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Financial Literacy and Knowledge on EU Integration and Policy in the Western Balkans

Survey Analysis

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This document is arranged in three sections. The first section provides information about methodology. The second section provides a detailed description of the outcomes from the questionnaire responses. The third section provides an empirical analysis of the main findings.

I. DESIGNING SURVEY METHODOLOGY

This survey aims to analyze financial literacy and knowledge on EU Integration and Policy in four Western Balkans: Albania, Bosnia & Hercegovina, Kosovo, and Northern Macedonia. The analysis is conducted through a structured questionnaire, which consists of fixed questions in a particular order and predefined response options for most questions.

Questions are all designed as a closed-ended type, leading to a structured questioning method. The formulation of the questions is based on the operational definition of the variable or indicator to be measured. In the closed-ended question the respondent is instructed to select only one of the response options. Closed-ended questions create an easy path for both the respondents, by clarifying the answering options.

This survey is based on a careful approach of combining the form of the question (*how the question is designed*) and content (*what is the expected response*). On this regard, the survey arises designed with composite questions. Each statement can be agreed or disagreed with, and overall, as the overall index (referring here to section three, four, five and six) is comprehensive and relevant to what is to be measured.

This questionnaire is designed using a combination of cognitive and evaluative questions. The first one relates to actual circumstances and measures on behalf of this questionnaire, measure knowledge about key financial institutions in our country, while evaluative questions the perceive the respondent's opinion about financial literacy and knowledge on EU Integration and Policy in the Western Balkans. Questions about opinions are often less specific than questions about actions, making evaluative questions more difficult to formulate than cognitive questions.



Questioning Method

The questioning method is online interviewing or otherwise called web survey. Through this method, students will receive an e-mail with an invitation to participate in the survey. The survey will be open access, with no password restrictions, to encourage a wider participation rate.

The e-mail contains a link to the web page for the survey. This method was selected based on these reasons:

- (i) Target group are students, who are regularly exposed to digitalization and screen. Paper questionnaire would be more difficult to reach by them.
- (ii) Online questionnaire easily provides accessibility on data collection.
- (iii) Online questionnaire is easier to follow up.
- (iv) Having a sample among four countries, need an easily accessible and fast channel, such as an online questionnaire.

The analysis will be computed only by students in 4 Western Balkan countries: Albania, Bosnia & Hercegovina, Kosovo, and Northern Macedonia. Each country partner must arrange the questionnaire compliance up to a representative sample, depending on the population number of students.

Data Sample

The gross sample will be reduced to a net sample. According to the filter (or control questions alignment) some of the responses will drop out, due to unreliable answers, which according to Gronmo,S (2020) come from three main reasons: (i) respondents' willingness to answer; (ii) respondent's ability to answer; (iii) respondents' understanding of the questions.

Since sample includes respondents from 4 different countries, speaking different languages, the questionnaire can be translated in different languages to lower the drop out ratio coming from 3 reasons mentioned above, or to increase the comprehension of the questions and therefore lead to better statistical results.

The sample size must be representative. Hence, having the approximate number of students in each of the counties, retrieved from Europe Higher Education database and using Yamane's formula for sample size, for the margin of error of $e = 0.05$, it turns out that:

$$n = \frac{N}{1+N*e^2}$$

Albania – 98.500 students

$$n_{\text{Albania}} = \frac{98500}{1+98500*0.05^2} = 398$$

Bosnia & Hercegovina – 83.000 students

$$n_{\text{B\&H}} = \frac{83000}{1+83000*0.05^2} = 398$$

Kosovo – 73.000 students

$$n_{\text{Kosovo}} = \frac{73000}{1+73000*0.05^2} = 398$$



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Northern Macedonia – 52.000 students

$$n_{NM} = \frac{52000}{1+52000*0.05^2} = 397$$

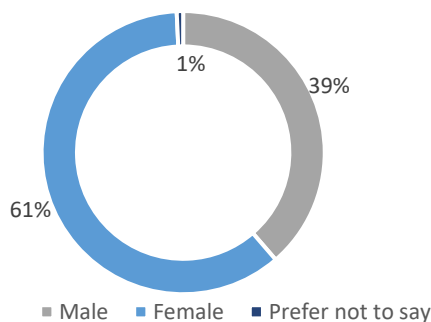
If research analysis will not generate separate results for each country, than the overall sample could be not lower than:

$$n = \frac{306500}{1+306500*0.05^2} = 384$$

In a practical approach, each of the four countries should complete not less than 100 questionnaires. Considering the dropout rate of the responses, it is suggested to follow the countries sample size and after reduction of the drop-out rate, the overall sample size would meet the required criteria for a statistically significance rate.

II. OUTCOMES FROM THE QUESTIONNAIRE

The questionnaire is organized in 7 sections. The first section, students are asked about their gender. Through this question, a gender-based analysis can be developed, aiming to assess whether there is a gender gap in the framework of financial literacy and knowledge on EU Integration and Policy in the Western Balkans. Based on primary data, a good robust analysis can be computed.

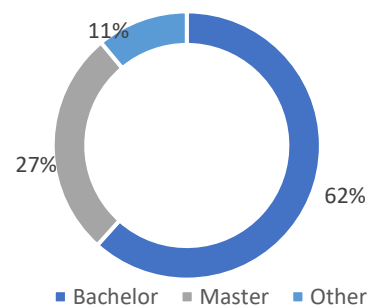


Gender Identity

The second question is about nationality. By sequencing the data sample in four groups, a comparative analysis can be developed aiming to address the issue of financial literacy and knowledge on EU Integration and Policy.

Study Programe

Survey shows that most bachelor students are not able to judge how well their country is performing towards EU integration. 89 per cent of bachelor students claim that there is a need for more information about EU financial institutions and integration chapters.



Considering that the level of information students get from their study program, varies from one program to another, students were also asked to select the field where their study program lies. These categorisation os study programmes is made referring to ISCED Manual. The International Standard Classification of Education (ISCED) is a problem for collecting and analysing comparable statistics for



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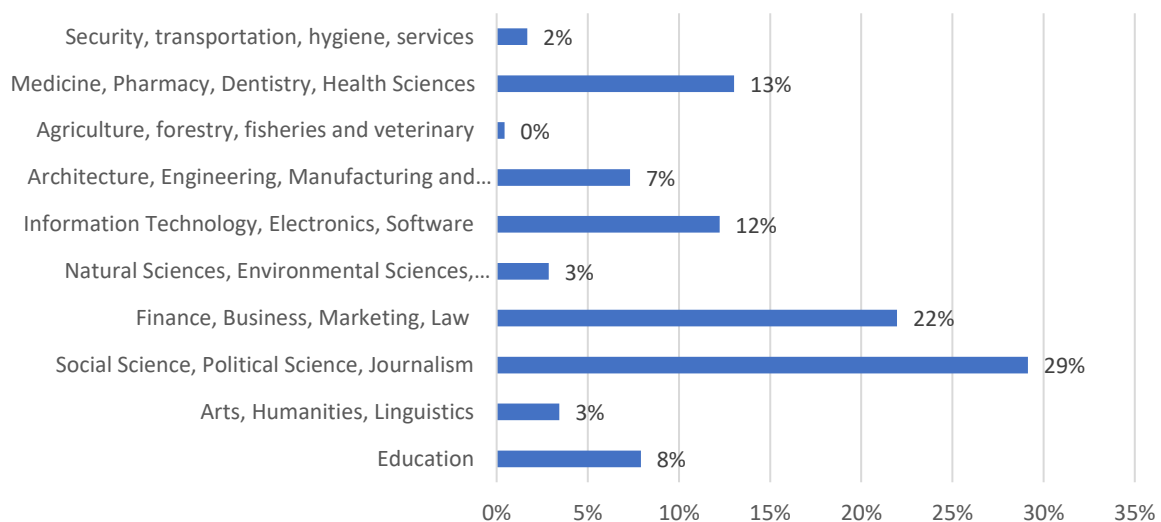


the report on. The availability of a common international classification is only the first step towards collecting data and generating comparable statistics. The second step is a consistent application of the classification. The revised version of the classification (the one from 2013) groups all fields of education into 10 main fields, which are then organized into subfields.

1. Education
2. Arts, Humanities, Linguistics
3. Social Science, Political Science, Journalism
4. Finance, Business, Marketing, Law
5. Natural Sciences, Environmental Sciences, Mathematics and Statistics
6. Information Technology, Electronics, Software
7. Architecture, Engineering, Manufacturing and Construction
8. Agriculture, forestry, fisheries and veterinary
9. Medicine, Pharmacy, Dentistry, Health Sciences
10. Security, transportation, hygiene, services

Students are asked to select the field representing their study programme. Afterwards, the analysis can be designed by grouping students from EU related fields in one group (considering here Economics, Law and Political Sciences) and students from non-EU related study programmes. This categorisation helps to draw more specific conclusions for each of the groups.

Field of Study



Most respondents, more than 50 per cent, were students of Social Sciences, Political Sciences, Journalism and students from Finance, Business, Marketing and Law. This is the most targeted category of students, who are expected to have a higher correlation with knowledge of the EU integration process.

Country of Nationality

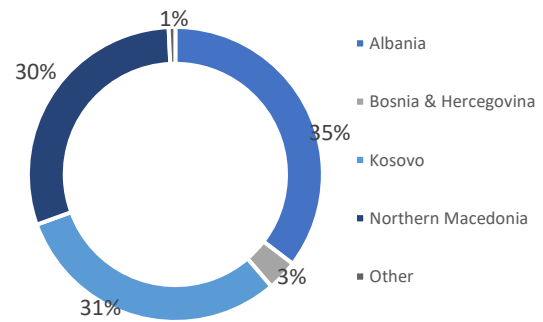
As shown in this graph, three partner countries managed to have the required number of



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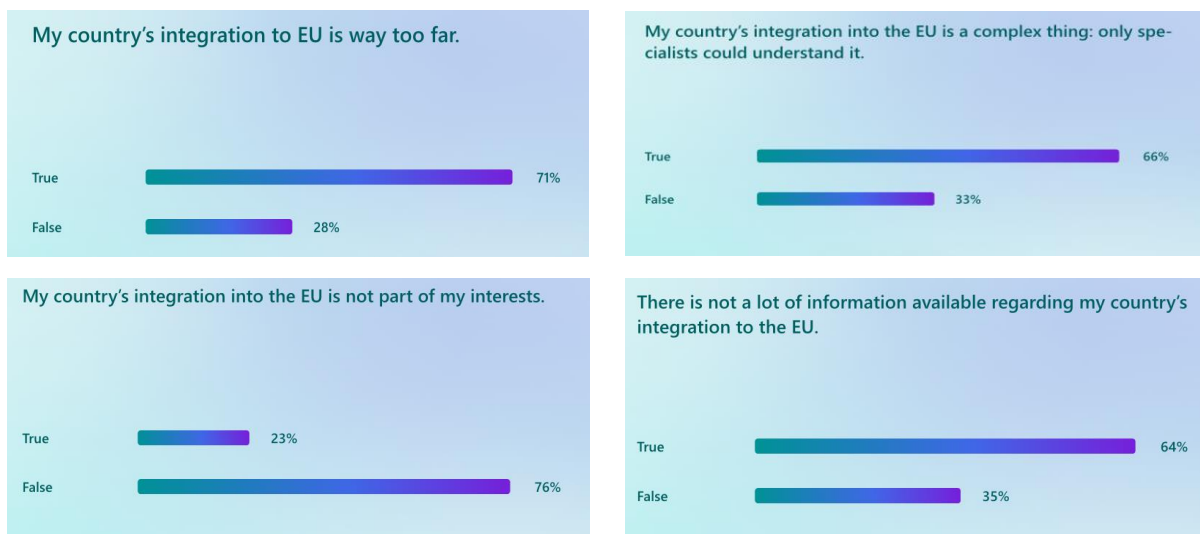


responses. The only country excluded from the analysis is Bosnia – Hercegovina, as it could not fulfil the required number of responses. The results for a comparative analysis would be skewed, hence this country was dropped from the empirical analysis.



Overall perception of country’s integration to EU process

The fourth section is about the overall perception of country’s integration to EU process. In this section respondents through evaluative questioning, are expected to provide information about their information on financial literacy related to EU integration process. These composite questions require the respondent to agree or disagree with, and overall index is comprehensive and relevant to what is to be measured.



As shown in the graphs summarized above, students of all WB countries in general, perceive the countries integration process not to be happening soon. Meanwhile, more than 6 out of 10 students, confirm that the integration process is a complex issue, and there is a lack of information available regarding the country’s integration to EU. Most students are interested in knowing more about this process (approximately 8 out of 10), hence it is *suggested that universities provide courses and modules on Eu integration policies and practices.*

Knowledge about key EU financial institutions

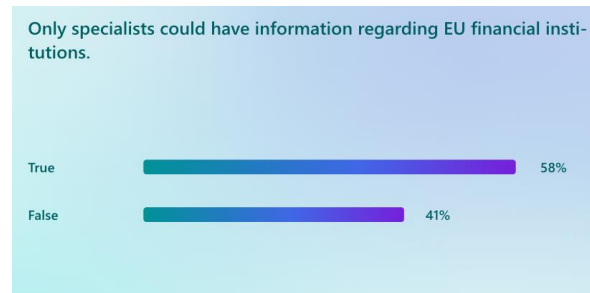
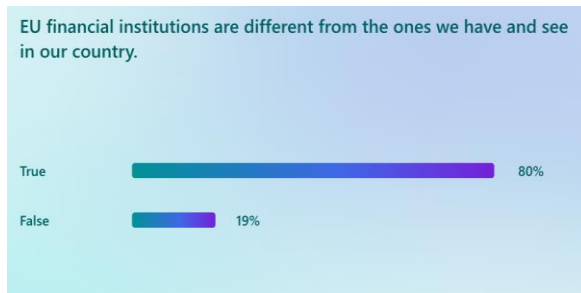
The fifth section aims to evaluate the knowledge level about key EU financial institutions in your country. These kinds of questions are cognitive questions (as explained above). In this section respondents are



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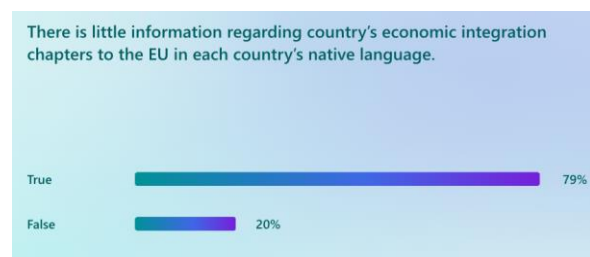
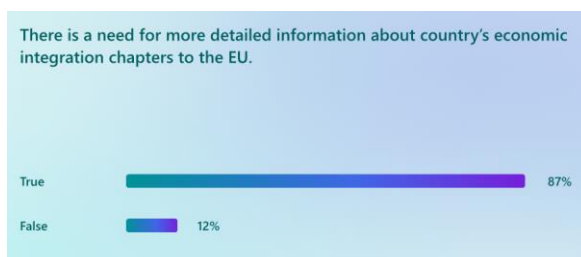
expected to agree or disagree with the composite questions and researchers, through their answers, are able to evaluate their knowledge level.



Students in this section confirm the existing differences between home-country financial institutions and EU financial institutions. Furthermore, to address this issue and increase their level of information, a *campaign of EU financial institutions should be carried out from universities or political stakeholders among these countries.*

Knowledge on integration chapters to the EU

Sixth section is about students' knowledge level about country's economic integration chapters to the EU. This section is designed in alignment with the previous section, using cognitive and composite kind of questions. Through the responses, researchers will provide findings about how much cognitive information students of these four Western Balkan countries have about **Chapters** of Economic Integration.

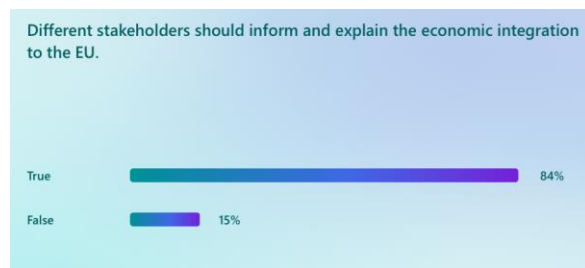
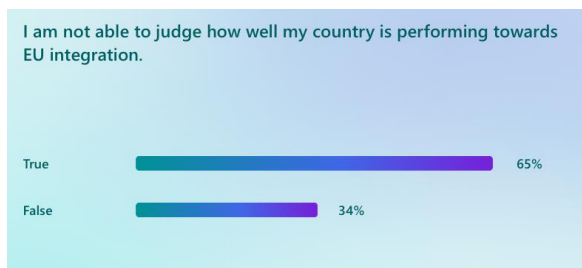
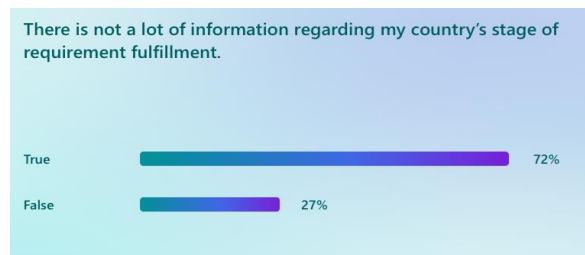




8 out of 10 students state that integration chapters of European Union are difficult to understand for common people and there is a need for more detailed information about countries economic integration chapters to the EU. *To facilitate the absorption of this process, the information should be provided in the native language. Based on credibility and expertise, this information should be offered in the native language.*

Perception on the Countries Membership

The seventh section is about the overall perception that students have about their country’s current stage of requirement fulfillment for being an EU member. Using evaluative questioning, respondents are expected to provide whether country’s economy and markets are far from reaching the European targets; their perceived level of information about the country’s stage of requirement fulfillment; their ability to judge how their country is performing towards EU integration and their judgement about the role of stakeholders in informing and explaining the economic integration to the EU.



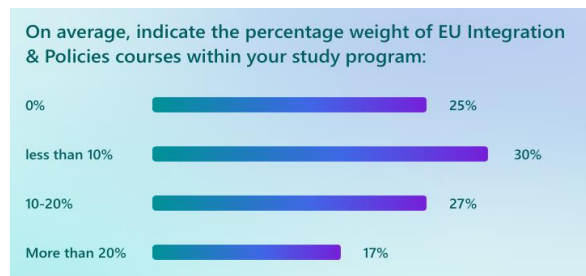
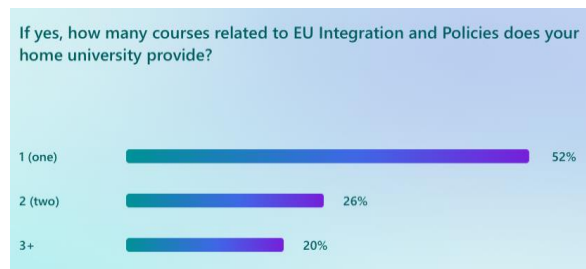
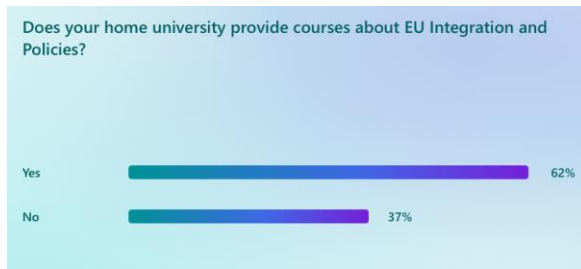
As indicated in the graphs, students share the same perception about the countries’ advancements in fulfilling the EU membership criteria and targets. 8 out of 10 students share the opinion that their country is far from reaching European Targets. Further they state that there is a lack of information regarding this issue and stakeholders should engage in informing and explaining the economic integration process of their country to the European Union.

From third to seventh section, respondents are also tested for their responsibility in filling the questionnaire. In between these four sections control questions are crossed and combined aiming to select only the correct answers. Hence, questions 3.1 / 3.2 / 3.3 / and 3.4 are respectively well aligned with question 4.1 / 4.2 / 4.3 and 4.4. In an illustrative form, if a student responds true to the statement 3.2 (My country’s integration to EU is a complex thing: only specialists could understand it.) he is expected to mark 4.2 true as well (Only specialists could have information regarding EU financial institutions).



HEI's curricula

The last section is about HEI's curricula in these four Western Balkan Countries. The aim of this section is to evaluate the inclusion of EU integration and policies topics in the university curricula. Students are asked about their level of study program (Bachelor or Master) aiming to evaluate whether their information on EU policies and integration starts from bachelor or master level; They are also asked about how many courses they take in behalf of EU policies and Integration, and as a control question they are asked about the amount of ECTS (European Credit Transfer and Accumulation System) their study program dedicated to EU related courses. This section is formulated using categorical designed responses, related to study program, number of courses and amount of ECTS they are taught about EU policies and integration.



6 out of 10 students confirm that their home university provides modules and courses related to European integration and policies. The majority of students state they are usually provided with a single course or equivalent to approximately 6-10 ECTS. The weight of EU related courses to the overall curriculum is less than 10%.

III. EMPIRICAL ANALYSIS

Apart from presenting the main results of the questionnaire, these results are further tested through empirical methods aiming to address issues to related to: (i) EU integration process, (ii) EU financial Institutions, (iii) EU integration chapters, (iv) economy and market performance toward meeting the EU targets.

The empirical analysis is organized in two panels. The first panel of analysis provides an overall analysis of how the financial literacy and knowledge of students of Western Balkan countries.



In the second panel of analysis a limited number of responses (equaling the response rate of Bosnia & Herzegovina) is randomly selected from Albania, Kosova and North Macedonia, aiming to have a balanced and robust analysis. This constraint comes from the inability of Bosnia & Herzegovina to fulfill the required number of responses. Throughout this method, a subgroup analysis is computed to test which of the countries taken into analysis has a better understanding of financial literacy and knowledge on EU financial infrastructure and institutions in the Western Balkans. Another hypothesis to be tested at a subgroup level is, which of the following countries provides more EU knowledge in the university curriculum.

As it was pointed out above, only the responses related to Albania, Kosovo and North Macedonia are included, while the responses for Bosnia & Herzegovina were not taken into consideration as the number of respondents were very small. To define which of countries has better understanding on EU chapters, nonparametric Kruskal – Wallis test is done. The Kruskal – Wallis test is used when we want to check differences among more than 2-groups, and when the assumptions of one-way ANOVA are not met. In this case, the data are qualitative, both on nominal or ordinal scale.

Table 1: Kruskal – Wallis test result

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The distribution of I have a good understanding on EU chapters is the same across categories of Nationality.	Independent-Samples Kruskal-Wallis Test	.650	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

As p value is 0.650, greater than 0.05, according to Kruskal-Wallis test, the null hypothesis is retained. We conclude that there are no statistically significant differences between means of Albania, Kosovo, and North Macedonia. So, we can conclude that A Good understanding on EU chapters is the same across three countries.

To have an in-depth conclusion and analysis on the variables effect on the good understanding of the country's economic integration chapters to the EU, a logistic regression is used.

Our variable of interest, good understanding of the country's economic integration chapters to the EU, has two categories. As a result, we can model it using logistic regression. Firstly, Omnibus Tests of Model Coefficients is used to test the model fit. As the p value is .000, smaller than significance level $\alpha=0.05$, we conclude that the model is statistically significant.

Table 2: Omnibus Tests of Model Coefficients



Omnibus Tests of Model Coefficients

		Chi-square	df	Sig.
Step 1	Step	65.047	4	.000
	Block	65.047	4	.000
	Model	65.047	4	.000

Then we estimate logistic regression model with good understanding of the country's economic integration chapters to the EU as the dependent variable and Gender, Study cycle, Related study program, Related EU courses as the independent variables.

Table 3: Equation output table

Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)
Step 1a	Gender	-.019	.119	.025	1	.875	.981
	StudyCycle	.452***	.126	12.949	1	.000	1.571
	StudyProgram	-.017	.120	.020	1	.887	.983
	EU_courses	.828***	.125	44.257	1	.000	2.290
	Constant	-.500	.132	14.417	1	.000	.607

a. Variable(s) entered on step 1: Gender, StudyCycle, StudyProgram, EU_courses.

Estimated logistic regression equation:

$$P(y=1 | \text{Gender, study cycle, study program, EU courses}) = \frac{e^{-0.5 - 0.019 \text{ gender} + 0.452 \text{ study cycle} - 0.017 \text{ study program} + 0.828 \text{ EU courses}}}{1 + e^{-0.5 - 0.019 \text{ gender} + 0.452 \text{ study cycle} - 0.017 \text{ study program} + 0.828 \text{ EU courses}}}$$

In the variables in the Equation output table, we can see that Gender and Related study program are statistically insignificant variables, as the p-value only for Study cycle and EU courses in this regression is $p=0.000 < 0.05$, meaning that these variables have a statistically significant effect on good understanding of the country's economic integration chapters to the EU. For more, the probability of good understanding of the country's economic integration chapters to the EU is higher for the individuals that have master's degree and for individuals that have finished Related EU courses.

Concluding Remarks

The analysis is based on 4 pillars: (i) EU integration process, (ii) EU financial Institutions, (iii) EU integration chapters, (iv) economy and market performance toward meeting the EU targets. Regarding the first pillar, more than 70 per cent of the respondents' state that their country's integration process is perceived to be too far.



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Regarding Financial Institutions, 8 out of 10 students claim that EU financial institutions are different from the ones we have and see in our country. In addition, they state that most of them (more than 75%) are interested in having more information about EU financial institutions, The information they get from the courses dedicated to EU policies are not sufficient.

On behalf of Eu Chapters, there are no statistically significant differences between means of Albania, Kosovo, and North Macedonia. So, we can conclude that A Good understanding on EU chapters is the same across three countries. Nevertheless, there is a need of more in-formation provided in native languages, to increase the level of knowledge and understanding of country's economic integration chapters to the EU.

In the framework of economy and market performance toward meeting the EU targets, the majority of respondents claimed that their countries economic situation is far from reaching the EU targets, but on the other hand students claim that there is a need of stakeholders' inclusion to inform and explain the economic integration to the EU.

EU University programs should include modules or courses supporting financial literacy and knowledge on EU integration policies.

There is a need for information sessions on the role and type of European financial institutions and integration chapters, which should be adapted in their native language (8 out of 10 students claim this fact). Young generation needs more information regarding the economic performance of their country towards European integration process.

From all variables considered, two of them are statistically significant: Study cycle and Related EU courses. The probability of good understanding of the country's economic integration chapters to the EU is higher for the individuals that have master's degree and for individuals that have finished Related EU courses.