



#### Available online at www.sciencedirect.com

# **ScienceDirect**



Procedia - Social and Behavioral Sciences 156 (2014) 13 – 17

19th International Scientific Conference; Economics and Management 2014, ICEM 2014, 23-25 April 2014, Riga, Latvia

# Towards the practical evaluation of financial literacy: Latvian survey

Guna Ciemleja<sup>a</sup>\*, Natalja Lace<sup>b</sup>, Jelena Titko<sup>c</sup>

a, b, c Riga Technical University, Latvia

#### Abstract

Financial literacy of individuals, the factors contributing to the level of financial knowledge, as well as tools for improving financial competence are frequently discussed topics in the academic papers. Most attention is paid to the measuring issues, because this is an initial step of developing a national strategy to enhance citizens' financial literacy level. Measuring process requires a clear understanding of the concept, underlying components and an appropriate evaluation instrument. The current paper reflects the results of the authors' conducted survey, based on the sample of 169 respondents. A set of 12 questions on financial matters was developed to detect perceived importance and complexity of financial literacy components, as well as to get financial literacy self-assessment scores. Data was processed by means of SPSS 20.0, applying such methods, as analysis of means, analysis of frequencies and independent samples t-test. Received results assist to precise the content and wording of questions to be included into the questionnaire for evaluation financial literacy level of Latvian citizens.

© 2014 The Authors. Published by Elsevier Ltd. This is an open access article under the CC BY-NC-ND license (http://creativecommons.org/licenses/by-nc-nd/3.0/).

Peer-review under responsibility of the Kaunas University of Technology.

Keywords: Financial literacy; evaluation; survey; Latvia.

### 1. Introduction

Financial literacy (FL), its importance, measuring issues, implementation of financial education programms and related topics are frequently discussed in academic and public environment. High level of financial literacy makes a large contribution to the financial well-being of individuals, because financially literate individuals are more likely

doi:10.1016/j.sbspro.2014.11.111

<sup>\*</sup> Corresponding author. Tel.: +37129192678. *E-mail address:* guna.ciemleja@rtu.lv

to plan for retirement (Almenberg & Save-Soderbergh, 2011), more likely to participate in financial markets and perform better on their portfolio choice (van Rooij, Lusardi & Alessie, 2011) and more likely to accumulate higher amounts of wealth (Lusardi & Mitchell, 2011). In turn "lack of financial literacy was one of the factors contributing to ill-informed financial decisions and that these decisions could, in turn, have tremendous negative spill-over" (PISA/OECD, 2012). In many countries governments are increasingly concerned about financial illiteracy of their citizens.

Considering the increasing need for financial literacy, public authorities in many countries initiated a process of development and implementation of National strategies (NS) to enhance financial literacy level. Based on Organisation of Economic Cooperation and Development (OECD) data (as for 2012), 23 countries all over the world "have implemented a NS or have approved one and are moving to implementation" and 24 countries (including Latvia) "have started considering and/or designing a NS" (Grifoni & Messy, 2012). An important step in defining a national strategy is measuring of a current level of financial literacy, because it provides an evidence of the issues faced by different socio-demographic groups, enables policymakers to identify the needs of the population, provides a baseline for designing educational programmes, and etc. In turn, measuring process requires a clear understanding of financial literacy concept and an appropriate evaluation instrument. In order to build a theoretical foundation for development of the methodology of financial literacy evaluation, the explorative research on defining financial literacy and its components was conducted (Titko & Lace, 2013). The results were expressed in the conceptual model of financial literacy.

Knowing the components of financial literacy is the first step in the process of designing a questionnaire to measure a level of financial literacy. Another important issue in measuring process is a proper wording of questions. Sometimes "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. Besides, it is necessary to weight questions according its complexity to detect a relevant contribution of each question to the overall index of financial literacy. There are different opinions among the researchers about self-assessment questions. These questions should be used in surveys with cautions, because people tend to overestimate their knowledge (Guiso & Jappelli, 2008; Capuano & Ramsay, 2011). However, high self-evaluation is related to the financial self-efficacy that, in turn, correlates with financial literacy scores (ANZ/The Social Research Center, 2011). To consider all the important aspects and to precise the content and structure of the questionnaire, the authors conducted a current study that was aimed: (1) evaluate perceived importance of financial literacy components from the viewpoint of different respondent groups; (2) evaluate respondents' perceived complexity of financial literacy components; and (3) test self-assessed level of financial literacy of respondents. The section headings are arranged by numbers, bold and 10 pt. Here follows further instructions for authors.

#### 2. Method

To achieve the research objectives, the authors conducted a survey, using the own developed instrument containing 12 questions on financial matters – 2 questions for each component of the conceptual model. For research purposes the questions were labelled with an appropriate combinations of words (see Table 1).

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

Table 1. Design of the questionnaire for the pilot study

Respondents were not asked to answer to these questions, but to evaluate them according three criteria, using 5-point scale:

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

The developed questionnaire for evaluating financial literacy components was disseminated among the students of Riga Technical University, University of Latvia, Latvian Academy of Sport Education, and Art Academy of Latvia ("students"), as well as among Latvian citizens of different ages, gender, education level and social status ("adults").

Received results were processed by means of SPSS 20.0, applying such methods, as analysis of means, analysis of frequencies and independent samples t-test.

#### 3. Results

The 169 fully-completed responses were received. About two thirds of the respondents are females and one third are males (38 percent and 62 percent, respectively). Sample contains 55% "students" and 45% "adults". The most respondents are between the ages of 18 and 25 (58%), 33% of respondents are 26 – 62 years old, and the remaining 9% are citizens older than 62 years (the age of retirement in Latvia). As for education field, 24% of respondents are students or graduates from economics/finance and related programmes, the rest being students and graduates from non-economic faculties.

The initial results of data processing - the mean scores for each question according to three criteria - are presented in the Figure 1.

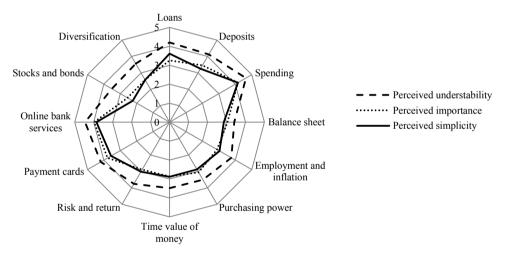


Figure 1. Assessment of questions - mean scores for each criterion

From the viewpoint of all the respondents the most simple, most clearly formulated and most important questions are "spending", "online banking services", "loans", "payment cards" and "deposits".

According to the criterion "simplicity of wording", the most respondents evaluated the questions "spending" (75%), "payment cards" (58%), and "online banking services" (67%) as the easiest questions to understand. In turn, the worst worded questions are "time value of money" and "stocks and bonds". The highest perceived importance was assigned to the questions "spending" and "online banking services": these questions were marked "5" by 51 percent and 44 percent of respondents respectively. The least important questions represent the component "investing": "stocks and bonds" (32%) and "diversification" (30%). As for complexity, the questions "spending" and "online banking services" are perceived as the most simple and easiest to answer by respondents (51 percent and

40 percent respectively). In turn, the most complex questions are "stocks and bonds" (40%) and "diversification" (35%).

To get a comprehensive picture of respondents' perceptions of financial literacy questions, responses of particular groups of respondents were analyzed separately, considering socio-demografic characteristics of respondent profile. In particular, perceptions of the questions differ widely amongst the respondents with the different educational background. For instance, respondents with the economic education and master level graduates perceive financial questions as less complicated comparing with the other respondents (Fig. 2, 3).

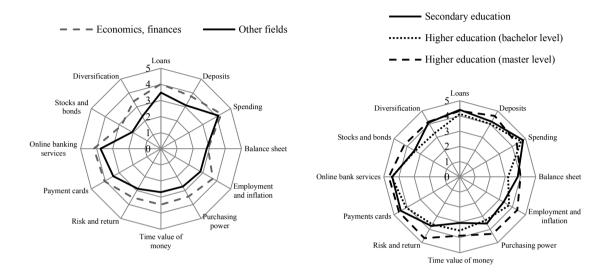


Figure 2. Complexity of the questions - assessment of respondents with the educational background in different fields

Figure 3. Complexity of the questions – assessment of respondents with the different education level

Based on the criteria "simplicity of wording" and "importance" almost all the offered questions were evaluated higher by "economists" than by students and graduates from other educational fields. Besides, the significant gap in the perception of the questions is observed, analysing the answers of the respondents of different age groups. The lowest rates to almost all the questions were given by retirees (respondents older than 62 years). Additional information on the received results is provided in the discussion section.

# 4. Discussion/Conclusions

Measuring of the current level of financial literacy is absolutely necessary to compare levels of financial literacy across countries, to get the information about the efficiency of the existing education systems, to provide data on the gaps in financial knowledge amongst different population groups and etc.

To get the reliable survey results, the most important issue is to apply an appropriate measurement instrument. There are some barriers to apply the instruments previously developed by foreign experts to the Latvian sample. Thus, it is necessary to develop a questionnaire specifically for Latvian citizens. To specify the content of the questions to be included into the measurement instrument, the authors conducted a survey that revealed the following information:

• Based on the analysis of all the sample data, the questions "spending", "online banking services", "loans", "payment cards" and "deposits" are the most easiest questions to understand, the most important and the most simple questions. In turn, the most complicated and the less important questions are "inflation and employment", "purchasing power", "stocks and bonds" and "diversification".

- Self-assessment scores of the "economists" are higher than those of respondents with the background in other educational fields. Besides, financial questions are considered to be more important for graduates and students of the programmes related to economics and finances.
- The lowest understanding and lowest perceived importance of financial questions was demonstrated by respondents of the eldest age group. The most important and the easiest question for those respondents is "spending".

Received survey results allowed making important conclusions about the content and wording of questions to be included into the questionnaire for evaluation financial literacy level. The next steps of the research will be the testing of financial literacy components, using sample data of other countries, development of the research instrument and its evaluation by financial experts, and the survey of particular target groups in Latvia to measure their financial literacy level.

# Acknowledgements

This study was conducted within the scope of the research "Enhancing Latvian Citizens' Securitability through Development of the Financial Literacy" Nr. 394/2012.

#### References

Almenberg, J., & Save-Soderbergh, J. (2011). Financial Literacy and Retirement Planning in Sweden. *Netspar Discussion Paper 01/2011-018*. Retrieved from http://arno.uvt.nl

ANZ/The Social Research Center. (2011). Adult Financial Literacy in Australia. ANZ Survey. Retrieved from www.anz.com.au

Capuano, A., & Ramsay, I. (2011). Financial Literacy Project "What Causes Suboptimal Financial Behaviour? An Exploration of Financial Literacy, Social Influences and Behavioural Economics". Research report, March 23, 2011. *University of Melbourne Legal Studies Research Paper No. 540.* Retrieved from http://dx.doi.org/10.2139/ssrn.1793502

Grifoni, A., & Messy, F. (2012). Current Status of National Strategies for Financial Education: A Comparative Analysis and Relevant Practices. OECD Working Papers on Finance, Insurance and Private Pensions.

Lusardi, A., & Mitchell, O. S. (2011). Financial Literacy and Planning: Implications for Retirement Wellbeing. In A. Lusardi & O. S. Mitchell (Eds.), Financial Literacy: Implications for Retirement Security and the Financial Marketplace. Oxford: University Press, 2011.

PISA/OECD. (2012). Financial Literacy Assessment Framework. Retrieved from www.oecd.org

Titko, J., & Lace, N. (2013). Financial Literacy: Building a Conceptual Framework. Paper presented at The 11th International Conference "Liberec Economic Forum 2013", Sychrov, Czech Republic, 16-17 September (pp. 585-592). Liberec: Technical University of Liberec.

van Rooij, M., Lusardi, A., & Alessie, R. (2011). Financial Literacy and Retirement Planning in the Netherlands. *Journal of Economic Psychology*, 32, 593-608.