

Improving of foodstuff marketability as the condition of economy sustainable development

Anna Petrosyan*

Russian Customs Academy, Komsomolsky Avenue, 4, 140015 Lyubertsy, Russia

Abstract. This paper presents the improving of foodstuff marketability as the condition of economy sustainable development. The analysis of male and female life expectancy at birth and average money personal income in 2000-2019 and factors affecting them. Processes occurring in the Russian food market are studied, problems are shown and methods of their solution are suggested. The actual Russian economic policy and its development prospects are evaluated. The achievements of Russia in the result of import substitution policy, advantages and disadvantages of mandatory labelling with identification means within the traceability system are studied. As the separate group of foodstuff and its certain type imported chocolate are analysed. A special attention is given to quality and safety of imported foodstuff, including within the global negative trend in the raw material market for chocolate production. The development degree of statutory documents in the sphere of technical regulation.

1 Introduction

The constant struggle of countries for the complete satisfaction of public requirements as conditions for the acceleration of economic development has been observed in the modern world. The important role in the satisfaction of public requirements plays the production and food consumption. They provide a human organism functioning as the main productive force.

The objective of study is to consider the improvement of foodstuff marketability as the factor of increasingly complete satisfaction of human requirements and the condition of economy sustainable development.

Foodstuff marketability impact an individual health status and life expectancy. According to statistical data of the Federal State Statistics Service (Rosstat) for 2000-2019 the male and female life expectancy at birth in Russia scales up (2000-2019 from 65.34 to 73.30 years) [1, 2].

This trend is associated with the decrease of male and female infant (2000-2018 from 19286 to 8244 people) [1], the healthcare level improvement, the reduction of per capita consumption of alcohol (according to the World Health Organization data) and the healthy lifestyle support policy. According to the forecasts, by the year 2025 the male and female life expectancy at birth (the minimum option) will reach 74.04 years [1].

* Corresponding author: talismananna96@mail.ru

However, Russia lags in terms of life expectancy behind advanced countries, for example, Belgium (2015 – 78.5 years), the Republic of Korea (2016 – 79.3 years), Canada (2013-2015 – 79.8 years) by an average of 8-10 years [1]. For this reason, the improving of food availability and its' quality improvement still remains an important task.

The life expectancy is affected by a host of factors. Finnish scientists discovered that main reasons for the reduction in life expectancy are smoking (vicious habits), diabetes, stressful situations and stress coping, physical activity and nutrition [3].

Many researches emphasise that the human diet is the basis for human health; allows to support immunity, affect human mental and emotional state. Thus, the vast consumption of fruits and vegetables extends the life expectancy by 1.4 and 0.9 years, correspondingly [3].

The Strategy for Improving the Quality of Foodstuff in the Russian Federation until 2030 [4] (The Strategy) is focused on the provision of adequate nutrition, disease prevention, the growth of life expectancy and improvement of the population quality of life, the stimulation of production development and market access of proper quality foodstuff.

One of the Strategy expected results is the improving of foodstuff marketability upon preservation of its availability for population [4]. The successful and simultaneous fulfillment of two mentioned conditions involves certain difficulties for manufacturers and the state as the product quality improvement is usually accompanied by the increase of its value for a consumer.

The Rosstat statistic data for 2000-2019 [1, 2] testify to the growth of citizen material welfare. A slight raise of nominal average money personal income was observed especially after 2014: the growth rate: 2-4% per year (2014-2019 – from 27412 to 35249 RUB). However, the growth comes against the inflation rate attributable to foodstuff (3-7% per year). It follows that the real personal income remains at the same low level and decrease further in certain periods.

The inflation consequences in food industry are stronger as foodstuff are vital goods and the population spends on its purchase approximate third part of expenses. The 2020 pandemic resulted in the drop of Russians' purchasing power and the orientation to low price segment products and consequently low-quality goods.

The existing situation puts the problem point-blank for consumer which merchandises to choose and what quality would it be. Moreover, being oriented to its incomes, a consumer more often prefers cheaper products that results in the unbalanced nutrition and development of various diseases and the reduction of life expectancy.

Let us consider processes occurring in the Russian food market, discover issues and propose methods for their solution. As the separate group of foodstuff and its certain type imported chocolate are analysed. This choice is derived from high rates of good range extension, in particular, the appearance of chocolate with marmalade, salt, truffles, mint, tea, etc.; changes in raw material quality and manufacturing processes. It results in the transformation of product marketability, namely, its quality.

2 Materials and Methods

The study information base is the statistical data of the Federal State Statistics Service, information of analytical media and news agencies, national and supranational regulation in sphere of technical regulation, Russian and foreign scholarly opinions and results of their studies in sphere of life expectancy and food goods quality control.

The basis of research methodology consists of methods of system and comparative analysis, synthesis, methods for study of economic phenomena dynamics and structure.

3 Analysis of Processes Occurring in the Russian Food Market

Evaluating the modern economic policy of Russia and its development prospects it should be noted that there are two prioritized sectors of food industry: the production and export of foodstuff. Within 20 years the Russian food industry has pushed on to the next level. The poultry and meat production output has improved to 5 million t/year; manufacturing techniques of unconventional products: hothouse vegetables, apples, pears and field mushrooms are used, and the export of the latter is observed [5]. The Strategy for Development of State Customs Agency of the Russian Federation until 2030 places an emphasis on the export development, the growth of goods with high-added value share in its' structure and the competitive growth on Russian products on the foreign markets [6].

However, the focus of main financial, labour and material resources of the country on the national good production ramp-up and the stimulation of its export in order to strengthen Russian positions on the international stage results in the less attention to imported products, including the control of its quality. Consequently, the National Security issue is thrown into sharp relief within the protection of national market against the import of low-quality, insecure and adulterated goods; and the issue hasn't been solved in the full scope yet.

More worryingly is that the manufacturing of national goods to be exported uses other component ratio and technologies than the manufacturing of domestic merchandises (for example, ingredients of "Alyonka" milk chocolate to be exported to China differ from the same chocolate that can be purchased in Russian retail shops by whole milk powder and cocoa butter weight ratio and the absence of food additives and flavourings). In materials of Federal Center for Development of Agricultural Product Export of the Ministry of Agriculture of the Russian Federation (FC "Agroexport") was noted that the demand for chocolate will continue to grow with simultaneous transition from quantity to quality: Chinese consumers willingly purchase high-quality merchandises with more qualitative ingredients, improved flavor characteristics and attractive package [7]. Thus, the exported foodstuff shall have the higher quality and consequently is less threatening for human life and health, while the quality assessment and control of imported and domestic merchandises take a back seat.

If achievements of Russia in the result of agricultural import substitution policy, particularly for grain and grain processing merchandises are considered, then production and export processes were organized successfully also due to the technical modernization and the implementation of national programmes for agriculture development [5]. However, there are natural raw materials that require huge expenses to be grown due to climatic and geographical conditions of Russia and practically impossible. Such fact confirms the strong country dependance from import supplies. Such raw materials for chocolate production are cocoa beans and cocoa butter. The current situation is made worse by drought, ageing and diseases of cacao trees and the consequent decrease of their cropping capacity [8] resulting in lack of raw materials and rise of their value, while the global demand for cocoa beans grows annually, especially in Asian countries. For Russia, as well as for other large global exporters of chocolate such situation will become critical.

The global negative trend of chocolate raw material market to a certain extent served as the prerequisite for searching an alternative to coca beans and coca oil by such countries, in order to support the required level of production output and export. The cocoa butter substitutes are increasingly used for chocolate production, such as palm oil and its derivatives, rape seed oil, coconut oil, shea butter, etc. that are way below cocoa butter by value and consumer properties and consequently afflict damage to human health and affect the life expectancy [9, 10].

In order to effectively control the quality and safety of imported foodstuff requirements to organoleptic, physical and chemical, microbiological and other indicators established by regulations shall comply with amendments attributable to dynamically developing goods

market that isn't happening. The primary document in sphere of technical regulation for issuance of certificates and declarations of conformity is the Technical Regulations of Eurasian Economic Union (TR EEU). The chocolate and its semi-merchandises are still the group of goods for which such document hasn't developed yet.

If the issue is considered globally, then at the moment the statutory document regulating the conceptual framework of organoleptic, physical and chemical, microbiological and other indicators the compliance of which is mandatory for production and indicates distinctive features of certain type of goods.

If there is no TR EEU for the certain group of products, the requirements indicated in the TR EEU 021/2011 "On Food Safety" (TR EEU 021/2011) [11] and establishing general indicators. Such indicators don't allow to completely assess the safety of chocolate and its semi-merchandises in general and their certain types having individual specifications and properties.

In accordance with cl. 1 and cl. 2 of Article 23 TR EEU 021/2011 the confectionery, including chocolate shall be subject to the conformity declaring by taking on the choice of the applicant's declaration on the basis of their own evidence and (or) the evidence obtained with the participation of a third party [11].

In spite of the short application of TR EEU 021/2011, it shall be amended as follows:

1. To approve safety indicators not only for raw materials, but also for finished products [5].
2. Recognize the obligatory certification for all foodstuff as the form of conformance confirmation.

For import of any foodstuff the compliance of Technical Regulations of Eurasian Economic Union 029/2012 "Safety Requirements for Food Additives, Flavourings, and Technological Aides" requirements shall be confirmed (TR EEU 029/2012) [12]. Such TR EEU contains reasonably large list of food additives permitted for food production, hygienic standards for application of glazing agents, acids and acidity regulators, preservatives, flavor intensifiers, stabilizers, emulsifiers, fillers, thickeners, etc.; and safety requirements for flavorings. Changes in manufacturing processes introduced by manufacturers are about the use of mentioned components in the composition of foodstuff instead of natural component and in the greater amount than several years ago. The consumption of artificial additives results in the irreversible effect for human health. The improvement of TR EEU 029/2012 is in the reduction of permitted additives' list and tightening of hygienic standards.

Since 2016 the traceability system has been actively and successfully developed in Russia. The main advantage of mandatory labeling within the traceability mechanism is in the possibility to control all operations with goods starting from the importation to the customs territory of the Eurasian Economic Union (EEU) to the transfer to consumer. Such system ensures the market transparency, facilitates the reduction of counterfeit sales, simplification of customs control, etc.

However, the mandatory labelling with identification means doesn't solve the issue of food product safety and quality control. The manufacturer individually provides commodity information, which accuracy isn't verified by the system, i.e. a compound chocolate bar as chocolate, while its composition won't comply with chocolate requirements. Thus, inaccurate information about the product will be included into digital code and a consumer purchases the merchandise with consumer properties that are not able to satisfy consumer's needs in full scope.

It is planned to apply the labelling system to all groups of goods by 2024. Within the framework of such activities it is strategically to develop an electronic form for provision of commodity information. It shall contain the information according to the TR EEU requirements for the certain product indicated by the manufacturer and allow to define the

specific designation on the basis of commodity composition. The form is designed to eliminate the possibility to provide inaccurate information and control the product quality prior to its entry to market.

In addition, such form will control the provision of information in full scope (name, composition, quantity of products, date of manufacture, expiry date, etc.). The information in electronic form will be formed as an enquiry for the digital code obtaining and sent to the system.

Thus, it is required to developed the mechanism allowing to improve the quality of foodstuff upon the preservation of its availability for population. Concurrently it is essential to increase the general welfare level.

The creation of concept and adopting the policy of personal money income raise for every human and general population, the improvement of food product quality are prime objectives for economy sustainable development.

4 Conclusions

The life expectancy at birth is the comprehensive indicator of public health level and the country social and economic development. It depends also from the quality of consumed domestic and imported foodstuff.

Low incomes don't allow the population to purchase the expensive goods of higher quality. Such issue can be solved by manufacturing of products with high-added value and the added value distribution in accordance with the accomplished labour.

One of the state long-run objectives is the growth of high-quality foodstuff' share in the food market structure, including imported goods. The measures taken will assist the public health gain and the consequent development of labour productivity, further economic growth and the national economy sustainability.

It requires to:

1. Pay special attention, primarily, to the food product quality consumed in the domestic market, including imported products, in order to protect the public against low-quality and dangerous goods; and in the second instance – improve the quality of exported goods.

2. Consecutively and systematically update statutory documents in sphere of technical regulations based on changed provoked by the scientific and technological progress.

3. Amend TR EEU 021/2011 “On Food Safety” in relation to the establishment of safety indicators not only for raw materials, but also for finished products.

4. Recognize the obligatory certification for all foodstuff as the form of conformance confirmation.

5. Reduce the list of permitted additives and tighten hygienic standards for application of glazing agents, acids and acidity regulators, preservatives, flavor intensifiers, stabilizers, emulsifiers, fillers, thickeners, etc. in accordance with TR EEU 029/2012 “Safety Requirements for Food Additives, Flavourings, and Technological Aides”.

6. Develop TR EEU for chocolate and its semi-merchandises specifying requirements to products in order to protect life and health of citizens and prevent actions confusing purchasers (consumers).

The key aspect is the introduction of obligatory indication in the food product composition to be labelled weight ratio of all components used in manufacturing.

7. Develop an electronic form for provision of commodity information and embed it in the existing goods traceability system in order to control foodstuff' safety and quality.

References

1. Demographic Yearbook of Russia, 2019: Statistical Book, 252 (2019)
2. Russia in numbers. 2020, Rosstat, 550 (2020)
3. T. Härkänen, K. Kuulasmaa, L. Sares-Jäske, P. Jousilahti, M. Peltonen, K. Borodulin, P. Knekt, S. Koskinen, *BMJ Open Journal*, **10** (3), <https://bmjopen.bmj.com/>
4. The Decree of the Government of the Russian Federation dd. 29.06.2016, 1364-r «On Approval of the Strategy for Improving the Quality of Foodstuff in the Russian Federation until 2030»
5. S. Dankvert — RBC: “Importers of sanctioned food became more ingeniously”. The Special Report, 817, <https://www.rbc.ru/>
6. The Decree of the Government of the Russian Federation dd. 23.05.2020, 1388-r «On Approval of the Strategy for Development of State Customs Agency of the Russian Federation until 2030»
7. RIA, Russia became the leading chocolate exporter to China, <https://ria.ru/>
8. Chocolate Shock, <https://expert.ru/>
9. O.S. Medvedev, N.A. Medvedeva, *Nutrition issues*, **85** (1), 5 (2016)
10. T.B. Melik-Kasumov, Yu.A. Rudnichenko, T.E. Kuznetsova, S.B. Kondrashova, *Nutrition issues. Annex*, **87**(5), 35 (2018)
11. Technical Regulations of Eurasian Economic Union 021/2011 «On Food Safety»
12. Technical Regulations of Eurasian Economic Union 029/2012 «Safety Requirements for Food Additives, Flavourings, and Technological Aides»