

# FINANCIAL LITERACY AMONG SLOVAKIAN GENERATIONS

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## Abstract

*This paper examines household financial literacy across X, Y, and Z generations in Slovakia. The aim of the study is to examine and build a proper picture of the current situation and differences among individuals in Slovakia. The base of the investigation is a questionnaire that is comparable with previous research results, the size of the respondent's sample is 463. Using ANOVA test I find significant differences between the generations' financial literacy. I believe that the work has achieved its aim and that further research can be carried out on the basis of the results.*

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## 1 Introduction

Our research examined the financial literacy of Slovak households. It is important to note that this is not a new topic, but I think that in our region, it is still not given enough attention. Lusardi (2008) divides financial knowledge into basic knowledge and advanced knowledge. The minimum level of literacy required for people of any background to function in everyday life is called basic literacy. Financial literacy includes topics such as arithmetic, compound interest, inflation, time, the value of money, and the illusion of money. Advanced financial literacy includes stock markets, stocks, mutual funds, bonds, other types of securities, and the effect of interest rates on securities, security prices, and risk/return issues. Both types of literacy fall under general financial literacy. It is logical and reasonable that advanced financial literacy builds on basic financial knowledge, but it is not necessary for one to have a basic level of knowledge in all areas before one can develop advanced knowledge in other areas. For example, the distribution of risk can be known without knowing the money illusion. In this article, we examine the relationship between primary and advanced literacy, which, to the best of our knowledge, has not been identified before.

### 1.1 Literacy

Financial literacy research builds on economic literacy, including theory and empirical evidence, and involves issues such as savings, consumption, consumer choice (risk aversion, discount rate), business environment (investment risk), and social security. Financial literacy covers a wide range of topics such as B. spending and saving behaviors, personal finance, asset liquidity, appreciation, taxes, understanding APRs, compound interest, consumer credit reports, insurance premiums, guardianship agreements, loans and collateral, credit cards Uses, insurance reasons, health insurance, insurance contracts, pension funds, mutual funds and returns, venture capital, dynamic interest rates and bond prices, asset diversification, etc. Most financial literacy research focuses on financial literacy, saving and investing behavior, and decision-making (e.g., Delavande, Rohwedder, & Willis, 2009; Jappelli & Padula, 2013; Hsu, 2011; Lusardi, Michaud, & Mitchell, 2011).

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Financial illiteracy is a common feature of developed and developing countries, including the United States (Hogarth & Hilgert, 2002; Mandell, 2004; Moore, 2003), the United Kingdom (Atkinson, McKay, Collard & Kempson, 2010), EU countries, Japan (Lusardi & Mitchell, 2007) and Australia (Lusardi & Mitchell, 2007; Worthington, 2004). Xu and Zia (2012) analyzed comparable surveys and found that levels of financial literacy were low everywhere, albeit in low-income countries.

Research by van Rooij, Lusardi, and Alessie (2011) found that people with basic financial knowledge invest in financial markets even with small amounts of money. Financial markets require experienced, rational investors with deep financial knowledge, so having a Basic Financial Literacy explains having an Advanced Financial Literacy. This study investigates whether older or younger generations have higher financial literacy.

## **2 Method**

As the research focuses on the financial knowledge and the financial literacy of the younger generations of Slovakian households, our goal has been to reach many members of the target group and in addition, to get quantitative results which could be the bases of our conclusions. In order to get quantitative results, we decided to apply quantitative research. Our questionnaire is based on the work of Lusardi (2008).

As primary research, questionnaire has been applied for our research. Through the questionnaire, we have analyzed financial literacy and financial planning of the population which contains the Slovakian households, especially in case of the young generations. Our goal was to have a sample size at least of 400 people and our sample size was 463 people.

In case of our research, the population contains the members of the Slovakian households. We also determined another requirement: the age of the target group members has to be at least 18 years because adults have salaries – in case of students, they have scholarships and/or student loans – that is why they have to make financial related decisions. However, our research focuses on the financial literacy in case of the young generations, but we would like to compare the financial literacy of the young generations with the financial literacy of the old generations that is why we did not determine any other strict requirements towards the population regarding the age.

Based on their guidelines, our goal was to reach at least 400 members of the target group. As we wanted to reach the members of the population from all over Slovakia, we decided to share the questionnaire via internet. We composed the questionnaire in Google Form and we shared the link of the questionnaire online in January: we shared it in some Facebook groups and we also forwarded the link to our relatives and friends and asked them to forward it to their friends who are the members of our population. As we applied snowball sampling, our research can not be considered as representative but as our sample size was 463 people, it is enough to investigate the research.

## **3 Results**

Hypothesis 1 (H0): The members of the younger generations have higher basic financial literacy that the members of the older generations.

Hypothesis 1 (H1): Age does not influence the basic financial literacy of the individuals.

At the Hypothesis 1 we applied two variables: the first variable was generation which is the independent variable. The dependent variable was calculated based on the answers of the first three questions which investigated the basic financial literacy of the respondents. We checked the correct answers of each respondents and based on the number of the correct answers we divided them into four group: no basic financial literacy (without any correct answers), low basic financial literacy (one correct answer), moderate basic financial literacy (two correct answers) and excellent basic literacy (four correct answer). We investigated the relationship of two variables and for the analysis we applied One-Way ANOVA as this type of analysis compares the means of at least two independent groups and based on this comparison it is able to determine whether there is a statistical evidence that the associated population means are significantly diverse.

As we can see from Case Processing Summary, all 463 members of the sample were included into the analysis.

1. table Case Processing Summary – Basic Financial literacy

	Included		Cases Excluded		Total	
	N	Percent	N	Percent	N	Percent
Level of basic financial literacy * What is your generation?	463	100%	0	0,0%	463	100,0%

The Report table presents the means by the generations: we have 60 answerers from the X generation whose mean is 2.75 with standard deviation of 0.83615. It means that the members of this generation has moderate basic financial literacy. In case of the Y generation, we have 356 respondents. The mean is 2.9916 which is higher than it is in case of the X generation but it still means moderate financial literacy. The standard deviation is higher, it is 1.025. In case of the Z generation, the mean is 3.5106 which is the highest mean regarding the three investigated generations. Overall it means excellent basic financial literacy. The 47 respondents have a standard deviation of 0.71846.

2. table Level of basic financial literacy

What is your generation?	Mean	N	Std. Deviation
X Generation	2,7500	60	,83615
Y Generation	2,9916	356	1,02500
Z Generation	3,5106	47	,71846
Total	3,0130	463	,99122

The ANOVA Table contains F-test which helps to analyze the null hypothesis. Based on the null hypothesis the generation does not influence the level of basic financial literacy. As the table shows, the sum of squares is 15,953 between groups, the F-value is 8,378, and the significance level is 0,000. As this significance level is lower than the common significance level of 0,05, we can not accept the null hypothesis, which means that the generation influence the level of basic financial literacy.

3. Table Anova

			Sum of Squares	df
Level of basic financial literacy * What is your generation?	Between groups	(Combined)	15,953	2
		Linearity	14,387	1
		Deviation from Linearity	1,566	1
	Within Groups		437,969	460
	Total		453,922	462

4. Table Anova

			Mean Square	F	Sig.
Level of basic financial literacy * What is your generation?	Between groups	(Combined)	7,976	8,378	,000
		Linearity	14,387	15,111	,000
		Deviation from Linearity	1,566	1,645	,200
	Within Groups		,952		
	Total				

At the end of my analysis we analyzed the effects of the variables with Eta Squared which is calculated based on the sums of squares in the ANOVA table. The value of Eta Squared is between 0 and 1: if the value is near to 0, it means that the relationship between the investigated variables is not very strong. In this case it is 0,187 which means a weak relationship between the generation and the level of basic financial literacy.

5. Table Measures of Association

	R	R Squared	Eta	Eta Squared
Level of basic financial literacy * What is your generation?	,178	,032	,178	,035

Hypothesis 2 (H0): The members of the younger generations have higher advanced financial literacy than the members of the older generations.

Hypothesis 2 (H1): Age does not influence the advanced financial literacy of the individuals.

At the Hypothesis 2 we applied two variables: the first variable was generation which is the independent variable. The dependent variable was calculated based on the answers of the questions number 4, 5, 6, 7, 8, 9 and 10 which investigated the advanced financial literacy of the respondents. We checked the correct answers of each respondent and based on the number of the correct answers we created a 7 point Likert scale: respondents with 1 have low advanced financial literacy and answerers with 7 have high advanced literacy. We investigated the relationship of two variables through One-Way ANOVA.

As we can see from Case Processing Summary, all 463 members of the sample were included into the analysis.

6. Table Case Processing Summary – Advanced Financial literacy

	Included		Cases Excluded		Total	
	N	Percent	N	Percent	N	Percent
Level of advanced financial literacy * What is your generation?	463	100%	0	0,0%	463	100,0%

The Report table presents the means by the investigated generations. The mean is 2.6667 in case of the X generation which means that the respondents rather have low level of advanced financial literacy. The standard deviation is quite low as its value is 0.85701. In case of the Y generation, the mean is 3.4691 which is bigger than it is in case of the X generation but it still means a low-moderate level of advanced financial literacy. The standard deviation is quite high as its value is 1.56785. It means that there are quite big differences regarding the advanced financial literacy of the Y generation. The highest mean is the mean of the Z generation: it is 4.0638 which means moderate level of advanced financial literacy. However, the standard deviation is quite here, its value is 1.38947.

7. Table Case Processing Summary – Advanced Financial literacy

What is your generation?	Mean	N	Std. Deviation
X Generation	2,6667	60	,85701
Y Generation	3,4691	356	1,56786
Z Generation	4,0638	47	1,38947
Total	3,4255	463	1,51413

The ANOVA Table contains F-test which helps to investigate the null hypothesis. Based on the null hypothesis the generation does not influence the level of advanced financial literacy. As the table shows, the sum of squares is 27,189 between groups, the F-value is 12,447, and the significance level is 0,000. As this significance level is lower than the common significance level of 0,05, we can

not accept the null hypothesis, which means that the generation influence the level of advanced financial literacy.

8. Table Anova

			Sum of Squares	df
Level of advanced financial literacy * What is your generation?	Between groups	(Combined)	54,377	2
		Linearity	53,500	1
		Deviation from Linearity	,877	1
	Within Groups		1004,802	460
	Total		1059,179	462

9. Table Anova

			Mean Square	F	Sig.
Level of Advanced financial literacy * What is your generation?	Between groups	(Combined)	27,189	12,447	,000
		Linearity	53,500	24,492	,000
		Deviation from Linearity	,877	,402	,527
	Within Groups		2,184		
	Total				

We also examined the value of Eta Squared which is 0,227 which means a weak relationship between the generation and the level of advanced financial literacy.

10. Table Measures of Association

	R	R Squared	Eta	Eta Squared
Level of basic financial literacy * What is your generation?	,225	,051	,227	,051

## 4 Conclusions

In the research our aim was to investigate the financial literacy of the Slovakian household. We compared the level of financial literacy in individuals with different levels of financial literacy.

Finance plays an important role in everybody's life. We have to make many financial related questions, smaller ones and bigger ones, on a regular basis. There are many financial concepts which we hear and say regularly but we are not aware of the exact meaning of each concept. As our financial decision determine our standard of living and even our financial possibilities, it is really important to make correct financial decisions. As finance is complex and it is affected everybody's life, it is an important area to investigate.

The population contains the members of the Slovakian households who are at least 18 years old as they have to make some financial decisions. The sample size was 463 people.

Our paper provided an overview about the related theories, and we also reached our goal through examining the financial literacy in the Slovakian households through a quantitative research. As further research possibilities, we would follow two ways. At first, we recommend to segment the members of the sample based on some personal characteristics, in order to investigate whether there are significant differences regarding the financial literacy and the financial decisions of the target group. As a second research possibility, we would make a qualitative interview as well where we could understand the motivations and the feelings of the target group in relation to financial literacy and financial decisions.

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