# THE POWER OF SELF OR THE "SELF TO SELF" ORIENTED AXIS IN THE RELATIONSHIP WITH PROFESSIONAL BALANCE

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# Abstract

This article is devoted to the investigation of human-organization space from an eco-human perspective by maintaining the balance between positive and negative effects, as well as adjusting the own resources and internal careers to the requirements of the professional environment. The general objective of the study was to investigate the relationships between career anchors and psychosocial factors in the professional environment of the "Self" axis. The "Self" axis has an internal meaning, and is made up of the factors that influence it in the professional relationship with the self. The general objective of the study is to examine the specifics of the professional environment, given by the profile of the career anchors. The proposed specific objectives have taken into account the moderator role of the anchors of the careers shown in the researches of scholars: Schein, Bart, Feldman, Bolino, Wills, Brawn, Obi, Yueran, Liu, Öngen, Munir, Nielsen, Jafri and others, as well as a guarantee of professional balance. The consonance of professional psychosocial factors, to the internal and external aspects of the specific careers in service system for humanity, it is play the role of an useful strategy in the design of the career path in the current conditions of life, and the qualitative contribution of the interdisciplinary of the research will contribute to a deeper understanding of the studied phenomenon, in a polyvalent and pragmatic weighted configuration. The sample consisted of 287 participants from three professional fields: medicine, education and social work. Based on the preliminary statistical analysis, by ANOVA method, the high levels of age, professional field, gender, level of education, graduation year and work place where identified p < 0.001.

Key words: professional balance, the purpose of serving, autonomy and independence, pure provocation, health, vitality, stress.

# 1. Introduction

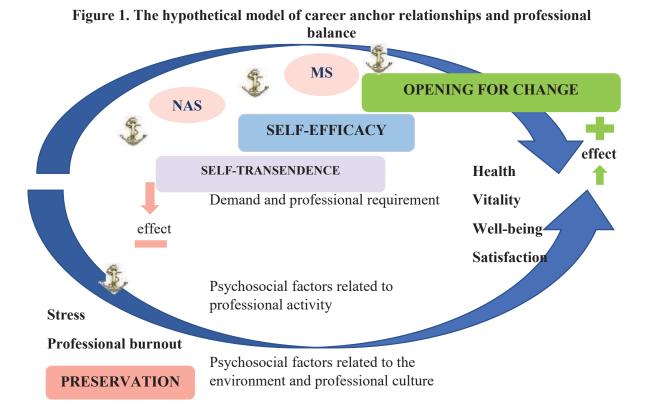
The influence of the "Self" axis in the professional relationship and in particularly on the professional balance, is crucial. Because it has internal mediation, which is expressed through the capacity of personal resources adapted to external contexts such as the exercises of social and professional roles. If we draw attention to the age factor in our research, we see a high significance between the professional field and the age. One of the reasons for this is that the

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Baby Boom generation has advanced the advancement of information technologies by possessing the ideal area by assuming social roles in alternative reality and conscious risks; while the Millennium generation experience the challenges of life in a hyper technological information environment. Therefore, the need to achieve professional success is added to the relationship of saturation of the professional balance (the hypothetical model).

# 2. Literature review

The investigation of the relationships between the career anchors and the psychosocial factors in the professional environment (Figure 1) are focused on the models described by Edgar Schein, such as: career anchors model, career mobility model, circular model of career anchors, labour prospects of a leader, the socio-cognitive model of the person in the context of factors which are affecting choice and professional behaviour, the general model of association between multiple commitments, antecedents and professional results, U theory and it's five levels of change and the Integrative Career Planning Model (Schein , 1974; Schein, 1990; Bart, 1993; Baruch, 2007; Scharmer, 2009; Jackson et al., 2012; Obi, 2015).I



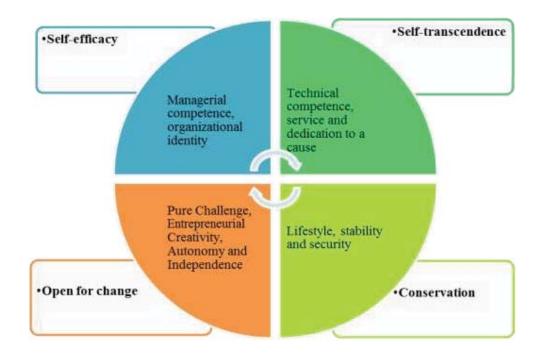
Caption: NAS- the need to achieve professional success;

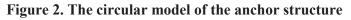
MAS - the motivation to achieve professional success.

These models are influenced by the psychological factors that ensure professional balance, and address the quality of the professional relationship between the specialist and his client (student, student, patient and client).

Self-transcendence, personal effectiveness and openness for change are states of professional balance, managed by professional exigencies and demands, environmental psychosocial factors, culture; welfare and human health. The states of professional balance are polyvalent in themselves, and under the conditions of inventory methodologies, these are inconveniences in addressing a deductive research that we have adopted in the design of current research. Thus, we can only deduce that professional balance is conditioned by self-

transcendence, professional effectiveness and openness for change. At the same time in Voss's model it is mentioned that any factor of change will lead to a balancing within the limits of professional actuality, through personal effectiveness, self-transcendence, openness towards change, or preservation, integrating particularities of the Voss model (Voss, 2002). We should mention that Voss's model (Figure 2) was modified by Laura Wils and her team in 2010, referred as "The Circular Model of Career Anchors Organization ", and includes also four dimensions: the self-concept: continuity, self-assertion, change, self-movement and self-transcendence (Wils L., Wils Th., 2006, p.4).





Source: Voss, R.S. (2002). "Generating Entrepreneurial and Administrative Hierarchies of Universal Human Values as a Basis for Identifying Entrepreneurial and Administrative Potential Across Context." Dissertation Abstracts International, 62 (09), 3110 (UMI No. 3027385), p.23.

By its purpose, this research is motivated by the need to identify and explain the relationships between the career anchors and the psychosocial factors of three professional backgrounds in ensuring professional balance.

States of the professional balance	Components of states according to Voss	Causal interference of COPSOQ components• Demand and professional requirements • Psychosocial factors related to			
Open for change	<ul><li>Pure Challenge</li><li>Entrepreneurial creativity</li><li>Autonomy and independence</li></ul>				
Self-efficacy	<ul><li>Managerial competence</li><li>Organizational identity</li></ul>	the environment and professional culture			
Self-transcendence	<ul><li>Managerial competence</li><li>Organizational identity</li></ul>	• Well-being • Health			

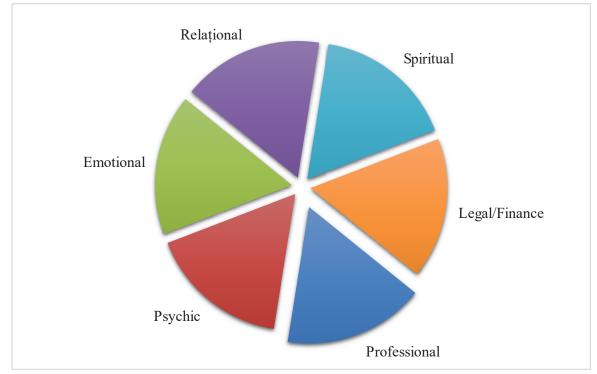
Table 1. Causes, Components and Causal Interference of the "Self" Axis

Source: Elaborated by the author

Balance is often perceived through the concept of well-being. And if we look at the lifework diagram of well-being, which is a tool used to evaluate the distinct areas of life, we find that well-being is assessed through the perspective of work / life balance (Waumsley, 2005).

Commonly, the well-being is a multi-dimensional component. Professional well-being is one of the holistic dimensions that contribute to health largely; we cannot have a state of general well-being without a balance in every dimension (Figure 3).

Well-being is a dynamic concept that includes subjective, social and psychological dimensions, as well as health-related behaviors. For example, the Ryff Psychological Well-Being Scale is a theory-based instrument that focuses specifically on the measurement of the multiple facets of psychological well-being (Ryff, 1989).



# Figure 3. Life-work diagram of well-being (balance)

Source: Henriques, G. R., Kleinman, K., Asselin, C. (2014)

These facets include the following:

- Self-acceptance;

- Establishing qualitative (positive) relationships with others;

- Autonomy (the sense of autonomy in thought and action);

- *Skills to manage the environment* (the ability to manage complex environments to suit personal needs and values);

- Life purpose (to pursuit the meaningful goals and having meanings of purpose in life);

- Personal development (continuous growth and personal development).

It is also known that many professionals in the field of social sphere do not see a profession other than being useful to humanity, not insisting on poor pay or inappropriate working conditions, and succeeding in overcoming these barriers, they are true professionals, who is pursuing their career throughout life.

# 3. Data and Methodology

The research was completed in the period of 2012-2017 years, and embraced two stages of research: the first one was to investigate the career anchors and psychosocial factors, and

furthermore to model the professional balance depending on the professional anchor paternity. At the sampling stage, was assessed the trends and the expression of career anchors, the primary psychosocial factors and where analysed the socio-demographic gathered context. In addition, were tested in vivo the professional burnout scales (2015-2016 years, based on a random sample of 287 people aged 25-55 years). The collected data were adjusted on the relationships between the scales of the five standardized psychological questionnaires:

1. Edgar Schein's career anchors (EDS), also are referred as the career guidance questionnaire (Schein, 2013), called professional anchors, was first developed by Edgar Schein (EDS) in 1977. In the meantime, the scholar where worked out the "Career Anchors Theory", following a 13-year longitudinal study in the psychological examination of graduates master's degree at MIT Sloan School. This questionnaire was adapted and validated in Romanian in 2002, by Mihaela Vläsceanu. In his book "Career Management. Learning to Build a Career", she emphasizes the importance of evaluating competence areas, motives and values through the EDS questionnaire (Vlăsceanu, 2002). Later, in 2015, within the co-funded project of the European Social Fund through the Sectoral Operational Program Human Resources Development 2007-2013, named "Invest in people", a new version of the questionnaire was adapted by the Office for Professional Development and Careers staff. This questionnaire is called also the "Professional Value Questionnaire" and contains 45 items. Shein's questionnaire is used for assessment in French, the 1995 developed English second version and today is used as a tool in social and managerial social responsibility audit. The difference between French tool and the original questionnaire is highlighted by 45 items and the association of a new international anchor (ancre internationale), and lifestyle anchor is translated as quality of life (ancre qualite de vie) (Bentaleb, Ch., Sekkat, S., 2013). In our research we have applied the last version of EDS published in English, adapted and compared to the Russian version of the questionnaire (Chiker, Vinokurova, 2006, p.85). The aim was to identify four adjacent anchors that can be deduced from Zhdanovichi methodology of answers analysis (2007). These career anchors could be found in Ilin's book, where the same calculation mechanism is kept. "The purpose of this questionnaire is to identify the person's career guidance structure and career dominance. The questionnaire consists of 40 items, 9 core career anchors: technical functional anchor (CF), general managerial competence (CM), entrepreneurial creativity (CA), serving or being dedicated to a cause (SD), Pure Challenge or Calling (CP), Autonomy and Independence (AI), Stability and Security at Work (SSM), Geographical Stability and Security (SSG), Lifestyle or Life Style Integration (ISV); and secondary deducted Zhdanovichi methodology of answers analysis as: Organizational identity (IO), Vertical Career Orientation (OCV), Horizontal Career Orientation (OCO), and Guidance to the Conditions OCC (Kolomaytsev, 2008).

2. Thomas Elers Survey of Motivation to achieve the professional success (CSMOS), interprets the chances of success (Ilin, 2011). Designed to diagnose, the variable identified by Heinz Heckhausen, the individual motivation oriented to achieve success, which is expressed by successful behaviors - or motivated by success through realistic goals, the struggle for independence and the preference for moderately difficult tasks (Heckhausen Jutta, Heckhausen Heinz, 2008, p.148). The assessment material contains 41 statements, where the subject should answer by "yes" or "no". Our research used the bilingual version available at Ilin and Mihail Brumărel (Ilin, 2011, p.17; Brumărel, 2013, p. 148). The test refers to the single-scale methodology of answers analysis. The degree of motivation to achieve professional success is estimated by the number of points that coincide with the key, thus identifying four levels of motivation to success: very high, high, medium and low (Losîi, 2010, p.4).

3. The need to achieve Professional Success Inventory (INAS) or Inventory of Needs to Achieve Objectives is used to measure the level of needs in achieving objectives, success, and overall achievements. In this research was used the adapted bilingual version of the questionnaire, available in Romanian at Elena Losii (2010, p.102). The higher self-confidence influence an active behaviour, which are more focused on achieving success. The need to achieve success and the proposed aims, turns thus into a personal property - centred (fitted).

4. The method of diagnosing the symptoms of professional burnout and their levels by Valentina Boico (APB). In accordance with the emotional burnout stages described by Hans Selie (the author of Biological Stress Theory) this method contains five levels of emotional burnout, tension (self-dissatisfaction, cell enclosure), resistance (reduction of professional tasks), exhaustion with symptomology of emotional detachment and depersonalization (Ilin, 2002, p. 26).

5. COPSOQ (Copenhagen) questionnaire for assessing the psychosocial factors. The primary stage of our research, in certifying experiment, where used the third version of the questionnaire, which contains four dimensions and 50 items (Kristensen Tage S. et al., 2003). Later in the Romanian version, the scales name and dimensions was revised, but in the given research were led by the 2009 questionnaire alternative, elaborated in Romanian, where the notional and conceptual equivalent of the English questionnaire in our research was preserved (the Copenhagen Questionnaire of Psychosocial Factors Assessment, 2012).

As follows, we receive a model of variables where in one part are located three states of the professional equilibrium and the "Self" axis on the other side.

# 4. Findings within the "Self" axis

In the present article, we will only analyse the strengths of the "Self" Axis in relation to professional demands and requirements, psychosocial factors related to the environment and professional culture, well-being and health. Hence, we will report the mentioned scales and variables to some of the combined factors of the COPSOQ Questionnaire.

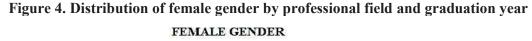
Gender		Fen	nale	Male	TO	TAL	
Medicine	1	Validate	lidate 53			8	39
Wieurchie	Av	verage age	33,	,92	34,31	34	,12
Education		Validate	7	7	13	Ģ	90
Education	Av	verage age	38,	03	38,46	38	3,24
Social work	1	Validate	96		12	1	08
Social work	Av	verage age	33,92		36,83	35,83	
Education	level	Secondary	Licence	Master	Residentship	PhD	Total
Social w	ork	16	65	27	0	0	108
Educati	on	1	51	26	0	12	90
Medicii	ne	0	3	0	81	5	89
Total		17	119	53	81	17	287

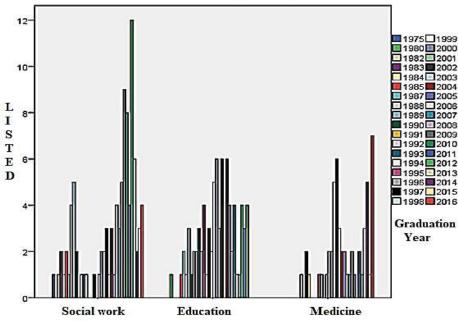
	Table 2. Gender	· Difference and	<b>Education Level</b>	per Sample
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The "Self" axis consists of 10 scales, according to the hypothetical model:

- **a.** Serving or being dedicated to a cause (SD);
- **b.** Autonomy and Independence Scale (AI);
- **c.** Pure challenge or pure call (CP);
- d. Entrepreneurial Creativity (CA);

- e. Need to achieve professional success (NAS);
- **f.** Motivation to achieve professional success (MS).
- g. Self-complaining symptom (NS);
- **h.** Emotional detachment (DE);
- i. Depersonalisation (DP);
- **j.** Health (V):
  - General Health (V1);
  - Mental Health (V2);
  - Vitality (V3).







On the total sample of 287 interviewees through the One Sample Chi-Square Test, we identified that the professional domain retains the null hypothesis with 2 level of freedom and the asymptomatic coefficient is p = 0,303, where the minimum expectation value is 95,667. The null hypothesis is also retained in case of APB - burnout test parameter (p = 0.059) and the average level of COPSOQ questionnaire (p = 1,000). One Sample Chi-Square Test, is a statistical procedure used to determine if the observed sample could have been generated by a process with a specific average.

Using the Kolmogorov-Smirnov test or the nonparametric test of equality of continuous distributions K-S, we have identified unidimensional probabilities that can be compared with the probability of a reference asymptomatic significance in the cases which are assuming the null hypothesis such as: managerial competence anchor (0,412), autonomy / independence anchor (0,249), pure challenge anchor (0,060), entrepreneurial competence anchor (0,156), organizational identity (0,691), vertical career orientation (0,944), horizontal career orientation (0,306), guidance to the conditions (0,506), APB test (0,196), EDS test (0,865), COPSOQ test (0,567), professional demand and requirements (0,276) and psychosocial factors related to professional activity (0,314).

Table 3. Significant components of "Self" axis in the Pearson correlation									
	Professional	Age	Gender	Level of	Graduation	Workplace			
	domain			education	year	length			
SD	022***,*		.056*	004**	056**				
AI	.191**	.189**	159**	.110**					
СР	021**	.287**	287**	.028**					
CA	121**	.287**	038**						
NAS	.060**	$.079^{*}$		.166**					
MS	.007**	.087**	.018**		$.000^{**}$	.010**			
NS	.095**,*	048**	.031*	.027**	028**	.060**			
DE	.014** .117**083**								
DP		.083**,*	091**	.045**					
V	.233**	.830*		.296**					
V1	.123*			.161**					
V2	.144*	165**		.219**	.225**	209**			
V3									
	**. Correlation is significant at the 0.01 level (2-tailed).								
	*. Correlation is significant at the 0.05 level (2-tailed).								
High degree: If the coefficient value lies between $\pm 0.50$ and $\pm 1$ ,									
then it is said to be a strong correlation.									
	Moderate degree: If the value lies between $\pm 0.30$ and $\pm 0.49$ ,								
	then it is said to be a medium correlation.								
		ē		es below $\pm 0.29$ ,					
	th	en it is said	to be a small	correlation.					

Table 3. Significant components of '	"Self" axis in the Pearson correlation
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Source: Own calculations

The primary statistical analysis confirmed that the gender gap, age, level of education, year of graduation, and work placement are independent variables in the context of finding experiment.

Along this lines, the gender gap is manifested in a low ratio of 1:1.47 in the medicine field, in education slowly moderated one 1: 5.92 and in social work by an absolute gender inequality of 1: 8.0 ratio. Overall, in the experiment participated 226 women and 61 men. The average age is 36.06, where the youngest respondents activate in medicine, but the age gap does not exceed 38.24 years. The age segment is ranged from 25 years to 55 years.

The frequency of the education level of 287 people participating in the experiment is (table 2):

- 17 respondents with secondary education (5.9% cumulative percentage), whichever 13 women and 3 men are from social work field and 1 woman from education.

- 119 respondents has achieved Licence level (41.5%), where 57 women and 8 men are from social work; 41 women and 10 men from education and 3 women from medicine.

- 53 achieved Master degree (18.5% cumulative percentage).

- 81 people finalised their Residentship (28.2%), with gender distribution of 47 women and 34 men in the field of medicine.

- 17 has PhD (5.9%), in relation to professional fields three of them are women and two men from the professional field of medicine, and from education field 12 women succeed their PhD.

Pearson	SD	)	AI		CP	CA	N	AS	MS	5	Ν	S	D	E	DP
Correlation															
SD			.236*	* ^	295**	.233**			.210	)**					142*
AI	.23				255**	.228**								37*	.166**
СР	.29		.255*			.760**			.268	8**			.24	19**	
CA	.23	3**	.228*	*	760**				.260	)**			.21	1**	
NAS															152**
MS	.21	$0^{**}$		.2	268**	.260**					16	51**			
NS									16	1**			.15	58**	.324**
DE			.137		249**	.211**						58**			.339**
DP	14	42*	.166*				1	152**			.32	24**	.33	39 <sup>**</sup>	
V			.183*	*											
<b>V1</b>															
V2			.120	*											
<b>V3</b>			.189*	*											
						Correlat		-							
					*.	Correlat	ion	is sig	nifica	nt a	t the	0.0	5 lev	el (2	-tailed).
Pearson			V	V	/1	V2		V	3	A	PB	EI	<b>DS</b>	CC	PSOQ
Correlatio	n														
V					.676**	.82	3**	.8	330**			.1	17*		.228**
V1			.676**			.26	4**	.2	262**						
V2			.823**		.264**			.6	588**						.234**
V3			.830**		.262**	.68	8**					.1	33*		.265**
<b>High degree:</b> If the coefficient value lies between $\pm 0.50$ and $\pm 1$ , then it is said to be a strong															
correlation.															
<b>Moderate degree:</b> If the value lies between $\pm 0.30$ and $\pm 0.49$ , then it is said to be a medium									49, the	en it	is sa	aid to	be a	a me	dium

#### Table 4. Pearson correlation on the "Self" axis

**Low degree:** When the value lies below  $\pm 0.29$ , then it is said to be a small correlation.

**Source:** Own calculations

Another variable with the significance of p < 0.001 ascertained by the ANOVA method among sampling groups is the graduation year, which varies between 1975 (a woman in social work) and more than one respondent graduated in 2016:

- 4 women and 3 men from social work (Figure 4);

- 7 women and 2 men from the professional field of medicine.

Hence, it was identified that the person who graduated in 1975, has completed the secondary education level, is specialized in accounting and currently activate in the Soroca City as a community social worker in the Rudi village.

Also, an important factor influencing the professional balance which has been selected in our sampling, is the workplace length, it varies between one year and 38 years of work in the professional field. The work experience also shows the significance of p < 0.001ascertained by the ANOVA method, between the sampling groups. From statistical analysis of Pearson correlation (table 3), we can state that the professional field, age, gender, level of education, year of graduation, and workplace length have a high level of significance in relation to the "Self" axis, but it does not show significant correlation. This implies that the conditions for selecting the sample were meet, and as evidenced are showed by the descriptive parameters of environments (Table 3). We also noticed a weak moderate positive trend between vitality and professional age; age, professional competence and entrepreneurial competence, vitality, health and education. These trends could be found in the specialised literature about burnout, stress and mental health.

The statistical analysis of the proposed model, of the "Self" data, identifies strong relationships with a signification threshold higher than 0.05, for most of them: low, moderate and high levels of significance (Table 4). Moderate or average levels of the Pearson coefficient demonstrate a highly positive ratio of Boico's professional burnout scale, such as self-complacency, emotional detachment, and depersonalization.

Our sample demonstrates a low negative inclination of motivation to achieve professional success towards self-complacency. The Health Scale correlates high with its subscales, and mostly with the vitality subscale, which confirms a strong positive relationship between general health, mental health and vitality.

# 5. Conclusions

The selection of the experimental groups was the respondents profession: doctors, teachers and social workers. This choice was conditioned by three factors that can influence the relationship of the professional balance on the "Self-Self", "Self-Profession" and "Self-Environment", such as the existence of the human-human professional relationship, the high level of close communication with others, and the predisposition of the selected experimental groups to stress and burnout, as a first Gestalt approach that initially focused on a human-holistic environment and then expanded to the human relationship in-the-environment (Safarov, 2009, p.46).

Investigating the aspects of descriptive statistics revealed significant reports per sample between the professional field, age, gender, level of education, workplace length and graduation year.

It remains to investigate the aspect of the "Self" axis according to the geographical area of the respondents (rural and urban).

The analysis of the "Self" axis data validates the importance of the health scale and its subscales, such as general health, mental health and vitality in its relation to the professional balance.

The other scales (SD, AI, CP and CA) probably due to the complexity of their structure (need, motivation and talent) report a low correlation. And if we refer to each one, we note that they may be co-dependent on environmental factors such as:

- informational overload and professional mismatch in individual physical and mental abilities;
- rhythm and high demands on professional activities such as: the need for quick decision making and implementation;
- lack of information about what happened or other organizational issues, including the inappropriate work organization regime;
- working in shifts ;
- routine and high volume of intellectual work;
- time-limited terms and excessive overload of doctors, teachers and social workers,

• other factors.

These data prompt us to assume that a mistake would be that in the context of environmental fluctuations, professional redeployment of today's professional standards, the "Self" axis will have a more significant weight than other axes that influence the professional balance. And if we look in-depth, the human service sphere does not work in a homogeneous environment, but in one that brings with it a multitude of daily challenges and emergencies. The selection of qualified staff should focus on assessing and investigating all aspects of professional-related balance:

- not by a random work per day, but in time planned activities;

- not just because there are significant aspects that affect well-being such as age and age conditions, health, social status, financial situation, productivity, experience, training, and so on.

- not as a simple component of well-being balance, but as an important one which could affect the relational, emotional, legal / financial, psychic, and spiritual aspects

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# SUSȚINEREA FINANCIARĂ A INTRĂRILOR DE CREIER ȘI TALENTE ÎN EUROPA

# Rodica CRUDU<sup>2</sup>, Veronica MÎRZÎNCU<sup>3</sup>

# Abstract

The migration of professionals from their countries of origin is called the "brain-drain phenomenon". In the countries of destination is generating the adverse phenomenon - "brain gain". Erasmus is the most used programme by Moldavian students in the cultural and studying exchange in the European Union. The goal of this article is to analyse the main ways of integration of intellectual migrants, especially the students in the destination countries. The objectives are to identify the opportunities of foreign students in the European Union; to examine the situation of the migration of Moldavian youth in the European Union; to determine the achievements and perspectives of succesfull Moldovian young people in the European Union. The research study was elaborated based on qualitative and quantitative methods: official reports, statistical data, artciles, books, etc.

*Cuvinte Cheie:* migration, brain-gain, brain drain, Erasmus, intellectual students, instruments, platforms.

#### Introducere

Pe parcursul ultimilor ani, progresul tehnic, însoțit de procesele de globalizare, a dus la o intensificare a fluxurilor internaționale de migrație a forței de muncă. Această creștere a fost însoțită și de apariția unor noi tipuri ale migrației: migrația intelectuală, determinată de creșterea cererii pentru o forță de muncă cât mai calificată în țările de destinație. Scopul cercetării este de a analiza căile de integrare a migranților intelectuali în special a studentilor în țările de destinație. Obiectivele studiului sunt de a identifica oportunităție studenților străini în Uniunea Europeană; de a analiza situația migraționistă a tinerilor moldoveni peste hotare; de a cerceta realizările și perspectivele de viitor al tinerilor moldoveni de succes în Uniunea Europeană.

Studiul cercetării a fost efectuat printr-o varietate de metode calitative și cantitative cum ar fi: date statistice, rapoarte oficiale, articole, materiale teoretice, reviste, publicații. Articolul cuprinde 5 direcții principale: 1) De ce intrările de creier ?; 2) Repartizarea migranților după

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grupe de vârstă și sexe; 3) Programele de studiu în Uniunea europeana – ERASMUS; 4) Platforme Si Instrumente; 5) Emigranți înalt calificați în Uniunea Europeană – studiu de caz.

Fenomenul legat de plecarea specialistilor calificați din țările mai puțin dezvoltate spre cele mai dezvoltate este numit "exod de creiere" (brain-drain), fiind cercetat încă din anii 1960. Termenul "exod de creiere" a fost lansat pentru a descrie emigrarea de ingineri și oameni de stiintă din Europa spre SUA, care continuă să fie destinatia principală a migrantilor înalt calificați și în etapa actuală. Lindsay Lowell afirmă că fenomenul reflectă un nivel ridicat de emigrare a persoanelor cu studii universitare care intenționează să rămână în străinătate temporar sau definitiv, fără efecte compensatoare pentru țara de origine. Robin Iredale argumentează că noțiunea "exod de creiere", bazată pe teoria capitalului uman, trebuie definită drept libera circulație a indivizilor înalt calificați care doresc cele mai bune oportunităti în conditii optime. Întrările de creier semnifică însusi procesul de "Brain-Drain", ceea ce presupune cîștigul de creiere de care țările de destinație sunt avantajate în urma migratiei internationale. Tinerii intelectuali care au imigrat în tările-recipiente, au devenit un capital uman neimaginabil in Uniunea Europeana, ducând la îmbunătățirea fluxului de cunoștințe și de îndeplinire a cererii de competențe și depun eforturi considerabile, cheltuind suficiente resurse financiare pentru instruire si ridicarea nivelului de calificare profesională necesară pentru a se afirma peste hotarele țării de origine. Acest fenomen are un efect pozitiv asupra întregului sistem de învățămînt al statului de origine, deoarece conduce la cresterea nivelului educațional al populației.<sup>4</sup>

În prezent nu exista date oficiale despre persoanele care migrează în Uniunea Europeană cu scopul de a studia. Dar pe baza unor tratate ale Republicii Moldova din 2013-2013, mai mult de 24 000 de mii de tineri au plecat în străinatate pentru a-și continua studiile. Statisticile internaționale dezaprobă aceste date, elucînd faptul că numărul studenților moldoveni internaționali înregistrază de patru ori mai mult decît cel oficial.<sup>5</sup>

- Unul din programele cele mai avantajoase de care studenții pot aplica este ERASMUS+. Acest program oferă cetățenilor Republicii Moldova posibilitatea de a se înscrie la cursuri de masterat și licență și doctorat la una din universitățile din statele membre ale UE. Aplicațiile se fac direct la Comisia Europeană, fără intermediari din cadrul universităților din RM. In 2014, UE a lansat programul Erasmus+ pentru educație, formare, tineret și sport. Având un buget de 14,7 miliarde EUR pentru perioada până la 2020, Erasmus+ sprijină mobilitatea în scop educațional a patru milioane de tineri și educatori, 10 % din bugetul acestuia rezervat activităților pentru tineret, care se bucură de număr estimat de 400 000 de participanți în cadrul schimburilor de tineret și de 100 000 de participanți în cadrul Serviciului

<sup>&</sup>lt;sup>4</sup> V. Antonov, T. Gamanji, O. Cruc., *Exodul de Creiere: Provocări, Consecințe, Căi de Acțiune*, nr3. IDIS "Viitorul" Chișinău 2010 11-13pp.

<sup>&</sup>lt;sup>5</sup> Ecaterina Grigoraș, The Academic Mobility of Students in Republic of Moldova

https://ibn.idsi.md/sites/default/files/imag\_file/Mobilitatea%20academica%20a%20studentilor%20din%20RM.p df 230-234p , [14.05.2018]

Voluntar European (SVE) Aceasta reprezintă o creștere de 80 % a finanțării față de fostul program "Tineretul în acțiune"<sup>6</sup>

- Un alt program în rîndul persoanelor înalt calificate este Programul Marie Skłodowska-Curie sprijină cariera și formarea cercetătorilor din toate domeniile științifice, mai ales prin facilitarea unor perioade de studiu sau muncă în alte țări și sectoare.<sup>7</sup>

- CEEPUS (Central European Exchange Program for University Studies) este un program regional de mobilității academice care se derulează în Europa Centrală și de Est din 1993. Programul se realizează în temeiul unui Acord internațional de cooperare. Începând cu anul academic 2010/2011, an în care Republica Moldova a aderat, Programul derulează în baza Acordului CEEPUS III. Programul CEEPUS III include urmatoarele activități: stagii universitare și postuniversitare, cursuri intensive, cursuri de limbă, excursii studențești, activități de predare.<sup>8</sup>

Uniunea Europeană sprijină și încurajează activ tinerii îm promovarea talentelor și ghidarea în carieră. Astfel a dezvoltat o varietate de instrumente și platforme în acest domeniul, precum<sup>9</sup>:

- U-Multirank- este un nou clasament mondial al universităților și al altor instituții de învățământ superior, multidimensional și axat pe nevoile utilizatorilor. El acoperă numeroase aspecte ale învățământului superior: cercetarea, predarea, învățarea, dimensiunea internațională, transferul de cunoștințe și implicarea regională. Este un clasament independent, finanțat în primii ani de Uniunea Europeană.
- HEInnovate permite o evaluare independentă on-line a instituției, facultății, departamentului sau sectorului propriu, cu ajutorul unor afirmații care se referă la o serie de aspecte esențiale pentru activitatea şi dezvoltarea unei instituții de învățământ superior antreprenoriale şi inovatoare.
- Eticheta lingvistică europeană (ELL) promovează bunele practici în materie de predare și învățare a limbilor străine, încurajează inițiativele în domeniu, recompensează noi tehnici și aduce în prim-plan importanța cunoștințelor lingvistice.
- "Study in Europe" este un portal care oferă informații despre cum se poate studia în peste
   30 de țări europene
- Europass este un set de cinci documente prin care vă puteți face cunoscute competențele și calificările oriunde în Europa, într-un mod clar și ușor de înțeles.

<sup>&</sup>lt;sup>6</sup>Ministerul Afacerilor Externe și Integrării Europene al Republicii Moldova: *Studii în UE* <u>http://www.mfa.gov.md/studii-statele-ue/</u> [15.05.2018]

<sup>&</sup>lt;sup>7</sup>Marie Skłodowska-Curie actions: <u>https://ec.europa.eu/programmes/horizon2020/en/h2020-section/marie-sklodowska-curie-actions</u> [15.05.2018]

<sup>&</sup>lt;sup>8</sup> <u>http://mecc.gov.md/ro/content/atentia-institutiilor-de-invatamant-universitar-si-studentilor-aplicanti-ai-programul-ceepus</u> [15.05.2018]

<sup>&</sup>lt;sup>9</sup>Comisia Europeană: *Inițiative de sprijinire a educației, formării și multilingvismului în UE* <u>http://ec.europa.eu/education/initiatives\_ro</u> [15.05.2018]

Motivația și ambiția tinerilor moldoveni de peste hotare au fost doar doi din multitudinea de piloni de care s-au bazat în realizarea pe plan profesional. Astfel Violeta Țoncu este una din cele mai evazive exemple. După un an de studii în SUA, prin intermediul programului FLEX, tînăra originară din satul Lăpușna, r. Hîncești, Violeta Țoncu a fost motivată să își croiască un alt drum, departe de Moldova, făcând, prin urmare studiile de licență la *Stockholm School of Economics din Riga*. Ambiția și curiozitatea a determinat-o să plece în ultimul an, prin cadrul programului ERASMUS, la *Universitatea SciencePo* din Paris. "*Acolo am studiat mai mult economie, finanțe și un pic de politică.*" În prezent este angajată la Banca Central Europeana într-un proiect IT, ce se dorește armonizarea operațiilor Sistemului Unic de Supraveghere Bancară.

Elena Oprea este originară din satul Lozova, raionul Strășeni. În 2014 a absolvit Liceul Academiei de Științe a Moldovei, iar ulterior a devenit studentă a Facultății de Business și Administrarea Afacerilor la Universitatea "Alexandru Ioan Cuza" din Iași. La momentul actual studiază la Universitatea din orașul german Konstanz. Tînăra moldovenancă a câștigat un program de Burse Scholar Leaders al Companiei General Electric in 2016-2018. A mai patricipat la o serie de activități internaționale: Youth in Action Exchange "Integrarea persoanelor cu dizabilități", Armenia, Georgia, 2013; – CIEE Civic Leadership Summit-2015, American University, Washington D.C. USA etc.

#### Concluzii

Acest transfer de inteligență crează enorme condiții pentru Europeni cât și pentru tinerii intelectuali care, deși cu greu, aceștia își realizează visurile și tind spre noi orizonturi. Un avantaj foarte mare că unii din ei pleacă, capătă experiență, mentalitate diferită, cultură și contacte noi își ating obiectivele financiare si se reîntorc în țară. Migranții aduc valoare adăugată în baștină și o utilizează cum o poate mai bine , pe cînd alții se dezvoltă din punct de vedere al carierei și pierde orice contact cu Moldova. Respectiv, migranții angajați în domenii de cercetare în instituțiile vestice probabil nu se vor mai întoarce în Moldova, pentru că facând comparație cu occidentul, la noi, tehnologia de cercetare este foarte proastă și învechită. De aceea trebuie să fim precauți,pentru că odată cu " scurgerea creierilor", rămîne personalul cu experiență limitată.

Printre recomandări aș propune ca Guvernul Republicii Moldova să inițieze acțiuni progresive ce țin de migrația întelectuală, în special al tinerilor; respectiv să i-a măsuri în domeniul șomajul tinerilor, promovarea talentelor, să încurajeze tinerii în aplicarea la diverse programe de schimb cultural, dar cu scopul unei migrații circulare, respectiv să aplice cunoștințele dobăndite din diverse țări acasă. Să contacteze diaspora intelectuală, cu scopul de a colabora și de a contribui la dezvoltarea economică, culturală, politică, socială a Republicii Moldova.

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# ASISTENȚA UE ÎN REPUBLICA MOLDOVA: OPORTUNITĂȚI SAU DEPENDENȚĂ

# Marina POPA<sup>10</sup>, Valentin TOMBRACHEVICI<sup>11</sup>

# Abstract

Relations between the European Union and the Republic of Moldova have intensified in the past years. Moldova joined the EU's Eastern Partnership in 2009 and the EU-Moldova Association Agreement entered into force on 1 July 2016. This includes the introduction of a Deep and Comprehensive Free Trade Area. The Association Agreement provides for stronger political association and economic integration between the EU and the Republic of Moldova and has created constantly growing trade between the partners. The EU's assistance supports the modernisation of Moldova through reforms for growth and jobs as well as for the respect of human rights and the strengthening of democracy. Today, the EU announces that it will not transfer any further funds to the Moldovan state budget to support any reforms. The EU has closely observed the reform process and noted that the Moldovan authorities showed insufficient commitment to reforming the justice sector in 2014 and 2015. With insufficient allocation of funds and personnel, the necessary reforms have not been carried out. As a result, progress has not been sufficient. This means that the Moldovan authorities have not fulfilled the EU's conditions for receiving the last financial transfer under the justice reform programme. This sum will not be paid to the Moldovan state budget, but remain with the EU.

Keywords: cooperation, projects, reforms, assistance, development, resources, partnership.

### 1. Introducere

Odată cu extinderea recentă a Uniunii Europene, Republica Moldova a devenit țarăvecină a Uniunii, exprimându-și dorința de a dezvolta o cooperare politică strânsă și a se integra pe plan economic. "Ceea ce se întâmpla la frontierele Uniunii Europene ne afectează. De aceea dorim să sprijinim aspirațiile Moldovei de stabilitate politică și economică și să ajutăm țara să continue calea reformelor. Iată de ce ne aflăm aici: ca să depunem eforturi pentru a împărtăși experiența statelor-membre ale Uniunii, să promovăm cooperarea dintre funcționarii țărilor noastre, să sprijinim aproximarea legislației moldovenești la normele și standardele Uniunii Europene, să consolidăm comerțul și managementul frontierei, să

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asigurăm echipamente pentru școli, grădinițe și spitale și să finanțăm proiectele de infrastructură în domeniile transportului, apei și energiei". (Dirk Schuebel, 2016)

Uniunea Europeană a lansat cooperarea sa cu Republica Moldova cu peste 15 ani în urmă. În această perioadă, Uniunea a fost un partener major pentru țară, asigurând asistență în reformarea economică, consolidarea mediului de afaceri, managementul frontierei, reforma judiciară, combaterea traficului ilegal și dezvoltarea instituțională, obiectivul-cheie fiind ameliorarea standardelor de viață ale cetățenilor din Moldova.

# 2. Conținutul de bază

Acordul de Parteneriat și Cooperare dintre Uniunea Europeană și Republica Moldova a intrat în vigoare în iulie 1998 și a creat un cadru pentru dialog politic, liberalizarea comerțului, aproximarea legislației și cooperare în mai multe domenii.<sup>12</sup>

Asistența Uniunii Europene pentru Republica Moldova este direcționată spre prioritățile de reformare, convenite, în februarie 2005, în Planul de Acțiuni al Politicii Europene de Vecinătate cu Moldova, care este un instrument pentru sprijinirea programului de reforme economice și democratice. Acesta se află în prezent în centrul atenției a programului de reformare internă a Guvernului moldovean. Domeniile de asistență și cooperare stipulate de Planul de Acțiuni al Politicii Europene de Vecinătate includ:

- Dialog politic și reformă;
- Soluționarea conflictului transnistrean;
- Reforme economice și sociale și dezvoltare;
- Comerţ, piaţă și reformă regulatorie;
- Justiție, libertăți și securitate;
- Transport, energie, telecomunicații, mediu și cercetare, dezvoltare și inovare;
- Relații dintre oameni.

În conformitate cu Strategia de Țară a Uniunii Europene pentru Republica Moldova în 2007-2013, asistența Uniunii pentru Moldova se bazează pe trei domenii de importanță majoră:

- Dezvoltare democratică și bună guvernare;
- Reforma regulatorie și capacități de dezvoltare administrativă ;
- Reducerea sărăciei și creșterea economică.

Forma clasică de asistență tehnică pe care Uniunea Europeană a acordat-o Moldovei prin intermediul Programului TACIS a fost bazată pe proiecte implementate de companii de consultanță din Uniunea Europeană, care au instruit funcționari publici și au oferit consultanță în diferite domenii. În același timp, au fost realizate proiecte comune ale donatorilor, au fost livrate bunuri, a fost construită infrastructura și au fost efectuate transferuri de fonduri în

<sup>&</sup>lt;sup>12</sup> Lege Nr. 112 din 02.07.2014 cu privire la ratificarea Acordului de Asociere între Republica Moldova, pe de o parte, și Uniunea Europeană și Comunitatea Europeană Energiei Atomice și statele membre ale acestora, pe de altă parte.

bugetul Guvernului. Odată cu lansarea Politicii Europene de Vecinătate, Comisia Europeană a început să asigure noi modalități de asistență în Republica Moldova, cum ar fi:

- Oferte pentru proiectele twinning, în special cele adresate structurilor administrative și menite să consolideze cooperarea pe termen lung dintre administrația din Moldova și instituțiile similare din statele-membre ale Uniunii Europene, pentru depunerea eforturilor comune de aplicare a legislației moldovenești, aproximată la normele și standardele UE.
- Asistență Tehnică și Schimb de Informație (TAIEX), care oferă administrației din Moldova posibilitatea să beneficieze de misiuni pe termen scurt ale experților Uniunii Europene, seminare și mese rotunde în Moldova, precum călătorii de cercetare pentru funcționarii publici din Moldova la instituții similare din statele-membre ale UE. Temele acestor evenimente vizează aproximarea, implementarea și aplicarea legislației moldovenești în conformitate cu legislația Uniunii Europene. Programul este adresat în deosebi structurilor administrației publice.
- Sprijin pentru Îmbunătățirea Guvernării şi a Managementului (Sigma) asigură sprijin pentru reforma administrației publice locale în domenii precum elaborare şi implementare, control financiar intern public şi achiziții publice. Programul vizează structurile administrației publice centrale.
- Programul tematic "Instrumentul European pentru Democrație și Drepturile Omului" (EIDHR) promovează și susține drepturile umane și democrația în toată lumea. Prioritățile majore includ sporirea respectului pentru drepturile și libertățile fundamentale ale omului, promovarea drepturilor omului și a reformei democratice, sprijinirea concilierii și consolidarea participării și reprezentării politice, fortificarea cadrului internațional pentru protecția drepturilor omului și a democrației și susținerea proceselor electorale. Acest program este adresat mai ales organizațiilor nonguvernamentale, iar câteva proiecte pot fi implementate și prin intermediul organizațiilor internaționale.
- Programul "Investind în oameni" are drept scop de bază oferirea ajutorului pentru reducerea sărăciei și consolidarea coeziunii sociale. Domeniile prioritare includ asigurarea sănătății pentru toți, acces egal la educație calitativă pentru copii, inclusiv la studii vocaționale și instruire profesională, egalitatea gender, promovarea coeziunii sociale, angajare în câmpul muncii și serviciu decent, accesul copiilor și a tinerilor la cultura locală, protecția și promovarea diversității culturale. Este adresat organizațiilor non-guvernamentale, în timp ce câteva proiecte pot fi realizate și prin intermediul organizațiilor internaționale.

Pentru ultimii 5 ani, Uniunea Europeană este lider absolut în contractarea asistenței externe, angajîndu-se să ofere un support financiar enorm Republicii Moldova, sub formă de granturi

prin intermediul tuturor instrumentelor de finanțare ale UE (Anvelopele naționale, Programele UE, NIF, etc.), fiind urmată de creditele concesionale ale instituțiilor financiare europene – BEI și BERD. Totodată, din partenerii bilaterali, lider este Statele Unite ale Americii cu un buget de 293,4 mln Euro, urmat de România cu un buget de 121,7 mln Euro.<sup>13</sup>

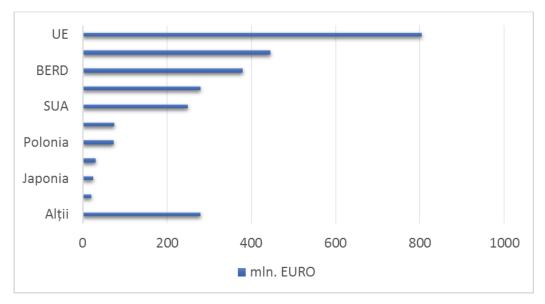


Figura 1. Principalii finanțatori ai Moldovei

Sursa: executat de autor în baza http://infoeuropa.md/asistenta-ue-pentru-moldova/

Pentru anii 2014-2017 Comisia Europeana a oferit 410 mln. Euro care au fost distribuiți astfel:

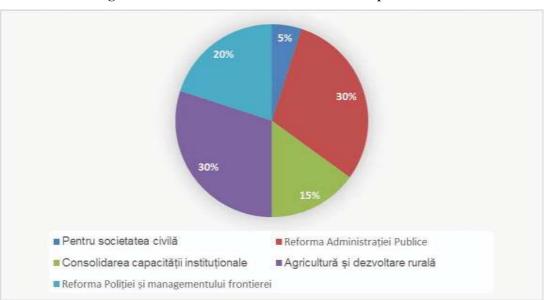


Figura 2. Distribuirea resurselor financiare pe sectoare

Sursa: executat de autor în baza http://infoeuropa.md/asistenta-ue-pentru-moldova/

<sup>13</sup> http://infoeuropa.md/asistenta-ue-pentru-moldova/

În perioada 2014-2017 Republica Moldova a derulat concomitent 8 programe de suport bugetar din partea Uniunii Europene. Succesul acestor programe a fost garantat de la lansarea acestora, pentru a verifica dacă au fost realizate toate obiectivele sa efectuat urmatoare cercetare.

**Programul "Stimularea Economică a Zonelor Rurale",** pentru care s-a alocat de peste 80 mln. Euro, în prezent este cel mai de succes program pentru ultimii cinci ani, cel putin așa afirmă ex-viceministrul Economiei, Valeriu Triboi.

Realizările oficiale obținute în urma acestui program fiind:

- 8 incubatoare de afaceri;
- au fost create peste 10 mii de noi locuri de muncă în economia rurală;
- a fost acordat suport la peste 1600 afaceri deja existente;
- peste 3200 granturi individuale pentru crearea afacerilor.

Însa conform Biroului Național de Statistica între anii 2014-2017, rata șomajului în economia rurală nu a scăzut ci a crescut, iar 10 mii de noi locuri de muncă care urmau a fi create, defapt nu au fost realizate.

	2014	2015	2016	2017
	Media anuala	Media anuala	Media anuala	Media anuala
Ambele sexe				
Rural	2,7	3,5	2,6	2,7

Figura 3. Rata șomajului în zona rurală

Sursa: www.statistica.md

8 incubatoare de afaceri ce urmau a fi create în 2014, fiindcă anume atunci era să înceapă realizarea programului, au fost create defapt în anul 2013 (conform Organizației pentru dezvoltarea sectorului întreprinderilor mici și mijlocii). La 16 decembrie 2013, Directorul General ODIMM și conducătorii incubatoarelor de afaceri din raioanele Rezina, Ștefan Vodă, Sîngerei, Ceadîr Lunga, Dubăsari, Soroca, Leova, Nisporeni au semnat Acordul de Asociere a Incubatoarelor de Afaceri în cadrul RIAM.

- IA Nisporeni
- IA Leova
- IA Soroca
- IA Dubăsari
- IA Ceadîr Lunga
- IA Sîngerei

- IA Ștefan Vodă
- IA Rezina

Mai mult decît atît, programul ESRA a fost continuat prin intermediul programului pentru agricultura și dezvoltare rurală – ENPARD. Acesta a fost semnat pe 26.03.2015, cu un buget integral de 64 mln. Euro care urmau sa fie debursați pînă în 2018. Raportul în care ar fi relatate realizare obiectivelor în prezent nu există, respectiv nu se cunoaște cum a fost utilizată defapt suma alocată de Comisia Europeană.

**Programul de reformă a învățămîntului vocațional** - un alt program, a cărui obiective urmau sa fie realizate în 2014, și anume:

- 5 centre de excelență;
- renovarea a 3 cămine pe lîngă acestea.

Conform Ministerului Educației, Culturii și Cercetării al Republicii Moldova, acestea au fost realizate cu succes, însa nu în 2014, cum era planificat, ci în 2015-2016. Deci, din nou apar careva întrebari, și anume: unde și cum au fost folosite resursele financiare?

Urmatorul proiect care cade sub vizoriu este, **Programul de reformare al sectorului energetic,** care ca obiectiv avea, asigurarea unei mai mari independențe energetice a Republicii Moldova prin: construcția gazoductului Ungheni-Chișinău și interconectarea cu gazoductul Iași-Ungheni. Pentru acest proiect investiția inițială a fost estimată circa 300 mln. Euro, dintre care 40 mln. Euro sub formă de grant din partea UE.<sup>14</sup>

Acest proiect urma sa fie finalizat în 2014, însă iarăși conform Monitorului Fiscal, în 2016 se afirmă că: "Cel mai important proiect energetic de la declararea independenței Republicii Moldova rămâne încă la stadiul de proiect".<sup>15</sup>

Mai tîrziu, în urma întrevederii ministrului Economiei al României, Gherghe Șimon și omologul său moldovean, Octavian Calmîc, s-a declarat că gazoductul Ungheni-Chișinău va fi dat în exploatare pîna la sfîrșitul anului 2018.

#### 3. Concluzie

Acordul de Asociere cu UE este cel mai important document semnat de Republica Moldova de la independență până în prezent. Implementarea cu succes a acestuia poate prezenta un pas semnificativ spre obținerea statutului de membru UE. Chiar dacă susținerea partenerilor europeni reprezintă un element important în promovarea parcursului European al Republicii Moldova precum și în crearea unei imagini pozitive a țării în cadrul Comunității Europene, trebuie să ținem cont de faptul că integrarea europeană este un process continuu de

<sup>&</sup>lt;sup>14</sup> Hotărîre de Guvern Nr. 808 din 07.10.2014 cu privire la aprobarea Planului național de acțiuni pentru implementarea Acordului de Asociere Republica Moldova – Uniunea Europeană în perioada 2014-2016. <sup>15</sup> https://monitorul.fisc.md/

reforme pe interior, nu este doar un vector al politicii externe ci mai cu seamă un vector al politicii interne a statului.

După cum arată experiențele foștilor candidați, reușita Acordului de Asociere, dar și a eforturilor noastre de integrare europeană, va depinde în egală masură de astfel de factori ca gradul de aproximare a legislației RM cu cea europeană, cît și de coerența acțiunilor autoritaților moldovene pe plan intern și voința de care vor da acestea dovadă în continuarea procesului de democratizare a societății.

Prin respectarea riguroasă a angajamentelor asumate față de partenerii europeni, Republica Moldova ar putea înregistra un salt important la capitolul reforme și obține un progres calitativ în implementarea Acordului de Asociere, fapt ce va determina susținerea continuă a UE pe plan intern și extern. Chiar dacă Moldovei nu îi este oferită perspectiva clară de aderare, urmare a realizării de reforme și integrare în politicile și programele UE, RM va fi un stat mult mai democratic, mai dezvoltat și mai competitiv pe arena internațională.

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# FINANCIAL EVALUATION METHODS OF INVESTMENT PROJECTS

# Inga BULAT<sup>16</sup>

# Abstract

Investments are an important stimulus to the state's economic, cultural and social development, and within the national economy, investment is the fundamental element that initiates and develops any human activity, which is the engine for an active system. The positive effects of investments for the national economy are not limited to economic growth but also social one. The mission of states in expenditures on the principles of efficiency and effectiveness is achieving further development profits. Each international actor sets his investment policy through the legislative environment, which by its complexity and difference to the regional and global plan ensures the essential conditions in the economic game of attracting investments.

*Key words:* method, investment, evaluation, cost benefit analysis, risk. *JEL* F21, G23, P45, R42

# 1. The investment - financial instrument of a state

Current societies are in a process of transition to a new global civilization, based only on the well-being of the citizen, and at national, regional and transnational level faces a multitude of specific economic and social problems, which implies cooperation of countries with the aim of solving the main topics such as: high unemployment rate and insufficient use of labor, polarization of wealth and poverty, human traffic, environmental degradation and resource depletion. They are some of the main subjects of the international economic interaction of states, so that the whole social activity is transformed and runs today under the impact of the globalization process of the world economy, which, obviously, will be prolonged in the 22<sup>nd</sup> century.

The bid is to the final beneficiary who is a citizen and as a means of solving global problems there are a series of tools and mechanisms that aim to raise social welfare. The investment serves as an instrument of multinational corporations, regional and global organizations and banks in solving problems in various fields / branches at international level, and nation states aim to invest in social, cultural, media environments, which will later have a

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major impact on economic and social development. The primary purpose of the state is to define the SMART strategic objectives for a certain period, the mechanisms, instruments, rules and funding principles, and then to control the implementation of policies and programs in terms expected by the external environment at the macro- and microeconomic level.

The decisions taken to develop a strategy, a national plan after Lindblom and Braybrooke (1963), must be both rational and comprehensive and meet the following conditions: [Boardman, An. E., Greenberg D. H.,2004, p. 120]

- 1. identifying a policy on which there must be a consensus among the relevant factors involved;
- 2. the consistent definition and arrangement of all the goals and goals whose touch will be a solution to the problem;
- 3. identifying all alternatives (= policies) that can help achieve each purpose or goal;
- 4. the prediction of all the consequences that would result from the choice of each alternative (policies);
- 5. comparing each of the alternatives according to their consequences in terms of how they achieve each objective or goal;
- 6. choosing that alternative that maximizes goal achievement.

The state investment development process is part of the requirements that are being pursued when determining the destination of resources, ie when the ratio between development and consumption resources is established, and the achievement of strategic objectives and the respect of the conditions of the foreign investors presume at national level the absorption and attracting new investments, which has the task to raise the standard of living of the population and to create a stable climate of state development in a certain future.

Full analysis of the investment is achieved through the three-dimensional image: duration, risk, political, social, legal and economic-financial efficiency.

Currently, the investment policy under the conditions of globalization is a complex process, and specialists from various fields are thoroughly analyzing the following:

- Priority directions from the state's internal environment cultural, social, agrarian, technological, innovative, etc.
- Duration of short, medium, long term benefits.
- Inherent risks in situations of certainty and uncertainty.

A meticulous analysis of the internal environment and the external position of the state will also conclude the type of investment required, such as:

- Private invesment
- Public invesment.

Particular attention is paid to capital investment and real estate investments, which aim to ensure the reproduction of fixed assets, the increase of stocks of goods and materials, and

the increase in financial instruments. Depending on the nature of the participation in the investment process, the report and the mechanism for managing direct and indirect investments over a long or short period is determined and the degree of implementation of the strategies and the development of the intended areas / directions is also largely dependent on the correct evaluation and management risks both in a certainty and in an uncertainty situation.

The state aims at attracting, monitoring and evaluating investment projects that ensure the creation of a transparent, coherent and stable internal and external economic, social and legal climate, and as a result it will ensure the continuous development of the priority directions at micro- and macroeconomic. Documents that justify and provide investors are: national and regional strategy, national and regional development plans, programs, government policies, etc.

The mechanisms and instruments set up in the initial phase of monitoring investments involve benchmarks for effective monitoring and assessment, both horizontally and vertically, of meeting national and international targets and commitments.

Currently, various specialists from different fields are trained in the investment process, who analyzes through various methods, techniques and tools: project risks in situations of certainty and uncertainty, internal control, social and economic impact, efficiency of investment projects, quality of services and goods obtained, the completeness of the actor at national and international level and the ability to absorb projects.

### 2. Methods and techniques of selecting and analysis of investment projects

Economic theory and the practice of different states clearly show that the phenomenon of economic growth and well-being is dependent on investment in productive capital, infrastructure, but also in human capital. These arguments have highlighted in time the emergence, promotion and use of instruments with rules known to all interest-holders involved in economic processes, and whose results are relevant from a complex perspective.

Investment projects are in fact groups of complex activities resource consuming and involving major transformations at the level of beneficiary organizations. Also, the amounts involved in projects, irrespective of their provenance, are large and very high, and the processes of attracting, managing, reporting, monitoring, etc. become more and more complex, requiring both specialized human resources and well-defined procedures.

Due to the complexity of the development directions, the complexity of the project development and implementation methodologies will increase, thus the resulting costs are increasing, investment projects are increasingly going into the sphere of strong organizations with significant resource availability in the short and medium term.

In the same context, it should also be emphasized that the needs of civil society are increasing and examples such as natural or man-made disasters, international conflicts are consuming more and more financial resources, all of which are fed by a common fund, which automatically entails diminishing availability for other needs. In this context, it is necessary to adopt resource allocation and use patterns based on sustainability and performance [Boardman, An. E., Greenberg D. H.,2004, p. 172].

The Cost-Benefit Analysis (CBA) is mainly used in substantiating and evaluating investment projects that implement governmental policies on the allocation of public funds as it is designed as an economic and mathematical tool to facilitate funding decisions, and implicitly allocation of economic resources currently in the hope of obtaining future economic and social benefits in the context of the uncertainties associated with a medium and long time horizon associated with the respective implementation periods and the effects of the investment projects. This approach requires a serious dialogue between all actors involved, sharing different sets of information and objectives, to be accompanied by strengthened mechanisms used to assess projects in order to overcome the structural information asymmetry.

The purpose of the CBA is to identify and quantify all possible effects: financial, economic, social, environmental, to determine the costs and benefits of a project, to make investment decisions and to facilitate the efficient allocation of resources. In order to arrive at a conclusion about the utility of a project, all its costs and benefits should be expressed in a common unit of measure: generally, a monetary unit is used that needs to be permanently adjusted to certain developments (eg inflation). CBA's theoretical foundations go from defining benefits and costs, where benefits are defined as increases in citizens' well-being, while costs are defined as diminishing this state of well-being. In terms of CBA, it aims to ensure that a project or policy will be beneficial if its social benefits outweigh social costs both on a national, regional and local scale.

In practice, this has evolved into a fundamental criterion of cost-benefit analysis: when the net monetary value of the share of the gains and losses of the parties involved is summed up, a positive amount justifies the adopting of the policy. Such an amount reflects the ability of monetary unit to be a reference for interpersonal comparison, as an entity understood to have equal value for any person involved. Methods of cost benefit analysis will be achieved by using other methods in this regard: [Manole T.,2014, p. 204]

<u>The objectively measurable criteria method</u> uses social indicators such as average life expectancy, gross domestic product, average level of education, etc. in order to give a measure of the welfare of people in a particular country.

<u>The degrees of contentment or satisfaction method</u>, in many questionnaires, surveys, people are asked if they are satisfied with their lives or work of politicians or family relations etc.

<u>Welfare Economics</u>: By this method, we can define the gain in individual well-being by the amount of money that that person would be willing to pay to get that change; and the loss suffered by the person would be measurable by the amount of money that she would claim as compensation for that change. By using different methods, areas, regions and social groups that need long-term and short-term investments will be more clearly prioritized, so policies and programs will be developed.

Initially as a general method, the cost-benefit analysis comprised four steps: [Fiche, 2013, p. 10]

- 1. Establishing a pay and policy report can be social groups, areas, cities, counties, or society as a whole, thus identifying the needs of society and their payment options for a whole set of criteria or preferences.
- 2. Attributing monetary value to resources and policy results. In most studies, costs are defined in budgetary terms, which are reflected in material and administrative costs. Benefits are measured in monetary terms directly by increasing tax and tax rates, increased productivity and the creation of additional jobs, and indirectly where a shadow price will be established, reflecting a procedure to make subjective judgments about the monetary value of benefits and costs, when the market price is not reliable or not available.
- 3. The estimation in time of costs and benefits, which requires detailed and quantified analysis on different cost and benefit criteria and indicators.
- 4. The cost-benefit ratio, which is a single numerical value reflecting the cost-benefit relationship. If the report is subunit means that benefits are outweighed by costs, and vice versa for a supraunit. At the end of the CBA, these cost-benefit ratios for different variants are presented in a table and descriptive narrative explained. [Fiche, p. 20]

CBA can be applied by the government in its interventions at policy level, programs, projects, regulations, etc., and since beneficiaries are different groups, it is advisable to take into account interest groups, thus achieving a net benefit as high as possible following the investment projects obtained.

Because the government has a legitimate task in the private system when there are "market failures," it will also take into account the superior efficiency of a certain government intervention, comparing alternatives. For this purpose, CBA will be used: [Manole T.,2016, p. 205]

*Ex ante* - at the beginning of the study to implement or start a policy or project. State intervention to decide on the allocation of limited resources to a direct, immediate and

specific project or policy. Ex ante analysis must be carried out with great responsibility, taking into account internal and external factors.

*Ex post* - at the end of the project a more comprehensive, but less direct, analysis is made. The information and data obtained will allow it to "categorize" if the intervention was effective and timely.

*In the media*, the cost - benefit analysis is the duration of a project implementation. The elements of the studies carried out are similar to ex-ante and ex-post ones.

Ex-ante and ex-post analysis analyzes the cost-benefit of programs, public policies, or a project that quantifies in monetary terms the value of all the consequences of these policies on all members of society. The net value of a policy is the social benefit (B) and social costs (C), which is represented by the net social benefit (NSB):[Manole T.,2016, p. 207]

#### NSB = B - C(1.1)

The most useful and effective policy analysis or project aimed at social change is an ex ante and ex-post CBA analytical comparison that can be used to assess the effectiveness of cost benefit analysis in assessing decisions taken to ensure effective resource management and targeting financial resources.

The analysis of the anticipated values is done on the sets of random events and their probability of occurrence, makes it possible to calculate the anticipated net benefit (ANB) of a policy, which is calculated as follows: [Manole T.,2016, p. 207]

$$ANB=p_1 (B_1-C_1) + ... + p_n (B_n-C_n) (1.2)$$

Where:

ANB - anticipated net benefit

**p1** - probability of occurrence of this event

B1 - Appropriate estimated benefits

C1 - Estimated costs under event conditions

The anticipated values had to be analyzed in cost-benefit as being certain to be achieved, and the comparison of the fairness of the expected value treatment and the equivalent safe value being equal.

In cases of high uncertainty, Kaldor Hicks' criterion for the quality of anticipated net benefits will also be included in the analysis. The criterion is to estimate changes in the social surplus, and economists have introduced an optional element of price, which means the amount that people can pay in case of uncertainty. Uncertainty can be diminished by life insurance by law.

Analysts need to identify those indicators to measure costs and benefits under uncertainty. State task in ex ante analysis to be assessed and legislation to see if it will generate a rise or fall in the degree of uncertainty of the problems faced in society. Currently, in financial science, there are used several methodological techniques to select projects, programs, public policies that have a much higher social benefit than spending.

When selecting projects, the investment programs apply several criteria, such as net present value (NPV), internal rate of return (IRR), investment recovery period, and more.

The net present value of investments is a method of evaluating by comparison the positive and negative flows generated by the investments, updated at the interest rate. Positive or negative financial flows generated by the investment project occur in a different time and, in order to obtain information on the return on investment used, the process of updating them will be used. The discount rate allows us to determine the cost of capital.

If NPV = 0, the investment is similar to a placement of the amount invested in the bank.

If NPV < 1 the project brings less income than a financial placement to the bank and the project will not be funded.

If NPV > 1, the investment in the project brings more income than a financial placement to the bank and the project will be funded. [Manole T.,2016, p. 120]

$$VAN = \sum_{n=1}^{r} \frac{CF_{n}}{(1+r)^{n}} - CI$$
(1.3)

Where:

CFn- the net income or cash-flow forecast to be obtained over time - "t";

**R** - discount rate;

CI - investment cost;

**n**- number of analyzed periods.

Economically and financially speaking, the investment program with a positive net positive value means the following:

a) the ability to repay during its life cycle initial investment;

b) Capacity to produce excess cash-flow

The disadvantages of this method are:

• The ability to determine whether the project is profitable or not, but does not allow us to compare it with others.

• The term of recovery is undetermined;

• The update rate directly influences the results, so it is desirable to be as concrete as possible.

The Internal Rate of Return (IRR) is the most important variant in relation to the NAV of future cash inflows generated by an investment becoming equal to the cost of the invested capital. This method allows the determination of a single number that can characterize the performance of a project. This number does not depend on the interest rate

obtained from the capital market. That is why this is an internal rate, the number is intrinsic to each investment project and depends only on the cash flows generated by it. The return rates specific to each investment project, ie the internal rate of return (IRR), are based on the assumption that future cash flows can be reinvested at this IRR rate. Basically, RIR is the solution of the VAN = 0 equation. The formula is the following: [Manole T.,2016, p. 208]

$$RIR = \sum_{t=1}^{n} \frac{CF_t}{(1+r)^t} - CI + \frac{VR_n}{(1+r)^n} - I_0 = 0$$
(1.4)

Where RIR =r, VR- residual value

$$RIR = \sum_{t=1}^{n} \frac{CF_{t}}{(1+RIR)^{t}} - CI + \frac{VR_{n}}{(1+RIR)^{n}} - I_{0} = 0$$
(1.5)

Replacing we get

To determine the update rate accurately, the minimum and maximum rates will be calculated, and their average will yield a result that will deliver the expected result. And when calculating VANmin the rate will be negative, and at VANmax - positive, the zero will be between these two results. RIR will be calculated according to the relationship:

# RIR= $r_{min} + (r_{max} - r_{min}) x VAN_{max}$ , where VAN max + (VAN min) (1.6)

When analyzing investment projects, the following indicators will be taken into account:

- *from the financial analysis*, where the net current financial value (VFNA) and the internal financial return (RIFF) that are determined on the basis of the project's financial flows, which will express the profitability of the project. If VFNA calculated using the discount rate (RA), which is equal to the weighted average cost (CMP) of the capital (K), and the RIRF higher than the cost of the capital used in its financing and is a positive value, we ensure a profitable financial project . In analyzing the profitability of the investment project, all investment costs of the project will be calculated regardless of the sources of financing.

- *economic analysis* is determined by the same mathematical formulas as the financial analysis, but by applying some corrections to financial flows (fiscal corrections, shadow price corrections, and outsourcing corrections). They express the extent to which the project is beneficial to society. In determining the economic analysis indicators, the social discount rate is used. In order for a project to be eligible for funding, it should have good economic performance indicators, ie VENA positive, RIRE higher than the social discount rate and the cost benefit ratio will be greater than 1.

Projects that do not meet these conditions mean that they have costs for society greater than benefits and can not be funded by public funds. For private projects and relatively low values, it is not necessary to calculate these indicators unless there is a significant social or environmental impact of the project.

- profitability of invested capital: VFNA / K, RIRF / K, which are based on calculating only the capital part of the project promoter, subtracting from the value of the investment the investor's contribution, which will reflect the profitability of the project if part of the investment value is covered by non-reimbursable funding, the pressure on the promoter being lower. Under these circumstances, the FVNA in the capital ratio close to zero and the RIFF in the capital ratio with values around the discount rate show that the proportion of the grant is the correct one. FVNA in negative capital ratio (R) and RIFF is equal to capital (K) and much lower than RA shows that the project needs a higher proportion of non-reimbursable financing and can only be accepted for non-revenue generating projects, or to revenue-generating projects in which eligible expenditure was determined using the funding gap method. In the case of productive investment projects, such a situation calls into question the financial sustainability of the project. However, if the RIFF is equal to the capital, although lower than the discount rate, is within the profitability of the productive sector for which the investment is proposed, the project can be accepted. If the FVNA in relation to K (positive) (large) and RIRF in relation to capital K is higher than the discount rate and higher than the average profitability of the sector, we can consider either the CBA was not correctly elaborated, or the proportion of the grant is too high and should be adjusted.

A very important criterion of the liquidity analysis in choosing an investment variant according to the speed of recovering the invested capital is the term of recovery, which is calculated by the formula: [Manole T., 2016, p. 209]

$$\sum_{an1}^{I} CF_{actualizat/an} - I_0 = 0$$
(1.7)

This method determines the time needed for the updated cash flows to be equal to the initial investment. In order to calculate the updated project recovery period, cash flows are first updated, then the result will be compared progressively with the initial investment. As long as the cash flows and the discount rate are positive, the updated recovery period will not be less than the investment recovery period (without updating) as the correction made by updating cash flows will reduce their value. Therefore, the return on return (RR) can be calculated after covering the cost of the initial investment using the formula:[Manole T., 2014, p. 125]

### RR = Amount of income obtained after the investment cost is covered x100%

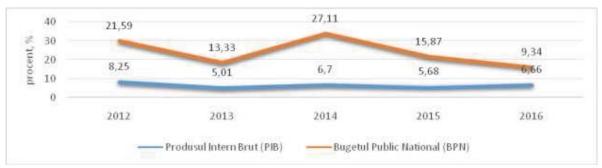
When using this method, we can predict which project will generate a benefit in the future, and what amounts will be reinvested in other investment projects, ie the one that will have a lower recovery period and a higher return.

Republic of Moldova, according to the CBA method, has developed the national strategy that has ensured its adherence to external financial support, and the guiding principles

of the EU strategy have been found in the form of key objectives with strategic directions over a period of time, financial instruments used, exogenous and endogenous risks, further results, monitoring and implementation by the specialized bodies and institutions of the National Strategy and the National Development Plan (NDP).

Foreign assistance, granted by the international community, continues to play an important role in the social and economic development of the Republic of Moldova. The issue of external assistance for development is extremely current and complex. In addition, reorienting the process of development to social and quality-of-life issues puts foreign aid policy in a new light.

The volume of external aid disbursed as a share of GDP has remained below the level of 10 percent with a decreasing trend, and on the other hand, the share of external resources in the National Public Budget (BPN) decreases from 21.59 % in 2012 to 9.34% in 2016. At the same time, I mention that the budgetary and financial sustainability of the Republic of Moldova continues to depend on the volume of external assistance.



#### Figure 1. Efficiency of external assistance

**Source:** Annual Report 2012-2016 on Foreign Assistance to the Republic of Moldova, State Chancellery of the Republic of Moldova.data, available at: <u>www.amp.gov.md[visited on</u> 05.12.2017]

In order to remove the country from the impact and contribute to the economic and social development of the state, the Government gives preference to non-reimbursable investments and repayable loans are for the realization of large investment projects in road infrastructure, agriculture, energy, water and sanitation.

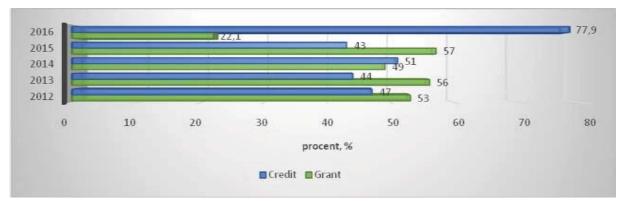
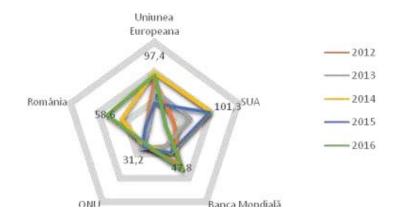


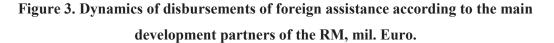
Figure2. External assistance in 2012-2016

**Source:** Annual Report 2012-2015 on Foreign Assistance to the Republic of Moldova, State Chancellery of the Republic of Moldova.data, available at:<u>www.amp.gov.md[visited on 05.12.2017]</u>

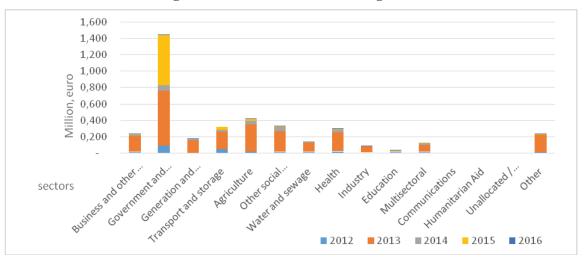
Thus, according to the situation on 31 December 2016, a share of about 76% of the volume of foreign assistance disbursed in the Republic of Moldova is reported by 5 development partners and the share of 24% is reported by 11 donors. Taking into account the specificity of external assistance projects and the duration of their implementation, the development partners' ranking changes each year. The amount of disbursements for external assistance according to the development partners of the Republic of Moldovain 2016 is presented below.

Under the strategies and directives, technical assistance has been attracted over the years over the following sectors.





**Source:** Ministry of Finance, Development Partners data, available at: <u>www.mf.gov.md</u> [visited on 05.12.2017] In line with the principles of moreeffectived evelopment assistance, alignment of assistance to national priorities is a key factor in achieving economic development outcomes and improving the standard of living of the population. In this respect, the communication between the Government and the development partners in the last years was constructive and the investments were allocated to the following sectors.



**Figure 4. Fundamentals of funding** 

**Source:** Elaborated by author based on Aid Management Platform data, available at <u>www.amp.gov.md</u> [visited on 06.12.2017]

Because the allocation of external investments was distributed according to current needs, and since 2015 it is based on the planned one.

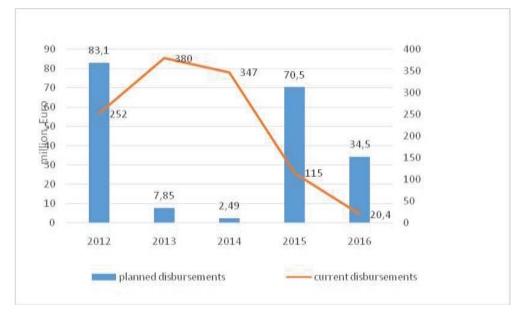


Figure 5. Predictability of assistance

**Source:** Elaborated by author based on Aid Management Platform data, available at: www.amp.gov.md[visited on 05.12.2017]

The financial resources allocated from external assistance have been allocated according to external requests.

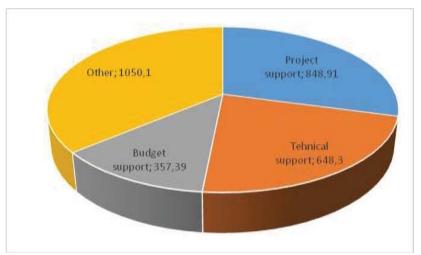


Figure 6. Financial data

**Source:** Elaborated by author based on Aid Management Platform data, available at: www.amo.gov.md[visited on 08.12.2017]

Each state, depending on the priority areas and directions, through detailed analysis, sets out its own national assessment policies, programs and guides through cost-benefit analysis methods, taking into account the specific institutional framework and the particularities of the national context.

### 3. Risk in investment projects

At present, a great deal of attention in investment projects is given to the risk analysis in certain situations and uncertainty, which involves associating a probability distribution for each identified risk in order to determine the magnitude of the impact that can be recorded as a result of the occurrence of the risk. Any investment project, especially that aimed at investing in real assets and especially in non-existent assets (drafting), is permanently likely to become unprofitable. This probability is superior in countries with an unstable, transition economy. Holding data on the expected risk of investment proposals together with information on: the expected return on investment will take into account the information to make a decision. Analyzing the risk of the investment project will use a number of methods, represented in Table 2.

Qualitative analysis will help identify all possible risks at various stages of project execution, and their appreciation largely depends on increased insight, expertise in the field and knowledge in the sphere of economic theory.

The quantitative analysis implies the concrete financial definition of the risks in full and is performed on the basis of the method of statistical mathematical methods (pirobalistic analysis) and the analytical method. The risk analysis is complex, ie quantitative-qualitative is assigned the appropriate weight. This will allow us to analyze the net cash flow and their settlement on tariffs that do not take into account the risk factor and the second approach is to correct the discount rate risk factor and then recalculate the expected net inflow.

For any risk factor we determine the probability of its occurrence, the character of the influence on the result of the activity (loss, advantage).

Qualitative	Techniques/methods	Indices	Content
analysis			
	Surveys, Quizzes,	Number, percentage of beneficiaries /	Subjective
	Note, Interview, Scenario,	consumers	assessment
	Probability-Impact Matrix,	Standard, normative acts, control system	
	Brainstorming,	Domains, branches, directions	
	Debate groups.	Interests, needs	
Quantitative	Economical and	Methods/models	Content
analysis	mathematical analysis		
	techniques		
	Probable analysis	Parkinson's model, The mathematical hope	In certain or
		method, Savage's model of regret, Laplace's	uncertain
		Model of Proportionality, Bayes' Average	situations
		Profit Model, Hurwics's Optimality Model,	
		Abraham Wald's prudent model	
		(pessimistic), etc.	
	Analytical statistical analysis	Taguchi's quality analysis method, Monte-	
		Carlo simulation method, Critical point	
		calculation, Sensitivity analysis, Scenario	
		approach method	

Table 2. Investment risk analysis

Source: carried out by author

When planning policies and projects it is better to draw up a list of unpredictable situations based on established limits. Modeling the future as an appropriate set of contingencies, and the uncertainty of future situations is considered as an inherent risk that will be incorporated into a CBA through an analysis of the expected value.

Risk is one of the phenomena that directly affect the performance of the investment project and is the likelihood of an event occurring that will impact the investment project and will make the forecasts (especially those of costs and benefits) prove to be inaccurate, and the effects of risk are social, economic or environmental, financial, political, etc.

Uncertainty, insufficient specialist training, or lack of responsiveness are just some of the reasons often outlined by the owners of the investment projects in the event of deviations from the established objectives.

## Conclusion

Depending on the government policies and strategic objectives of the country, the investment projects will be established and approved. The mechanism for granting investments within the state is documented by rules and instructions, where the conditions, the beneficiaries, the eligibility criteria of the expenditures and the financing process with the justification of the documents confirming the expenditures are established.

For each stage, risk management proposes a specific approach, actions and responsibilities differentiated according to project type, organization size, national legislative framework, use or preference for a particular Risk Management methodology.

Investments are one of the effective factors that enable a state to face the challenges of transition to a market economy, democracy and the informational society in the face of globalization and the sustainable development of the global community. At the same time, the market economy is a dynamic and developing system, including those related to the attraction of foreign investments, as well as their reinvestment in the revival of the national economy.

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