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Financial literacy in the Slovak Republic

Katarína Zvaríková^{a*}, Jana Majerová^a

^aUniversity of Žilina, Faculty of Operation and Economics of Transport and Communications,
Univerzitná 8215/1, 010 26 Žilina, Slovak Republic

Abstract

Money has become integral part of our daily life. It is practically impossible to exist without any specific level of financial knowledge and its consequential implementation. To be able to earn money, save them, protect our property, invest money, create own budget, orientate oneself on the market with financial products – this all is only part of knowledge which in these days each person should be able to dispose of for financial surviving. But what is the reality in Slovakia like? Are the people financial educated? The main aim of these papers is focused just on the answer to this question.

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1. Introduction

It is necessary to realize that money has played more and more important role in our life and it is irrelevant if it has become consciously or unconsciously. For that reason it is necessary for people to dispose of basic financial knowledge at least and consequently to apply it into praxis. The complex of these financial skills could be summarized as financial literacy. And although the financial literacy of the person is his/her individual characteristics it is determined also by the environment which the person lives in (not only economic, but also social or cultural). At this place we would like to point out that this influence of the environment is not only unidirectional but also the financial literacy of the individuals is able to influence on the future state of the environment which these individuals live in. So it is obvious that it is necessary to focus also on the problem of financial literacy because it is the important indicator of the country's future development. Only the country which people dispose of higher level of financial literacy has the potential to improve its economic position world-wide.

* Corresponding author. Tel.: +421 41 51 33 210
E-mail address: katarina.zvarikova@fpedas.uniza.sk

2. Terminological definition of the term financial literacy

In these days the term financial literacy does not represent only ability to know how to dispose of available finance but at the same time the ability to create own budget, know to evaluate value of money properly or orientate on the market with financial products.

Before we focus our attention to the definition of financial literacy, we consider as appropriate to determine the term literacy from the definition point of view. In generally the term literacy expresses the ability of the individual to read, write and count. But the very important part of the literacy is not only to acquire these skills but also the understanding of the context which is distributed by this way. Terminological determination of this term is not unified in the literature. From the present definitions we consider as the most complex following definition: "Literacy expresses mastering of different types of communication in order to ensure the incorporation of the person to the society, for his/her satisfying existence in favor of himself/herself and the others. It is the ability which allows him/her to solve problems of daily life. In the modern civilizations literacy involves the basic and the higher level of literacy." (Doležalová, 2005).

If we associate the term literacy with the understanding of the text in general, so the term financial literacy is the ability to understand money, their fundamentals and functions. The level of financial literacy is determined by the ability to plan and manage own finance, to realize own responsibility for finance and knowledge of their effective usage. According to the literature the financial literacy resents: "the ability to use the knowledge, skills and experiences for effective managing of the own finance with an aim to provide for life-long financial security of myself and my household. Financial literacy is the indication of the state of constant development which allows to each person responds effectively to new personal facts and constantly changing economic environment." (Kovalčíková, Smoroň, & Stenk, 2011). But according to Bernheim and Garrett (2003) we could not neglect that financial literacy is not isolated category but it is specialized part of economic literacy which is related with the ability to ensure income, to move on the labor market, to make decisions about own payments and the ability to realize the possible consequences of the own decisions on the current and future income.

Internally the financial literacy is dived into:

- *monetary* – it represents the competency needed for managing money in cash and noncash form, managing of the financial operations and tools which are closely related with it,
- *price* – the complex of knowledge which is necessary for understanding of price mechanism operations and inflation,
- *budget* – complex of competences necessary for creating and maintaining personal or family budget. At the same time it includes also the ability of financial aims' specification and formulation of strategies for their achieving, managing of resources and liabilities (Kovalčíková, Smoroň, & Stenk, 2011).

„Although the cry for financial literacy education has been audible for decades, the volume has recently increased. Why? Technological advances allowing industry to create and profit from more complex and riskier financial products offered to a broader array of people, in conjunction with political dominance of an ideology favoring deregulation, have dramatically altered this marketplace. This consumer finance revolution has given to people more apparent choices and formal control over their personal credit, insurance, and retirement planning decisions. But with this choice and control comes added responsibility to make financial decisions well, or face potentially disastrous health and welfare results.“ (Willis, 2008).

2.1. The current state of financial literacy of the population

Person does not become financial literate by his birth, but he acquires this skill gradually by passing the particular life stages as childhood, student life, marital or partnership life, pre-pensionary and pensionary age. This fact is also considered in the surveys made in order to realize the level of the financial literacy not only in the world but also in the Slovak Republic.

In the present, the number of realized surveys focused on the level of financial literacy is growing. From all of them we choose the surveys mentioned below because they assess also the state of the financial literacy of the

population of the Slovak Republic and the frequency of the studied samples ensure their reliability and validity. In terms of the realized surveys' findings in the time it is necessary to take into consideration the fact which Weiner (2005) drew attention to in his work.

„Likewise, a finding that consumers increased their financial knowledge in time, does not show that these consumers used gained knowledge to improve their financial behavior.“ (Wiener, Baron-Donovan, Gross, & Block-Lieb, 2005).

Surveys realized by insurance company ING

In 2011 the insurance company ING made international survey of the financial literacy in 12 countries of the world. The result of this test is not absolutely positive for Slovakia, because according its findings only 12% of asked Slovaks understood finance at the really good level even though one third of Slovaks was sure that they orientated themselves in the field of finance very well. This result classed the Slovak Republic in the last place. On the contrary to Slovakia the best were Japanese (44%), Indians (40%) and Koreans (37%).

In the next international research which was also made by ING (in 2012) the result again proved the weak knowledge of the Slovaks in the field of finance. This time the survey was focused on 10 states of east, middle and west Europe. From the findings of the research is known that 80% of Slovaks was persuaded that their financial knowledge was at sufficient level. But the reality was different because the survey showed that only 9% of them really understand the issue of finance. With this result the Slovak Republic is in the bottom of the states concerned in the survey. Worse than the Slovak Republic were only Spain (9%) and Turkey (7%). The best were Greece (24%), Netherlands (22%), Hungary (15%) and the Czech Republic (14%). Also Poland, Romanian and Bulgaria were better rated than Slovakia.

As regards the findings of these two surveys, the result of survey from 2012 was worse in the comparison with 2011, because the number of Slovaks who understand finance issue at the good level decreased from 12% to 9%. But this fact could be caused by different types of answers and used methodology of these two surveys. (ING Investment management, 2013)

The survey realized by OECD's initiative

In 2012 OECD made within the frame of PISA study (Program for international student's assessment) measuring and evaluating of the youths' financial literacy in 18 countries whereby it was the first survey ever which has been focused on the youths. The aim of the study was to obtain the view on the state of the financial literacy in these countries. But the findings of this survey will have been known by the end of 2013 because of the extensity of the survey. This survey was focused on the issues as money and transactions, planning and managing of the financial flows, risk and profit, functions of the financial institutions. The aim of the study was not to explore the financial literacy of the students or schools, but to compare and sum up success of the educational systems of the concerned countries and following from the result to propose possible improvements in the field of educational policy (Szovicz, 2012).

Survey realized by Slovak Bank Association (SBA)

In 2007 the survey of financial literacy of the Slovak population was realized in the initiative of SBA and agency MVK. This survey was realized on a sample of 1107 respondents. As the target sample was chosen respondents over 18 years who are clients of the banks. The aim of the survey was to realize at which level of the financial literacy was the Slovak population and what was the opinion of the respondents on the current financial education and if the informedness about financial products was at the sufficient level.

For the necessity of the financial literacy's quantification the index of financial literacy (I-FiG)¹ was constructed. This index expresses how effectively the clients are able to make decisions in the field of their finances on the basis of available information. On the basis of this survey the index was 0,56 what means that in the average only 56% of the questions were answered correctly. This result could be considered as average and SBA considered it as insufficient. From other results of the survey is known that more than 70% of respondents were convinced that the

¹ Index can acquire values from 0 to 1, whereby the value 0 means the minimal level and 1 expresses maximal level of respondents' financial literacy. The final value is influenced by the factors as employment, achieved level of education and income level which determine the index directly and factor as age which influence the index indirectly.

financial education should be the part of the school schedule and be guaranteed by state and financial institutions. Other result claimed that more than two third of respondents expressed the necessity of their additional education in the field of the financial products and services (Szovics, 2012).

Survey realized by Centre of social researches in INFOSTAT

This survey was realized in 2010 and was focused on the behavior of the individuals and families in the field of finance. The aim of the survey was to find out how the respondents managed their and family finance and what was their opinion on the issue of the financial education. Following the findings more than half of the respondents considered family as the ground of the financial education and 46% of respondents were learning from their own mistakes and successes. These findings represent the main contribution of this survey. But on the other hand these findings are drawing polemic about the issue if the systematic institutional financial education would be effective in the conditions of the Slovak Republic (Institute of informatics and statistics – Infostat, 2010).

Survey realized by agency FOCUS

The survey was realized in 2012 with the cooperation of foundation Partners. The average financial literacy, according to the results of the survey, is 62,5% whereby the youths to 24 years old and people over 65 years old are the most endangered group. The population from 35 to 54 years old disposes of the best financial knowledge. The questions of this survey were asked from the field of banking and insurance system, pension, investments and macro economy (Partners group SK, 2012).

At this place we would like to point out that the increasing of the financial literacy level of the population is primary preventive. Only by this way it is possible to avoid to repeating of the situation from 90.-ty years of 20th century, when many of non-bank subjects failed down what had negative impact on the state and structure of population's savings.²

„Policymakers routinely cite a number of studies for the proposition that the financial literacy education model works. However, the academics who have performed these evaluations generally do not make such a sweeping claim. Despite some resourceful data collection methods, ingenious research designs, and rigorous statistical analysis techniques, studies have been unable to overcome issues affecting data reliability, research design, measure validity, and interpretation of results.“ (Willis, 2009).

3. Financial literacy analysis of the Slovak Republic's population

The results of individual research works, which were realized in order to find out the financial literacy level of the population, differ in world-wide measure. These differences are often caused not only by economic maturity of the country but also by the methodology of survey which was used.³

The survey which was realized by us was made in the first quarter of 2013 with the sample of 107 respondents⁴, who were contacted not only via internet but also directly – personally.⁵ The main aim of the realized survey was to obtain information about financial literacy level of the studied sample of respondents. The questionnaire was divided into three parts which together contain 17 closed-ended questions. The first part of the questionnaire was focused on obtaining basic demographic information about respondents. The second part was the most extensive and was focused on determination of their financial literacy level. In the introduction to this part the respondents should self-evaluate their financial literacy level and consequently they were asked by the control questions which should

² Non-bank subjects declared the profit 19 – 35% in year maturity. For comparison – in the same period the profit of non-risk state security papers with year maturity was 8%.

³ The surveys are often realized via internet, whereby the usage of internet predicates of higher level of the respondents' general literacy. The population which has not got regular access to internet or comes from lower social class will probably have lower level of literacy (analogue also financial).

⁴ According to Dad'o & Mateides (2001) the statistical data set which frequency is more than 100 respondents has sufficient predicative value in the relation to generalization of the obtained results.

⁵ In our survey we tried to avoid the fact which was mentioned by Bloom and Ford (1979). „Educators are unlikely to permit testing of their students for fear of deterring participation. If researchers did test students, the manipulation might create attrition bias; consumers who withdrew to avoid testing would differ from those who continued with the course and these differences probably would correlate with factors that affect outcomes.“ (Bloom, & Ford, 1979).

determine real status. The last part of the questionnaire was focused on the identification of the respondents from the point of view of their investment activity.

Following three hypotheses were determined on the basis of the previously realized research works' findings as well as the aim of our survey:

- **H1:** There is directly proportional dependence between the highest level of achieved education and number of the correctly answered questions.
- **H2:** The average financial literacy level of the studied sample will be more than 62.5%.⁶
- **H3:** More than 50% of respondents will not be able to answer correctly to the question which is related to the debit card.

The studied sample of the realized survey consisted of 35 men what was in percentage 33% and 72 women what was 67%.⁷ That means that in the survey took part twice as many women as men.

In the terms of age structure of respondents, the sample was divided into the following age categories:⁸

- *to 19 years old* – this age group consisted of 6 respondents (5.6%) and all of them were students of the secondary schools without regular income.
- *20 – 25 years old* – in this age group there were 69 respondents (64.5%) who were mostly university students used their finance for financing of their studies and their daily needs.
- *26 – 40 years old* – these people are working and in the first place they are seeing to carrier movement and their finance are mainly used to meet their and family daily needs. This age group was represented by 19 respondents (12,1%).
- *41 – 62 years old* – the sample consisted of 14 respondents (13.1%). In this age people have mostly paid their mortgages and loans, eventually are closely before their taking up. Maintaining of the job and protection themselves in the financial area for retirement age becomes the priority for this age group.
- *62 years old and more* – in the survey there were asked 5 respondents (4.7%) of this age group. These people do not work any more because they reached retiring age. They mostly realize only primary bank operations and avoid risk.

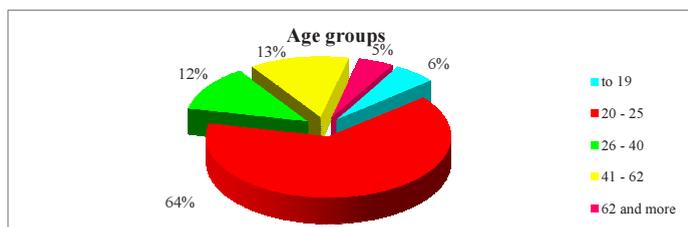


Fig. 1. Sample's age groups

Based on the defined hypothesis it was necessary to identify respondents also from their highest level of achieved education. It showed from the findings of the survey that as many as 50 respondents (46.7%) achieved university education of the bachelor degree. The second most numerous group consisted of the respondents with secondary

⁶ This frontier was quantified on the basis of the findings of survey which was realized by agency Focus and foundation Partners in 2012.

⁷ Whereas the survey did not reach the sample, which would be in the terms of sex or age following the actual situation in the Slovak Republic, the individual findings were evaluated for the sample as a whole and were generalized without considering gender or age of the respondents. This information is provided only to illustrate the composition of the sample.

⁸ For the determination of the age frontiers we tried to integrate the respondents to the groups according to their similarity in the manipulation with the finance.

school education – 32 (30%). Only 15 respondents (14%) reported higher university education (master or PhD. degree) as their highest level of achieved education. In the survey only 10 respondents (9.3%) with basic education (primary school) participated.

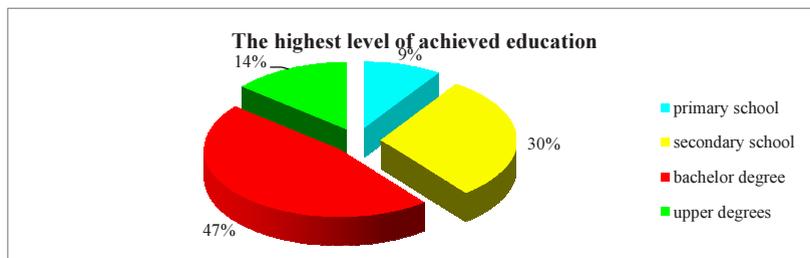


Fig. 2. Determination of the sample from the highest level of achieved education point of view

The next question of the survey was focused on detection of the respondents' opinion on the level of financial education in the Slovak Republic. The survey showed that 75% of respondents considered the level of financial education as insufficient. Only 6% considered it to be satisfying and 19% of respondents were not able to express their opinion to this issue.

Because the majority of the respondents considered the level of financial education as insufficient, we surveyed who would, according to their opinion, provide higher level of financial education. 61% said that state is responsible for it, 18% identified financial institutes, 8% private educational institutes and category another was marked by 13% of respondents (another – parents, schools, economic faculties and etc.)

The next question was directly focused on self-evaluation of the respondents from the point of view of their level of financial literacy. According to the findings of the survey, none of respondents evaluated his/her financial knowledge at the level 0 or 100%. The most of the respondents evaluated their financial knowledge at the level 70% – 24 respondents (22%). The average level of respondents' financial knowledge, according to their self-evaluation, was 54.67%.

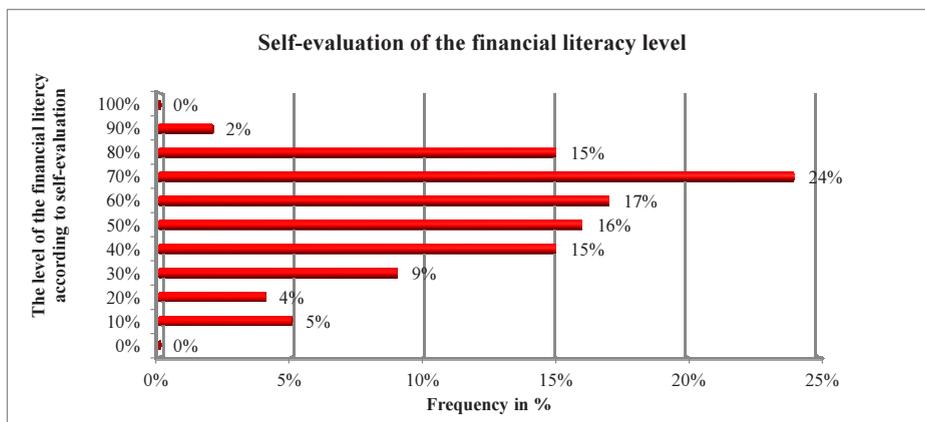


Fig. 3. Self-evaluation of the financial literacy level

The following 10 questions were aimed at objectifying of the real financial literacy level. Respondents were asked following questions:

- How much money you will have on bank account after 2 years, if you save the sum 5 000 € for 2 years in 10% annual interest rate with annual entry of interests (no taxes are considered)?

- What is bank collateral?
- What is debit card?
- Which index expresses total cost of the loan?
- Who is policyholder?
- What is the definition of the insurance claim?
- What type of investor is the riskiest?
- What is the relation between profit and risk of the investment?
- What are the conditions for acquiring of retirement pension payments?
- How else is called third pillar?

Respondents had predefined answers for the each question whereby only one of the answers was correct. For the scope of the papers we are not going to interpret all questions individually but we are going to interpret number of the correct answers in total for all questions. Next table depicts the number of correct answers which is extended by assignment to the highest level of achieved education.

Table 1. Correct answers

Education	Number of the correct answers											Σ
	0	1	2	3	4	5	6	7	8	9	10	
Primary school	0	1	2	3	1	2	1	0	0	0	0	10
Secondary school	0	3	1	2	9	6	4	5	1	1	0	32
University – Bachelor degree	0	1	2	1	3	7	10	10	12	3	1	50
University – upper	0	0	0	0	0	0	1	4	5	2	3	15
Σ	0	5	5	6	13	15	16	19	18	6	4	107

The next figure compares the level of financial literacy determined by respondents' self-evaluation with the real state according to the number of the correct answers. Following the graph, we can claim that the respondents which obtained higher level of financial literacy were more pessimistic about their knowledge (none of them evaluated their knowledge at the level 100%, but 4% achieved this level and it is the same for 90% and 80% level of financial knowledge).

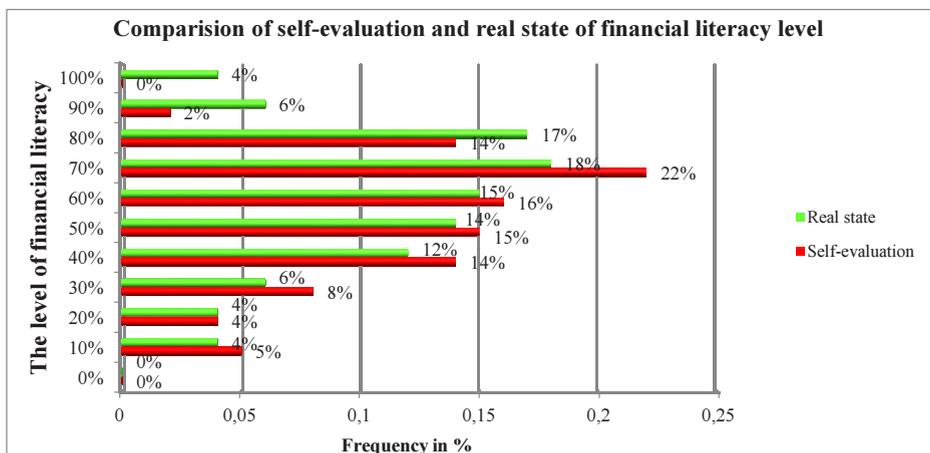


Fig. 4. Comparison of self-evaluation and real estate of financial literacy level

The last part of the questionnaire was pointed on the typology of the respondents according to the fact how they would evaluate their available financial funds. The result of research revealed that 41% of respondents would save

their financial funds to saving account, 37% would save them to time deposit account. On the other hand only 9% of the asked respondents would invest money to security papers and 7% to the mutual funds. For this question the respondents had also the possibility another to mark and so they could express their opinion to this issue (if they missed preferred possibility). There were only 5% of the respondents who marked this possibility and they would invest their finance to property, land or gold. Following the results of the research we can claim that the respondents were predominantly conservative type of investor.

3.1. Verification of the hypothesis

H1: There is directly proportional dependence between highest level of achieved education and number of the correctly answered questions.

This hypothesis was verified by Cramer's contingency coefficient (also known as Cramer's V). This coefficient determines the strength of the relation between variable in the row and the bar of the contingency table whereby the coefficient can acquire the values from 0 (it does not validate the relation between variables) to 1 (there is a strong – ideal relation between variables). For calculation of the Cramer's V we use data from the table no. 1. Installing to the formula we calculated the value of the Cramer contingency coefficient which was 0,45. Application to Cohen's scale we can conclude that the relation between the number of the respondent's correct answers and his/her achieved education is middle strong. Following the result we can claim that hypothesis no. 1 is partly validated so the higher level of education the respondent achieved the more correct answers he/she answered. But on the other hand this statement does not need to be valid for each respondent. The number of the correct answer is of course also influenced by the complicity of the asked questions because also the people with university education can have a problem to answer to these questions if they have not economic education.

H2: The average financial literacy level of the studied sample will be more than 62.5%.

This hypothesis was not validated. Following the results of the research it is obvious that average level of the respondents' financial literacy was 57.2% what is, in the comparison to the results of the survey made by agency Focus and foundation Partners, worse result by 5.3%. This result could be considered as in below-average because from this value we can deduce that respondents correctly answered slightly more than half of all questions.

H3: More than 50% of respondents will not be able to answer correctly to the question which is related to the debit card.

Formulated hypothesis was validated because 65% of respondents answered to this question incorrect compared to 35% who answered correctly. This result is not consider as surprising because the research of the Slovak Bank Association (SBA) in 2007 proved, that people have a problem to distinguish between credit and debit card. From the research of SBA it is obvious that 43.5% of respondents did not know to explain the fundamental of debit card and only 15.9% of credit card.

The interpretation of the answers to this question is presented in the following figure.

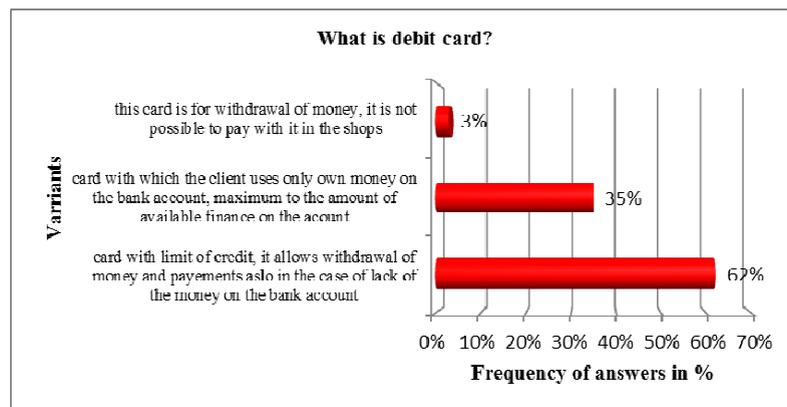


Fig. 5. What is the credit card?

3.2. Summarization of the realized survey's results

We consider to be suitable to summarize the most important findings from the realized survey, which could be used in praxis. But these findings could not be consider as surprising it is only more exact description of the expected state on the basis of the surveys which had been realized before.⁹ Obtained findings could be divided into satisfactory and unsatisfactory.

The most important unsatisfactory findings resulting from the research were:

- 39% of respondents of the survey had a problem with bearing interest for more than 1 year, in our case it was 2 years with annual entry of interests.
- 65% was not able to determine the principle of debit card functioning.
- more than half of the respondents, concrete 55% of all asked respondents, was not able to correctly determine which type of fund is the most risky.
- 34% of respondents did not know that there is a linear dependence between risk and profit of the investment, so the higher is the risk of investment the profit would be higher and vice-versa. But we have to be aware that this result could be influenced by the fact that some of the respondent need not to know what the direct and indirect dependency is.
- interesting thing is also the fact that 61% of respondents did not know which requirements have to fulfill to draw pension.
- 41% of respondents did not know that they should be interested in annual percentage rate (APR) in choosing the loan as the basic indicator of the total costs of loan.

The positive findings could be seen as:

- 66% of respondents was able to answer correctly to the question, what is the bank collateral.
- 74% of asked respondents know to identify III. pillar as voluntary insurance.
- 65% was able to identify who is policyholder.

At the end of our papers it is necessary to note, that success of respondents concerned in this research is influenced also by the fact that they were asked the basic information which is often promoted in the media and they can use them in their daily life. So the remaining question is – what would be the success like if the difficulty of asked questions would be higher?

4. Conclusion

Despite of the significant importance of the financial literacy, according to our opinion, to these problematic is not given sufficient attention in these days. But this fact could have very essential negative influence in the future, whereby it can have negative impact on the total economic position of our country, because according to our opinion, the level of financial literacy have an impact on the economic development and advance of the country. World-wide there were realized several surveys aimed at objective problematic whereby most of them include also the Slovak Republic. But considering the variety of used methodology as well as surveyed fields of financial literacy, these results are often non-comparable and that is why we decided to realized our own survey aimed at the level of financial literacy in the Slovak Republic. But these papers including only the most important findings following from the realized research, whereby most of the assumption which was determined was validate and generally we could claim that the level of financial literacy in the Slovak Republic is insufficient and it is in the interest not only of our citizens but also in the interest of the state to turn this negative phenomenon.

⁹ According to the findings of our survey we associated ourselves with views of Martin (2007) on this issue. "Generally, we can conclude from existing literature review that there is a need for financial education and that many existing approaches are effective" (Martin, 2007).

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