Cluster Approach to Rural Green Tourism Development

E A Smirnova¹, E A Kalafatov²

¹Department of Finance and credit, Institute of Economics and Management, V.I. Vernadsky Crimean Federal University, 4 Vernadsky Avenue, Simferopol 295007, Russian Federation
²Department of Finance and credit Institute of Economics and Management, V.I. Vernadsky Crimean Federal University, 4 Vernadsky Avenue, Simferopol 295007, Russian Federation

E-mail: varwavska@mail.ru

Abstract. The article considers the development of rural green tourism. Rural green tourism is considered to be a type of recreation on rural territories regardless the way of holiday-makers leisure management. The experience of developed countries in tourism industry is conducted to identify the regularities of such type of tourism activity development. The analysis based on quantitative marketing research is suggested to get more profound understanding of this sector development state in rural green tourism. The cluster approach application allows increasing the level of synergy effect through interaction of the clusters. The given cluster approach to rural green tourism enterprises development inside the sector gives an opportunity to optimize the clusters’ activity at contemporary period of their development as well as to raise the effectiveness of rural green tourism enterprises.

1. Introduction
In contemporary conditions of development tourism is one of dynamic industry of economy, intensely developing among the industry of services. Being one of the most efficient catalysts of socio-economic development, tourism industry is known to stimulate almost all adjacent industries of economy.

Nowadays there is a rapid growth of tourism activity, the development of which requires working out a new management model of its directions. One of the tourism development directions is rural green tourism as it aims to preserve and protect nature, develop cultural historical heritage and national values, promote to recruit unemployed as well as to attract people to active participation in solving their own financial issues among rural population.

2. Background
Taking into account the combination of potentials among parties concerned, it is important to mention that there is an opportunity to create unions which can provide the development of rural green tourism with strategic and tactic solutions. Relying on foreign experience, clusters prove their effectiveness as unions to solve tourism development issues effectively. So, cluster unions are a new form of regional development.

Domestic and foreign scientists [1-10] study and work up issues in developing tourism activity on rural territories. Basic scientific directions are the following: agricultural (farm) tourism, ecology
(green) tourism and rural tourism. However, there are various points of view about interaction of all tourism activities as well as their mutual subordination or separation. As for enterprises’ development in rural green tourism, their substantive functioning gives fewer guarantees to achieve the set goals.

Therefore, searching possible ways of developing enterprises’ activity of rural green tourism based on cluster approach is considered to be of primary importance. Nevertheless, issues of the rural green tourism process are left debatable. The process of enterprises’ work organizing as clusters unions has been poor investigated yet.

3. Focus of the research

Nowadays, according to tendencies in tourist industry in the world it should be noted that in spite of scientific approaches in understanding tourist activities on rural territories [20-22] in different countries there is an integration of definite types of tourist activity on rural territories and there occur different terms (figure 1)

![Figure 1. Mutual union of tourist activity types on rural territories.](image)

Such union of different tourism types has a positive effect as it expands the resource base greatly and means of tourism direction and allows creating a complex tourist product.

According to many economic theories the process of creating and development are considered through clusters aspect. A successful experience in effective enterprise activity testifies that sustainable and efficient management of an enterprise is obtained by developing their abilities to shape and upgrade their activity on the basis of consolidation.

The founder of cluster approach to identify agglomeration economies is Michael Porter who introduced the evaluation algorithm based on the model of employment industry distribution throughout the territory of the country. The application of this approach stipulates consecutive execution of stages in grouping national industries of the economy in terms of economically active population concentration levels [12]. According to M. Porter’s approach [12], cluster formation as well as innovation one proposes to identify the company’s structure and competition level, a range of local needs, to find adjacent and support companies. It also reveals factors' conditions which are professional skills, infrastructure objects, scientific potential, and financial capital.

As for the scientists V. Goblik, L. Gontarzhevska, M. Porter, a cluster model of development has a real opportunity to improve general economic state of the country as it increases the enterprise's performance due to better access to labour force, suppliers and specialized information, the speed of innovation implementation goes up, the directions of which are defined at expense of the market vision and understanding, an ability to take quick and flexible changes, less competitors’ pressure and other clusters producers. New enterprises formation is stimulated and this strengthens sustainable development of the territories [13-15].

Recently a special attention in domestic and foreign theory is devoted to cluster approach in tourism. A cluster is considered as one of the most effective long-term development means of tourism
in the regions of Russia and it promotes the growth of competitiveness and sustainable development on the territories [11, 16-19, 24].

Enterprise development in the framework of cluster approach to rural green tourism is about free unity of separate independent units the interrelation of which is to provide synergy effect of their inner potential directed to achieve a common final goal. The activity of rural green tourism cluster should be aimed to solve the following goals: to develop village and local infrastructure; to attract local people to service industry; to create a new competitive market of tourists’ services; to attract investments; to implement projects and programs directed to develop this industry; to assist the development in running such tourists directions like agro-tourism, ecotourism and etc. Union participants can be national and public establishments, research institutions, utility organizations, owners of the enterprises as the subjects of entrepreneurial activity.

4. Solutions, results and recommendations

To have a profound understanding of rural green tourism development, it is considered to conduct an analysis based on quantitative marketing research. The aim of this analysis is the evaluation of the rural green tourism condition of the region in order to find out the ways of further development and perspectives. Data collection should be done by running a survey in three stages: expert surveys of the specialists; in-depth interviews of enterprise owners, surveys of consumers (tourists).

Further, it is necessary to note that the most effective management model of developing tourist enterprise is to be a model of cluster interaction which enables to unite tourist, management, economic and marketing potential of enterprises-participants. Therefore, cluster establishments are:

1) the most effective and perfect from economic point of view;
2) have the greatest potential of competitiveness;
3) able to promote dynamic development of tourist sphere on the innovative basis.

As a result of tourist establishments interaction there are three types of synergy: synergy of a tourist’s product; synergy of marketing management and economic synergy related to the effect of scale and its influence on expenses’ diminishing.

Basic effect of synergy is synergy of a tourist’s product which results in intensive impact on a consumer by a more quality and complex tourist’s product provided by cluster participants. Moreover, a fundamental prerequisite of a tourist’s product synergy has a complementary character of tourists’ services provided by cluster participants.

So, to implement a complexity principle of a tourist’s product it is possible to do in three ways: agro-recreational, historical-cultural and ecological-natural. As the definite directions should be treated as complementary, adding each of which gives an opportunity to expand and make a tourist’s product of the cluster better, so it enables to create prerequisites for synergy occurrence of a tourist’s product. However, this has no single ground to state about inexpediency of such unity in cluster as there is a tendency of another synergy effects occurrence of marketing management in economic synergism.

Hence, synergy of a tourist’s product in cluster interaction appears when there is an intense influence of complementary products on the market while a potential target market expands not only mechanically but also with the help of new market niches as well as the tourist service quality of target consumers groups improves. It leads to extend a range of services provided by cluster participants at expense of permanent innovations and creation of new or upgraded tourist’s products. There is a chance for structure rationalization to assure tourists’ services in cluster which calls for more clear and economically-oriented cluster participants’ specialization to give definite groups of services as well as avoids making a tourist’s product duplicated to eliminate inter-cluster’s competition.

Having defined the sources of a tourist’s product synergy effect as a result of interrelation between cluster participants, let’s consider an economic-mathematician model which gives a chance to explain the synergy effect occurrence from cluster interaction and evaluate its impact on tourists’ flows, tourists’ expenses and volumes of tourists’ services provided by cluster participants of green tourism. Index synergism of a tourist’s cluster product (Is) is applied to analytical assessments which are calculated in the following way:
\[ Is = \frac{M}{S} \cdot (1 - d) \]  
\[ (1) \]

Is – Index synergism of a tourist’s cluster product  
M – max quantity of services provided by the cluster  
S – average quantity of services per one cluster participant  
d – specific quantity of tourists’ services which are duplicated by cluster participants  

According to this, the more aggregated service supply (M) exceeds an average supply of one participant (S) as well as the more unique services provided by cluster participants are (less duplicate coefficient (d)), the more synergy effect of a tourist’s product will have. Such way of index synergy formula recording (Is) allows considering the impact on tourist’s product synergy as a simple rise in range of services due to the union as well as the influence from goal-oriented interaction of cluster participants.  

The second important indicator relating to current and economic positions of tourist cluster is a tourist flow dynamics which annually uses the provided services. The functional character of dependency between tourists in cluster and factors influencing them is the following:  
\[ T(j) = b_0 \cdot Iz(j-1)^{b_1} \cdot (D/R)(j)^{b_2} \cdot Im(j)^{b_3} \]  
\[ (2) \]

T(j) – tourist flow throughout a j-year, thousands of people  
bi – unknown parameters of regression  
Iz (j-1) – index of tourists’ satisfaction in the previous period  
Im (j) – marketing synergy received by cluster participants in the j period  

Hence, index of tourists’ satisfaction in the previous period Iz (j-1), a ratio between tourists’ incomes and a price of staying in current period D/R (j), index of marketing synergy received by cluster participants in the j period Im (j) received by enterprise-participants of the cluster at expense of unification of its marketing potential and functioning, have influence on a flow of tourists who have a right to visit enterprise-participants of the cluster in current period.  

5. Conclusion  
Thus, cluster approach to rural green tourism development should be applied through command work and collaboration to promote own initiatives; to apply marketing tools and communicative and information data bases and to supply the enterprises growth within the sector and its further integration into tourist industry of the region.  

Using a cluster approach enables to integrate tasks of industry and territorial development into one single system considering the traditional way of developing economic activity, nature and resource potential, geopolitical location of the region.  

This creates conditions to apply large innovation projects and strength economic potential of the region and it will lead to promote village development and local infrastructure, new workplaces by attracting local people to provide services, a competitive market of tourists’ services, attract investments, project and programs implementation directed to develop this industry, to assist the growth of such directions of tourism.  

6. References  
[1] Adukov R Kh 2017 Actuality and problems of economic potential assessment on rural territories Economics, labour, management of agriculture 1(30) pp 2-5  
[2] Bondarenko L V 2011 Rural employment and resource supply of small business by rural unemployed Economics of agricultural and processing enterprises 12 pp 58–62  
[3] Bolshakova Yu A 2015 Sustainable development provision of rural territories Abstract of Diss ... cand.economic science. : 08.00.05 (Knyagino) 160 p  
[4] Denisenko V V 2011 Contemporary state and perspectives of argitourism in the Crimea Scientific notes of V.I. Vernadsky Taurida national university Vol 24(63) 1 pp 173-185
Kozhevina O V 2015 Sustainable development and “green” growth of agricultural industry regions Business strategies 3(11) Access mode: https://cyberleninka.ru/article/n/ustoychivoe-razvitie-i-zelenyy-rost-regionov-agropromyshlenny-spetsializatsii

Krutikov V K 2011 Rural territories development: innovations, diversification: monograph (Kaluga: Ltd “Printing House Flagman) 214 p

Merenkova I N 2010 Rural tourism and diversification of rural territories economy Agribusiness: economy, management 7 pp 43-46

Justification methods of rural territories sustainable development: monograph ed. V I Frolova (St. Petersburg.: St. P. Nat., archet. Un-ty) 464 p

Mindrin A S 2013 Scientific supply of small businesses development in the village Economy of agricultural and processing enterprises 5 pp 7-14

Ryndach M A 2016 Agritourism as a means of rural territories development Economics: yesterday, today, tomorrow 3 pp 68-79

European experience of rural green tourism running [Electronic resource] Access mode: http://tourlib.net/statti_ukr/siltur2.htm

Porter M 2007 Competitiveness at the Crossroads: the direction of the Russian Economy (Moscow) 114 p (In Russ.)

Porter M 2005 [On competition (M. : Publishing House “Vilyams”) 608 p (In Russ.)

Goblik V V 2009 Clusters in Zakarp`ya recreation tourist complex : monograph (Uzhgorod : Lira) 232 p

Gontarzhhevskaya L I 2008 Tourist services market in Ukraine : tutorial (Donetsk: Vostochny publishing house) 180 p

Ulanov D A 2013 Tourism on rural territories: experience, problems, perspectives Molodoy ucheny (Young scholar) 53 pp 455-459

Chernenko V A 2005 Small business in tourist service market of the Russian Federation (St. Petersburg) P 64

Chenyavaya A L 2013 Categorization of rural manors types as a part of strategic and innovative enterprise development of rural green tourism Vestnik Taganrog institute of economics and management 2 pp 51-54

Chenyavaya A L 2016 Forecasting of rural green tourism types development in the Republic of Crimea Symvol nauki (Symbol of science) 2 pp 169-174

Shostka V I 2015 Perspectives of rural green tourism development, ecotourism in the Crimea Sovremennye problemy servisa i turisma (Contemporary problems of service and tourism) 1 pp 96-102

Yudina E M 2013 Microcluster as a basis of sustainable development Sibirskaya fifansovaya shkola (Siberian financial school) 3 pp 75-77

Smirnova E A 2019 Investment in agriculture: methodology and assessment Journal of Recent Technology and Engineering Vol 8 Issue 2 pp 4680–4684

Smirnova E A 2020 Sustainable development of rural areas: Increasing employment in the context of digital technologies development Journal of Advanced Research in Dynamical and Control Systems Vol 12 04-Special Issue 2020 pp 1069 – 1076

Taburkin V I, Doronina M V, Udartseva O V, Solovev D B 2019 The Grounds of Subject Area of Technosphere Studies IOP Conference Series: Earth and Environmental Science 272 Paper № 032022. [Online]. Available: https://doi.org/10.1088/1755-1315/272/3/032022