

# Increasing the staff use efficiency in consumer cooperatives: current trends in conditions of digitization of agriculture

Marina Drozdova<sup>1</sup>, Lidia Nagovitsyna<sup>1</sup>, Zoya Kapelyuk<sup>1,\*</sup>, Svetlana Gorodkova<sup>1</sup>, and Anna Aletdinova<sup>2</sup>

<sup>1</sup> Department of Theoretical and Applied Economics, Siberian University of the Consumer Cooperation, 26, Karl Marx Avenue, 630087, Novosibirsk, Russian Federation

<sup>2</sup> Automated Control System Department, National University of Oil and Gas “Gubkin University”, 65, Leninsky Prospekt, 119991, Moscow, Russian Federation

**Abstract.** The purpose of the study is to identify current trends in increasing the efficiency of using the personnel of consumer cooperation organizations. This, along with other sectors of the economy, performs the functions of the third stage of the economic reproduction process (exchange), and the third sphere of the agro-industrial complex sectors that complete the production process in the sphere of commodity circulation. The personnel of economic entities carry out procurement, transportation, processing, storage and marketing of products to end consumers. In the context of existing demographic problems, the decline of the rural population, the challenge is to increase the efficiency of using the part of the economically active population employed in the diversified activities of consumer cooperation. A long-term study of the functioning of cooperatives made it possible to accomplish the purpose of this study. This concerns the development of ways to increase the efficiency of using the personnel of cooperative organizations – *preliminary measures*. Such measures include training and retraining of specialists, advanced training of workers in cooperative higher and secondary vocational educational institutions, and *subsequent* ones as a result of the creation of integrated complexes, using modern equipment, new technologies and digitalization advances, providing for the efficient use of personnel. As a new trend, the training of specialists who work with cooperative members is proposed. The economic participation of members will have a positive impact on the performance of their cooperative and increase the efficiency of the use of personnel of consumer cooperation organizations.

## 1 Introduction

Consumer cooperation is an integral part of the agro-industrial complex of the Russian Federation, and it is directly involved in the economic reproduction process performing the exchange (buying and selling) function. Despite the lingering systemic crisis, diversified multi-industry consumer cooperation continues to be a significant business player and has a positive impact not only on the regional economy within its operation area, but on the economy of the Russian Federation as a whole. In the face of increased competition, cooperatives seek to provide conditions for their staff professional development to stay competitive in the interests of their members.

The research is aimed at identifying the causes of the negative trends in the system of consumer cooperation, including the inefficient use of labor potential and all other elements of the resource potential. The results of the study show that one of the main negative factors is that members who are not employed by cooperatives are

not involved in their activities. The importance of the economic participation of cooperative members is underestimated and frequently neglected.

Unlike enterprises and organizations of other legal forms, consumer cooperatives have a definite client base – their members, whose participation in the activities of their organization was determined in 1995 by one of the most important principles declared by the International Cooperative Alliance.

The participation of members in the activities of their cooperative improves their material well-being through mutually beneficial cooperation, enhances the performance of cooperatives in different sectors, and promotes the presence of consumer cooperation in the regional consumer market. Member economic participation ensures the efficiency of using the organization's resource potential and all its components, including staff potential.

In the context of this study, labour resources are considered to be the factor that determines the efficiency of the functioning of the rural economy, including

\* Corresponding author: [zkapelyuk@inbox.ru](mailto:zkapelyuk@inbox.ru)

agricultural enterprises, agricultural and consumer cooperatives. Labor resources are currently subject to requirements that meet the interests of enterprises and organizations in developing qualified personnel potential as well as related human capital characterized by professional competencies [1–8].

## 2 Materials and methods

In the course of the study, general scientific methods were used, including comparison, deduction, induction, generalization and interpretation of the obtained data, as well as the author's method: structural logical construction of chains of dependencies and relationships of socio-economic phenomena and processes.

## 3 Results and discussion

Increasing the staff use efficiency of enterprises is a challenge that has been dealt with since the emergence of machine production, mechanization and automation of production processes, which caused the need for the division of labour.

Until the 1990s, the five-year plans for socio-economic development set the task of increasing labour productivity, i.e. the efficiency of personnel use. This task did not lose its relevance at the end of the 20<sup>th</sup> century and became even more urgent in the 21<sup>st</sup> century, since the fall in the birth rate after 1990 led to a decrease in the working-age population in the 2000s. Its reduction can only be compensated by the growth of labour productivity and introducing the achievements of scientific and technological progress into the practice of enterprises in all spheres of economic activity, including consumer cooperation.

Advances in science and technology increasingly affect the integration and diversification of industries and activities, the creation of conglomerates, the improvement of federal state educational standards, forms and systems of remuneration, and the efficiency of the use of labour resources. In the system of Russian consumer cooperation, they also cause the development of modern trends in the use of human resources. The scientific novelty of the article lies in the adaptation of labour innovations to consumer cooperation.

In the context of the current shortage of qualified personnel, the trends for increasing the efficiency of rural labour potential use can be divided into two groups: that with the direct participation of cooperative organizations, which are the object of this study, or the one without such participation.

The main hypothesis is that cooperatives, as a form of association (conglomerate) of their organizations and enterprises, mainly related to small businesses, can and should become competitive and efficient due to the features and advantages of the cooperative business model.

A number of features, the most prominent of which is its dual nature, characterizes consumer cooperation as the largest economic system with almost two hundred

years of functioning. It explains the opportunities for the interconnected development of a cooperative not only through entrepreneurial activity, but also through the socialization of cooperative-member relations – economic participation of cooperative members in the activities of their organizations as associations. The cooperatives that consider socialization as a condition for development, increasing labour productivity based on the benefits for cooperative members are successfully developing, and as a result, stay competitive and effectively use all of their resource potential, including the economic potential of their members.

The next essential factor is that the demand for consumer cooperation, its products and services for population entails the need for a timely adaptation of types and sectors of activity in order to meet new member and consumer needs.

Entrepreneurial activities of consumer cooperatives are carried out in the sectors which are most in demand in the rural areas. These are trade and public catering, procurement of agricultural products, non-timber forest products, medicinal and technical raw materials. They also include products of handicraft and fishing activities, primary processing and production of consumer essential goods, household products, building materials, and different services: educational, health, medical, transport, construction, household services. Cooperatives either set up enterprises operating within the same industry or establish concerns that combine interconnected industries acting as links in one chain and conglomerates involving non-production activities such as trade.

Currently, integrative transformation within cooperative organizations is the most cost-effective trend of organizational innovations implemented by consumer cooperation in the rural markets. Integrated entities in the cooperative economy are represented by procurement – production complexes, procurement – production – trade complexes and public catering complexes and are viewed by the authors as drivers of socio-economic development and communications of the rural population.

The competitiveness of complexes that combine procurement, trade, production and public catering is increasing significantly as a result of a shift in priorities in favour of these industries and limited opportunities of cooperatives to compete with retail chains.

The advantages of the above-mentioned complexes as large-scale associations of small and medium-sized cooperative businesses lie in the possibility of using the latest equipment and modern technologies. The efficient use of labour resources occurs through not only the mechanization and automation of production processes, increasing the number of equipment shifts and the level of activity, but also through attracting qualified personnel with specialized professional competencies. The use of workers with specialized training makes it possible to reduce the labour intensity of products made by cooperative manufacturing enterprises due to the rational use of time during the working day, the improvement of technological processes. And,

consequently, it allows one to increase the efficiency of human capital of cooperatives.

The long-term advantage of complexes is economies of scale, which ensures lower costs per unit of output and, as a result, an increase in profits. Cooperative organizations that create a personnel training fund, in addition to it, can use part of the profits received for training, retraining, advanced training of workers in their own educational institutions, which will subsequently increase both the wages of workers and their labour productivity.

Famous Soviet economist S. G. Strumilin in his study "Problems of Labour Economics", back in the mid-1930s, theoretically substantiating the relationship between wages and labour productivity, noted, "Why does the school increase earnings so much? Obviously, only because a worker who has been to school thinks better, uses his strength more skilfully, and therefore improves the quality and productivity of his work" [9, p. 406].

Various ways of developing and improving the professional competencies of workers in traditional and new industries and types of consumer cooperation activities will make it possible to obtain a synergistic effect. It leads to a further increase in labour productivity and the emergence of properties in a cooperative system (complexes) that are not inherent in its elements separately, i.e., creation and institutionalization of a new industry "Membership Socialization".

We suppose that this industry will become an economic catalyst, accelerating the return of cooperative members to the sphere of consumer cooperation. It will require professional training of a new category of specialists - organizers of the economic participation of members. These specialists should be able to use digital technologies that reduce the complexity of accounting the contribution of members to the performance of a cooperative. These workers will be included into the executive personnel of the council chairman, heading the cooperative organization as an association of members. They should become holders of knowledge about the basics of cooperation, its advantages, its significance in the life of rural population and its role in providing an additional source of satisfaction of the material and other needs of members of the consumer society. In other words, such specialists should transform into cooperative officials who promote cooperative ideas and education among different age groups and categories of the rural population.

The result of their activities at the initial stage will be an increase in the number of members who are the social base of consumer cooperation. The need to meet the needs of the growing number of members of the cooperative will require an increase in the volume of production, trade and procurement activities, public catering and other sectors of the economy of the cooperative organization. And it will lead, albeit indirectly, to increasing the efficiency of using the labour potential and, first of all, labour productivity in a cooperative.

The problem of increasing the efficiency of using the labour potential of consumer cooperatives is extremely relevant due to a number of reasons. We consider the decline in rural population to be the main one.

In 1992, which is considered the year when market reforms began, the number of people living in rural areas was 38.9 million or 26.3% of the total population. In 2000, the proportion of the population living in the zone of consumer cooperation increased to 26.8%, but in subsequent years, the opposite negative vector of change transformed from a current trend into a common regular one. Thus, in 2000–2020, the number of village residents decreased by 5.9%, or by 2.3 million people, to 25.26% of the total population of the country [10]. This is due to the continuing low attractiveness of agricultural labour because of low wages, high labour intensity, bigger opportunities for the urban population, as well as the aggressive penetration of ideas of "easy money" (blogging, etc.) into the minds of young people, and other reasons. Under these conditions, the need to increase labour productivity is getting decisively important.

Consumer cooperation, which is recognized as a socially oriented system that conducts socially responsible business, voluntarily assumes the implementation of the 7<sup>th</sup> principle of the International Cooperative Alliance "Concern for Community". This principle implies the responsibility of cooperative organizations for the economic, social and cultural development of the area of activity, as well as the preservation of the environment. Concern for Community is manifested in the participation of cooperatives in the formation of local budgets and extra-budgetary funds, supplying the social sphere organizations, such as schools and preschool institutions, hospitals and other organizations, with high quality food products at fair prices, including those produced at cooperative enterprises.

In the context of this study, creation of jobs and the efficient use of the personnel potential of cooperative organizations are considered as an important aspect of implementing of the principle Concern for Community. The data in Table 1 indicates higher rates of growth in labour productivity in trade and public catering as the traditional sectors of consumer cooperation compared with similar indicators for the Russian Federation as a whole.

**Table 1.** Dynamics of labour productivity of trade and public catering workers in the Russian Federation and average indicators for consumer cooperation for 2019–2020 (as a percentage of the previous year).

<b>Industries</b>	<b>2019</b>	<b>2020</b>
Russian Federation, total	102.6	99.6
<i>including :</i>		
<i>trade</i>	101.5	101.9
<i>public catering</i>	100.2	83.0
Consumer cooperation of the Russian Federation, total	101.2	108.5
<i>including</i>		

<i>trade</i>	101.2	113.1
<i>public catering</i>	105.6	86.5

The employment figures can increase only in the sectors that are reasonably considered drivers of the socio-economic development of consumer cooperation – the procurement and processing of agricultural products and raw materials, wild mushrooms, berries, medicinal and technical raw materials and other non-timber forest products. Since chain retailing demonstrates higher competitiveness, the consequence of this is a decrease in the share of trade and public catering in the total volume of activities of consumer cooperatives.

The decline in the numbers of the rural population, its political and economic isolation, as well as the need to enhance food security and independence, necessitate the growth of labour productivity of personnel in all sectors of the rural economy through the introduction of all types of innovations. This will allow improving and expanding the number of competencies based on the use of digital technologies.

The consumer cooperation system has its own organizations of higher and secondary vocational education and successfully carries out training, retraining, and advanced training of workers. Cooperative education ensures the effective use of the economically active population, which can also be considered a significant trend in increasing the efficiency of staff use in the system of consumer cooperation.

The Russian cooperative education system is represented by three higher educational institutions: the Belgorod University of Cooperation, Economics and Law (Belgorod), the Russian University of Cooperation (Mytishchi, Moscow Region) and the Siberian University of Consumer Cooperation (Novosibirsk). All universities have a network of regional branches, i.e., institutes all over the country. The system also includes 38 educational organizations of secondary vocational education: technical schools and colleges.

In order to promote professional cooperative education, at the initiative of the Siberian University of Consumer Cooperation, in the mid-2000s, the Association of Higher and Secondary Specialized Educational Institutions of Siberia and the Far East was created, uniting cooperative technical schools and colleges of most Siberian and Far Eastern regions. The Association acted as an advocate of specific cooperative professional competencies, participated in developing the human capital and the labour potential of consumer cooperation organizations.

The dual nature is inherent not only in consumer cooperation as an economic system, but also in cooperative education and is expressed in the combination of professional and cooperative education. The development of professional competencies, combined with the knowledge in the sphere of cooperation, the features and benefits of its diversified activities in rural areas, should be considered as a renewed trend for increasing the efficiency of using labor resources that are currently limited in number and skill level.

The shortage of qualified personnel for the system of consumer cooperation is due to the gradual transformation of cooperative professional education into professional education in cooperative universities [11]. This negative process, which continues to the present, began in the 1990s. The main reason is limited financial resources, which are mostly used for investing in diversified activities to ensure moderate competitiveness. Striving to increase the overall economic and financial performance, universities change priorities and are not always efficient in staffing cooperatives.

## 4 Conclusion

The current state of the agro-industrial complex in Russia and the basic economic systems (branches) involved in its functioning – agriculture and consumer cooperation – requires taking organizational and economic measures aimed at increasing the staff use efficiency in enterprises and industries that ensure the country's food security.

Consumer cooperation, characterized by a dual nature, in accordance with the Law of the Russian Federation "On consumer cooperation (consumer societies, their unions) in the Russian Federation", also participates in ensuring food security, using the specific features of the system. These are the ability to create integrated complexes that combine procurement, production, trade, public catering and thus allow one to effectively use professional competencies of the system's personnel and introduce technological and digital advances.

## References

1. A. A. Aletdinova, *Herald of the Belgorod University of Cooperation, Economics and Law* **6**, 164–175 (2018)
2. Yu. V. Meikshan, *Herald of the Siberian University of Consumer Cooperation* **4**, 34–39 (2019)
3. L. A. Poltarykhin, S. A. Shelkovnikov, P. V. Zhuravlev, *Economy and Entrepreneurship* **9**, 483–487 (2021)
4. L. A. Poltarykhin, S. A. Shelkovnikov, P. V. Zhuravlev, S. G. Golovina, *Economy and Entrepreneurship* **9**, 1107–1110 (2021)
5. I. G. Kuznetsova, M. S. Petukhova, S. A. Shelkovnikov, *Economics, Labor, Management in Agriculture* **1**, 23–28 (2020)
6. S. A. Shelkovnikov, E. V. Sharavina, I. G. Kuznetsova, M. S. Petukhova, *Transbaikalian State University Journal* **2**, 114–122 (2020)
7. O. V. Ozhogova, S. A. Shelkovnikov, I. G. Kuznetsova, *Transbaikalian State University Journal* **10**, 99–109 (2020)

8. I. G. Chirkova, S. A. Shelkovnikov, M. A. Tikhonchuk, *Bulletin of Agrarian Science* **1**, 145–153 (2020)
9. S. G. Strumilin, *Problems of Labour Economics* (1982)
10. Russian Statistical Yearbook (2021). Retrieved from: <https://rosstat.gov.ru>
11. M. I. Drozdova, L. P. Nagovitsina, *Herald of the Belgorod University of Cooperation, Economics and Law* **3**, 84–95 (2017)