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### FUNDRAISING MODEL OF COACHING OF THE TEACHING STAFF OF THE TECHNICAL UNIVERSITY

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#### *Abstract*

The article is proposed a fundraising model and technology for continuing education of the teaching staff of the technical university. The model assumes the formation and implementation of a fundraising strategy of a technical university, as well as the development of new technologies of academic fundraising, including the formation of new pedagogical competencies of higher education teachers. Clarified the economic content of the category of fundraising, which is the art and science of continuously attracting charitable and sponsorship funds for projects or for the activities of non-profit organizations in general, with the participation of philanthropists in the activities of the organization. The author's classification of objects and methods of fundraising is given in the article, a system of principles is formulated and the most promising models of fundraising activity are identified. This allows formulating a strategy of attracting resources for the revitalization and implementation of scientific and technical developments in the organization. The criteria for success of fundraising activities in the field of financing scientific and technical developments were determined, based on the priority of conditions for long-term mutually beneficial cooperation with philanthropists and partners in the joint application of the results of scientific and technical developments, as well as the expansion of interregional and inter-industry cooperation with partner organizations and individuals. This allows to form an independent public and market demand for high-quality scientific and technical developments, as well as build a system of incentives and increase the loyalty of partners to the activities of a non-profit organization.

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**Keywords:** Fundraising, education, technology, model, development.



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## **1. Introduction**

The key problem of engineering education today is the content and forms of student learning and cognitive activity at a higher education institution, which are not always adequate to the modern content and forms of professional activity of a specialist, whose competence is manifested in analyzing the production situation, in professional search, setting and solving production problems. One of the main reasons for this situation is the vocational training which does not correspond to the actual situations that the future graduate, when he or she faces in his or her practical work, since it is focused mainly on solving standard educational tasks on the model. One of the main tasks of engineering education is the development of professional subjects capable of creating and selling high-tech products that are in demand on the market.

## **2. Problem Statement**

The solution of this problem, according to the authors, is possible on the basis of a change in the paradigm of managing the development of teaching staff at a technical university. To this end, it is necessary to apply new models and technologies for continuing education of the teaching staff of the technical university. The main feature of management models should be the market mechanisms for the development of personnel potential with their focus on the continuous search for customers in the free market. This tool can be a fundraising, which is tool for finding, collecting, redistributing external sources of funding for the non-profit sector in the educational sphere.

These circumstances and the importance of the discussed prerequisites have determined the topic of the article, its purpose and objectives, as well as the main areas of research.

## **3. Research Questions**

The article poses the following research questions: 1. how to form effective fundraising models for financing and managing continuing education of the faculty of the Technical University; 2. what criteria for evaluating the effectiveness of fundraising at the Technical University can be used to measure the effectiveness of this activity; 3. what directions of fundraising can be used to attract funding for continuing education of the teaching staff and updating additional education programs for the teaching staff of the Technical University.

## **4. Purpose of the Study**

The aim of the article is to develop and provide a business case for fund-raising tools for continuing education of the teaching staff of the technical university.

The object of the study was the Kazan National Research Technical University - KAI (KNITU-KAI), which provides fundraising financing for scientific and technical developments.

The subject of the study is the factors, trends and patterns of fundraising funding for continuing education of the teaching staff of the technical university.

## 5. Research Methods

The methodological basis of the study is the dialectic method of knowledge; basic research on the development of creative technical thinking; research in the field of social marketing (Hodge & Piccolo, 2005; Pratt, Yakubov, Glinski, & Hauser, 2009; Sargeant, West, & Jay, 2007), laws of the functioning of social media (Nonprofit Tech for Good, 2017), conflict studies, research in the field of laws of development of social and economic systems (Khodorova, Chertok, & Smit, 2014; Saxton & Wang, 2016).

The leading method for the study of this problem is the method of system analysis, which allows to consider this problem as a targeted and organized process to improve the system of lifelong education of people who train new pharmacy specialists in order to reconcile contradictions at various levels.

## 6. Findings

The results of fundraising consider the amount of attracted funds. However, the authors proceed from the position that the quality of fundraising is not limited only to the amount of attracted funds. In the modern world, long-term, established partnerships with philanthropists are of particular value. In this question, the criterion of loyalty is more significant than a one-time effectiveness. The most frequently used areas of fundraising activities can be identified: working with philanthropists, participation in grant competitions, crowdfunding and crowdsourcing, co-branding and other areas (Table 1).

**Table 01.** Areas of fundraising

Direction	Definition
1	2
Work with big corporate charities	Attracting donations from non-profit corporate partners. Work with large donors implies a high level of personal responsibility of a non-profit organization to partners. The main objective of this direction is building long-term relationships with partners (Charities Aid Foundation, 2016).
Organization of collecting private donations	Attracting donations from individuals who share the values of a non-profit organization. A characteristic feature of this direction and the main task is the organization of mass donations that provide a high level of income to a non-profit organization for the implementation of social initiatives.
Organization of charity auctions	Attraction to the partnership of philanthropists participating in the activities of a non-profit organization is not due to direct funding, but through the transfer of values, which are subsequently presented for public sale (Blackbaud Institute, 2017).
Participation in grant competitions	Attraction of non-profit organization funds from international, state regional, as well as private foundations and other social institutions. A characteristic feature of this direction is the need for high quality social initiatives for which funds are allocated from these institutions.
Crowdfunding and crowdsourcing	Attraction of financial and labor resources in specialized, as a rule, network sites. One of the forms of implementation of this direction is the organization in volunteering, as well as attracting professionals to perform certain work that requires high qualification free of charge (in foreign practice this form was given the name pro bono).
Cobranding	Mutually beneficial cooperation with commercial organizations that share the values of fundraisers. The main result for commercial partners in the

	implementation of this direction is the association of consumers in this commercial organization with the activities carried out by a non-profit organization (Pinho & Macedo, 2008).
Endowment	Organization of raising funds in the target capital. This capital is transferred to the trust management of a specialized organization that is a licensed entity in the financial market. By law, the body of capital is inviolable. Only income from trust management of the target capital is used to finance the organization's projects.

The current trend in organizing the financing of major scientific and technical developments is voluntary and open. The matrix of technologies and areas of fundraising is presented in Table 2.

The situation of educational organizations is especially difficult, it is quite difficult for them to attract funding. At the same time, their existence is extremely necessary for society, since it is often with the help of education that it is possible to form the cultural level of society and raise people's awareness.

**Table 02.** Matrix of technologies and areas of fundraising

Methods	Directions						
	Work with big corporate charities	Organization of collecting private donations	Organization of charity auctions	Participation in grant competitions	Crowdfunding and crowdsourcing	Cobranding	Endowment
Personal individual treatment (face-to-face)	+		+				+
Asking potential groups		+			+	+	+
Telephone call	+	+					+
Direct mail	+	+		+			+
Appeal to website visitors		+	+		+		+
Direct advertising		+				+	+
TV appeals		+			+		+
Event management	+	+	+			+	+
Social networks		+	+		+		+

From the table it can be seen that several technologies can be implemented in each direction of fundraising.

Moreover, the effectiveness of these technologies can be influenced by many factors that can be objective or subjective. The objective factors include the following: general microeconomic situation; the solvency of the population; culture charity society and others. Subjective factors include the following:

willingness to charity of specific individuals, and their experience in this area; scale of personality and charisma fundraiser; project team values; quality, completeness and design of information material and more.

The implementation of specific methods can be based on a specific model of fundraising. The authors distinguish three features of classification of fundraising models, including: the intended use of fundraising objects; the degree of consideration of the requirements of the external environment; the number of cycles. Within each trait, six alternative fundraising models are distinguished, such as: fish and fishing pole; introversive and extroversive; single-cycle and multi-cycle.

In fact, a fundraiser can be anyone who needs to understand that he or she wants to get involved in solving this problem, a person with a cold systemic mind, because there are people who are burning, solving a problem, flying in the clouds, but at the same time having funded in them everything is bad: they collected money and immediately spent it.

Fundraising is not just about attracting money. This is a professional activity, whose tasks also include educating donors and justifying the need and importance of art in general and the need for a particular project, in particular.

The success of academic fundraising is proposed to be assessed according to the criteria presented in table 3.

**Table 03.** Criteria for success fundraising

<b>№</b>	<b>Criteria for success fundraising</b>	<b>Unit rev.</b>	<b>The formula of calculation, the characteristic</b>
1	2	3	4
1	Annual funding of scientific and technical development of the organization through the implementation of areas of fundraising	Thousand rub.	Annual volume = total number of scientific and technical developments of the organization * total cost of scientific and technical developments of the organization
2	The annual increase in the amount of funding for scientific and technical development of the organization through the implementation of fundraising directions	%	Annual growth = (Annual volume in the current year - Annual volume in the previous year) / Annual volume in the previous year
3	The number of areas of fundraising, which were implemented in the current year	Units	The number of areas of fundraising, through which funds were raised for the implementation of projects of the organization
4	The annual increase in the number of creative teams that were able to attract funding for their development	Units	The change in the number of creative teams that were able to attract funding for their development compared with the previous period
5	The annual increase in the number of participants (people) of creative teams engaged in scientific and technical development of the organization	Person	Change in the number of participants (people) of creative teams that carry out scientific and technical development of the organization compared with the previous period
6	The number of investors who funded	Person	It characterizes the development of the

	the scientific and technical development of the organization in the current year		level of communication with investors and philanthropists who funded the scientific and technical development of the organization
7	Number of investors who re-financed scientific and technical development of the organization in the current year	Person	It characterizes the development of the level of communications with investors and philanthropists who have repeatedly financed the scientific and technical development of the organization

The authors are convinced that engineering master’s education should begin with fundraising. Each applied engineering development should be carried out according to the technical task of a specific customer who plans to commercialize it (Shin & Chen, 2016). The development of fundraising has a high moral, social, economic value. As one of the ways of spending the funds collected on the basis of fundraising, it is proposed to consider the creation of a youth engineering center (Table 4).

**Table 04.** An example of a social initiative is a youth engineering center

Laboratories	Justification	Key donors	Approximate cost laboratories (million rubles)	Approximate cost content (million rubles)
AeroLab	Personnel training for aerospace enterprises in Tatarstan, Ulyanovsk and Samara regions (KAZ named after Gorbunov, AVIASTAR, JSC Kuznetsov, etc.).	Enterprises of aircraft building, helicopter building, radio and electrical engineering, airports, etc.	90	9
AutoLab	Personnel training for the automotive industry of the Volga Region (Kamaz, Avtovaz, UAZ, GAZ, ELAZ, Izhmash, etc.).	Automotive enterprises of the Volga region, auto centers, manufacturers of automotive components and machinery, etc.	70	10
EnergyLab	Personnel training for energy enterprises, energy engineering in the Volga region (Generation companies, etc.).	Automotive enterprises of the Volga region, auto centers, manufacturers of automotive components and machinery, etc.	65	8
InfoLab	Training for the IT sector, as well as for all sectors of the	Enterprises ICL, IT-park, Technoparks, communications	110	15

	regional economy using information technology	enterprises, etc.		
Labo-ratories	Justification	Key donors	Approximate cost laboratories (million rubles)	Approximate cost content (million rubles)

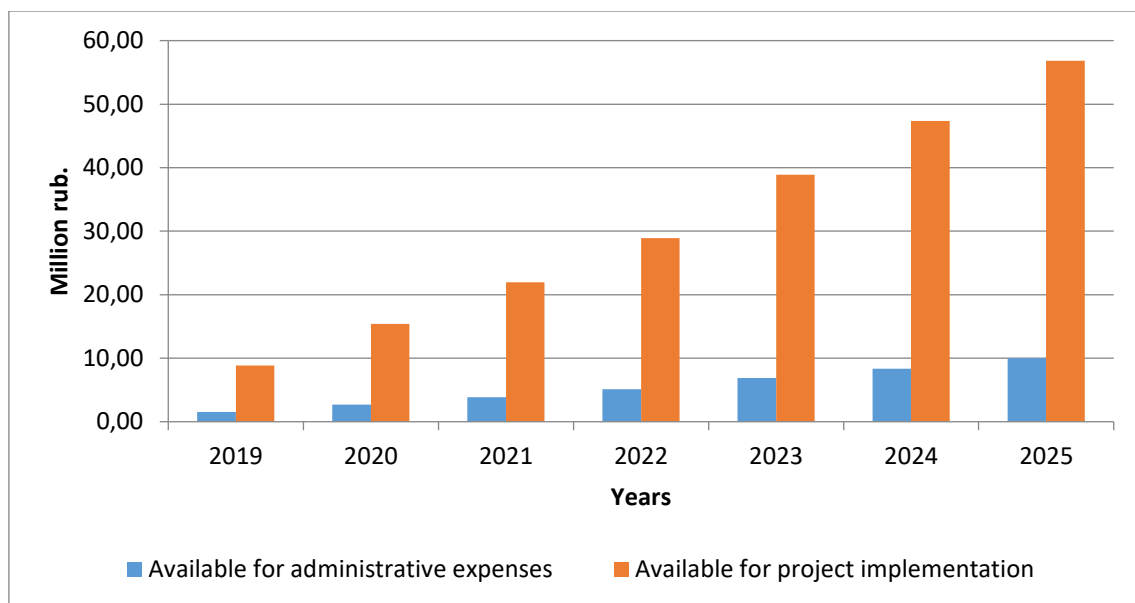
To create an environment in which it will be interesting for modern teenagers to comprehend the fundamentals of engineering, it needs an advanced development of the teaching staff of the university itself. In order to entice young people with technical sciences, it is necessary to have educated, interesting, and maybe not many overly enthusiastic teachers in their favourite work.

In this regard, it is proposed to create and implement a personnel development program within the framework and for the means of fundraising strategy.

Along with the formation of human capital within the university, the formation of success stories related to the university is of no small importance. In this regard, the authors propose an HR service graduate recruitment assistance program.

The calculation of the economic efficiency of measures for the social development of the university has shown that the economic performance of the implementation of the strategy is relatively high for social projects.

In case of implementation of the fundraising plan on the basis of fundraising, the share of expenditures for the implementation of university projects in the income structure will increase annually (Fig. 1).



**Figure 01.** Planned cost structure for management and projects

Strategically, KNITU-KAI is focused on cooperation with the following groups of employers: enterprises of the military-industrial complex of the Russian Federation, a state corporation; high-tech

Russian and foreign companies; small and medium businesses; production clusters; leading Russian and foreign universities. In addition, one of the most common forms of fundraising - crowdfunding has proven itself very well abroad and in Russia. Its capabilities are still being mastered, but certainly, for individual developments it could turn out to be an additional source of funds.

## 7. Conclusion

Modern tools of fundraising involves its implementation through various areas, among which we highlight such as: working with philanthropists, participation in grant competitions, crowdfunding and crowd sucking, co-branding and others. Their essence is to create a unified system and working conditions for fundraising for projects related to scientific and technical developments.

The implementation of specific methods can be based on a specific model of fundraising. The authors identify six alternative models of fundraising, such as: fish and fishing rod; introverted and extraverted; single-cycle and multi-cycle.

The criteria for success of fundraising activity on the example of academic fundraising were developed. The essence of the criteria is the steady improvement of the effectiveness of the aggregate areas of fundraising and the development of mechanisms of participation of philanthropists to ensure their long-term loyalty.

A targeted action plan was developed, aimed at addressing work with philanthropists, including corporate and private donors, as well as various funds. The principles of spending the funds raised, the purpose of which is not defined by a specific donor.

A plan has been developed to implement a fundraising strategy for the social development of the university. Key activities include the creation of youth laboratories, the development of university staff, and the creation of a system to promote employment.

As one of the areas of spending funds collected on the basis of fundraising, it was proposed to consider the creation of a youth engineering centre, including a network of laboratories. To create an environment in which modern adolescents will be interested in learning the basics of engineering, it needs an advanced development of the teaching staff of a technical university. In order to captivate young people with technical sciences, it is necessary to have educated, interesting and enthusiastic favorite work of teachers.

In this regard, it is proposed to create and implement a personnel development program within the framework and for the means of fundraising strategy. Along with the formation of human capital within the university, the formation of success stories related to the university is of no small importance. In this regard, the author proposes a program to promote the employment of graduates "HR service"

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