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Financial Issues Perceived by Youth: Preliminary Survey for Financial Literacy Evaluation in the Baltics

Abstract: *Financial literacy as a prerequisite of citizens' financial well-being and, as a consequence, economic security is a hot topic not only in the academic environment, but also among the representatives of governmental and non-governmental organizations. One of the most important activities realized by the government in order to enhance citizens' financial literacy level is the implementation of the National strategy. The first step of this process is an evaluation of a current situation, which, in turn, requires a proper measurement instrument. The current research was aimed at specifying the content and the structure of the instrument, as well as to reveal the differences in perception of financial matters by students from different countries. A set of 12 financial questions was developed to*

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detect perceived importance and complexity of financial literacy components, as well as to get financial literacy self-assessment scores. The questions were disseminated among the Latvian, Lithuanian and Estonian students. The obtained results assisted to specify the content and wording of questions to be included into the financial literacy measurement instrument. Besides, revealed differences between students' perception of financial questions allowed making conclusions about students' self-confidence that has a great impact on financial literacy level.

Introduction

Financial literacy and financial education are essential elements contributing to the society well-being. The level of citizens' financial literacy can boost or disturb achieving state or regional economic objectives. The European Commission emphasizes the role of financial education in setting up a single European market. One of the initiatives that better tailor the single market to the needs of consumers is providing an access to qualitative financial services that, in turn, requires from them a good understanding of financial products and concepts, as well as financial risks and opportunities, to make a better choice (European Commission, 2007).

Financial literacy is recognized to be crucially important also for businesses. The direct benefits from financially awareness of customers can get financial services providers. Financially literate consumers can make more informed decisions and demand higher quality services, which will encourage competition and innovation in the market (PISA/OECD, 2012). Owners and managers of start-up companies also have a high demand for financial literacy, since it is one of the major factors affecting the survival rate and long-term prosperity (Lennox, 2014).

Recognizing the importance of financial education for all age groups of citizens, the authors emphasize the role of financial education of youth due to the reason that young people start dealing with financial matters at a very early age. Besides, its importance is also substantiated by the statistics on demographic characteristics of early-stage entrepreneurs. Survey "Global Entrepreneurship Monitor" revealed the fact that there are more early-stage entrepreneurs in the 25–34 age group than in any other age range (Amoros & Bosma, 2013).

Awareness of the financial literacy role gained international recognition, stimulating different kinds of organizations to launch financial education programmes. To coordinate this process, many countries have implemented a National Strategy (NS) for Financial Literacy. Based on OECD/INFE data (as for 2014), 19 countries (including Estonia and Latvia) have implemented a first NS, in 9 countries all over the world „a NS is being revised

or a second NS is being implemented" and in 27 countries "a NS is being actively designed" (OECD/INFE, 2014). The advantages of the development of a National Strategy include „promoting a sustainable co-operation between stakeholders, avoiding duplication of resources and allowing the development of clearly determined roadmaps with measurable and realistic objectives based on national assessments" (Grifoni & Messy, 2012). The process of „national assessments", in turn, requires a clear understanding of the financial literacy concept and application of an appropriate evaluation instrument.

The current research is conducted within the framework of a project, performed by the academic staff of the Department of Corporate Finance and Economics of Riga Technical University. One of the project goals is to develop a theoretically substantiated and properly tested measurement instrument (questionnaire) to evaluate the level of financial knowledge of Latvian citizens.

Initially, the survey was performed among the Latvian citizens only with the aim of précising the structure of a questionnaire and the content of included questions. To achieve the established goal, a 12-questions instrument was developed in order to (1) evaluate perceived importance of financial literacy components, (2) evaluate respondents' perceived complexity of financial literacy components, and (3) test self-assessed level of financial literacy of the respondents. The respondents were asked to evaluate each question, using a 5-point scale. The analysis of the respondents' answers allowed making important conclusions about the content and the wording of the questions to be included into the questionnaire for a large-scale survey (Ciemleja, *et al.*, 2014, pp. 29-40).

Discussing the received results with colleagues, the question emerged about the differences in the financial literacy level between the citizens of different countries, as well as about different perception of financial issues. To clarify this question, the survey among the students of Latvian, Lithuanian and Estonian universities was performed, using the developed measurement scale with 12 questions translated into Lithuanian and Estonian.

Initial data analysis involved calculation of mean scores for each question within all three evaluation criteria: simplicity of wording, perceived importance, and perceived complexity. To reveal the statistically significant differences between respondents' responses, non-parametric Kolmogorov-Smirnov test for two independent samples was applied. Data processing was conducted by means of SPSS 20.0 software. The authors analysed not only the differences in responses provided by students from different countries, but also the differences in respondents' perception of financial questions caused by different education background.

The research findings allowed for estimating the level of students' self-confidence which, in turn, contributes to a person's self-efficacy. There is empirical evidence that that financial self-efficacy correlates with financial literacy scores (ANZ/The Social Research Center, 2011).

Financial Literacy: Conceptual Framework and Measuring Issues

Different organizations and individual pieces of research define financial literacy in a specific manner, highlighting different aspects. Most often financial literacy is studied as a multi-dimensional concept combining financial knowledge with financial skills, financial behavior and attitudes (Atkinson & Messy, 2011; Hung, *et al*., 2009; PISA/OECD, 2012; Widdowson & Hailwood, 2007, pp. 37-47). However, there is a significant difference between the elements emphasized by various researchers. Gerardi et al. (2010) decomposes the concept into money literacy, price literacy and budget literacy. According to Kefela (2011, pp. 3699-3705), thematic areas for studying financial literacy are budgeting, savings, debt management, financial negotiations and bank services. Remund (2010, pp. 276-295) defines five categories: (1) knowledge of financial concepts, (2) ability to communicate about financial concepts, (3) aptitude in managing personal finances, (4) skill in making appropriate financial decisions and (5) confidence in planning effectively for future financial needs. Experts from the Financial Services Authority emphasize such elements of financial literacy, as (1) managing money, (2) planning ahead, (3) making choices, and (4) getting help (FSA, 2005).

To have the common understanding of the concept of financial literacy between the project participants, the comprehensive analysis of the concept was conducted with application of statistical methods. Content analysis of the definitions of the term "financial literacy" extracted from the scientific papers and official documents was performed, applying the software AQUAD 6.0 and Hamlet II (Titko & Lace, 2013, pp. 585-592). The results were expressed in the conceptual model of financial literacy (Figure 1).
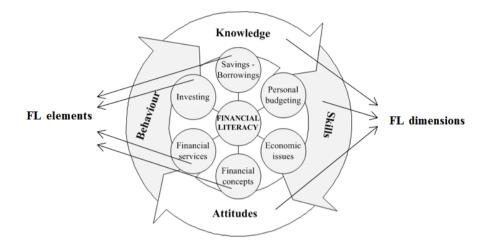
Figure 1. Conceptual model of financial literacy

Source: Ciemleja, *et al*. (2014).

Thus, in the authors' opinion, the concept of financial literacy involves six obligatory elements that should be considered within the framework of all dimensions:

− Savings-borrowings. Related questions are: knowing about savings alternatives, ability to evaluate different types of savings accounts, knowing about the procedures of borrowing, debt literacy, and ability to plan ahead.
− Personal budgeting. Related questions are: knowledge of principles of personal budgeting, understanding of budget balance, knowing about taxation impact on personal income and etc.
− Economic issues. Related questions are: understanding about the economic situation in a country and worldwide, knowing economic and financial terms, economic ratios and etc.
− Financial concepts. Understanding of basic financial concepts - for instance, time value of money and relationship between investment risk and return.
− Financial services. Knowledge about financial products and services, such as payment cards, insurance, online services and others.
− Investing. Knowledge about investment opportunities and understanding of the related risks.

Defining the elements of the concept of financial literacy is an essential part of the process of development of a measurement instrument, because it allows specifying the content of questions.

There is a wide range of studies on measuring the level of citizens' financial literacy. However, the goals of studies and methodological approaches to financial literacy assessment differ significantly. Measuring the level of financial literacy, different researchers emphasize, for instance, the issues associated with retirement wealth accumulation, the link between wealth accumulation and financial literacy, the impact of implemented education programmes on the level of financial literacy and other aspects. Some examples are summarized in the Table 1.

Table 1. Studies on measuring the level of financial literacy

Research title	The aim of the analysis
Debt literacy, financial experiences, and overindebtedness (Lusardi & Tufano, 2009)	To study the impact of the financial crisis on citizens' debt behaviour and financial literacy
Financial literacy and portfolio diversification (Guiso & Jappelli, 2008)	To study how portfolio diversification correlates with financial literacy and other investors' characteristics
The impact of financial literacy education on subsequent financial behavior (Mandell & Klein, 2009, pp. 106-116)	To evaluate a link between financial literacy education and financial decision making
Financial literacy, schooling, and wealth accumulation (Behrman et al., 2010)	To study the impact of financial literacy and schooling on wealth accumulation and pension contribution patterns.
Financial literacy and subprime mortgage delinquency: evidence from a survey matched to administrative data (Gerardi, *et al.*, 2010)	To measure several aspects of financial literacy and cognitive ability in a survey of subprime mortgage borrowers
Exponential growth bias and financial literacy (Almenberg & Gerdes, 2011, pp. 1693-1696)	To study the relationships between household financial decision making and financial literacy
Financial literacy and retirement planning in Japan (Sekita, 2011, pp. 637-656)	To study causality between financial literacy and retirement planning

Table 1 continued

Research title	The aim of the analysis
Financial literacy and pension plan participation in Italy (Fornero & Monticone, 2011, pp. 547-564)	To measures the current level of financial literacy, investigate its determinants and its effects on retirement planning behaviour
Financial literacy and retirement planning in Sweden (Almenberg & Soderbergh, 2011, pp. 585-598)	To study the relationship between financial literacy and retirement planning
Financial literacy, retirement planning and household wealth (van Rooij, *et al.*, 2012, pp. 449–478)	To measure basic and advanced financial knowledge and study the relationship between financial knowledge and household wealth
Financial literacy of university students: methodology and results of an online survey (Krizek & Hradil, 2012, pp. 92-102)	To test the hypothesis that citizens with university education or university students may be a source of finance knowledge for their community

Source: own work.

Measuring the level of citizens' financial literacy, experienced researchers mostly use already developed measurement instruments. The most frequently applied tools are original or slightly amended questionnaires from Health and Retirement Study (Hastings & Tejeda-Ashton, 2008; Guiso & Jappelli, 2008; Behrman et al., 2010; Hastings & Mitchell, 2011; Almenberg & Gerdes, 2011, pp. 1693-1696; Fornero & Monticone, 2011, pp. 547-564), OECD studies (ANZ/The Social Research Center, 2011; Hung et al., 2009; Krizek & Hradil, 2012, pp. 92-102), DNB Household Survey (van Rooj, *et al.*, 2012, pp. 449–478), and American Life Panel (Heinberg, *et al.*, 2010).

Despite the variety of measurement instruments used in previously conducted studies, there are several barriers for using existing questionnaires in the Baltic countries, in particular in Latvia. Firstly, the questions are mainly aimed at testing elementary numeracy instead of the respondents' financial knowledge and ability to deal with financial issues. Besides, the measurement scales involve questions on financial products and instruments that are not available in the specific region.

Thus, the process of the evaluation of citizens' financial literacy level should be started with the development of a relevant measurement instru-

ment with appropriate questions. The first step in the process of designing a questionnaire is the defining of the elements of the concept. The revealed elements are used as a basis for constructing a structural skeleton of a questionnaire. The content of questions should be determined, considering the specifics of a national market and legislations. The examples of country-specific questions are questions on banking products, taxation, credit procedures and others.

The wording of questions is also an important issue. Sometimes lack of financial knowledge indicates that the respondents simply did not understand the questions, i.e., "low scores are due to not understanding the questions being asked, rather than understanding the question but answering it incorrectly" (Capuano & Ramsay, 2011). Thus, the questions should be properly formulated.

Considering that people tend to overestimate their knowledge (Guiso & Jappelli, 2008; Capuano & Ramsay, 2011), it would be interesting to include into the questionnaire self-assessment questions. These questions allow detecting the gap between reality and self-perception of citizens. If people do not recognize the problem, they do not look for the ways to solve it. In this case the educational programmes for adults, for instance, will not be demanded.

It is necessary to weight questions in order to detect a relevant contribution of each question to the total financial literacy score. Each question should be weighted according to its complexity to differentiate simple questions (for instance, payments of utility bills) from complex questions (financial instruments and etc.). Otherwise, respondents can receive equal number of scores, answering correctly on both questions, and the total financial literacy score might be misleading.

Methodology of the research

To achieve the research objectives, the authors constructed 12-questions instrument with two questions corresponding to each component of the developed conceptual model. The questions represented not only knowledge dimension of the financial literacy, but also behavioural dimension. It should be emphasized that a large-scale survey on measuring financial literacy level is planned to be performed within only knowledge dimension, i. e., respondents will be offered to pass multiple choice test with only one correct answer.

In the current survey respondents were asked to evaluate the questions, using 5-point scale and three criteria:

− Simplicity of wording (1 – hard-to-understand question; 5 – easy-to-understand question).
− Importance (1 – absolutely non-important question; 5 - very important question).
− Complexity (1 – complicated question; 5 – elementary question).

For research purposes the questions (Table 10 in appendix) were labelled with appropriate combinations of words (Table 2).

Table 2. Design of the questionnaire for the pilot study

No.	FL component	Question's label
Q1	Savings and borrowings	Loans
Q2		Deposits
Q3	Personal budgeting	Spending
Q4		Balance sheet
Q5	Economic issues	Employment and inflation
Q6		Purchasing power
Q7	Financial concepts	Time value of money
Q8		Risk and return
Q9	Financial services	Payment cards
Q10		Online banking services
Q11	Investing	Stocks and bonds
Q12		Diversification

Source: authors' design.

The questions were disseminated among the Latvian (LV), Lithuanian (LT) and Estonian (EST) students from such universities, as Riga Technical University, University of Latvia, Latvian Academy of Sport Education, Art Academy of Latvia, Vilnius Gediminas Technical University, Kaunas University of Technology, Mykolas Romeris University, and Tallinn Technical University.

The 524 fully-completed questionnaires were received. Latvia, Lithuania and Estonia were represented by 36 per cent, 23 per cent and 41 per cent of respondents, respectively. Respondents' profile data by countries is presented in Table 3.

Table 3. Respondent profile data by countries

Criteria	Values of criteria	Latvia	Lithuania	Estonia
Gender	Male	42%	76%	41%
	Female	58%	24%	59%
Education field	Economics, finances	49%	63%	93%
	Other field	51%	37%	7%
Number of respondents		187 (100%)	119 (100%)	218 (100%)

Source: analysis performed by the authors.

Since the aim of the study was to reveal the differences in perception of financial questions by respondents from different countries, the responses were compared using statistical test. Initially the data was tested for normality of the distribution, applying one-sample Kolmogorov-Smirnov (K-S) test. Due to the fact that sample data comprises three data sets – one for each criterion, the test was performed three times (see Table 4).

Table 4. One-sample K-S test for normality of the distribution

	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12
Simplicity of wording												
Test Statistic	,216	,244	,258	,205	,195	,214	,167	,190	,246	,247	,211	,199
Sig. (2-tailed)	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000
Importance												
Test Statistic	,254	,301	,407	,210	,265	,216	,215	,211	,379	,385	,250	,238
Sig. (2-tailed)	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000
Complexity												
Test Statistic	,185	,193	,274	,163	,155	,164	,170	,148	,203	,219	,171	,148
Sig. (2-tailed)	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000

Source: analysis performed by the authors.

Information presented in Table 4 allows for making a conclusion that data in all three data sets is not normally distributed. The null hypothesis about the normality of the distribution is rejected with a probability of 95 per cent (Sig. < 0.05). Test results determined the choice of method for data comparison. Specifically, a non-parametric Kolmogorov-Smirnov test for

two independent samples was applied to evaluate the statistical significance of differences in the respondents' responses.

Research results

Initially, the authors conducted an analysis of responses of all respondents irrespective of their country of origin. Mean scores of grades assigned to the questions were calculated separately for each criterion (Table 5).

Table 5. Perception of financial questions by students in the Baltics

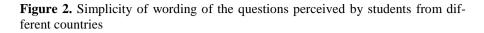| Simplicity of wording		Importance		Complexity	
Question	Mean	Question	Mean	Question	Mean
Spending	4,509	Spending	4,087	Spending	4,154
Online bank services	4,456	Payments cards	4,080	Online bank services	3,910
Payments cards	4,400	Online bank services	4,061	Payments cards	3,748
Deposits	4,169	Deposits	3,982	Deposits	3,501
Loans	4,100	Loans	3,780	Loans	3,389
Employment and inflation	3,980	Balance sheet	3,759	Time value of money	3,246
Stocks and bonds	3,900	Stocks and bonds	3,666	Balance sheet	3,204
Diversification	3,841	Diversification	3,570	Employment and inflation	3,133
Time value of money	3,814	Employment and inflation	3,553	Risk and return	3,124
Balance sheet	3,790	Purchasing power	3,553	Purchasing power	3,089
Risk and return	3,763	Risk and return	3,484	Diversification	2,896
Purchasing power	3,755	Time value of money	3,452	Stocks and bonds	2,765

Source: authors' calculations.

Analysis of the total sample data revealed that the most simple, the most clearly formulated and the most important questions for respondents are „spending", „online banking services", „payment cards", „deposits" and „loans".
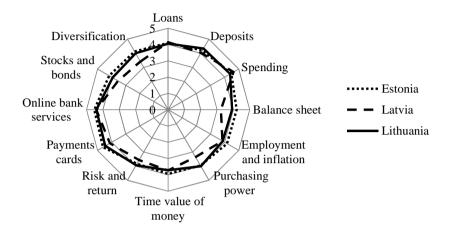
According to the criterion „simplicity of wording", the most respondents evaluated the questions „spending" (69%), „payment cards" (65%), and „online banking services" (66%) as the easiest questions to understand (the questions were graded with "5"). The worst formulated questions on the opinion of the respondents were the questions corresponding to the elements "financial concepts" and "economic issues". However, no more than 20% of students evaluated them with the grade "1" or "2". It means that almost all the questions were easy to understand for the respondents.

The highest perceived importance was assigned to the questions „deposits" (44%), "spending" (43%), "payment cards" (44%) and „online banking services" (43%). But almost all the remaining questions were recognized as questions of at least average importance. The lowest marks received questions corresponding to the financial literacy elements "financial concepts" and "investing" (approximately 20% of respondents evaluated their importance with "1" or "2").

As for complexity, the question „spending" was perceived as the most simple and easiest to answer by respondents (47% of maximal grades). In turn, the most complex questions are „stocks and bonds" (the questions were evaluated with "1" and "2" by 44% and 39% of respondents, respectively).

To define the difference between the perception of questions by Latvian, Lithuanian and Estonian respondents, the authors used both graphical and statistical methods. Figure 2 demonstrates the differences in perceived simplicity of wording of the questions.

Figure 2. Simplicity of wording of the questions perceived by students from different countries

Source: analysis performed by the authors.

Figure 2 shows that Latvian students demonstrate a different perception of the questions comparing with students from neighbour countries. Table 6 summarizes the results of the statistical test to evaluate this difference – significance of Kolmogorov-Smirnov Z-statistic (grouping variable: country).

Table 6. Differences in respondents' perceived simplicity of wording of the questions

Financial questions	LV vs. LT sample	LV vs. EST sample	LT vs. EST sample
Loans	0,998	0,973	0,999
Deposits	**0,013**	0,097	0,736
Spending	0,158	0,472	0,995
Balance sheet	**0,000**	**0,000**	0,295
Employment and inflation	0,480	**0,007**	0,319
Purchasing power	**0,002**	**0,001**	0,488
Time value of money	1,000	0,471	0,554
Risk and return	**0,005**	0,112	0,107

Table 6 continued

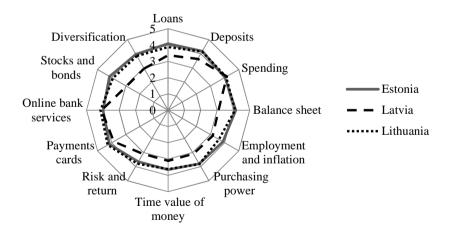| Financial questions	LV vs. LT sample	LV vs. EST sample	LT vs. EST sample
Risk and return	**0,005**	0,112	0,107
Payments cards	**0,001**	**0,000**	0,741
Online bank services	0,991	0,244	0,988
Stocks and bonds	0,221	**0,000**	0,388
Diversification	**0,001**	**0,000**	0,962

Source: authors' calculations.

Eight questions from the list are perceived by Latvians as more hard to understand comparing with Lithuanians or/and Estonians. There is no statistically significant difference in perception of questions between Lithuanian and Estonian students.

Figure 3 demonstrates the differences in perceived importance of the questions.

Figure 3. Importance of the questions perceived by students from different countries

Source: analysis performed by the authors.

The Latvian students perceive almost all the questions as less important comparing with other respondents. Table 7 summarizes the results of the statistical test to evaluate this difference – significance of Kolmogorov-Smirnov Z-statistic (grouping variable: country).

Table 7. Differences in respondents' perceived importance of the questions

Financial questions	LV vs. LT sample	LV vs. EST sample	LT vs. EST sample
Loans	**0,005**	**0,000**	0,763
Deposits	**0,004**	**0,000**	0,963
Spending	0,932	0,209	0,345
Balance sheet	**0,000**	**0,000**	0,939
Employment and inflation	**0,022**	**0,000**	0,334
Purchasing power	**0,000**	**0,000**	0,663
Time value of money	**0,010**	**0,015**	0,938
Risk and return	**0,000**	**0,000**	**0,022**
Payments cards	**0,000**	**0,018**	0,247
Online bank services	0,490	0,973	0,478
Stocks and bonds	**0,000**	**0,000**	0,527
Diversification	**0,000**	**0,000**	0,446

Source: authors' calculations.

Both Figure 3 and Table 7 point to the significant difference in perception of the importance of financial questions demonstrated by Latvian students, comparing with Lithuanian and Estonian students. Only the questions "spending" and "online bank services" are perceived equally.

As for perceived complexity of the questions, there is no such a critical difference in perception between the respondents (Figure 4 and Table 7).

Figure 4. Complexity of the questions perceived by students from different countries

Source: analysis performed by the authors.

Table 7. Differences in respondents' perceived complexity of questions

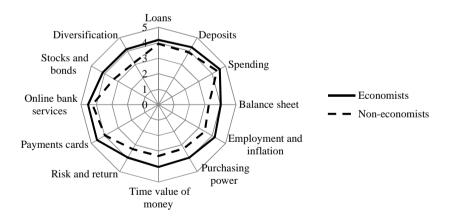| Financial questions	LV vs. LT sample	LV vs. EST sample	LT vs. EST sample
Loans	1,000	1,000	1,000
Deposits	0,829	0,122	**0,026**
Spending	0,521	0,841	0,823
Balance sheet	0,790	**0,000**	**0,001**
Employment and inflation	0,182	0,788	0,141
Purchasing power	0,780	**0,000**	**0,001**
Time value of money	0,618	0,221	0,103
Risk and return	**0,013**	0,352	**0,001**
Payments cards	0,919	**0,000**	**0,001**
Online bank services	0,065	0,056	0,720
Stocks and bonds	0,385	**0,000**	**0,002**
Diversification	**0,033**	**0,010**	**0,000**

Source: authors' calculations.

The data summarized in the Table 7 indicates the lower perceived complexity demonstrated by Estonian students. This can point to the higher self-confidence, but also to the overestimation of their real knowledge.

The authors emphasize the fact that the reason for different perception of the financial questions demonstrated by students from different countries could be insufficient representativeness of the analysed samples. There was a balance between the students of economics-related and non-economic programmes only within the Latvian sample. As for Estonians, 93 per cent of students were "economists". To get more reliable results, number of respondents should be enlarged, including more "non-economists".
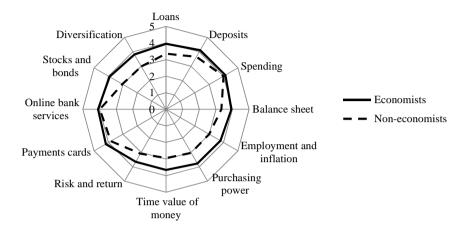
However, the existing data could be analysed splitting the whole data set into two parts. Figures 5, 6 and 7 show the differences in perception of financial questions demonstrated by the students from economics-related programmes ("economists") and students from other fields ("non-economists").

Figure 5. Simplicity of wording of the questions perceived by "economists" and "non-economists"
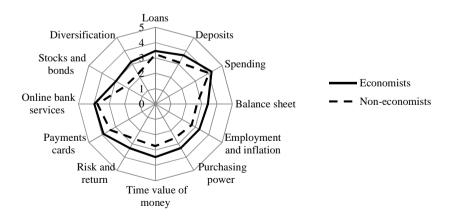

Source: analysis performed by the authors.

Figure 6. Importance of the questions perceived by "economists" and "non-economists"

Source: analysis performed by the authors.

Figure 7. Complexity of the questions perceived by "economists" and "non-economists"

Source: analysis performed by the authors.

Figures 5, 6, and 7 demonstrate the significant difference in perception of the financial questions demonstrated by "economists" and "non-economists". Table 9 summarizes the results of the statistical test to evaluate this difference – significance of Kolmogorov-Smirnov Z-statistic (grouping variable: education field).

Table 9. Differences in perception of the questions by "economists" and "non-economists"

Financial questions	Simplicity of wording	Importance	Complexity
Loans	0,108	**0,000**	0,091
Deposits	**0,004**	**0,001**	0,005
Spending	0,136	0,660	0,189
Balance sheet	**0,000**	**0,000**	**0,000**
Employment and inflation	**0,000**	**0,000**	0,001
Purchasing power	**0,000**	**0,000**	**0,000**
Time value of money	**0,000**	**0,000**	0,000
Risk and return	**0,000**	**0,000**	0,000
Payments cards	**0,000**	**0,018**	**0,001**
Online bank services	**0,008**	0,428	0,519
Stocks and bonds	**0,000**	**0,000**	**0,000**
Diversification	**0,000**	**0,000**	**0,000**

Source: analysis performed by the authors.

"Economists" and "non-economists" demonstrate different perception of almost all the questions within all three criteria. "Economists" evaluated the offered questions as easier to understand and easier to answer, comparing with students of other studying programmes. Besides, representatives of economics-related programmes recognize the importance of financial questions. It is aligned with general logical assumptions. Financial awareness of „economists" is the result of the mandatory studying process. In turn, „non-economists" learn financial matters in practice and get financial knowledge with a life experience only. To compete with „economists" they should have a strong self-education motivation.

Conclusions

The paper reflects the results of the pilot study conducted by the academic staff of the Department of Corporate Finance and Economics of Riga Technical University. The study was aimed to evaluate students' perception of financial questions, as well as to reveal the differences in perception demonstrated by Latvian, Lithuanian and Estonian students. Respondents were offered to evaluate 12 financial questions in terms of their simplicity of wording, importance and complexity. The questions were developed, based on the authors' created conceptual model of financial literacy.

The questions „spending", „online banking services", „payment cards", „loans", and „deposits" were perceived by respondents as the easiest questions to understand, the most important, and the easiest questions to answer. The hardest to understand and less important questions for students were the questions related to the elements such as "financial concepts" and "economic issues". In turn, the questions on investing were recognized as the most complicated.

Survey findings revealed the significant differences in the perception of financial questions between Latvian students and students from neighbour countries. Latvian students marked many questions as more hard to understand and less important comparing with other respondents. In turn, Estonian students demonstrated the lower perceived complexity of the questions that can point either to the higher self-confidence or to the overestimation of knowledge. The results of PISA 2012 survey (OECD, 2012) are in favour of the first assumption. Examination of 15-year-old students' performance in financial literacy across 18 countries provided Estonia 529 mean score that was the third best result after China and Belgium. Latvia was on the 8th place with 501 mean score. Lithuania did not participate in that survey.

However, to make the reliable conclusions about the differences between students' perception of financial questions in the Baltics, the total list of respondents should be enlarged. In the current study, the Lithuanian and Estonian samples were not well-balanced, including 63 per cent and 93 per cent of "economists" respectively.

The analysis of the students' responses within the total sample showed that self-assessment scores of the „economists" were higher than those of respondents with the background in other educational fields. "Economists" also perceived financial questions as more important, comparing with other respondents.

Drawing some parallels between the results of the current study and the results of PISA survey, the link between students' level of financial knowledge and self-assessment becomes obvious.

The results will be used for development of the measurement instrument for the large-scale survey in Latvia to measure financial literacy level of different target groups of Latvian citizens. Considering the importance of respondents' self-assessment, survey participants will be asked not only to answer to the questions, but also to evaluate their complexity. Based on the results, each question will be weighted in order to differentiate simple questions from complex questions.

The authors suggest using unique measurement scale to evaluate the level of citizens' financial literacy in each particular country due to differences in borrowing procedures, taxation, regulatory rules and etc. However, conceptual questions can be used as an evaluation basis with country-specific questions developed by independent researchers.

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APPENDIX

Table 10. Measurement instrument (English version)

No.	Element	Label	Content of the question
Q1	Savings – Borrowings	Loans	How to borrow money for different purposes? What are the differences between the types of loans (mortgage loan, short-term loan...)?
Q2		Deposits	What should you pay attention to when making a deposit in a bank?
Q3	Personal budgeting	Spending	How much of your income do you spend for meals, utility bills etc.? How much do you spend in a particular period of time?

Table 10 continued

No.	Element	Label	Content of the question
Q5	Economic issues	Employment and inflation	What is the relationship between employment and inflation?
Q6		Purchasing power	How to evaluate the impact of inflation on the purchasing power of money?
Q7	Financial concepts	Time value of money	What does it mean „time value of money"?
Q8		Risk and return	What is the relationship between risk and return?
Q9	Financial services	Payments cards	How to choose a payment card? What are the differences between debit and credit cards?
Q10		Online bank services	What online services are available in a bank? How much you should pay for them?
Q11	Investing	Stocks and bonds	How to analyse stocks and bonds before making an investment?
Q12		Diversification	What option is more risky – investment into the shares of one company or investment into different companies, using the same amount of money?