

Ministry of Education and Science of Ukraine
**ODESSA NATIONAL ACADEMY OF
FOOD TECHNOLOGIES**

International Competition of
Student Scientific Works

**BLACK SEA
SCIENCE 2018
PROCEEDINGS**



April, 4, 2018
ODESSA, ONAFT 2018

Ministry of Education and Science of Ukraine
Odessa National Academy of Food Technologies

International Competition of Student Scientific Works

BLACK SEA SCIENCE 2018

Proceedings

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Odessa, ONAFT 2018

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TEPLODAR – CITY OF CRAFTSMEN

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The project is devoted to the study of the method, proposed by the researchers W. Chan Kim and Renee Mauborgne in regards of designing the development strategy of any company – «blue ocean strategy» aiming to determine the possibility of its application in the tourism sector. The main aspects of the «blue ocean strategy», their practical application in regards of designing of innovative product have been analyzed in the study. The designing of a new tourism destination – family hobby-tourism in the form of the summer “Craftsmen settlement” has been proposed. The target audience, competitive advantages and positioning of the proposed project have been determined. The innovative investment project has been developed.

***The objective of the project** is to study the main aspects of the methodological approach of the "blue ocean strategy" to identify and justify an innovative approach as for their application in the field of tourism services.*

Introduction

The current state of the market of tourism services in Ukraine shows the fierce competition on the one hand and the presence of a large number of new undeveloped directions on the other hand. That is why the use of effective marketing strategies will provide some success under condition of their correct development and rational realization. The so-called «blue ocean strategy» is one of these strategies which permits the entrepreneurs to create new business directions avoiding the fierce competition.

This social innovation investment project foresees the designation of a new tourism destination – family hobby-tourism in the form of the summer “Craftsmen settlement” which will result in increasing the income of local entrepreneurs (the sale of goods and services to tourists), providing the income to craftsmen of their business (income from the implementation of their work and expertise) and increasing the investment attractiveness of the city in general.

Project positioning: leisure in the “Craftsmen settlement” is the joy of being with your beloved people, doing your favorite job in the picturesque corner of Odessa region.

Competitive advantages:

1. Diversity of workshops
2. Convenient location
3. Ecologically clean place with picturesque landscapes
4. Healthy holiday for the whole family
5. Consideration of interests of different generations

Project deadline: March – August of 2018

The economic and financial calculations of this project are done at constant prices that have been formed at the time of designing this investment project.

Investments: borrowed funds 100% – 578,45 thousands of UAH, including

1. Inventory and equipment – 316,45 thousands of UAH
2. working capital – 30,0 thousands of UAH
3. marketing – 232,0 thousands of UAH

Key performance indicators (KPI):

- 1) visit of “Craftsmen settlement” by at least 1000 people in the period of June-August;
- 2) inclusion of city Teplodar to “TOP-10 artisanal capitals of Ukraine”.

1. Theoretical foundations for development of tourism destination

In the conditions of the multi-level integration of space and cooperation on the one hand and strengthening of world competition from the side of other developing countries on the other hand, perhaps, the only opportunity for Ukrainian enterprises to enter the global rhythm of the new "technological wave" and benefit from "the diffusion of innovations" and powerful social modernization demand for an update is the designing and development of local points of competitiveness on the basis of the «blue ocean strategy», in particular by means of informatization and the spread of knowledge as factors of production.

«Blue ocean strategy» is a strategy of avoiding competition by means of careful study of the market and the implementation of innovative business ideas that are able to provide the company with access to the new market and the creation of a previously non-existent demand. For the first

time, this strategy has been described in the book of the same name by the authors-researchers W. Chan Kim and Renee Mauborgne [1].

In order to clearly describe their ideas, Chan Kim and Renee Mauborgne use the terms “red ocean” and “blue ocean” in their book (Table 1.1).

Table 1.1 – Comparative characteristics of strategies

Red ocean strategy	Blue ocean strategy
Competition in the existing market space	Creation of market space free of competition
Victory over the competitors	Possibility of not to be afraid of competition
Use of existing demand	Creation of new demand and its mastering
Compromise “value-cost”	Destruction of "value-cost" compromise
Building a company’s business system depending on a strategic choice, oriented either on differentiation, or on low costs.	Building the company's business system according to the task of simultaneous achievement of differentiation and costs reduction

«Blue ocean» is a term which means the market free of competition.

The markets differ: for example, there is market of food products, market of mobile communication providers, market of sports shoes or clothes. And if, due to the unusual product, one company is founded on one of these markets, then all customers belong to this company. Customers come only to this company and buy products only from it because only this company can satisfy their needs with their product or service.

This is a blue ocean: unique innovation product and as a consequence – market free of competitors.

After some time, other companies are beginning to offer the same services or sell the same product but they do it better, faster or at a cheaper price. The competition appears on this market. The authors of the book call competitive markets "red oceans" – they call them red because of the competition and "shedding" of competitors' blood.

The essence and the main concept of the Blue Ocean strategy is to design an innovative product or service that will provide an entrepreneur with the blue ocean in the market.

It is necessary to stop playing according to the rules of competitors: cheaper, better or faster. Instead of it, it is recommended to change the existing rules and create innovative products and new markets – blue oceans free of competitors.

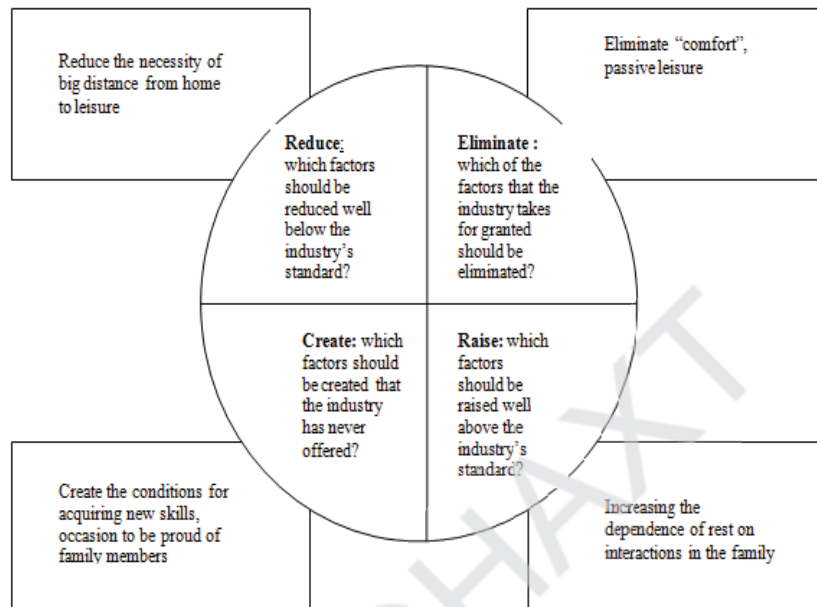
As the innovative product is considered to be a reason of emergence of market free of competition, this product or business-project is often called “blue ocean”.

Now, the main concern of the entrepreneur is the practical value of the proposed solutions. According to the experience, the Blue Ocean strategies can be fully applied in the Ukrainian market.

1. To combine both innovation and value in one product.
2. To search at the junction of branches and niches.
3. To think about those, who hasn't become your customer yet.
4. To look at the companies which create similar products.
5. To investigate the possibility of realization of additional products and services.
6. To play with such things as emotional and functional component of the product.
7. To analyze the tendencies which exist on the market and to think over how they will change the market in the recent future.
8. To focus on the whole picture, not on numbers.
9. To check the viability of the idea of blue ocean in order to determine whether the created product is not just something special, but is actually an innovation value.
10. To build periodically a schedule for a strategic canvas, i.e. a visual image of the industry.

In order to design a new product, authors suggest reducing and even eliminating some of the existing factors, while adding new ones that were not previously offered.

The project of designing a new tourism destination – family hobby-tourism in the form of summer “Craftsmen settlement” has been developed in the study – picture 1.1.



Picture 1. Scheme of development strategy “Craftsmen settlement” according to the methodology of “Blue Ocean”

«Craftsmen settlement» will be located at a distance of 30 km from Odessa, the location of tourists – in tents. During the leisure time, a complex of workshops for each member of the family is planned, taking into account his interests.

Thus, a new direction in the tourism sector will be created, which will exclude participation in a fierce competition (for example, in the field of "gastronomic" or "wine" tourism).

2. Innovation-investment project "Teplodar – city of craftsmen"

2.1 Situation analysis

2.1.1 Characteristics of the city of Teplodar

Established in 1983

The city's status since 1997

Population 10 036 people (as of January 1, 2016)

Postal codes 65480, 65490

Phone code + 380-48-502

Coordinates 46 ° 30'23 "Mon. sh 30 ° 19'35 "overcast d.

Address of the city council 65490, Odessa region, city Teplodar, st. Pioneer, 7

City Mayor Zhovnir Mikhail Vasilyevich

The city of Teplodar is located in the south of Ukraine in the central part of the Odessa region. Distance to the nearest railway station Vyboda is 23 km, distance to the regional center is 40 km. In the immediate vicinity of the city are the major Odessa-Reni (3 km) and Odessa-Chisinau (10 km) highways. The total area of the city is 773.72 hectares.

The birth of the city originates from the decision of the Council of Ministers of the USSR on the construction of the Odessa nuclear power plant / OATETS /. Here, in the Black Sea region, near the city of Odessa, the State Commission Act of August 1, 1980, approved by the Decree of the Council of Ministers of the Ukrainian SSR of August 28, 1980, determined the site for the construction of a town-type settlement and APEC atomic heat and power plant. The project of the construction of the village of nuclear power plants was developed by the Odessa branch of the "Dipromysto" institute, the atomic heat and power plant – the Gorky branch of the "Atomteploelektroproekt" Institute of the Ministry of Energy of the USSR.

The populated point did not have a name. By the decree of the Presidium of the Supreme Soviet of the Ukrainian SSR on February 2, 1983, he was named the Teplodar. And the Odessa regional executive committee in its decision of February 15, 1983, №113 subordinated the settlement of Teplodar to the Bilyaivsky City Council.

The construction of the settlement proceeded at a rapid pace. It was an important strategic object of the state. By May 1983, at the facilities of the APEC, 47 different organizations were being built and located in the settlement, in which there were 2775 employees, including 24 construction organizations, transport organizations, housing and utilities, 15 trade and households, a health facility, a paramedic and obstetric station and a pharmacy.

After the disaster at the Chernobyl Nuclear Power Plant in the late 80's, the work around the station was frozen, and in 1997 it was completely suspended.

Describing the economy of the city, it should be noted that Teplodar – was planned as a city of power engineers. However, as a result of the tragic events of 1986, the construction of the AES was suspended and, together with this, the industrial development of the city was stopped. For a long

time there are no budget-making enterprises in the city, only a small business develops.

Individuals – entrepreneurs are mainly engaged in trade of 60%. This is trade in food and industrial goods, specialized trade (flowers, zoo), periodicals, household goods, household appliances. 18% of entrepreneurs are engaged in the provision of transport services (freight and passenger transportation), 10% provide hairdressing services, car repairs, photo services, medical, legal and tutorial services, repair of home appliances, electric cookers, shoes, tailoring and repair of clothes and others. The remaining 12% are engaged in construction works, electrical works, confectionery manufacturing, furniture manufacturing and repair, and other activities. Among legal entities, business entities deal with trade in 18%, construction – 19%, industrial production 8%, other enterprises engaged in providing transport services, water supply, drainage, heat supply, housing maintenance, non-government services, tourist services, parking services.

As of January 1, 2017, in the city of Teplodar there is a House of Child Creativity (numbering 31 circles); School of Music; Art School; theatrical studio, chess-drafts club, four dance studios-schools; Center for child development "Matryoshka", two gardening cooperatives. In each of the listed organizations there are real masters of their business, ready to transfer their skills to others. In addition, Teplodar Lyceum conducts training in areas: hairdresser-fashion designer, tailor, cook, operator of computer set.

The specificity of the modern Teplodar is the lack of production infrastructure and, accordingly, a sufficient number of jobs. As a result, a very high level of "self-employment" of the population. Since January 2016, the problem of filling the local budget has been aggravated to ensure the functioning of the city's social infrastructure.

2.1.2 Tourist potential of the Odessa region

The peculiarity of the economic and geographical location of the region, favorable natural and climatic conditions, various natural therapeutic resources, the presence of sandy beaches, and the development of a network of waterways, railways and highways cause development in the field of tourism and recreation.

Among the natural resources that are actively used in the resort and recreation economy of the region, the healing mud and rocks of the Kuyalnitsky, Hadzhybey, Shabolotsky estuaries, sulfuric-hydrogen, hydrocarbonate, iodine-bromine and sodium mineral waters are important for effective treatment of diseases of the blood circulation organs, nervous

system, respiratory organs are not tubercular, digestive organs, metabolic disorders, etc.

The peculiarity of the tourist-excursion potential of the region is also determined by numerous monuments of various times with famous historical-cultural reserves, monuments and museums. It is known in the world Odessa State Academic Opera and Ballet Theater, the famous Potemkin Stairs, the Ukrainian Venice – the city of Vilkovo, the fortresses of the XII – XV centuries in the city of Bilhorod-Dnistrovsky, excavations of ancient cities of Thira and Nikonias, monuments of religious architecture in the cities of Odessa, Izmail, Reni, Kiliya and many more.

Over 5000 objects of cultural heritage and 120 objects of the nature reserve fund of national and local significance created the image of one of the most well-known and popular, first of all because of its identity, places for visiting tourists and vacationers.

There are 92 nature protection areas on the territory of the region, including the state significance – the Danube Biosphere Reserve, the Danube and Dnistrovsky floodplains, the Landscape Park "Tiligulsky", the botanical garden of the Odessa National University. I.I. Mechnikov, 19 park-monuments of landscape garden art, etc.

Thus, the city of Odessa is one of the tourist centers of Ukraine, but in the region there are also interesting places for tourists (Vilkov, Shabo, Frumushik-Nova, etc.). The project Teplodar – the city of craftsmen corresponds to the concept of development of domestic tourism, and eventually has a chance to become a city attractive to foreign tourists.

Today in the market of tourist services there is no proposal for joint family active recreation while taking into account the needs of several generations of the family.

2.2 Concept of the investment project

The project envisages the creation of "Craftsmen settlement", which will increase the income of local entrepreneurs (the sale of goods and services to tourists), will provide income to masters of their business (income from the implementation of their work and expertise), and will increase the investment attractiveness of the city as a whole.

2.3 Product Description

"Craftsmen settlement" is a camp for a joint family holiday in an ecologically clean place.

2.4 Marketing Plan

Mission – "The warmth of the hands will keep the heat of the family hearth"

Marketing goal – Promoting the development of the city of Teplodar by creating a center for family hobby tourism.

Project objectives:

- organization of the summer "Craftsmen settlement";
- popularization of family hobby tourism.

The basic strategy of development: the strategy of commodity differentiation – providing conditions for active recreation by all members of the family in order to unite them in an environmentally attractive place.

Competitive strategy: focus on the development of family hobby tourism.

Marketing strategy of growth: strategy of product development – organization of the summer "Craftsmen settlement".

Target segments:

- masters of Teplodar, Odessa and other regions of Ukraine;
- citizens of Odessa, who appreciate common family holidays;
- tourists who come to Odessa and prefer active recreation;
- newlyweds;
- corporate clients who use the rest of the team with their families.

Marketing complex:

I. Commodity strategy: strategy of product development – creation of a new direction of tourism – a family hobby-tourism in the form of the summer "Craftsmen settlement".

The project will satisfy certain needs of consumers of services "Craftsmen settlement" – those who will rest in the settlement, as well as suppliers – masters of their affairs and local entrepreneurs.

Positioning motives (1 rational + 2 emotional / social): additional benefits, love, self-realization.

Additional benefits: Rest in the "Arrival of craftsmen" is an opportunity to learn new skills that will provide material and moral benefits in the future.

Love: A person is happy when he combines his favorite business with communicating with loved ones. Rest in a family circle allows you to feel care, support and love for each other. Happiness to be close and rejoice for the victory of children, parents, etc.

Self-realization: The development of personality through transformation into an expert in a favorite hobby, through the realization of their dreams. Share success with creating something special with your friends and family.

Positioning: rest in the "Craftsmen settlement" – it is a happiness to be close to the loved ones, doing your favorite business in the picturesque corner of the Odessa region.

The driver for the consumer (rational factor for the purchase) – rest and development of new skills in a short time in an environmentally clean place.

II Price strategy: a strategy of deep penetration into the market – the prices for trips to "Arrivals of masters" do not include profit, therefore, they are quite low – table 2.1. For comparison – a trip to Sofievsky Park costs 390 UAH, the cost of one day of stay in a hostel Odessa is from 75 to 330 UAH. Cost of a workshop for decoupage or painting (Odessa) – from 250 UAH.

Table 2.1 – Calculation of the cost of stay in the "Craftsmen settlement" per person

Service	Cost of unit / one day, UAH	For 7 days		For 2 days	
		number	amount, UAH	number	amount, UAH
Food	60	7	420/ -	2	120/ -
Residence	50	7	350	2	100
Workshops	40	10	400	6	240
Odessa-Teplodar Transfers	20	2	40	2	40
TOGETHER	-	-	1210/ 790	-	500/ 380

III Distribution strategy: direct marketing, use of the zero-level channel – the sale of vouchers through its own site, use of the first level channel – sales of travel tickets through travel agencies specializing in domestic tourism.

IV. Strategy of promotion: personal sales, event marketing, Internet marketing, video blogging. The purpose is to inform consumers about the creation of "Craftsmen settlement", the range of services offered, promotions.

List of promotion activities:

- Promotional tables on thematic festivals of Odessa, Kiev, Kharkiv, Lviv;

- Joint partner programs with travel agencies engaged in domestic and hobby tourism;
 - Promotion in social networks;
 - Video tutorials for workshops (video blogging);
 - A series of reports on Odessa TV channels;
 - A "Friendly Family" (the largest family applying for the first and last arrivals will be entitled to a free stay in the "Arrivals of craftsmen");
 - Writing articles and placing them on thematic sites and forums;
 - Participation in the program "One map of the tourist" (Odessa).
- The marketing costs for project promotion are presented in Table. 2.2.

Table 2.2 – Budget of marketing expenses

Cost direction	Amount, ths. UAH	Note
SMM specialist pay	40,0	For four months with accrual
Payroll Manager PR	40,0	For four months with accrual
Production of information and advertising materials	4,0	-
Capture and video installation	12,0	-
Rented T-shirts for masters, bracelets for tourists	5,0	-
Prizes for contests	3,0	-
Participation in festivals and fairs, including:	53,0	-
Kyiv	32,0	4 festival with a sponsorship package
Kharkov	12,0	4 fairs
Odessa	6,0	3rd festival
Lviv	3,0	1 festival
Promotion "Friendly Family"	60,0	catering expenses and travel for 24 people
Other expenses	15,0	-
TOGETHER	232,0	-

Thus, to advance the project, it is necessary to 232.0 thousand UAH.

2.5 SWOT analysis of the project

The inner environment	
Strengths	Weak sides
1. Diversity of workshops 2. Convenient location 3. An ecologically clean place with picturesque landscapes 4. A useful holiday for the whole family 5. Taking into account the interests of different generations	1. Seasonality of the project 2. Lack of own funds 3. Derived living conditions 4. Lack of experience in the organization of such projects
Environment	
Opportunities	Threats
1. The growing popularity of family vacation 2. Striving for the environmental friendliness of life and rest 3. Reorientation to rest within Ukraine 4. Growing popularity of hand-made	1. Dependence on weather conditions 2. Political instability in Ukraine 3. Low support for state social projects 4. Occurrence of enterprises polluting the environment

2.6 Action plan for the implementation of the project "Teplodar – the city of craftsmen"

To implement the project, you must take certain actions. First, prepare and conduct a presentation of the project to the local community, the leadership of the city of Teplodar for the purpose of obtaining permission and support regarding the organization of "Craftsmen settlement".

At the same time, members of the NGO "Our Family" will be working on attracting investors. It is mainly a grant search, including grants for the development of small places.

Since March, work on the promotion has started – in the spring most families plan summer holidays. It is a participation in specialized festivals, reporting on local television, promotion in social networks, video blogging, etc.

On the other hand, it is necessary to create a base of masters and to cast cast among them. Unfortunately, not all masters have the ability to teach others.

April-May – preparation and improvement of the territory on the coast of the Baroque reservoir, procurement of equipment for the organization of "Craftsmen settlement".

The solemn opening of the "Craftsmen settlement" is scheduled for June 17, 2018.

From June 17 to August 27 for ten weeks, at least 800 people per week program (20 families * 4 persons * 10 weeks) and 500 people on weekends (50 people * 10 weekends) are expected to stay at the week.

On 27 August, the solemn closure of the first season "Craftsmen settlement" is planned.

Upon completion of the "Craftsmen settlement" work it is necessary to sum up, inventory equipment and develop an action plan for the next season.

2.7 Organizational plan

According to the organizational-legal form, the "Craftsmen settlement" created is a non-profit project of the NGO "Our Family". The staff of the "Craftsmen settlement" staff will include:

- 1) Project Manager;
- 2) Administrator;
- 3) Animators;
- 4) SMM Specialist;
- 5) PR Manager;
- 6) Chef;
- 7) Chef's assistant;
- 8) Assistant Administrator.

The salary of the staff will depend on the personal labor input and the final results of the settlement activity. Therefore, the personal income of an employee (wage) will consist of two parts: 1) permanent (basic salary, determined by the salary); 2) variable (additional pay, which is calculated depending on the income received).

Table 2.3 – Staffing schedule

Full employment	Quantity	Description of the post	FOP with accrual basis, ths. UAN
1	2	3	4
Project Manager	1	Coordinates project activities, sales, masters' base, marketing, financial accounting and personnel	40,0

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1	2	3	4
Administrator	1	Responsible for the functioning of the settlement	30,0
Animator	3	Ensures the comfortable stay of children in the settlement	46,0
SMM Specialist	1	Manages the site, pages in social networks	40,0
PR Manager	1	Responsible for media ties, event marketing	40,0
Cook	1	Comes up with a menu that is responsible for the nutrition of the inhabitants of the settlement	18,0
Chef's assistant	2	Helps in cooking	32,0
Chef's assistant	1	Ensures the comfort of staying in a settlement	26,0
Total	11		
Total labor costs			272,0

2.8 Financial plan

For the organization of "Craftsmen settlement", investment resources of 578.45 thousand UAH are required, which will be invested in inventory and equipment, working capital and marketing.

Table 2.4 – Investment costs

Spending directions	Amount, ths. UAH
1. Inventory and equipment	316,45
2. Working capital	30,0
3. Marketing	232,0
Total	578,45

The calculation of inventory and equipment costs is given in Table 2.5.

Table 2.5 – The amount of inventory and equipment costs for the "Arrival of craftsmen"

Name	Unit cost, UAH	Quantity	Amount, UAH
Tent for 5 people	2200	20	44000
Tent for 3 people	1100	10	11000
Karamat	800	130	104000
Gas vodka	500	30	15000
Balloon	115	30	3450
A set of dishes	1000	130	130000
Lighthouse	300	30	9000
TOGETHER			316450

In terms of working capital it is taken into account that the realization of the trips will take place from the beginning of June, and labor costs, procurement of products, and the arrangement of the territory will take place earlier.

The expenses for marketing measures are calculated in clause 2.4 (Table 2.2), and make 232.0 thousand UAH.

Thus, for the implementation of the project "Teplodar – the city of craftsmen", investments are required in the amount of 578.45 thousand UAH, which at the rate of the NBU as of 20 December 2017 is 21.8 thousand dollars.

The entire amount is available in the form of grants.

Revenues from the sale of services will be used for the development of the social infrastructure of the city of Teplodar: the purchase of new equipment for the Children's Art House, Music School, etc., as well as targeted assistance to large families and single-parent families.

The project has a social character, so its result will be a certain social effect – families will become more cohesive.

To calculate the amount of proceeds from the sale (Table 2.6) take into account that a certain number of tourists can buy trips without the cost of food.

To check the sufficiency of funds for the functioning of "Settlement of the masters", we will deduct direct expenses – for food for payment for masters for workshops (30 UAH) and transfer (table 2.7).

Table 2.6 – Calculation of the forecast proceeds from the sale of vouchers to the "Craftsmen settlement"

Indicator	For 7 days	For 2 days
Number of vacationers, persons	800	500
With paid meals (65%), people	520	325
The cost of a trip with a meal, UAH	1210	500
Amount, UAH	629200	162500
No food (35%), people	280	175
Cost of the tour, UAH	790	380
Amount, UAH	221200	66500
Total amount, UAH	850400	229000

Thus, proceeds from the sale of visas will be 1079.4 ths. (850.4 + 229.0).

Table 2.7 – Calculation of direct costs for the functioning of "Craftsmen settlement", UAH

Cost Name	For 7 days	For 2 days
Food	218400	39000
Workshops	240000	90000
Shuttle	32000	20000
Total amount, UAH	490400	149000

Thus, direct costs will amount to 639.4 thousand UAH. (490.4 + 149.0), then, taking into account labor costs 192.0 ths. UAH (without the salaries of marketing specialists), 248.0 ths. UAH remains for the functioning of the settlement. (1079.4 – 639.4 – 192.0)

2.9 Project Risk Assessment

Table 2.8 – Main risks of the project and measures to reduce them

Types of risks	Content of risks	Measures to reduce and prevent
1	2	3
Political risks	Associated with the instability of economic, tax, banking, land and other legislation in Ukraine, lack of government support, instability of the political situation in the country.	<ul style="list-style-type: none"> – monitoring changes in tax legislation; – active participation of founders in interaction with power structures.

1	2	3
Legal risks	Related to the imperfection of the legislation, the false documents, the unclearness of court proceedings in case of disagreement between the founders.	<ul style="list-style-type: none"> - clear and unambiguous formulation of the relevant articles in the documents; - involvement of specialists who have practical experience in this area for the registration of documents..
Climatic Risks	It is associated with instability of weather conditions, exceeding the seasonal norm of precipitation	<ul style="list-style-type: none"> - monitoring of weather conditions, the use of anti-drainage facilities (additional awnings)
Organizational risks	Related to the possibility of non-attendance of masters, delays in conducting masters classes	<ul style="list-style-type: none"> - clear calendar planning and project implementation management; - development and control of arrivals and departures of participants of events; - timely organization of the transfer to the railway station, bus station, airport, etc.
Internal social and psychological risk	Social tension in families arriving in the settlement, Negative attitude of the population of the city of Teplodar to the arrival of tourists	<ol style="list-style-type: none"> 1. involvement of a specialist in family psychological care 2. development of an effective PR campaign among the population of the city of Teplodar
Marketing risks	Linked to possible delays in the development of the project, the false choice of marketing strategy and pricing policy.	<ul style="list-style-type: none"> • development of marketing strategy; • development and implementation of a marketing program; • carrying out a full complex of marketing researches, etc.

1	2	3
Financial risks	Refusal to grant grants, Lack or insufficient investment in the project.	<ul style="list-style-type: none"> - monitoring grants for social initiatives and development of small cities, tourism, children's recreation and creativity, assistance to families with many children; - involvement of specialists for the correct execution of documents in accordance with the terms of the grant; - variety of proposed schemes for financing the project, placement of the project on the platform "Community".

Thus, the project "Teplodar – the city of craftsmen" in the form of creating "Craftsmen settlement", makes it possible to have a joint family holiday in an ecologically clean place. Mastering each member of the family with some kind of useful skills will give you the opportunity to be proud of each other, find a common occupation and an occasion to spend time with each other, and not near (with a tablet or smartphone in your hand).

Due to its location it is possible to provide a hobby for every taste:

☺ tatam – fishing, home repair, furniture designing and assembling, etc.;

☺ for moms – various kinds of needlework, cooking, etc. ;

☺ for children – dancing, drawing, needlework, sport orientation;

☺ for grandparents – gardening, landscape design, basics of computer literacy.

As well as family biking and hiking, family-friendly competitions for the best soup, family song, dance, etc.

For newly-married couples there is a special program "School of the young family", within which will be held various workshops on solving domestic problems (from plumbing to the organization of a romantic dinner) and psychological health of a new family.

In modern firms there is a practice of recreation of a collective together with families. A visit to the "Craftsmen settlement" can be arranged according to the request of a certain firm under a special program of workshops.

Odessa is a business people, not every family can rest together in the summer. Family vacation in our village allows you to combine active rest with children and work in Odessa. During the day, the children will be supervised and spend time with the benefit.

Handmade products are expensive, because they require a lot of time, expensive materials. One way to increase revenue is to sell their expertise through workshops. It is impossible for each master to provide a constant flow of customers. The project "Teplodar – the city of craftsmen" includes the creation of a database of masters, recording video-announcements of workshops, publication of articles, stories on local television, promotion in social networks, participation in festivals and profile events of Odessa, Kiev, Kharkiv, and Lviv.

Conclusions

Today in the market of tourist services there is no proposal for joint family active recreation while taking into account the needs of several generations of the family. the project "Teplodar – the city of craftsmen" in the form of creating "Craftsmen settlement", makes it possible to have a joint family holiday in an environmentally clean place. Mastering each member of the family with some kind of useful skills will give you the opportunity to be proud of each other, find a common occupation and an occasion to spend time with each other, and not near (with a tablet or smartphone in your hand).

Positioning of the project: rest in the "Arrival of craftsmen" – it is a happiness to be close to the loved ones, doing your favorite business in the picturesque corner of the Odessa region.

Competitive advantages: a variety of workshops; convenient location; ecologically clean place with picturesque landscapes; useful rest for the whole family; taking into account the interests of different generations.

Target segments: masters of Teplodar, Odessa region and other regions of Ukraine; citizens of Odessa who appreciate a common family holiday; tourists who come to Odessa and prefer active recreation; newly-weds; corporate clients who use the rest of the team with their families.

Due to its location, it is possible to provide a hobby for every taste: ta-tami – fishing, home repair, designing and assembling of furniture, etc; moms – various kinds of needlework, cooking, etc .; for children – dancing, drawing, needlework, sports orienteering; grandparents – gardening, landscape design, the basics of computer literacy.

As well as family biking and hiking, family-friendly competitions for the best soup, family song, dance, etc.

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This project provides for the creation of a new direction of tourism – a family hobby-tourism in the form of the summer "Craftsmen settlement", which will increase the income of local entrepreneurs (the sale of goods and services to tourists), will provide income to masters of their business (income from the implementation of their work and expertise), as well as increase the investment attractiveness of the city as a whole.

References

1. Kim C., Moborn R. Strategy of the blue ocean. How to find or create a market that is free of other players. M: Mann, Ivanov, Ferber, 2015. 240 p.
2. About the city. Off-site site m. Teplodar [Electron resource]. Access mode: http://trada.gov.ua/?page_id=97
3. Braiko M.G. Marketing strategy of managing the potential of innovation in the development of receipts / Golubyonkova O.O., O.S., Braiko M.G. // Marketing of innovation and marketing: The Masters of the XI of the International Scientific and Practical Conference. – m. Sumi, SumU. 2017.

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