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EDITORIAL

This is the third issue of the third volume of *Czech Journal of Social Sciences, Business and Economics* (CJSSBE) published in autumn of 2014. As in the previous three years of its existence, the main goal of CJSSBE remains to facilitate the transmission of new scholarly discoveries in the fields of social sciences, business and economics to the broader audience. Hence, our journal offers a platform that supports scholars in building upon intellectual treasures and advancing our understanding about various fields of research in novel and meaningful ways. Capitalizing on this effort, we now focus on furthering our scope and consolidating our position in both conceptual developments and practical applications in the fields covered by the scope of this journal.

Four research papers appearing in the third issue address a number of topics including the marketing strategies of NGOs and non-profit organizations, demography situation in Russian Federation, sustainable development, as well as managing technological platforms including the hi-tech solutions.

We trust that you will enjoy reading the present issue, and we look forward to presenting you our next issue in winter of 2014.

Wadim Strielkowski
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MARKETING STRATEGIES OF NON-PROFIT ORGANIZATIONS

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Abstract

The following paper focuses on different possible ways on how to use marketing in the non-profit and public sector in the Czech Republic. The main purpose is to analyze possibilities already existing. My intention was not to create new ways and ideas but simply concentrating on already known theoretical concepts. Marketing is not a traditional aspect of the non-profit area, but giving the changes that occurred in ways of financing and sponsoring and the increasing amount of competitors, organizations had started using key instruments of marketing in order to differentiate themselves, be known and be able to compete with organizations of similar interests. The aim of this paper is to explain what a non-organization is, how marketing used in the non-profit sector differs from commercial marketing and how to apply usual marketing instruments - i.e. research, segmentation, targeting, positioning, when creating a marketing strategy.

Keywords: non-profit organization, non-profit sector, profit sector, marketing, marketing strategy

JEL Classifications: D3, M3, O33

Introduction

In the Czech Republic, marketing had a very difficult role to portray. In the era of communism, it was perceived as pseudoscientific. On the contrary, after 1989 people would assume that marketing was the only thing that could possibly help with transforming to the market economy. We find the use of marketing in the non-profit sector very interesting, in fact much more interesting than the use in the commercial sphere. One of the main reasons why marketing is mainly used in the commercial sphere is because of the fact that people assume the most important thing is to gain profit. The area this paper concentrates upon is the potential of marketing in non-profit organizations. We are talking about organizations, which were not primarily founded in order to be profitable. Their motives come from altruistic intentions. They want to help with various issues or try to fulfill their mission. Usually they offer some sort of service, although they sometimes have difficulties with providing it, since finances, which they need in order to sustain, are usually very hard to get. Marketing is not a traditional aspect in the non-profit sector. The thought of using it was not accepted at the beginning, saying that marketing belongs to only commercial sphere. With the influence of growing competitiveness and also the changes that had occurred in financing, organizations started to wonder how they’d be able to keep up with others. Marketing became a very powerful instrument. One of the main
tools is to apply a marketing strategy to the organizations activity. A marketing strategy is a
document, which leads the organization to its outlined goals and helps keep track of the right
way.
Marketing nowadays is no doubt, one of the key methods in management of these
organizations. In order to master all the marketing activities, including fundraising, which are
powerful tools for obtaining the amount of required funds. The fact that a non-profit type of
organization doesn’t generate profit unfortunately does not mean, that it does not need any
finances at all.
The body of work is following: In the first of three parts, I would like to determine the
definition of non-profit sector and organization; what are the main features and also I will
give attention to fundraising, explaining what it is and why does it play such major role. In
the second part I will try to define marketing in connection to the non-profit sector. I will
explain the nature of non-profit marketing and different ways of using it. The last part
incorporates both. It is dedicated to the marketing process of non-profit organizations when
creating a marketing strategy. In the conclusions I will summarize all the possibilities and
also limitations of the use of marketing, based on the literature which we used.

The Non-profit Sector

The national economy is in literature often divided due to various criteria. In terms of the
financing criteria it is possible to divide the economy to profit and non-profit sector. Non-
profit (non-market) sector is the part of the national economy, in which operators raise funds
for its activities through so-called redistributive processes. The target function of non-profit
sector isn’t profit in financial terms, but in achieving direct benefit. The benefit, which is
achieved, is usually in form of public service. Some also divide the non-profit public sector,
for which is typical financing from public resources, and non-profit private sector.
(Strecková, Malý, 1998)
The main characteristics of the non-profit public sector are management by public
administration, decision-making based on public choice and also subjection to public control.
The non-profit private sector is funded mainly from funds of people or legal entities.
Nevertheless, it is possible to obtain funds from the state. Like stated, organizations of such
type do not aim on generating profit, but to achieve direct benefit. (Strecková and Malý, 1998)
On the market of profit sector, demand and supply mutually interact, whereas on the market
of non-profit sector the situation isn’t so clear at all. Provider is a non-profit organization,
which offers, in most cases, services and does not aim for profit. The ones to whom these
services are offered are often called clients e.g. visitors, students etc. We can also define a
third party on the market – donors (givers). Donors are usually people or companies that are
willing to give money or other resources to help with implementing a publicly beneficial
service. The state can also be a donor by providing finances for the same purpose.
An established definition of a non-profit organization does not exist in Czech literature.
Therefore the basic characteristics of these organizations are derived from the Czech law,
which says that a non-profit organization is basically a tax payer that was not created for the
intension of business. That includes interest associations, civil associations, political parties,
church and religion societies, foundations, state universities, communities and others. (Act
Nr. 582/1992 Coll., Income tax and Act)
Non-profit organizations can be characterized with the following specifics: (Šimková, 2006)
- They stand as a legal entity
- They were not founded for the purpose of generating profit, nor business
- They fulfill specific citizens’ needs
- They can be funded by the state

According to Hannagan, we can also classify non-profit organizations based on: (Hannagan, 1996)

- The source of funding: if the funds come from the governments’ donations, voluntary contributions or other sources;
- The type of product (service): if the organizations focuses on people and their behavior, or if it produces materials goods;
- The organizational form: we distinguish the following types:
  - donors – main income is from donations
  - commercial – the organizations requires payments for the service it provides to its clients
  - mutual – the organization is ran by its users
  - business – the organization is ran by professional management.

Fundraising – obtaining financial resources

One of the major issues nowadays is lack of funds for an organization’s activity. A very important and powerful way on how to get the needed finances is called fundraising, which is used by most of organizations, who try to outlast as long as possible in the non-profit sector. It incorporates many different methods and procedures, which help support the financial stability and development, not to mention the success of an organization. Fundraising is in fact a systematical obtaining of financial or material resources in order to ensure the sustainability and development of non-profit organizations; it has its principles and rules, although we can’t apply them to every case. The fundraising methods are mostly used by non-government or contributory organizations (e.g. schools, hospitals, social care facilities), cities, regions, counties etc.

There are many potential resources in fundraising. Following is a general overview of the primary: (Rektořík, 2004)

- Public administration, which could be further divided into:
  1. State administration: an organization can obtain finances from different departments by filling up a simple form.
  2. Self-government: includes sources from counties, cities, towns etc.
- Individual donations, which includes single donors, who were either interested in the organization and its work, or were addressed by the organization itself.
- Company sponsorship and donations. Here, connections are mandatory. It depends on each organization, how much companies they reach out to. Key aspect is to address companies that resonate with your goal, thus you have a bigger chance at being successful.
- Foundations (Czech or foreign): each foundation has their own rules when applying for a donations, which must be followed precisely.
- Self-financing: an organization can get additional funds by selling their products. They must follow rules stated in the organizations deed.
- EU programs: organizations have a unique opportunity to obtain sources from the structural funds of European Union.

Among the most commonly used methods in fundraising we classify: (Rektořík, 2004)

- Personal visits, which presents usually the most effective method of all;
- Telephone fundraising / personal letters. This method is usually used to contact donors, who have previously donated and are familiar with the organization;
- Direct mail, where the organization sends letters asking for contribution;
Written request for grants, in order to succeed, an organization must follow defined rules;
Media advertising, which is very powerful when it comes to addressing masses, on the other hand there could be a problem finding donors without personal contact
“Door-to-door” fundraising, where workers or volunteers address people at their households, but due to privacy intruding this method is not very popular among the organization and potential donors.

An important thing to understand is that fundraising is a way how to find other sources than the regular ones, which usually come from the state or some sort of communities. Given these circumstances, the organization should fully concentrate mainly on multi-source financing of its activities. In today’s fast and competitive market, it could possibly occur that while a few sponsors were enough just a few months ago, today, it won’t be enough. Therefore it is important to not underestimate this powerful tool and to take enough time with it, in order to achieve your goals.

In marketing terms, fundraising has quite a lot to do with the price mix as the amount of financial resources and resources of any other kind, that a single organization can obtain, then influences the price for products and services it offers.

Marketing in the Non-profit Sector

There are three widely recognized stage of marketing throughout the history.
1. Production-oriented marketing stage:
Marketing, as we know, began to emerge in the United States in 19th century. Back then, the competition was weak and sold goods very similar to each other. Demand distinctly exceeded supply. People would buy only necessities. Promotion and distribution were not an issue. In the first decade of the past century, first surpluses started to occur, which forced the manufacturers to handle the situation somehow. A true pioneer in the automotive industry was Henry Ford. With his brand new concept and new methods of promotion, he gained a huge success.

2. Sales-oriented marketing stage:
After The great Depression in 1929 many changes had occurred in the economy of the whole world, economic thinking and also marketing itself. Marketing overspread and apart from the product, focused on the aspect of sales. Now, the main goal had changed to actually selling the product. More and more money had been undergone to advertising. The producers began to concentrate on customers and fulfilling their needs. By planning ahead, they wished to know future trends in order to determine how the demand would develop.

3. Stage of Absolute Marketing:
From the end of World War II., the absolute marketing had started to arise. According to the absolute marketing, the goal of all staff in a company is to focus on customer needs, who is the key aspect that determines the complete market structure. Within almost a hundred years, the situation had completely reversed; before demand prevailed whereas nowadays the supply prevails distinctly. After opening doors to Asian markets, the European products were forced to improve their image, because very briefly, the Asian products became competition. Another feature that came with the absolute marketing was segmentation. Now the market is not perceived as a mass market, yet as the market consisting of smaller segments divided into many different attributes.
Marketing in fact has a major impact nowadays on basically everything around us. More and more, the success of each company or organization depends on their ability to succeed on the market, skills to convince the customer to buy their products or services and last but not least the company’s flexibility, being able to respond to changing needs and desires. The
customers are the ones who spend money, therefore companies must pay attention to them. To answer what exactly marketing is, is quite difficult. Given the fact, that marketing, on the contrary of other knowledge, has existed for only about a hundred years, there are many different point of views and opinions on what marketing actually is. Here are a few widely recognized definitions from respected authors. The best definition of them would probably be the one from Phillip Kotler. Philip Kotler defines marketing as “satisfying needs and wants through an exchange process.” (Kotler, 2001) American Marketing Association (AMA) defines marketing as “the activity, set of institutions, and processes for creating, communicating, delivering, and exchanging offerings that have value for customers, clients, partners, and society at large.” (AMA, 2013) According to Šimková, “Marketing is a part of the management. It focuses on identifying, anticipating and satisfying customer’s requests” (Šimková, 2006).

What brings all the definitions together is the fact, that marketing focuses on identifying and then satisfying customer needs. It means that the company’s or organization’s activity is successful only, if the customers get the required products or services and a major factor as well is, whether they continue their purchases with the company or not. It follows, that the main goal of marketing is ensuring sustainable sales and in case of commercial marketing, also generating profit.

Most of companies use marketing as an instrument to gain clients. In the past, it has been mainly used in the profit sector, but recently it has become an important element in strategies of non-profit organizations such as schools, hospitals etc. Companies and organizations take advantage of new opportunities. They reach out to customers, partners and surrounding in general. The traditional concept viewed marketing only as sales or advertising. The goal was to get customers, emphasizing the thought of profit, while taking care of them wasn’t seen as too important. Thankfully this conception has been overcome and a new one has taken place. The key of a company’s success is in the relationship between it and the customer. Companies choose their customers wisely and they also find new ways on how to keep them. (Kotler, 2004)

In other words, companies create new forms of relationships with their customers to provide exceptional value to them, using new technologies i.e. internet.

The importance of Marketing in Non-profit Organizations

Like it was stated above, marketing is often used in connection to the commercial sector and generating profit. When it comes to non-profit organizations, marketing isn’t really established yet. Opinions on whether to use marketing in the non-profit sphere where profit is not the main aim usually differ.

The need of marketing in the non-profit sector follows from the importance of the service’s quality and the fact of how much will the service suit its user. A high quality service will most likely be seen as useful, efficient and suitable for regular funding. (Hannagan, 1996)

Marketing is a very vague and confusing term. Logically, apart from people who think marketing should interfere to the non-profit sector, there are also the ones, that think otherwise. The most common argument against using marketing activities in the non-profit area that: (Rektořík, 2004)

- Marketing in the non-profit organization is associated with inadequate cost.
- Consumption of services in the non-profit sector results from specifically forced consumption
Most services in the non-profit sector don’t meet the requirements of a market-character service.

Individual processes in the non-profit sector are usually unique and specific.

In some cases, the users delegate responsibility into hands of professionals (e.g. in health).

When deciding on the implementation of certain services, price isn’t a determinative factor.

Some services that the non-profit sector provides don’t have market characteristics.

On the other hand, these are the arguments that acknowledge the effectiveness and justify the use of marketing activities in the non-profit sector: (Rektorík, 2004)

- Non-profit organizations get in situation of increasing competition and emulation of obtaining funds and clients in both, public sector and private organizations.
- It is required high efficiency in terms of cost and control.
- With growing consumer demands, better communication with institutions is required.
- Lack of funding resources forces organizations to develop business activities, as and additional source of income.
- Increase in the professional level of workforce requires a higher level of management.
- An essential prerequisite for defining the objectives and focus of the organization should be marketing research.

The Marketing Strategy of a Non-profit organization

Marketing is a dominant feature in creating and implementation of a marketing strategy. A marketing strategy includes the part of the organization’s strategy, which distinguishes what are the main strengths, weaknesses, opportunities and threats (so-called SWOT analysis). It also includes rules of how should each activities in an organization work, it sets principles of customer care and pricing policy.

By marketing strategy we often understand a strategic document, which is used by management to long-term directing activities and ensuring strategic objectives. A marketing strategy can also be referred to as a marketing strategic plan, project, or concept. The strategy determines a market for a product or service, on which the organization tries to use their resources, in order to gain market share. The document represents the primary direction to fulfilling the marketing objectives and also to fulfilling the objectives of the organization. A tool that helps with implementation is called a marketing plan, which is mandatory in both profit and non-profit sector. The process of marketing strategy planning could differ in the profit and non-profit area, mainly because of the nature of the non-profit sector which I’ve talked about before.

Identifying Target Markets

The first step in the process of implementation is, in my opinion, to think about the possible ways of succeeding on today’s market. The key thing in order to sustain is to know your situation and position on the market. The organization must identify and acknowledge their market share as well as size of the market. The organization should be able to define its own strengths (qualities) and detect weaknesses. It analyses the internal and external environment. Not only threats are evaluated, but also opportunities, strengths and weaknesses and the current market position. One of the most important instruments used in this situation is the SWOT analysis.
Market Segmentation

There are too many potential customers with one too many needs. Each organization should be able to segment the market into homogenous groups, called segments. The organization could then concentrate on one or even more segments and apply different strategies to each of them. Market segmentation helps with aiming on customers, addressing them easier through marketing communication and helps to cover the market better. Each segments are defined based on the market segmentation criteria, which are geographic, demographic, socio-economic, psychographic, temporal and also different motives for buying. Of course, there can be other criteria as well depending on whether the organization is situated. (Janečková, Vlastíková, 1999)

The process of segmentation itself works in consecutive stages: definition of the market, that the organization wants to segment, defining personal segmentation criteria, following the choice of the segment. It is quite important to choose segments that are large enough, stable, measurable and achievable with marketing instruments.

The thing that could be helpful with implementation of a marketing strategy is a marketing research. Marketing research could be defined as all activities that explore phenomena and relationships on the market and the impact of marketing instruments on them. Mainly, we talk about research of products, distribution channels, price, customer’s behavior and marketing communication. (Šimková, 2006)

Marketing research is engaged in marketing activities within the market and tries to provide answers to the following six questions: (Hannagan, 1996)

- Who buys our products or services?
- What products or services people want and what benefits they expect?
- When will people buy these products or services?
- Where will they buy them?
- How will they pay?
- Why will people buy the organizations products or services and not products or services of competitors?

Targeting

Once the organization completes the market segmentation, it is able to reach out to one of the segments. With that helps instruments called targeting and positioning.

Targeting is the process of evaluating the attractiveness of individual segments and selecting one or more of these segments. (Kotler, 2004) The organization should choose a segment of the market, which may provide the greatest value. Because each organization has limited resources, it should try to get one or just a few market segments, or possibly just parts of them.

Most organizations that enter the market, initially addresses only one segment of customers. Only if the organization is successful, it tries to expand their activities and addressing other customers. The aim of the organization is to create different products or provide different services, and thereby satisfy customer needs of different market segments.

Positioning

Once the organization decides which segment of the market to address, they must also select a position they want to attract customers with. Positioning can thus be defined as the way a product is perceived with knowledge of the target group, it’s the kind of place in the
consciousness of mind that the product has, in relation to competing products. Positioning is the key element of the marketing strategy. It must be clear and the offered product or service must be distinguished from other products and services.

To prepare positioning, it’s necessary that the organization tries to define the potential competitive benefits of its products or services, which can help to stabilize its position. In order to have an advantage from their competitors, the organization must offer greater value to selected market segments, either because their product or service will require a lower price, or that it will justify a higher price and higher quality product or service.

Setting the Marketing Objectives

For a successful use of marketing in the management of and organization, it is relevant to define their objectives both, short and long term. The objectives are defined as measurable results which the organization or company is trying to achieve. Setting the objectives should be specific and precise. Based on the set objectives, depends the survival and overall development of the organization.

In addition, the objectives of the organization should meet the following requirements. They should be: (Janečková, Vlastíková, 1999)
- **Measurable:** a non-profit organization should quantify its goals (their quantifiable objective can be e.g. a reduction of costs incurred);
- **Realistic:** realistic goals must be set, considering external factors, if the set goals are unachievable, the whole process of setting objectives fails;
- There has to be a *time period* in which the set objectives are supposed to be achieved.
- Individual objectives should not collide with one another.

In the marketing perspective we often distinguish two different types of marketing objectives: (Rektorík, 2004)
- **Action objectives.** They are specific and measurable results and mostly relate to things we can actually count (e.g. the number of participants, the number of new members etc.)
- **Image objectives.** They are not measurable. They reflect the mission, vision and ideas of organization and work with them, especially with non-profit organizations.

In order for an organization to set realistic goals, it is necessary to perfectly know its strengths and weaknesses. These abilities are determined by current material and financial resources, their future expectations and by skills and knowledge of employees.

Implementation of the marketing strategy

Firstly, it is very important to carefully plan and prepare such strategy. The process under which the marketing objectives and strategies put into practice is called marketing implementation. However, even a very good marketing strategy is not effective if the organization isn’t able to implement it properly. It may occur that, even if two organizations have equally good strategies, one of them can be more successful on the market due to better implementation. The reason in this case would be that the successful organization managed to implement its strategy and plan faster and better. In order for an organization to succeed, it is necessary for all units in the marketing system, at all levels in the implementation of marketing plans to cooperate. The whole success depends on how well can the organization exploit human resources, the way their organizational structure look like, if the staff is motivated and if the organization has a resemblance of a corporate culture.
A plethora of marketing strategies

It is also important to pay attention to different typology and the subsequent selection of strategic approaches of the marketing strategy. Given that the strategy is closely connected with the individual components of the marketing mix, their structure is usually based on the division of marketing variables within the mix and their strategic concept is based on strategies of product, price, distribution and communication. We can also divide them: (Boučková, 2003)

- Based on the market trends (growth, maintenance and retreat strategies)
- Based on the behavior towards the external environment (strategy of cooperation and conflict)
- Based on the access to the market and market segments (offensive and defensive strategies)
- Based on the life cycle of the market (strategies for markets in the deployment phase, markets experiencing growth, mature, saturated and declining markets)

Other widely recognized strategies are:

**Market Positioning Strategy**

This strategy identifies four different strategy among which and organization may choose. 
The Market Leader Strategy – the organization tries to retain a leading position;  
The Market Challenger Strategy – the organization plans to increase market share;  
The Market Follower Strategy – the organization is trying to maintain balance in the industry through adaption to the market leaders;  
The Strategy of Filling Market Niches – this strategy is used usually by small businesses, that specialize in those parts of the market that are not attractive for larger companies, since they require a special approach;

**Ansoff’s Grow Strategy**

One of the main reasons for the implementation of marketing strategies in organizations is to determine the growth of the organization. The four main marketing strategies include: (Hannagan, 1996)  
The Market Penetration – effort of trying to find new customers in the same market;  
The Product Development – adjusting the quality and performance of a product or service;  
The Market Expanding – opening new markets;  
The Diversification – product development and market expansion.

**Minimum Cost Strategy**

In this strategy the organization aims to gain a larger market share through lower costs of production and distribution of their products or services. This strategy is usually implemented to companies or organizations that focus on large-scale to mass market. To ensure that the minimum cost strategy is effective, it is required to be applied in relation to those competitors, who are focused on the same or similar strategy. Otherwise, the organization puts itself at risk, that another company, even with lower costs, could arise on the market,
which could eventually damage the original organization, that focused on the strategy of minimum cost.

**Product Differentiation Strategy**

This strategy is based on differentiation of a product or service. Organization therefore focuses on achieving improved performance in an area which is important for the customer. The organization may crave a leading position in some place, like in the uniqueness of their products or services, their style, providing additional services etc. Organizations can differentiate their product or service by using psychological tools as well as influencing attitudes and expectations of customers through advertising, packaging or price. Product differentiation strategies are usually applied by smaller and medium-sized organizations that have very limited financial resources compared to larger organizations operating in the same or similar field.

**Market Orientation Strategy**

The organization focuses on one or more small market segments and does not seek to dominate the entire market or a major part of it. Organizations are therefore trying their best to identify these segments and thus satisfy the needs and desires of their customers best and brightest way possible. The most common reason for the implementation of this approach is the lack of financial resources necessary, to obtain a large market share, profitability of a segment or little competition in a particular market segment.

**Conclusions and discussions**

In order for marketing in a non-profit organization to fulfill its function, it is necessary to first, get to know various options that come with the implementation of marketing activities within the nonprofit sector. In the profit sector, as well as in non-profit organizations is increasing competition and also there are changes in the funding and resources. Marketing is thus a way, how non-profit organizations cope with such pressures. One of the sources of financing their activities is also public funding. This fact is the reason for constant pressure on their effective management. Also, currently, most non-profit organization suffer from the constant lack of funds and especially those that are provided from public funds in the form of grants. This contributes to the fact that the organizations are in most cases forced to supplementary their source of income, usually by additional business activities of various kind. To successfully manage these activities, non-profit organizations are forced to develop a variety of marketing activities.

In addition, the needs and desires of customers increasingly diverse, and demands grow on the quality of products or services that the organization provides to clients. For this reason, non-profit organizations must also provide the necessary levels and qualifications of its management.

In the profit sector, there is also a great opportunity to adjust the offer in order to target the needs and wishes of customers. Non-profit organizations, however, have certain difficulties with this kind of marketing. Although the primary “product” cannot be changed, it doesn’t mean that it’s not possible to change some of the physical aspects of behavior and adapt them to the needs of marketing in the organization.
It is important to see the role of marketing in the non-profit sector as support of the organization to achieve its expected goals easier. Marketing, itself, cannot be the goal, but only a medium to achieve these goals. It can be understood as an important tool that helps the organization to improve its market position. In my humble opinion, the use of marketing in the non-profit is just at the very start. Sooner or later, people will acknowledge all the benefits and efficiency it brings with it and non-profit marketing will become an established term in literature.

References

- Rektořík, J. a kolektiv (2004), *Organizace neziskového sektoru*, Ekopress

Internet resources

- [www.neziskovky.cz](http://www.neziskovky.cz)

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RUSSIA AND THE WORLD: DEMOGRAPHIC ASPECTS OF DEVELOPMENT

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Abstract

The paper deals with the analysis of the main trends of the world demographic development. A special attention is paid to the demographic situation in Russia which can be characterized as extremely contradictory. The article contains the reasoning for the necessity of keeping the Russians’ health as the main resource of the economy. The priority tasks aimed at the improvement of the future demographic situation in Russia have been formulated in the article.

Keywords: lifespan, demographic transition, mortality, health, Russia

JEL Classifications: I10, I15, J11

Introduction

A great number of publications are devoted to the world demographic problems. A lot of governmental and non-governmental organizations, research institutes and centers deal with the issues of the demographic development.

The purpose of the article consists in the generalization of the existing positions on the demographic aspects of the world development on the whole, and Russia, in particular. Generally, some trends of the world demographic development can be grouped as follows.

Table 1: World population, 1950, 1975, 2009, and 2050 according to 4 options of forecast (revised in 2008), millions of people

<table>
<thead>
<tr>
<th></th>
<th>1950</th>
<th>1975</th>
<th>2009</th>
<th>2050, options by level of birthrate</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>low</td>
</tr>
<tr>
<td>Whole world</td>
<td>2 529</td>
<td>4 061</td>
<td>6 829</td>
<td>7 959</td>
</tr>
<tr>
<td>More developed regions</td>
<td>812</td>
<td>1 047</td>
<td>1 233</td>
<td>1 126</td>
</tr>
<tr>
<td>Less developed regions</td>
<td>1 717</td>
<td>3 014</td>
<td>5 596</td>
<td>6 833</td>
</tr>
<tr>
<td>The least developed</td>
<td>200</td>
<td>357</td>
<td>835</td>
<td>1 463</td>
</tr>
<tr>
<td>The rest of the less developed</td>
<td>1 517</td>
<td>2 657</td>
<td>4 761</td>
<td>5 369</td>
</tr>
<tr>
<td>Africa</td>
<td>227</td>
<td>419</td>
<td>1 010</td>
<td>1 748</td>
</tr>
<tr>
<td>Asia</td>
<td>1 403</td>
<td>2 379</td>
<td>4 121</td>
<td>4 533</td>
</tr>
</tbody>
</table>
According to predictive estimation by 2050 with an average option of birthrate the Earth population will account for 9.1 billion people, which is by 2.3 billion people more than at present (see Table 1). Nowadays, the biggest part of the mankind (82%) live in the less developed regions of the world, with 12% - in the least developed countries, 1.2 billion people (18% of the total population) make up the population of the more developed regions of the world. It is expected that by 2050 a share of residents in the less developed countries will increase up to 86%, including 18% of those living in the least developed countries, a share of residents in the more developed countries will decrease to 14% accordingly.

### Trends of the world demographic development

**An increase in the expected lifespan**

For the last 100 years there has been a significant rise in the rate of the expected lifespan. In some dozens of industrially developed countries it has increased more than twice and reached the level of more than 70-80 years. Table 2 shows the data of the World Health Organization at the beginning of XXI century on the average lifespan in a number of countries. One should notice that there is an increase in the absolute average number of health life years, which expands significantly a life potential of every generation making it steadier. The healthy life span approximately accounts for 80-90% of the whole expected lifespan for men and 77-87% for women. A long life and keeping health for many long years for the majority of the population is a historically new phenomenon. A number of people can become smaller, but the length of time they live for and consequently, the opportunities they get are bigger. Further, we will consider the situation with the lifespan in Russia.

<table>
<thead>
<tr>
<th>No.</th>
<th>Country</th>
<th>Average lifespan</th>
<th>Men</th>
<th>Women</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Japan</td>
<td>82.07</td>
<td>78.73</td>
<td>85.59</td>
</tr>
<tr>
<td>2.</td>
<td>France</td>
<td>80.87</td>
<td>77.68</td>
<td>84.23</td>
</tr>
<tr>
<td>3.</td>
<td>Sweden</td>
<td>80.74</td>
<td>78.49</td>
<td>83.13</td>
</tr>
<tr>
<td>4.</td>
<td>Italy</td>
<td>80.07</td>
<td>77.13</td>
<td>83.20</td>
</tr>
<tr>
<td>5.</td>
<td>Norway</td>
<td>79.81</td>
<td>77.16</td>
<td>82.60</td>
</tr>
<tr>
<td>6.</td>
<td>Greece</td>
<td>79.52</td>
<td>76.98</td>
<td>82.21</td>
</tr>
<tr>
<td>7.</td>
<td>Austria</td>
<td>79.36</td>
<td>76.46</td>
<td>82.41</td>
</tr>
<tr>
<td>8.</td>
<td>Germany</td>
<td>79.10</td>
<td>76.11</td>
<td>82.36</td>
</tr>
<tr>
<td>9.</td>
<td>Great Britain</td>
<td>78.85</td>
<td>76.37</td>
<td>81.46</td>
</tr>
<tr>
<td>10.</td>
<td>Finland</td>
<td>78.82</td>
<td>75.31</td>
<td>82.46</td>
</tr>
<tr>
<td>11.</td>
<td>Bosnia and Herzegovina</td>
<td>78.33</td>
<td>74.74</td>
<td>82.19</td>
</tr>
<tr>
<td>12.</td>
<td>Cyprus</td>
<td>78.15</td>
<td>75.75</td>
<td>80.67</td>
</tr>
<tr>
<td>13.</td>
<td>USA</td>
<td>78.14</td>
<td>75.29</td>
<td>81.13</td>
</tr>
<tr>
<td>14.</td>
<td>Чехия</td>
<td>76.62</td>
<td>73.34</td>
<td>80.08</td>
</tr>
<tr>
<td>15.</td>
<td>Saudi Arabia</td>
<td>76.09</td>
<td>74.04</td>
<td>78.25</td>
</tr>
<tr>
<td>16.</td>
<td>Serbia</td>
<td>75.29</td>
<td>72.70</td>
<td>78.09</td>
</tr>
</tbody>
</table>
The completion of the demographic transition in the developed countries by the end of the XX century

The transition from having many children to having few children has led to the following: a birth rate per woman in European countries ranges from 1.3 to 2.0 babies. These rates don’t ensure a simple reproduction of the population. In Russia, the birth rate accounts for 1.5, this is absolutely insufficient for a simple reproduction of the population. Russia is becoming more and more similar to Western Europe in its idea of “an ideal family” which should have one or two children. Change of the intensity of the world migration processes.

Migration flows and the forecast for their directions in the nearest decades need to be studied. Where will masses of people from the less developed countries set off to? How will it influence the life in the countries where they will arrive? How will the world population be redistributed? It is absolutely evident that this redistribution will take place. The mentioned trends can be a theme of a separate research and are not comprised by the article.

In comparison with the global demographic trends the situation in Russia can be characterized as extremely contradictory. The demographic processes going on in Russia are a part of the global processes and mainly correspond to those which are taking place in the developed countries. However, there are some peculiarities which cause concern about the further demographic prospects of the country. Let’s consider them below.

The demographic processes in Russia

Reduction in the population of the Russian Federation
Majority of researchers point out to a catastrophic decrease in the population of Russia, which threatens to become unmanageable.

**Figure 1:** Change in the population of Russia (millions of people)

![Figure 1: Change in the population of Russia (millions of people)](image)

**Source:** Polina (2010)

According to the results of research conducted by St.-Petersburg Medical Academy, the population of Russia will reduce to 98 mln people by 2050. This process is stipulated by a high mortality rate, especially during the able-bodied period and a low rate of lifespan in
Russia. On one hand, it not surprising that there is a decrease in the country’s population. There are countries which take the cease of the population growth and even its reduction quite easy. But for Russia, which suffers from a scarcity of people and it isn’t quite aware of it, the reduction in the population is extremely undesirable. The problem of populating the Asian part of the country, which occupies 75% of the whole territory, hasn’t been solved yet. Only 22% of the population lives in this part with a density of 2.5 people per sq. km. The demographic potential of Siberia and the Far East is obviously not sufficient for the exploration of the natural resources of these areas and for the formation of the developed, more or less complete economic and settled structure. Besides, Russia adjoins with densely populated countries; some of them occasionally claim the Russian territories.

Table 3: Russia’s ranking in the world population: factual in 1950 and 2000 and according to the average option of the UN forecast (revised in 2002) in 2050

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>China</td>
<td>554.7</td>
<td>1.</td>
<td>China</td>
<td>1275.2</td>
<td>1.</td>
<td>India</td>
<td>15312.4</td>
</tr>
<tr>
<td>2.</td>
<td>India</td>
<td>357.6</td>
<td>2.</td>
<td>India</td>
<td>1.16,9</td>
<td>2.</td>
<td>China</td>
<td>1395</td>
</tr>
<tr>
<td>3.</td>
<td>USA</td>
<td>157.8</td>
<td>3.</td>
<td>USA</td>
<td>285</td>
<td>3.</td>
<td>USA</td>
<td>408,7</td>
</tr>
<tr>
<td>4.</td>
<td>Russia</td>
<td>102.7</td>
<td>4.</td>
<td>Indonesia</td>
<td>211,6</td>
<td>4.</td>
<td>Pakistan</td>
<td>348,7</td>
</tr>
<tr>
<td>5.</td>
<td>Brazil</td>
<td>171,8</td>
<td>5.</td>
<td>Indonesia</td>
<td>293,8</td>
<td>6.</td>
<td>Nigeria</td>
<td>258,5</td>
</tr>
<tr>
<td>6.</td>
<td>Russia</td>
<td>145,6</td>
<td>7.</td>
<td>Bangladesh</td>
<td>254,6</td>
<td>8.</td>
<td>Brazil</td>
<td>233,1</td>
</tr>
<tr>
<td>15.</td>
<td>Japan</td>
<td>109,2</td>
<td>16.</td>
<td>Iran</td>
<td>105,5</td>
<td>17.</td>
<td>Uganda</td>
<td>103,2</td>
</tr>
<tr>
<td>18.</td>
<td>Russia</td>
<td>101,5</td>
<td>4,10%</td>
<td>2,40%</td>
<td>1,10%</td>
<td>Source: Vishnevskiy (2008)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

As you can see from Table 3 by 2050 Russia’s share in the world population will reach the level of 1% and it will have difficulties with keeping 13% of the world’s land which Russia possesses. The demographic weakness of Russia is doubtless, and we shouldn’t create illusions concerning the future changes in the demographic situation for the better. The possibilities of the demographic response to the challenges of the XXI century are extremely limited. In any case, Russia has to solve its problems and interact with the whole world by means of qualitative rather than quantitative changes of the population’s life potential.

A unique procedure of the population reproduction in Russia
A unique procedure of the population reproduction had been formed in Russia by the end of the XX century. It combines the European birthrate and the Afro-Asian mortality. The fundamental reason for the decrease in the birthrate consists in the completion of the demographic transition by the end of the XX century. Unlike many European countries the transition from having many children to having few children in Russia took comparatively little time, which was full of extreme events (World War I, the Civil War, collectivization and a rapid growth of industry and big cities, which was connected with a growth of employment, first of all, women’s employment; repressions of the end of the 30s; the Great Patriotic War; reforms of the 90s). The processes connected with the decrease in the birthrate can be explained by the evolutionary development; whereas the issues of mortality, especially those of the mortality of men of able-bodied age cause a great deal of questions.

Let’s start with the fact that an average lifespan in Russia accounts for 67 years, which is substantially lower than in other developed countries. An increased rate of male mortality in the 90s of the XX century influenced an important demographic index – a comparative lifespan of men and women. The lifespan of women turned out to be 14 years longer than that of men. It influences a sex structure of the population, which is expressed in the domination of female population (2008: men accounted for 46.2%, women – 53.8% with the norm of 49 and 51), which is an inadequate correspondence between the sexes and has a negative effect on the indexes of nuptiality and birthrate, the structure of working force and other indexes as well as on the demographic and social problems (Baskova, 2009).

A high level of sickness rate and traumatism

At present, the main reasons for a high mortality rate and bad health of the Russians are different types of traumas and chronic diseases - cardiovascular, strokes, etc. (Picture 2). Such potentially dangerous infectious diseases as HIV/AIDS, resistant forms of tuberculosis have a negative effect on the future of Russia. A high level of alcohol consumption, which is characteristic of the Russian lifestyle, causes a spread of cardiovascular diseases, and an increase in the number of accidents. Besides, one can’t underestimate the influence of smoking, unhealthy lifestyle and unbalanced nutrition. However, all this doesn’t give a complete explanation of the existing situation with the sickness and mortality rates. In the opinion of N. Eberstadt, a research worker of the American Enterprise Institute for Public Policy Research, «problems which Russia is suffering from at the moment arose during the periods of wars, famine or dreadful epidemics. In the majority of cases those periods were relatively short; they took several years, after which the demographic situation improved. In Russia these processes have been going on for four or more decades».

Annually, in Russia, more than 1 mln people aged 18 and older become disabled. The graph of disability generally copies the picture of mortality. The reasons for disability are distributed in the following way: cardiovascular pathology – 54.6%; oncological diseases – 1.6%; traumas and poisoning – 4.8%; mental diseases – 3%; nervous diseases – 2.8%; tuberculosis – 2.4%; respiratory diseases – 3.2% (Prokhorov et al., 2007).

Figure 2: Factors of population mortality
It can seem surprising, but nobody in Russia fights for the rescue of the Russian people, though the modern economy is based not on natural resources, but on people. If Russia continues to lose its human capital, it will not be able to provide its economic growth.

The outstanding Russian scientist Mikhail Lomonosov wrote that "the greatness and wealth of the state consists in the healthy and numerous people rather than in the vast territory, which is useless without residents".

The importance of keeping health is growing steadily according to the influence of the technical environment on a human organism. A good health is a great social blessing and it has an effect on all the spheres of people’s life. It is one of the necessary and most important conditions for an active, creative and full life of a human in the society. It was this fact that attracted the attention of K. Marx, who presented an illness as a life limited in its freedom.

An insufficient level of the Russians’ health has a negative effect on the social, working and economic activity of the people, reducing the level of labour productivity, making lower the indexes of health of the future generation, as well as decreasing substantially the general satisfaction of people with their life. Thus, health is the main resource which stipulates the level of satisfaction of practically all people’s needs and is reflected in a lifestyle, a migratory mobility of people, and their exposure to the modern achievements of science, culture, technology, as well as leisure and recreation activities. However, the level of health in its turn depends on the social and economic factors.

At present, physical, mental and social health of the Russian population is influenced by a number of powerful negative factors which will be difficult to neutralize in the foreseeable future.

Among the factors which have had a negative influence on the Russians’ health for the last 15 years specialists point out the following: 1) economic (a low level of wages and pensions, the worsening of the living, working and recreational conditions, the decrease in the level of

Source: Prokhorov et al. (2007)
medical treatment, the change in the structure and quality of nutrition for the worse and others); 2) psychological (an extreme level of stress caused by the social and economic instability of the society and its high criminalization); 3) a decrease in the general level of culture including hygiene and sanitary conditions, which enables the spread of bad habits and an unhealthy lifestyle; 4) a low level of medical and preventive health care; 5) the deterioration of the ecological situation in the country (Gilmudinov et al., 2009).

Conclusions

It is considered that the problem of ensuring the nation’s health can’t be put forward as the primary one under the modern conditions. Russia has others, more important priorities of a military, state and economic character. The most significant role which can be given to health by the modern political thought is that of one of the elements of the national security system. Yet, one must emphasize that the character of the social health is manifested in its close connection with the capacity for work, a vital activity, a social welfare of a person and their family, expenses for medical treatment and preventive health care. It’s quite important to consider health as a phenomenon with marked temporal links and consequences. Today’s people’s health has an enormous impact not only on their tomorrow’s health, but it has a marked hereditary effect, influencing and even predetermining the future generations’ health.

Considering and taking into account the social consequences of the decrease in the health level of the modern population, one has to allow for the unavoidable losses of the future generations stipulated by the underestimation of the health factor at present. One should bear in mind the irreversibility of the negative processes connected with the spread of some kinds of diseases.

The problem of improving people’s health in Russia has to become a central one. It is especially important due to the careless attitude of people to their health. The change in a person’s attitude to their health depends not only on a person’s mood, but also on the opportunities provided by the state for its citizens.

The state, politicians, and ordinary people don’t include health into the list of priorities; an average Russian is ready to sacrifice it for the sake of achieving some material of social benefits. Both the state and its citizens are poorly aware that a person’s and the nation’s health is the critical resource that determine their viability and their capabilities to use other resources to the best effect. The problems of the population’s health are complex, multiple-factor and require a comprehensive approach: conducting a top-priority socially directed economic policy; changing an approach to developing a policy in the sphere of health care, which will take an account of the importance of a health contribution to the economy of the country; implementing particular state programmes which will guarantee the improvement of health of the Russian population and the development of the children; taking serious measures in the field of ecology and environment; a wide propaganda of a healthy lifestyle and standards of hygiene and sanitary norms, as well as of effective techniques of health keeping. We need to develop a national strategy of increasing human capital and an active life, and a system of indexes which will realize this strategy. The health resources should be included into the definition of the national health and be reflected in the GDP.

One can enumerate an endless number of events in every century of the Russian history when a human life cost nothing. Russian people put up with this situation and don’t value their own lives, let alone the lives of other people. Russia needs another ideology, another national idea, so that it could have a demographic future. In the country where the price of a human life is a kopeck the national idea can be only the creation of a human life for people (Ribakovskiy,
2003). Therefore, the demographic recovery of the state, i.e. the preservation and growth of the nations of the country, increase in the value of their life must rank the first in the priorities of the Russian state. Everything should be conformed to the solution of the triune task – reaching a high level of life, providing an adequate quality of life and increasing a lifespan. All the other priorities don’t make sense if the Russian population continues to die out.

References

- Baskova, N.A. (2009), Special features of approaches to the solution of demographic tasks in modern Russia, Bulletin of the Chelyabinsk State University, No.1, pp.60-71.
- Russian statistic annual - 2009. Moscow, Rosstat.

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SUSTAINABLE DEVELOPMENT: FROM GLOBAL IDEA TO THE STRATEGY OF THE COMPANY

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Abstract

In times of resource depletion, global ecological crisis, intensive scientific and technical development, institutional changes the problem of providing a sustainable development of economy and society becomes more and more demanded and actual. The appearance of conception of sustainable development in the middle of 20th century lead to interpretation of society progress not as an economic growth, but it is necessary to consider economics as a national economy tool, which allow to compound and harmonize economic and social development with nature sources exploitation. For rather short time the theory of a sustainable development became not only one of the most studied and quickly developing economic theories, but also became a part of many state and international documents as the basic concept of providing a sustainable development of economy of the developed countries.

Our paper describes the evolution of the concept of sustainable development. Moreover, it analyzes the basic indicators and models of sustainable development and assesses the possibility of applying the concept of sustainable development at the enterprise level.

Keywords: sustainable development, sustainable development indicators, environmental and social responsibility, enterprise development strategy

JEL classification: D80, L19, Q01

Introduction

The founder of the concept of a sustainable development was the Club of Rome, the international public organization founded in 1968, which united representatives of world political, financial and scientific elite. One of the main tasks of the Club of Rome was attracting attention of world community to global problems by means of the reports. "Attempt of creation of the principles of world
planning from positions of the general theory of systems" by Jantsch (1981) became the first discussed document. The basis of all subsequent studies of the Club of Rome is based on the ideas of this document. In particular, human society and the environment are considered as one system, which uncontrolled growth causes its instability. In 1972 the Club of Rome publishes the report "The Limits to Growth" (Meadows, D. H., Meadows, D. L., Randers, J., & Behrens, W. W.) prepared by the Massachusetts Institute of technology. The report reflected the contradiction of the immense growth of consumption of materials in a world where resources are limited and considered several scenarios, enabling societies to reconcile economic development with the limitations of the environment.

Outlined in the report, the problem received world recognition. Conference on problems of the environment relating to the relationship between economic development and deterioration of the environment was hosted the UN in 1972. The UN environment programme was established under the name of “United Nations Environment Programme” (UNEP). In the 1980s, negotiations among the states who were members of the United Nations were held on environmental matters, including the conclusion of treaties on the protection of the ozone layer and the control of toxic waste.

In 1980, talks were held among the UN member states on environmental issues, including the conclusion of treaties on the protection of the ozone layer and controlling toxic waste. In 1987, the UN Commission presented a report "Our Common Future", which was first introduced the term «Sustainable Development. Sustainable development has been defined as a social and economic development in such way that there is no negative impact on the needs of future generations. Sustainable development involves two key concepts (Burton, 1987):

- The concept of 'needs', in particular the essential needs of the world's poor, to which overriding priority should be given;
- The idea of limitations imposed by the state of technology and social organization on the environment's ability to meet present and future needs.

One can say that the concept of sustainable development was formed through the merger of the three main components of social progress: economic, social and environmental.

The economic component of the concept of sustainable development is based on the theory of maximum flow total income Hicks-Lindahl (Hagemann and Hamouda, 2005), which can be made subject to the preservation of capital by which this income is generated. The concept implies the optimal use of scarce resources through the use of energy-saving technologies, including extraction and processing of raw materials, production of environmentally friendly products, recycling and disposal. This raises the following questions: what kind of capital should be maintained (manufacturing, natural, human, etc.), the extent to which different types of capital are substitutable, how to get comparative valuations of different types of capital. In this regard, there were two types of stability (Strielkowski and Lisin, 2012) - poor resistance characterizing undiminished over time natural and produced capital, and strong stability, describing how natural capital must be maintained through a gradual transition to renewable resources (part of the profits from the sale of non-renewable resources are directed at increasing the usefulness renewable natural capital).

The social component of sustainable development is focused on human capital formation and preservation of stability of social systems, reducing the number of destructive conflicts between people (Strielkowski et al., 2012). The important aspects of this concept are solving equitable benefit sharing and implementation of an effective international system of decision-making that takes into account historical experience. Man is defined as the subject of sustainable development, taking part in the processes that shape the scope of his life.
Environmental component of sustainable development aimed at ensuring the integrity of ecosystems and habitats (cities). The focus is on preserving the ability to heal itself and adaptation of these systems to environmental change. It is believed that the degradation and pollution of the environment, biodiversity loss reduces the ability of ecosystems to heal itself.

**Indicators and models of Sustainable Development**

The Sustainable Development Indicators are used to monitor the National Sustainable Development Strategies. One of the most informative and studied systems of The Sustainable Development Indicators put into apply in the European Union. The Sustainable Development Indicators are published in the Eurostat report every two years. All of 100 indicators divide into 10 categories. There are 11 headline indicators, which are intended to give an overall picture of whether the European Union has achieved progress towards sustainable development in terms of the objectives and targets defined in the strategy (The Sustainable Development Indicators, 2012).

**Table 1: Sustainable development headline indicators**

<table>
<thead>
<tr>
<th>No.</th>
<th>Categories</th>
<th>Headline indicators</th>
</tr>
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<tbody>
<tr>
<td>1</td>
<td>Socio-economic development</td>
<td>Growth rate of real GDP per capita</td>
</tr>
<tr>
<td>2</td>
<td>Sustainable consumption and production</td>
<td>Resource productivity</td>
</tr>
<tr>
<td>3</td>
<td>Social inclusion</td>
<td>People at-risk-of-poverty or social exclusion</td>
</tr>
<tr>
<td>4</td>
<td>Demographic changes</td>
<td>Employment rate of older workers</td>
</tr>
<tr>
<td>5</td>
<td>Public health</td>
<td>Healthy life years and life expectancy at birth, by sex</td>
</tr>
<tr>
<td>6</td>
<td>Climate change and energy</td>
<td>Greenhouse gas emissions, share of renewable energy in gross final energy consumption, primary energy consumption</td>
</tr>
<tr>
<td>7</td>
<td>Sustainable transport</td>
<td>Energy consumption of transport relative to GDP</td>
</tr>
<tr>
<td>8</td>
<td>Natural resources</td>
<td>Common bird index</td>
</tr>
<tr>
<td>9</td>
<td>Global partnership</td>
<td>Official development assistance as share of gross national income</td>
</tr>
<tr>
<td>10</td>
<td>Good governance</td>
<td>-</td>
</tr>
</tbody>
</table>

**Source:** Own results

Financial savings are one of the sources of economic growth. Voluntary renunciation of the profits, which is the result of economic activities harmful to the environment, is an argument in favor of getting long-term environmental benefits allowing to save financial resources in physical terms.

Economic analysis must take into account the direct and indirect factors affecting the profit from a position resilience of natural resources. Economic evaluation of business enterprise should cover both a result of activity and its effect on the environment and the social sphere, and thus include not only financial accounting, but also taking into account social and environmental pillars (Ecological Project for Integrated Environmental Protection, 2014).

The initial concept of sustainable development suggests a link sustainable development, primarily with the environmental factor. In the subsequent discussions about sustainable development began to include a social dimension, due to the fact that there is a close relationship between society and the environment. As a result, this has led to the proposal of the classical model of the relationship between society, economy and the environment shown in Figure 1.
Classical model of the relationship between society, environment and economy suggests the predominance of the economic component around which build relationships of society and natural resources.
Later came the understanding that sustainable development involves the inextricable link all three components: a combination of social progress and the economy leads to equitable sharing of benefits; economic development and preservation of the environment provide sufficient resources for the production of goods; responsibility for the environment and social development provide suitable conditions for existence.

Figure 1: Classical model of the relationship between society, economy and environment

Source: Burton (1987)
Description of combinations of all the above three aspects allowed to form a sustainable development model, shown in Figure 2.

Figure 2: Model of sustainability

Source: Martinez-Alier, J., 2006

This representation of the model of sustainable development is not entirely successful. Such visualization suggests that some parts of the economic system cannot depend on social services, and society can exist without the environment, ensuring its resources (Martinez-Alier, J., 2006).
Alier, 2006). D’Alisa (2007) proposed to use the concentric model of sustainable development, to correct the deficiencies of the previous model (see Figure 3). This concentric model known as “Strong sustainability model” reflects the impact of the relationship and the biological, social and economic spheres. Analysis of this model shows that the social system should include the scope of economic relations, representing the economic system, and social relations that are not part of the economic system. Ecological system represents resources, ensuring the existence and functioning of the economic and social systems.

**Figure 3: The concentric model of sustainable development**

![Concentric Model of Sustainable Development](image)

**Source:** D’Alisa, G., 2007

**The concept of sustainable development at the enterprise level**

Forming the company's development strategy in an economy focused on the concept of sustainable development, it is necessary to carry out planning and accounting interrelated economic, social and environmental indicators. Obviously, the EU monitoring indicators conceived for the analysis at the national level cannot be simply used to analyze the harmonization with the principles of sustainable development at the individual level, by the companies. However, they can be analyzed as an exercise of developing custom-made indicators for this purpose.

From the microeconomic perspective, according to Ciumara (2012) there are 7 steps to run a company in agreement with the principles of sustainable development:

1) Conduct a stakeholder analysis in order to identify all the sides affected directly or indirectly by the activity of the enterprise;
2) Set out policies and objectives concerning sustainable development;
3) Work out and execute a plan of implementation;
4) Develop a corporate culture based on support;
5) Develop measures and standards of performance;
6) Prepare reports;
7) Increase the processes of internal monitoring.

The adaptation of the company strategy to the principles of sustainable development is a complex process which requires great efforts. The major problems hindering the harmonization of the relation between the company strategy and the principles of sustainable development are the time-span differences (rather short in the case of the company strategies...
and long or very long for sustainable development) and the scale differences (the company strategy concerns the activity of that particular company, while sustainable development only makes sense for the whole economic system).

A characteristic of adapting the company’s strategy to the principles of sustainable development is the increasing importance of the ecologic or social objectives compared to the economic objectives. Generally, the economic objectives don’t have a time-scale of more than half a decade, the time needed to depreciate some important assets or to calculate the profitability of a large-scale project, while the ecologic objectives expand on much longer periods.

Not all kinds of companies can rebuild its strategy under the principles of sustainable development. The company pursues different objectives at every stage of existence. There are following stages of enterprise development: survival, growth, value creation, sustainable value creation. It is obviously that company does not pay special attention to environmental and social factors in the stage of market entry. Conversely, if the company is in the process of sustainable value creation, it must follow the principles of sustainable development.

This need stems from concerns about the formation of shareholder value, which depends on the reputation of the company and its corporate social responsibility. In accordance with Porter, M. E., and Mark Kramer R. (2011) the principle to create shareholder value is in interpretation of economic value not only from the standpoint of obtaining economic benefits, but also from the standpoint of creating social value through appeals to the needs and problems of society.

Conclusions

Thus, on the basis of our research, we can conclude the following: the principles of sustainable development must be observed at all levels of the economy. Moreover, one can note that adherence to the principles of sustainable development of large enterprises is a necessary condition for sustainable development of the economy and social sphere. In this case, for a number of companies adaptation their strategy to the principles of sustainable development is a prerequisite for achieving competitive advantage and efficiency of current socially significant events.

References


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APPLICATION OF A PROJECT-SPECIFIC APPROACH FOR MANAGING THE COST OF TECHNOLOGICAL PLATFORM SCI-TECH PROGRAMS

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Abstract
This article describes the features of implementation of innovation activities of domestic technology platforms through the use of project-specific approach; identifies key issues of innovation project implementation in the context of cost management; and suggests methodological recommendations for improving the interaction between the technology platform stakeholders in the course of joint implementation of projects.

Keywords: technology platform, project-specific approach, innovation activity funding, cost management

JEL classification: G23, L52, O38, R42

Introduction
The transition of the Russian economy to an innovative way of development is largely determined by the efficiency of interaction between innovation sphere participants (universities, scientific organizations, business and government) for a joint implementation of sci-tech programs within the frames of the country’s development strategy. The choice of the state policy is supported by a number of government initiatives, among which special emphasis is put on the Strategy of Innovation Development of Russia by 2020, assuming the creation of technology platforms (TP) as a key instrument for the state implementation.
A technology platform is a mechanism for developing advanced commercial technologies and new products, for attracting funds for research and development (R&D) as well as for enhancing a regulatory framework in the area of innovation, aimed to activate efforts of the industrial business, science and the state.
The TP rests on a sectorial principle of thematic projects formation. Platform implementation envisages the development of a strategic research program, formation of the implementation program, dissemination of research results, development of training programs in various
sectors of the national economy, ensuring the continuity of the innovation process and supporting the life cycle of innovations at all its stages.

The initiative to create platforms in Russia is largely based on the European practice: the basic approach and the idea itself were borrowed from the European Union experience, but soon enough they acquired Russian specifics.

**Features of a project-specific approach to the implementation of innovation activities of Russian technology platforms**

It is important to note that the technology platforms mechanism assumes a project-specific form of organization and management of innovation activities, within which R&D topics are clarified, sources of investments are identified, and an economic evaluation of the project results for stakeholders is conducted, etc.

A project-specific approach is characterized by specific categories, which distinguish it from any other kind of activity (Gray and Larson, 2003):

- Aimed to achieve the ultimate objective established;
- Established duration with actual start and end dates;
- Coordinated implementation of interconnected activities by various specialists, regardless of the field of application of their knowledge;
- Exclusivity and uniqueness of actions or results obtained.

Thus, an innovation project means unique, comprehensive and coordinated activities aimed to obtain the results in line with the pre-set specific requirements, which are restricted by completion periods and resources involved. And namely finding an optimum combination of resources, scope of completed works and quality of works at any given time in accordance with the customer requirements, required to achieve the objectives of the project, is one of the most important functions of project management.

The innovation project management implies the execution of complementary and interconnected processes required for its implementation; each process means a set of interrelated activities carried out to obtain a pre-set result. Meanwhile, project management processes are divided into five categories (PMBOK Guide, 2008):

- Initiating processes: describe initial objective of the project and its content; define original needs for financial resources; appoint a project manager;
- Planning processes: clarify the purpose; define the overall content and timeframe for work completion; prepare the budget; select stakeholders; analyse possible risks;
- Execution processes: coordinate activities of work performers and resources involved; carry out integration and perform operations in accordance with the project management plan;
- Monitoring and control processes: analyse and compare work performance with planned indicators (time, cost, quality, etc.); identify deviations from the stated characteristics (parameters) and take appropriate corrective actions, if required;
- Completion processes: take into account measures on formal completion of all works and operations; transfer the deliverables to the client; close up the project closure.

It is worth mentioning that all groups of the project management processes are interdependent and overlapping activities, rather than separate and independent activities, which take place throughout the project life cycle, and this fact predefines an integral nature of the project-specific approach as a way of innovation activity implementation.

At the same time, the following subject areas of knowledge (PMBOK Guide, 2008) are involved during the implementation of project management processes, which form a basis for
project feasibility and affect project implementation process: integration of the project management as a whole on the basis of a systematic approach as well as management of the project scope, timeframe, cost, quality, human resources, communications, risks and procurements.

Generally, any project has certain development phases of interrelated successive stages of its life cycle, which at the same time are not considered as a group of project management processes. Typically, four stages are set (Kerzner, 2013; Burke, 2013):

1. Initial stage: definition of the innovation project concept; at this stage, objectives and tasks are detailed, peculiarities of project implementation are considered, and stakeholders and their responsibilities are defined.
2. Development stage: development of a comprehensive program-target plan, within which the content of the project is prepared; final results, timeframe and work quality standards are determined; need for resources is calculated; project budget is formed; risks are analyzed and assessed.
3. Implementation stage: implementation of major part of project activities; at this stage, work performance is coordinated and monitored (time, quality, cost); work status is predicted; operational planning is carried out, taking into account necessary adjustments.
4. Completion stage: legal and information completion of design activities if established objectives are achieved; compliance of deliverables with the stated requirements is verified and deliverables are transferred to the client; project implementation results are summed up; and lessons learned are evaluated.

The peculiarity of innovation projects of technology platforms is a long-term transition from the development stage to the implementation stage. Based on the application submitted by the platform, the project is studied by the Working Group for the Public-Private Partnership Development in the Innovation Field; upon the decision taken, a List of TPs supported by the state is defined. This application contains the following key information about the project:

- Description of the technology and rationale for its implementation for the industry;
- tasks and objectives of the project as well as expected cost/ performance efficiency indicators;
- information about all concerned parties - platform stakeholders (which ensure execution and financing of operations as well as consumption of deliverables);
- project implementation plan for a medium-term period.

The project implementation stage within the TP frames includes a sequence of steps, covering performance of scientific, R&D and design activities as well as the industrial mastering of the technology. Within this stage, the project cost management is provided, which affects operational budget planning processes based on the existing schemes of financing from private and public sources of capital, as well as project control is conducted by cost in accordance with the achieved intermediate technological results (Report on Technology platform list generation procedure, 2010; Report on Ministry of Economic Development of the Russian Federation “On technology platform formation in the Russian Federation”, 2012).

It may be stated that after almost three years since the date of the technology platform formation initiation, operational issues, related to the organizational and investment interaction between the stakeholders, still exist. That’s why the solution of the technology platform’s project cost management is of special importance both at any stage of the whole implementation process and at each individual step, preferably, at the project development stage.
Technology platform’s project cost management issues

Dependent on the project implementation stage, key stakeholders of technology platforms are as follows (Report on Technology platform list generation procedure, 2010; Report on Ministry of Economic Development of the Russian Federation “On technology platform formation in the Russian Federation”, 2012):

- Research and design organizations, engineering companies responsible for R&D and engineering support of the project, in particular, during industrial development of the technology;
- Financial and economic institutions providing investment support to the project;
- Business structures represented mainly by sectorial production enterprises, which create demand for the results of innovative activities within the TP projects and which are directly involved in works financing.

While considering the existing interface diagram among stakeholders of Russian platforms as a whole, attention is drawn to the fact that, in the framework of the innovation project implementation, the development of a strategic cost management plan is not expected. For example, a common budget is not available so far: funds are raised to perform specific works for each individual stage of technology transfer independently by each of the performers and only at a formal support of the Coordinator, which, in fact, provides an information support of the platform. Successively, at each project implementation stage, a separate budget, not associated with the project-specific approach concept, is formed and managed by the parties involved in a certain stage. In this case, liaisons among stakeholders of different stages are slightly tracked and the results of research and development, obtained at the previous stages, do not guarantee the continuation of activities at the next stages. The project as a whole does not have any financial planning: work starts under uncertain financial conditions and, therefore, is accompanied with high financial risks and risks of project non-completion within the established timeframe. In this regard, searching for investors is the most critical issue for the TP project implementation.

Today in Russia, the state is the main source of financing innovation activities for implementation of large-scale sci-tech projects (including technology platforms) (Table. 1). The state provides the support in the following forms:

- Gratuitous budget allocations, in particular, through a system of scientific research grants and federal target programs;
- On a reverse basis through extra-budgetary funds;
- Through co-financing of projects through established development institutions.

Table 1: Description of the main sources of funding of sci-tech and innovation activities in Russia

<table>
<thead>
<tr>
<th>Source</th>
<th>Funds, RUB billion</th>
<th>Scope of support, RUB million, 2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vnesheconombank</td>
<td>Bank budget – 383</td>
<td>minimum 1000</td>
</tr>
<tr>
<td>MSP-bank</td>
<td>Bank budget – 50</td>
<td>Up to 60-150</td>
</tr>
<tr>
<td>RBK</td>
<td>Budget of all funds – 30</td>
<td>Up to 300-1000</td>
</tr>
<tr>
<td>RVK Seed Fund</td>
<td>Chapter capital – 2</td>
<td>Up to 25</td>
</tr>
<tr>
<td>ROSNANO</td>
<td>22.2</td>
<td>minimum 250</td>
</tr>
<tr>
<td>Skolkovo Fund</td>
<td>27.1</td>
<td>1.5-300</td>
</tr>
<tr>
<td>Research &amp; Development Federal Target Programme</td>
<td>32.02</td>
<td>Up to 50-100 per annum</td>
</tr>
<tr>
<td>RFFI, RGNF</td>
<td>9.35</td>
<td>Up to 0.5 per annum</td>
</tr>
<tr>
<td>Assistance Fund</td>
<td>4</td>
<td>Up to 6-15 per annum</td>
</tr>
</tbody>
</table>
Alongside with the availability of various financial institutions, the links among these institutions are specific and ineffective in many areas, the movement of innovation projects from one institution to another is not fully established, there are no practical schemes of investing in TP projects which combine different sources, including budget funds. Also it should be noted that the project financing procedure through almost all sources (with the exception of a system of grants) is not transparent enough: it is rather difficult to find out about funding priorities and principles of decision-making on applications, and, therefore, judge the efficiency of financial institutions in general and the quality of allocation of funds at their disposal.

At the same time, due to difficulties in establishing a functional interaction among the innovation process participants, Russian technology platforms are not able to cope with the task of attracting private investors and are mainly rely on a direct government support or participation of the state-owned corporations (Report on Ministry of Economic Development of the Russian Federation “On technology platform formation in the Russian Federation”, 2012).

At present, the expected target funding of TP projects (through grants of federal target programs and loans provided by the Russian Foundation for Technological Development) is only possible within the framework of R&D, whereas, due to existing market conditions, either extra-budgetary funds of research organizations – TP stakeholders, most of which are government agencies or partly state-owned companies which provide co-financing of the platform projects on a peremptory basis, act as co-investors. In fact, the state does not create adequate conditions for co-financing of works at the expense of the private sector at the early project development stages. At the technology commercial development stage, which is essentially the most resource-intensive stage from all points of view, not only the absence of the state as a co-investor, but also the lack of any work financing schemes, capable to attract significant investment to complete the project, raise concerns.

The state’s investing in research and development through the federal target program mechanism is the issue of special importance. Funding is expected to be effected on a competitive basis, following the consideration of bids received for performing specific terms of reference on a specific topic, which includes a list of activities required, maximum value, deadlines, etc. I.e., within the frames of this program, state order contractors are searched for and, in most cases, financial performance plays a decisive role, upstaging sci-tech solutions and practical orientation of works.

**Recommendations on project cost management for Russian technology platforms**

As a result of modeling studies (Zlyvko, Lisin, Rogalev, Strielkowski, 2013), we can offer the following approaches to cost management for technological platform projects.

First, it is necessary to develop a comprehensive program of phased financing of TP projects, in the context of which the budget of the project as a whole is formed due to public and private capital, whereas the role and TP stakeholders, in the context of financial support, should be dependent on the innovation project implementation stage. As the project implementation goes by, the role of private capital should grow.

Second, at the research and design stages, calculations of attracting different sources of funding of R&D both on the basis of free stated-allocated resources (under the “Research and
developments on Russia’s sci-tech complex priority development vectors”) and loans from the state extra-budgetary funds (e.g., the Russian Foundation for Technological Development) well as the investments of companies which receive final deliverables.

Third, at the technology commercial development stage, it’s necessary to attract venture capital investments. Obviously, the commercial development of new technological solutions requires higher capital expenditures and is also associated with significant financial risks. A developed mechanism for attracting investments through venture capital funds as well as the resolving of the issues associated with investment insurance, distribution of profits and a quit from the projects will allow us to tackle the problem of investment capital shortage at this stage. In our opinion, the best option for organizing this source of investments for technology platforms is to create industry-specific Innovation Funds with the involvement of the state and the private sector. This question has repeatedly been raised at the thematic conferences and should be brought to the suggestion of specific solutions and methodological guidelines. This is especially important, because, in the view of this statement of the problem, it makes it possible to seriously strengthen the mechanism of public-private partnership, which supports the concept of technology platform creation and development. At high stages of the technology readiness, private capital is ready to direct financial flows to technological projects subject to the availability of transparent distribution patterns and adequate return on investment and investment insurance.

Fourth, it is necessary to significantly increase the role of the Technology Platform Coordinator. In fact, the Coordinator should serve as a project manager, using the project management methodology; he should ensure the sustainability of the project by balancing the interests of all stakeholders with the consideration of available resources and necessary expenses, as well as the achievement of the established project performance indices on time. That’s the Coordinator who shall be responsible for project cost management to be reached through control over budget formation and allocation issues for the whole project and for each project stage.

Fifth, the update of the FTP mechanism regarding to the co-financing of research and development by providing grants on a competitive basis, taking into account expert judgment in accordance with the project importance for the innovative development of the country, may be an essential measure, provided that the size of such a grant is not fixed and is determined by an expert group during the bid evaluation, based on which a decision on financing the work is taken. At the same time, the level of financial involvement of the state may depend on various criteria, i.e., organizational and legal form of the participant of the innovation activity, accounting system, scale of the project, etc.

Therefore, we may say with a high degree of confidence that the use of the suggested guidelines will be an effective tool of the state policy in addressing the issues of implementation of innovation projects of Russian technology platforms based on the public-private partnership mechanism as well as project cost management.

Conclusions

In line with the course of implementation of the state policy for the country’s transition to the innovative development, technology platforms are recognized as one of the most effective mechanisms for the implementation of large-scale projects in top-priority and socially important areas of science and technology on the basis of public-private partnerships.

At present, issues, related to the interaction among the investment platform stakeholders in the context of a project-specific approach to cost management, are still of a great concern.
Despite the availability of various sources of funding, which may be involved to finance innovative activities and which are raised with an active participation of the state, practical schemes for investing in TP projects are not available; in particular, specific programs for funding the activity of platforms with the involvement of various financial institutions (banks, insurance companies, venture capital and investment funds, etc.) have not been envisaged, and there are no operating mechanisms for co-financing research and production activities on the basis of public-private partnerships.

Based on the study conducted, we suggested methodological recommendations, which include the development of a staged TP funding scheme based on a project-specific approach and involvement of public and private capital while keeping the balance of interests, as well as project cost management tools.

References


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