currently, only 60% of the total demand for dairy products is met from domestic sources (Kashbraziev 2015). As a result, currently, a large amount of sour cream, butter, cheeses and some other dairy products are imported to Russia. The situation in the production of the basic crop products is slightly better (Figure 1).

Figure 1. The production of the basic crop products in Russia

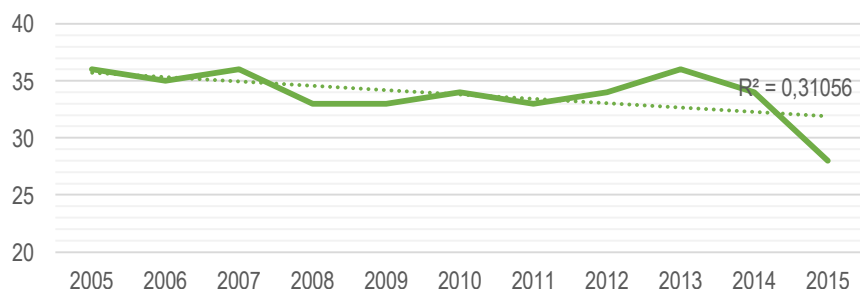


Source: Federal State Statistics Service of the Russian Federation (<http://www.gks.ru>)



The analysis of the data showed that the production of potatoes and vegetables is growing in the crop production, while the production of fruits and berries has provided no sustainable growth by now, and after a slight increase in 2014, showed a decline in 2015. The decline during the recent years of the relatively high dependence of the food industry on imports is worth noting. This is illustrated by the statistical data presented in Figure 2.

Figure 2. The share of imported food products in retail trade resources, in percentage terms



Source: Federal State Statistics Service of the Russian Federation (<http://www.gks.ru>)

The statistical data presented in Figure 3 show the annual decrease in the share of imported food products. This can be explained, first of all, by the introduction of retaliatory sanctions (embargo) on the part of Russia, despite the fact that the response sanctions against certain types of food products, which, according to many researchers, are able to ensure high efficiency of the measures taken for import substitution, exert the insufficient influence today (Bogacheva and Subkhonberdiev 2015). Currently, the states of the Eurozone, Canada, Australia, the USA, Norway, Albania, Liechtenstein, Iceland, Montenegro, and Ukraine since 2016 have been subject to the embargo (Bogacheva and Subkhonberdiev 2015). At the same time, the analysis of the geographical structure of Russian imports showed that so far the share of imports of food products from the states that have been subject to the retaliatory embargo, is still high.

The dynamics of food products and agricultural raw materials for their production in the context of importing countries is presented in Table 3.

Table 3. Geography of food imports to Russia

Countries	January – September of 2015		January – September of 2016	
	mln. USD	in % to total	mln. USD	in % to total
<b>TOTAL</b>	<b>26,457.0</b>	<b>100</b>	<b>17,477.0</b>	<b>100</b>
<b>including:</b>				
<b>Foreign countries</b>	<b>22,175.0</b>	<b>83.80</b>	<b>14,329.0</b>	<b>82.00</b>
<b>EU countries</b>	<b>4,032.0</b>	<b>21.10</b>	<b>3,895.0</b>	<b>22.30</b>
Argentina	577.0	3.00	472.0	2.70
Brazil	1,890.0	9.90	1,587.0	9.10
Egypt	328.0	1.70	259.0	1.50
Israel	245.0	1.30	205.0	1.20
Iran	149.0	0.80	150.0	0.90
Iceland	92.5	0.50	4.5	0.00
China	1,066.0	5.60	1,130.0	6.50
Morocco	198.0	1.00	245.0	1.40
Pakistan	124.0	0.60	102.0	0.60
Paraguay	692.0	3.60	469.0	2.70
Serbia	219.0	1.10	251.0	1.40
Turkey	923.0	4.80	299.0	1.70
Faroe Islands (Denmark)	174.0	0.90	172.0	1.00
Chile	472.0	2.50	395.0	2.30

Countries	January – September of 2015		January – September of 2016	
	mln. USD	in % to total	mln. USD	in % to total
Ecuador	832.0	4.40	896.0	5.10
South Africa	197.0	1.00	166.0	0.90
Azerbaijan	151.0	0.80	192.0	1.10
Belarus	2,354.0	12.30	2,333.0	13.30
Ukraine	235.0	1.20	95.7	0.50
<b>CIS member states</b>	<b>4,032.0</b>	<b>16.20</b>	<b>3,148.0</b>	<b>18.00</b>

Source: Federal State Statistics Service of the Russian Federation (<http://www.gks.ru>)

Thus, the absolute values of imports show a decrease in the indicators of the EU countries, but in percentage terms, the specific weight of the European countries in Russian imports has increased by 1.2%. Despite the decrease, the share of other countries is quite high. Thus, it becomes clear that no complete re-orientation of the Russian economy to the Russian producers is possible in the near future.

### 3. Results and discussion

Currently, the import substitution in the food industry of Russia represents an integral economic policy in the agricultural and processing industries, which is aimed at protecting and supporting the commodity producers. The main goal of import substitution is to increase the competitiveness of Russian products by stimulation of the technological modernization; the increase in the innovation activity of the manufacturing enterprises; the increase in the efficiency of the industrial production.

Russia's high dependence on imports of certain types of food products significantly reduces the possibilities for ensuring food and economic security, since the purchase of foreign raw materials and food products in large quantities exerts the additional pressure (Ivanov 2016). At the same time, many experts note a relatively low level of use of the technological, technical, genetic and other scientific achievements and best practices in comparison with the developed agricultural states.

The key threats to the possibility of import substitution in the food industry include: low profitability of agricultural organizations; seasonal nature of work, closely related to weather conditions; high costs of agricultural production; the growth of prices for resources (electricity, fuel, commodity-material components of agricultural production, etc.); the duration of the production cycle and the life cycle of the enterprises (Kuzmin and Guseva 2016).

Also important are the negative trends associated with the inadequate elaboration and evaluation of the import substitution projects in terms of cost recovery and the level of competitiveness of the products being developed; high costs for the technological import of seed stock, highly productive meat and dairy cattle; the lack of coordination between business and government structures in the process of implementation of the projects for the production of import-substituting products, as a result of which the Russian products (often undeservedly) remain unclaimed in domestic markets, and the consumers prefer similar imported products.

All of the above problems are related, among other things, to the irrational use of the resource potential – they lead to the key problem of agriculture, associated with the limitation of long-term financial resources (Shatalov *et al.* 2015). Moreover, the attraction of financing is hampered by the complexity of planning the revenues received by the agricultural producers. The most negative impact was on the sectors, requiring the accelerated import substitution: genetics and selection, dairy and meat cattle breeding, horticulture, and vegetable growing. Against the stiffening of the credit conditions by the banks and the deterioration of the situation in the economy, the demand for loans, mainly from the part of medium and small agricultural business, has decreased significantly. That is, the need for a more comprehensive study of the state program of import substitution in the food industry can be noted (Zvyagintsev 2016, Maevskaya and Domnina 2016).

This study revealed the significant strategic gaps between the established goals of the import substitution strategy, the existing state of the enterprises and the opportunities for using the available potential. The successful implementation of the import substitution is possible only through the modernization of production and the

introduction of the innovative technologies (Amsden 2004). The complex comprehensive modernization of the agrarian sector is the foundation for the formation of a competitive food industry. The most desirable trends in modernization of the agricultural production include the increase in the technological potential of manufacturing organizations. So, it is necessary to increase the production of milk powder and cheese, whey processing, create the additional capacity for production of dry whey and lactulose, including the demineralized one, and it is also advisable to increase the capacity for the production of whey protein concentrate.

The measures on protection of the domestic market for the purposes of modernization of the agricultural production, attraction of the investors in the sub-sector, characterized by higher risks and a longer payback period, shall serve as the fundamental principle. It is important to address the deficit of Russian agricultural raw materials, which is the key reason, restraining the import substitution in the food processing industry, as it contributes to the preservation of imports of raw materials, as well as food products with high added value to the domestic market (Bogacheva and Subkhonberdiev 2015).

For the purposes of correct construction of the sectoral system of import substitution, it is necessary, first of all, to analyze the market of imported products in each sub-sector of the agro-food complex, taking into account the territorial possibilities of their production (Kuzmin 2015a). The importing enterprises that import the respective types of products require consultations, discussions of the ways to reduce the costs when acquiring the analogues of Russian products. At the same time, it is necessary to solve the significant problem of the possibility of switching to the purchase of Russian products at lower prices and with the appropriate qualitative parameters. At the same time, the price should be lower by the amount of the import customs duty, which should be excluded (Kashbraziev 2015).

The success of the import substitution depends largely on the amount of financial resources invested, which are used for the renewal of the basic production assets, the development of the modern technologies. Therefore, one of the key objectives of the state is the formation of the state investment policy. In this regard, one can turn to the experience of the Republic of Belarus, where the state support is provided in the form of a subsidy per a liter of milk sold or a hectare of land cultivated. It should be noted that the long-term goal of import substitution is the possibility of development of Russian exports. That is, the import substitution is a strategic economic tool that serves as a transitional stage on the way to the export-oriented production. Therefore, the import substitution should be subordinated to the export development vector, which will allow to create the conditions for the maximum integration of the Russian economy into the international division of labor, the orientation of the business to the production of the competitive products of high quality and in demand on world markets.

## Conclusion

Summarizing the above, it can be noted that currently Russia experiences significant internal and external risks, complicating the possibilities of the import substitution. These risks are due to the raw nature of economic development, the deterioration of the infrastructure, the backwardness of the Russian food industry, the insufficient production of primary commodities, the insufficient financing, and the lack of unity between the extractive and processing industries in the agro-industrial complex. In this regard, a set of actions oriented towards the achievement of the long-term goal of increasing the national competitiveness of the Russian agro-industrial complex, able to eliminate the short-term and medium-term risks and threats, is required for the purposes of successful implementation of the state policy of import substitution and ensuring of the food security.

At the same time, in the course of analysis of the risks and threats of the import substitution in the Russian food industry, it should be borne in mind that their decrease is due to the need to use the following fundamental principles. First, there is a need for spatial transfer of the production of traditional types of food products, which form the basis of consumption, to the domestic market. Secondly, it is important to create the economic environment to ensure the increase in the innovation and investment activity with a view to development of the domestic production similar to foreign ones. Thirdly, it is necessary to ensure the development of transport and logistics infrastructure for the distribution of the manufactured products and to equalize the costs for basic material and technical resources. Fourth, the success of import substitution depends on the effectiveness of modernization of the economy, as well as on the attraction of the investors to the agricultural sectors, characterized by high risks.

The measures, proposed in this article, allow to increase the opportunities for import substitution in the Russian food industry and to reduce the economic risks.

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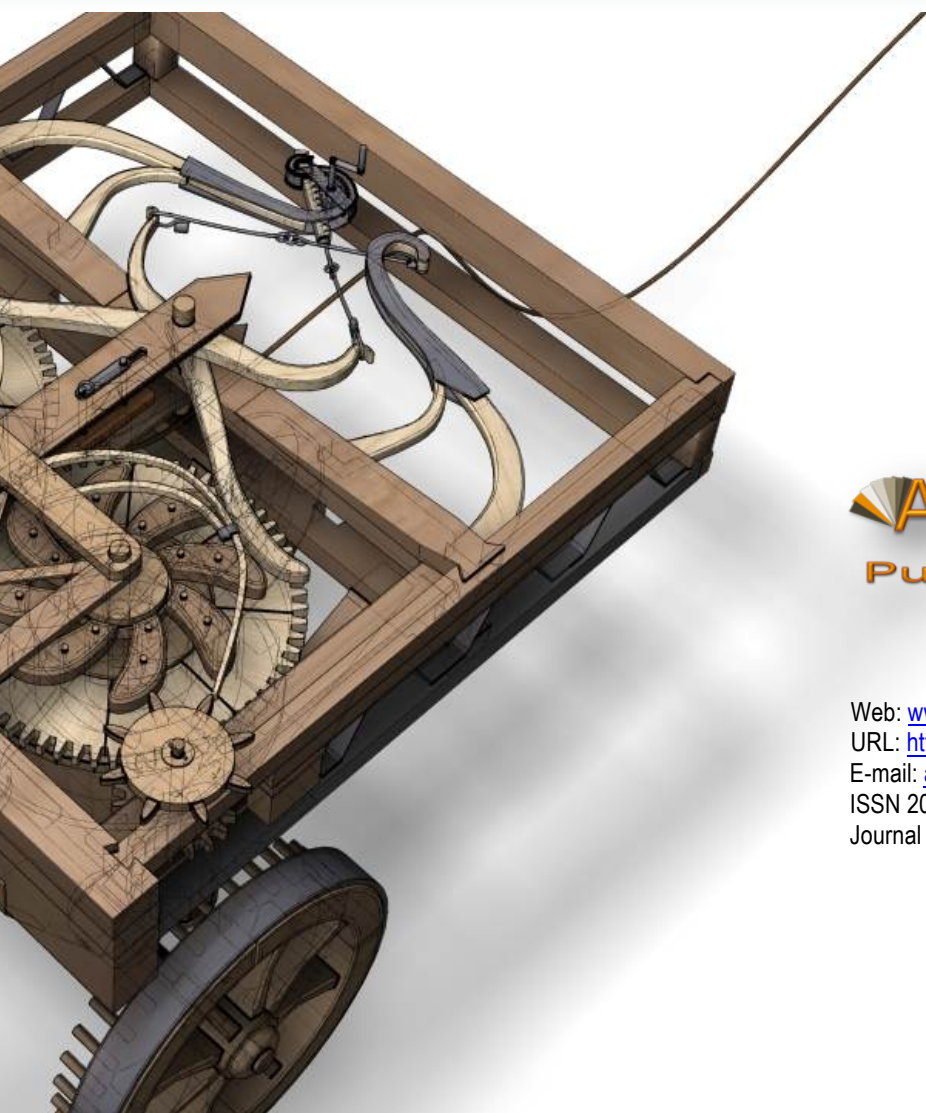
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