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## FORMATION OF THE FUNCTIONAL COMPONENT OF EXECUTIVES' READINESS FOR RISK MANAGEMENT

*The article clarifies the concept of "flexibility / rigidity of skills", discloses the indicators of executives' functional readiness for risk management and diagnostic techniques, presents the results of evaluating the executives' functional readiness for risk management. The functional component is characterized by a combination of practical skills and knowledge of risk management acquired in the process of learning and fulfilling certain responsibilities with experience (both obtained from teachers, masters, managers, employees and personal) and is determined by the following indicators: the ability to apply methods for identifying risks and classifying identified risks in an educational institution; the ability to carry out quantitative and qualitative analysis of risks; the ability to identify the most critical risks; the ability to plan a response to risks; the ability to monitor risk assessments and determine proposals and recommendations by the monitoring results. The "flexibility of skills" is substantiated as the ability to perform certain risk management procedures properly, carry out analytical and synthetic actions, using tools in accordance with situations of uncertainty, summarizing and developing proposals and recommendations. The results of quantitative and qualitative indicators of the evaluation of the performed tasks demonstrate low index of the formation of the investigated skills, which convincingly confirms the need to increase attention on their further formation.*

**Keywords:** flexibility of skills, functional readiness, executive, risk, risk management.

### Introduction

It is known that the activity of any organization is associated with numerous risks. Risk means the uncertainty of the result. Mostly it concerns the negative effects of actions or events. Along with the types of risks general for all branches of the activity there are specific risks inherent only for a certain kind of activity. Education is no exception. In this sphere there are special risks associated with the quality of pupils and students' training. Identification of risks, the availability of a systematic approach to their assessment, and maintaining the risks at an acceptable level are important aspects of improving the educational institution functioning. That is why the formation of the functional component of executives' readiness for risk management is the basis of its professional activity to perform tasks of various managerial complexities.

### Aim and Tasks

The paper aims to present the results of the formation of the functional component of executives' readiness for risk management.

Objectives of the study are as follows:

- to clarify the essence of the concept of "flexibility of skills";
- to determine the indicators of executives' functional readiness for risk management and diagnostic methods;
- to identify the levels of executives' readiness for risk management by functional component.

### Research Methods

The experiment involved 104 directors with working experience (experimental group) and 104 students-future directors (control group).

The functional component involves a combination of knowledge and practical skills in risk management received in the process of learning and fulfilling certain responsibilities with experience (both obtained from teachers, masters, managers, employees and personal).

One of the criteria for diagnosing executives' functional readiness for risk management in educational institutions is "flexibility – rigidity of skills".

Traditionally, flexibility is seen as an integral characteristic of an individual, which enables him (her) to successfully solve a wide range of professional and life challenges in a constantly changing environment. Flexibility of skills is characterized by the ability to establish associative relationships and move from the phenomena of one class to others, often remote in content; to find new solutions quickly and easily (Torhan, 2011). M. Torhan emphasizes that the relationship between flexibility and rigidity is complex, while rigidity is manifested by the inability or unwillingness of a specialist to reorganize the planned scheme of the activity in conditions where the previously scheduled program requires significant changes.

The "flexibility of skills" criterion is considered as the ability to carry out certain risk management procedures properly, fulfill analytical and synthetic actions, using tools in accordance with situations of uncertainty, summing up and developing proposals and recommenda-

tions. In its turn, rigidity is characterized by the inability of managers to take into account varieties of situations of uncertainty, to change tools and to consider the specifics of risks. Managers meet difficulties when the situation changes.

Thus, “flexibility / rigidity of skills” criterion indicators by the functional component of executives' readiness for risk management in an educational institution are: *the ability to apply risk identification methods and classify identified risks in an educational institution (statistical,*

*analytical, expert analogy methods, etc.); the ability to carry out quantitative and qualitative analysis of risks; the ability to identify the most critical risks (to prioritize correctly, to allocate existing resources and to solve first and foremost tasks); the ability to plan a response to risks; the ability to monitor risk assessments and determine proposals and recommendations by the monitoring results (Chernenko, 2016).*

The evaluation by the “flexibility / rigidity of skills” criterion was carried out according to the formula:

$$C = \frac{I_1 + I_2 + I_3 + I_4 + I_5}{5} = \frac{10S_1 + 8,33S_2 + 20S_3 + 11,11S_4 + 16,67S_5}{5}$$

where: C<sub>3</sub> is the calculated number of points by the criterion "flexibility / rigidity of skills"; S<sub>3i</sub> is the respondent number of points received by indicators 31 - 35; I<sub>3i</sub> is the standardized score obtained by the respondents by indicators 31-35.

Table 1.

**Conversion Factors to the Assessment Scale 0 to 100 and Calculation Formulas**

Criteria	Indicators	The number of points on the scale of the corresponding methodology	The index of the left border shift	The index of stretching / compression
Flexibility / rigidity of skills (K <sub>3</sub> )	3.1. The ability to apply risk identification methods and classify identified risks (I <sub>1</sub> )	from 0 to 10	-	$\frac{100}{10 - 0} = 10$
	Calculation formula			$I_1 = 10S_1$
	2.1. The ability to carry out quantitative and qualitative analysis of risks (I <sub>2</sub> )	from 0 to 12	-	$\frac{100}{12 - 0} = 8,33$
	Calculation formula			$I_2 = 8,33S_2$
	2.2. The ability to identify the most critical risks (I <sub>3</sub> )	from 0 to 5	-	$\frac{100}{5 - 0} = 20$
	Calculation formula			$I_3 = 20S_3$
	2.3. The ability to plan a response to risks (I <sub>4</sub> )	from 0 to 9	-	$\frac{100}{9 - 0} = 11,11$
	Calculation formula			$I_4 = 11,11S_4$
	2.4. The ability to monitor risk assessments and determine proposals and recommendations by the monitoring results (I <sub>5</sub> )	from 0 to 6	-	$\frac{100}{6 - 0} = 16,67$
Calculation formula			$I_5 = 16,67S_5$	

To determine the numerical intervals of the levels of executives' functional readiness for risk management (low, satisfactory and sufficient), the method of standard deviations was used.

**Research Results**

The obtained results of evaluation of executives' functional readiness levels (with work experience and future managers) for risk management are presented in tables 2-3.

Table 2.

**Results of Functional Readiness of Executives with Work Experience for Risk Management**

The indicators of «flexibility / rigidity of skills» criterion	Levels (experimental group)					
	Sufficient		Satisfactory		Low	
	%	persons	%	persons	%	persons
The ability to apply risk identification methods and classify identified risks ( $I_1$ )	11.04	17	50.65	78	38.31	59
The ability to carry out quantitative and qualitative analysis of risks ( $I_2$ )	12.99	20	51.30	79	35.71	55
The ability to identify the most critical risks ( $I_3$ )	9.09	14	51.30	79	39.61	61
The ability to plan a response to risks ( $I_4$ )	15.59	24	48.70	75	35.71	55
The ability to monitor risk assessments and determine proposals and recommendations by the monitoring results ( $I_5$ )	14.94	23	50.00	77	35.06	54
Criterion: flexibility / rigidity of skills	12.99	20	50.00	77	37.01	57

Table 3.

**Results of Future Executives' Readiness for Risk Management**

The indicators of «flexibility / rigidity of skills» criterion	Levels (control group)					
	Sufficient		Satisfactory		Low	
	%	persons	%	persons	%	persons
The ability to apply risk identification methods and classify identified risks ( $I_1$ )	5.70	9	52.53	83	41.77	66
The ability to carry out quantitative and qualitative analysis of risks ( $I_2$ )	15.82	25	50.63	80	33.55	53
The ability to identify the most critical risks ( $I_3$ )	11.39	18	49.37	78	39.24	62
The ability to plan a response to risks ( $I_4$ )	17.08	27	49.37	78	33.55	53
The ability to monitor risk assessments and determine proposals and recommendations by the monitoring results ( $I_5$ )	13.29	21	51.27	81	35.44	56
Criterion: flexibility / rigidity of skills	13.29	21	51.90	82	34.81	55

As we see from tables 2-3, by the indicator of “flexibility / rigidity of skills” criterion of the functional component – the ability to apply methods of identifying risks and classify the identified risks, – the sufficient level was identified among 11.04% of the executives in the experimental group and among 5.70% of the executives in the control group. The satisfactory level of this indicator was determined among 50.65% of the executives in the experimental group and 52.53% of the respondents in the control group; low level – respectively among 38.31% and 41.77% of the executives.

Sufficient level of the executives' readiness for risk management in educational institutions by the indicator – the ability to carry out quantitative and qualitative analysis of risks – was recorded among 12.99% of the executives in the experimental group and among 15.82% of the respondents in the control group. The satisfactory level was found among 51.30% of the managers in the experimental group and 50.63% of the executives in the control group. The low level – among 35.71% of the managers in the experimental group and 35.55% of the executives in the control group.

As we can see, the sufficient level of formation of the executives' readiness for risk management in educational institutions by the indicator – the ability to determine the most critical risks – was shown by 9.09% of the managers in the experimental and by 11.39% in the control group. The satisfactory level was determined among 51.30% of the managers in the experimental group and among 49.37% in the control group; the low level – among 39.61% of the managers in the experimental group and 39.24% of the respondents in the control group.

The sufficient level of executives' readiness for risk management in educational institutions by the indicator – the ability to plan response to risks – was demonstrated by 15.59% of the managers in the experimental and by 17.08% of the respondents in the control group; the satisfactory level – by 48,70% of the executives in the experimental group and by 49,37% in the control group; the low level was determined among the majority of the managers in the experimental and control groups – respectively 35.71% and 33.55%.

The sufficient level by the fifth indicator of the investigated component – the ability to monitor risk assess-

ments and to determine proposals and recommendations by the monitoring results – was shown only by 14.94% and 13.29% of the managers in the EG and CG. A significant number of respondents demonstrated the satisfactory level – 50.00% of the managers in the experimental group and 51.27% in the control group. The low level of the ability to monitor risk assessments and to formulate proposals and recommendations based on the results of monitoring was found among 35.06% of the managers in the experimental and among 35.44% in the control groups.

The high-quality aggregate data processing allowed to state that in the open-ended test tasks, in particular (case “Procedure and risk management tools”), managers prepared an analytical note. The typical mistake of respondents in applying risk identification methods was the inability to identify the resources and threats of an educational institution, some of them could not distinguish risks from threats at all. The SWOT analysis made it possible to state satisfactory skills, not all the strengths and weaknesses of the educational establishment were determined, sometimes generally weak points were marked as strong, for example, reduction of the number of students entering a higher educational establishment is marked as a strong point because it will improve the quality, but they don't take into account that the decline in the student enrolment will result in staff reduction and an increase in the teachers' workload due to the incompleteness of student groups, where only 15% of class hours are planned for the teacher while in the schedule the full hours are indicated according to the curricula and work plans.

Analyzing the results of responses as for the identification of the most critical risks, it should be noted that managers met significant difficulties while generating risk maps, most of them generally failed to complete the task. The respondents could not identify critical risks, as all identified by them (discrepancy between teacher's training qualifications and the taught subject, delayed advanced training course – personnel risk; insufficient number of computers, computer classes, material and technical support – organizational and technical; lack of budget and extra budgetary financing, etc.) were classified as critical, although impact and probability were taken into account. Also, students suggested ways of responding to risks and monitoring their assessment, leading priorities, allocation of their own resources. Accomplished plans of events differed not only in the con-

tent component, but also in the implementers, measures, methods of processing. Unfortunately, no respondent mentioned the risks that need to be taken, as responses and prevention are not always appropriate. The greatest difficulties while carrying out this case the managers met during the formation of proposals and recommendations on the basis of the results, since the overwhelming majority of the proposals did not reflect the field of problem issues that were considered.

Regarding the general level of executives' readiness for risk management in educational institutions by the criterion “flexibility / rigidity of skills” of the functional component, the sufficient level was demonstrated by 12.99% and 13.29% of the managers in the experimental and control groups; the satisfactory level - respectively by 50% and 51.90%; the low level – by 37.01% of the managers in the experimental group and 34.81% of the control group.

### Conclusions

Flexibility of skills is the ability to perform certain risk management procedures in a proper way, carry out analytical and synthetic actions, using tools in accordance with uncertainty situations, summing up and developing proposals and recommendations. Rigidity is characterized by the inability of managers to take into account variations of the situation of uncertainty, to change the toolkit and to take into account the specificity of risks.

The functional component is characterized by a combination of practical skills and knowledge of risk management acquired in the process of learning and fulfilling certain responsibilities with experience (both obtained from teachers, masters, managers, employees and personal) and is determined by the following indicators: the ability to apply methods for identifying risks and classifying identified risks in an educational institution; the ability to carry out quantitative and qualitative analysis of risks; the ability to identify the most critical risks; the ability to plan a response to risks; the ability to monitor risk assessments and determine proposals and recommendations by the monitoring results.

The results of quantitative and qualitative indicators of the evaluation of the performed tasks demonstrate low index of the formation of the investigated skills, which convincingly confirms the need to increase attention on their further formation.

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### СФОРМОВАНІСТЬ ФУНКЦІЙНОГО КОМПОНЕНТА ГОТОВНОСТІ КЕРІВНИКІВ ДО УПРАВЛІННЯ РИЗИКАМИ

Діяльність будь-якої організації пов'язана з численними ризиками. Поряд із загальними для всіх галузей діяльності видами ризиків існують специфічні ризики, властиві тільки для того чи того виду діяльності. Не є винятком і сфера освіти. Ідентифікування ризиків, наявність системного підходу до їх оцінки, а також підтримання ризиків на прийнятному рівні – важливі аспекти вдосконалення діяльності навчального закладу. Саме тому сформованість функційного компоненту готовності керівників до управління ризиками є підґрунтям у його професійній діяльності для виконання завдань різної управлінської складності. Мета статті – дослідити сформованість функційного компоненту готовності керівників до управління ризиками. Методи дослідження: аналіз, порівняння й узагальнення психологічної, педагогічної, управлінської, науково-методичної літератури з проблем функційної готовності керівників до управління ризиків; емпіричні: тестування, анкетування, опитування; методи математичної статистики. У статті уточнено поняття «гнучкість/ригідність умінь», розкрито показники функційної готовності керівників до управління ризиками та діагностувальні методики, презентовано результати оцінювання функційної готовності керівників до управління ризиками. Функційний компонент передбачає поєднання знань і практичних умінь з управління ризиками, набутих у процесі навчання та при виконанні певних обов'язків, із досвідом (як набутого від викладачів, майстрів, керівників і співробітників, так і власного) і визначається за такими показниками: уміння застосовувати методи ідентифікації ризиків та класифікувати виявлені ризики у навчальному закладі; уміння здійснювати кількісний та якісний аналіз ризиків; уміння визначати найбільш критичні ризики; уміння планувати реагування на ризики; уміння проводити моніторинг з оцінки ризиків і визначати пропозиції та рекомендації за підсумками проведення моніторингу. Обґрунтовано «гнучкість умінь» як здатність належно виконувати певні процедури з управління ризиками, здійснювати аналітико-синтетичні дії, застосовуючи інструментарій відповідно до ситуацій невизначеності, підсумовуючи і розробляючи пропозиції та рекомендації. Ригідність характеризується нездатністю керівників урахувати різновиди ситуацій невизначеності, змінювати інструментарій та враховувати специфіку ризиків. У керівників виникають труднощі при зміні ситуації. Результати кількісних і якісних показників оцінки виконаних завдань засвідчують низькі показники сформованості досліджуваних умінь, що говорить про необхідність посилення уваги щодо їх подальшого формування.

**Ключові слова:** гнучкість умінь, функційна готовність, керівник, ризик, управління ризиками.

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