

Comparative Analysis of Financial Literacy in EU Countries

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Abstract. In this paper we examine the best practices of some European countries in the field of education and training for financial literacy. We analysed the data and displayed the differences in financial literacy in Slovenia, Germany, Italy, UK and Spain - between 2006 and 2012 - taking into account the data on Years of schooling, GDP and Public expenditure on education. From the United Nation data, we found out: 11 EU countries that have examined the level of financial literacy, only five such countries examined the date between 2006 and 2012. Based on this data we analyse, with ANOVA method, if the level of financial literacy in Germany, UK, Italy and Spain in the period 2006 - 2012 is higher than in Slovenia.

Keywords: financial literacy, public expenditure on education, EU, education, training

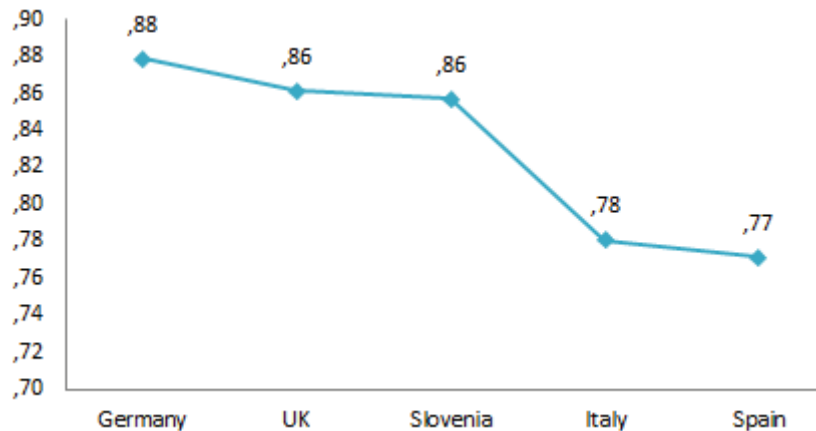
1 Introduction

In this paper, we look in more detail what is good practice in some European countries in field of education and training for financial literacy, and what measures are taken by some Slovenian banking institutions in the field of financial literacy. We investigated the perception of users of banking services to its own training in financial literacy and attitudes towards banks.

2 Theoretical Framework

With sample analysis of secondary data we checked the level of financial literacy in Germany, UK, Italy, Spain and Slovenia, in the period 2006 - 2012, covering the years of schooling (index), GDP per capita (in \$) and public expenditure on education (percent of GDP).

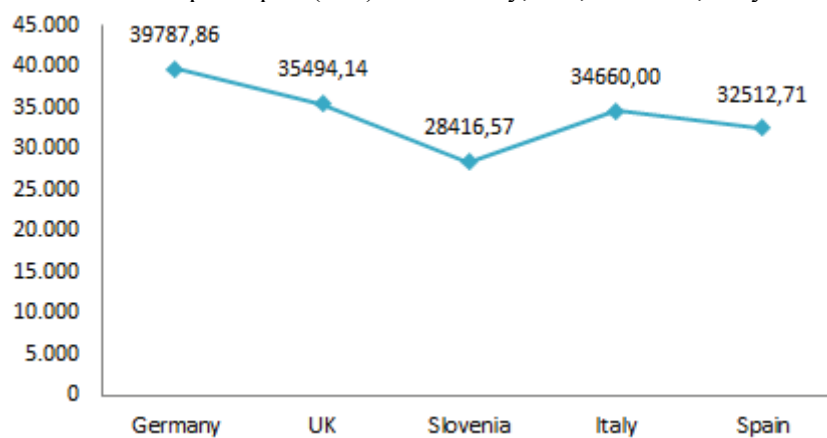
Picture 1: Years of schooling (index) in Germany, UK, Slovenia, Italy and Spain in the period 2006 - 2012



Source: United Nations, 2015.

From Picture 1 we can see that Germany has the highest average index of schooling, followed by UK and Slovenia, which have the same average index. Much lower index is detected in Italy and Spain. When calculating the index of schooling, we find that the difference between countries is statistically significant ($F = 159.712$, $Sig. = 0.00$), the average index is the lowest in Italy and Spain.

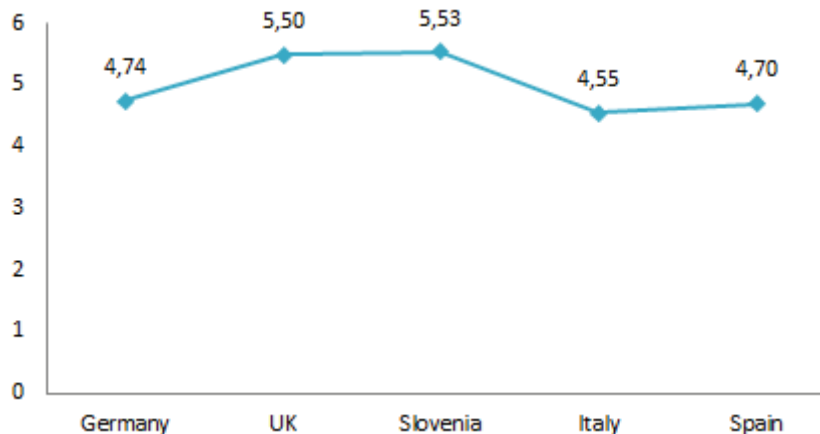
Picture 2: GDP per capita (in \$) in Germany, UK, Slovenia, Italy and Spain in the period 2006 – 2012



Source: United Nations, 2015.

From Picture 2 we can see that the highest average GDP per capita (in \$) is in Germany, followed by UK, Italy and Spain. The lowest GDP per capita is in Slovenia. When calculating GDP per capita, we found that the difference between countries is statistically significant ($F = 87.108$, $Sig. = 0.00$), the average per capita GDP is the lowest in Slovenia.

Picture 3: Public expenditure on education (percent of GDP) in Germany, UK, Slovenia, Italy and Spain in the period 2006 – 2012



Source: United Nations, 2015.

From Picture 3 we can see that the highest average public expenditure on education (percent of GDP) is in Slovenia, followed by the United Kingdom, Germany, Spain and Italy. When calculating public expenditure on education as a percentage of GDP, we find that the difference between countries is statistically significant ($F = 18.999$, $Sig. = 0.00$), the average public expenditure on education is the lowest in Italy and Spain.

In this section, we looked at whether financial literacy in Germany, UK, Italy and Spain in the period 2006 - 2012 is higher than in Slovenia. We found that our analysis of secondary data does not confirm this.

3 Research

In this section we will defined the hypothesis H1. The findings of the analysis are presented in tables. Under the tables we made some comments and conclusions, the rest are made in the last chapter of this paper

Hypothesis H1: "Financial literacy has been in Germany, UK, Italy and Spain in the period 2006 - 2012 higher than in Slovenia."

Table 1: Test of Homogeneity of Variances

	Levene Statistic	df1	df2	Sig.
Years of schooling (index)	6,328	4	30	,001
GDP per capita (in \$)	,199	4	30	,937
Public expenditure on education (percent of GDP)	7,043	4	23	,001

Test of homogeneity of variances (Table 1) was used as the homogeneity of variances is condition for the calculation of ANOVA (Statistics, 2016). If the variances are homogeneous, the variances between the groups are not statistically significant (which applies to GDP per capita).

Due to homogeneity of variances for the Years of schooling (index) and Public expenditure on education (percent of GDP) we have considered the results of Brown-Forsythe test (Navidi, 2012). Table 2 shows that for the Years of schooling (index) and Public expenditure on education (percent of GDP), the difference between countries is statistically significant at the $Sig. = 0,01$.

Table 2: Robust Tests of Equality of Means

		F	df1	df2	Sig.
Years of schooling (index)	Brown-Forsythe	159,712	4	13,38	,000
Public expenditure on education (percent of GDP)	Brown-Forsythe	18,999	4	15,48	,000

For GDP per capita (in \$) we considered the result of ANOVA. Table 3 shows that the difference of GDP per capita (in \$) between countries is statistically significant at the Sig. = 0,01.

Table 3: ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
GDP per capita (in \$)	Between Groups	485815531,83	4	121453882,96	87,108	,000
	Within Groups	41828656,86	30	1394288,56		
	Total	527644188,69	34			

From Table 4, below, we can summarize:

- For Years of schooling (index) we found that the difference between countries is statistically significant. The average Years of schooling (index) is the lowest in Italy and Spain, so in this part of the H1 is rejected.
- For GDP per capita (in \$) we found that the difference between countries is statistically significant. The average GDP per capita (in \$) is the lowest in Slovenia, so this part confirms H1.
- For Public expenditure on education (percent of GDP) we found that the difference between countries is statistically significant. The average spending on education is the lowest in Italy and Spain, so in this part the H1 is rejected.

Table 4: Descriptives

		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Min.	Max.
						Lower Bound	Upper Bound		
Years of schooling (index)	Germany	7	,88	,00	,00	,87	,88	,87	,88
	UK	7	,86	,01	,00	,85	,87	,85	,88
	Slovenia	7	,86	,01	,00	,85	,86	,85	,86
	Italy	7	,78	,01	,00	,77	,79	,77	,79
	Spain	7	,77	,02	,01	,75	,79	,75	,79
	Total	35	,83	,05	,01	,81	,85	,75	,88
GDP per capita (in \$)	Germany	7	39788	1392	526	38500	41075	38080	41966
	UK	7	35494	1095	414	34481	36507	34409	37128
	Slovenia	7	28417	1110	419	27390	29443	27394	30448
	Italy	7	34660	1219	461	33533	35787	33430	36280
	Spain	7	32513	1056	399	31536	33490	31198	33852
	Total	35	34174	3939	666	32821	35527	27394	41966
Public expenditure	Germany	5	4,74	,34	,15	4,32	5,16	4,40	5,10
	UK	5	5,50	,10	,04	5,38	5,62	5,40	5,60

on education (percent of GDP)	Slovenia	6	5,53	,26	,11	5,26	5,80	5,20	5,70
	Italy	6	4,55	,15	,06	4,39	4,71	4,30	4,70
	Spain	6	4,70	,35	,14	4,34	5,06	4,30	5,00
	Total	28	5,00	,49	,09	4,80	5,19	4,30	5,70

From the research follows that the Hypothesis H1: "Financial literacy has been in Germany, UK, Italy and Spain in the period 2006 - 2012 higher than in Slovenia." is reject, because in two cases H1 was rejected and only in one case it was confirmed

4 Conclusion

Within the research we analyse if the financial literacy has been in Germany, UK, Italy and Spain in the period 2006 - 2012 higher than in Slovenia, we can confirm that during this period Slovenia has invested heavily in financial literacy and comparing with other countries the level of financial literacy was not at the last place. This is clearly shown from data concerning the years of schooling, where the average index of schooling in the period 2006 – 2012 was 0,78 index points lower in Italy and 0,79 index points in Spain, compared with Slovenia. Slovenia had the same average index of schooling than the UK (0,86). The highest average index of schooling was in Germany, 0,02 index points higher in comparison with Slovenia and UK. Slovenia, between the compared countries, had the highest Public expenditure on education (percent of GDP). On average, the Slovenian public expenditure on education within the period was 0,03 percent of GDP higher than the average public expenditure on education in the UK, 0,79 percent of GDP higher than the Germany, 0,83 percent of GDP higher than the Spain and 0,98 percent of GDP higher than the Italy. Economically speaking, Slovenia during the period 2006-2012, had the lowest standard of living between countries that were analysed. GDP per capita (in \$) was in Slovenia on average 28,6 percent lower than it was in Germany (highest GDP per capita (in \$) – 39.787\$

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