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*Customers' Financial Literacy – European Perspective*

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Wiedza finansowa konsumentów – perspektywa europejska

**Key words:** customer; financial literacy; European markets

**Słowa kluczowe:** konsument; wiedza finansowa; rynki europejskie

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## **Introduction**

Financial literacy has become a prominent item on the public agenda worldwide. Financial crises have repeatedly dominated headlines throughout the last decade and beyond, with stock market collapses, malfunctioning credit markets and under-funded pension funds being only a few prominent examples. These undesirable outcomes have occurred in spite of the fact that in the vast majority of countries these aspects of economic life are extensively regulated within complex and ever-evolving legal frameworks, supported by arrays of government and non-government bodies.

In recent years, financial literacy has gained the interest of various groups including governments, bankers, employers, community interest groups, financial markets, and other organizations, especially in the European Union, where member countries create joint financial market but on the other hand, represent different models of financial markets and level of its development.

With reference to the above, the purpose of the study was to assess level and diversity of customer financial literacy in selected European countries according to

gender, age, education, employment status, work activity and financial situation. In addition, it examined the relationship between financial literacy and the influence of factors affecting a financial decision.

## 1. Financial literacy – theoretical background

In the subject literature the phenomenon of financial literacy has not been given one unequivocal definition. Lusardi and Mitchell [2007, p. 36] describe it as knowledge of basic economic terms necessary for taking rational financial and investment decisions about savings, loans, insurance and others. Organization for Economic Cooperation and Development [OECD 2005, p. 24], in turn, approaches financial literacy in a three-faucet way. According to OECD, the consumer referred to as a financial literate possesses:

- knowledge and skills of risk assessment and financial potential assessment;
- ability to identify possible assistance in financial matters;
- ability to take quick and effective actions for improvement of one's own financial standing.

Thus, it can be concluded that a consumer having financial knowledge is able to skillfully function on the financial services market. Shambare and Rugimbana [2011, p. 83] claim that developing knowledge and financial skills in consumers may secure them more amiable survival of economic crises. Williams and Satchell [2011, p. 7], in turn, maintain that increasing of financial literacy may abate effects of poor legal protection of consumer interests on the financial services market, and consequently reduce the need of state intervention in regulations of the financial market. The European Parliament highlights the fact that an increase in the consumer financial knowledge may improve functioning of financial markets and communication between market subjects [*Improving...* 2008, p. 17].

Within the last few years, the issue of financial literacy has become a field of scientific research and recognitions which concern various aspects of the phenomenon. Consequently, the first aspect mainly relates to the definition of the phenomenon. According to Al-Tamimi and Kalli [2009, p. 54], financial literacy is demonstrated by managerial skills with respect to personal funds. This concept refers to consumer ability or to consumer capability of independent functioning in the world of finance and money managing. However, if one follows the assumption formulated by Melitz [1970, p. 1025] that money is a set of symbols, financial literacy can be defined as abilities of reading and comprehending this symbol-code. It should be added that significance of money and finances varies across societies, which shows that the process of evaluating financial literacy should be analyzed with respect to the cultural context.

The second aspect of research into consumer literacy refers to relation between the level of consumers' financial knowledge and the degree of country's economic development. However, results of studies conducted by OECD [*Improving...*, 2008,

p. 23] in 2005 in highly-developed countries, confronted with results of analyzes of the phenomenon in developing countries showed a very low level of financial knowledge in majority of consumers. This has been also confirmed by research carried out by Lusardi [2008], which showed a small scale of financial literacy in the USA. Thus, it can be concluded that the level of financial literacy is independent of the level of economic development of a country.

The third aspect of the research concerns the relation between financial literacy and consumer demographic variables. Studies conducted in the USA by Chen and Volpe [1998, p. 110] revealed some relation between the level of financial knowledge and age, gender, race as well as nationality. The results showed that financial literacy is mostly differentiated by the level of education, by an income level and by professional experience. According to the research, women have a lower level of financial knowledge than men. Also foreigners, unlike US citizens, demonstrated a lower level of financial literacy. This has been also confirmed by Volpe et al. [2002, p. 8] in their research into investors' investment abilities in the virtual environment. Moreover, better-off and better-educated investors have better financial knowledge than people with lower income and a lower level of education. The research conducted in Australia by AC Nielsen Research agency [2005, p. 83] has proved that a lower level of financial knowledge is characteristic of consumers with a lower level of education, of unemployed people or of less qualified people with lower income.

Referring to the above analysis it can be underlined that there is gap in literature according to description of financial literacy especially according to gender, age, education, level of income and consumer market experience, level of financial education or other determinants.

## 2. Research methodology

The following study was designed to assess financial literacy of customers in selected European countries and to examine relationship between financial literacy and influence of factors affecting the financial decision-making process. Consequently, hypotheses were made to answer the following questions:

Q1. Is the financial literacy of European customers within the high level?

Q2. What are the most influential factors that affect the financial decisions made by the European customer?

It was assumed that answering the first question could help explore the level of financial literacy of European customers. Additionally, finding an answer to the second question would make it possible to find out factors which are the main determinants of the decision-making process of European customers on the financial services market.

Based on the stated purpose of the study and on the research questions, the following hypotheses were formulated:

- H1. The European customers' financial knowledge is well below the needed level.
- H2. There is a significant difference between the level of financial literacy of European customers based on their gender.
- H3. There is a significant difference between the level of financial literacy of European customers based on their age.
- H4. There is a significant difference between the level of financial literacy of European customers based on their financial situation.
- H5. There is a significant difference between the level of financial literacy of European customers based on their employment status.
- H6. There is a significant difference between the level of financial literacy of European customers based on their workplace activity.
- H7. There is a significant difference between the level of financial literacy of European customers based on their education level.
- H8. There is a positive significant relationship between financial literacy and financial decisions of European customers.

H1 was put to a rather informal test, whereas the other seven hypotheses were verified via a formal regression model. The hypotheses were formulated to examine whether or not the financial literacy level of European customers was at an acceptable level. Finally, it is necessary to look at the relationship between individual financial decisions and financial literacy, which is reflected in H8.

In order to verify the hypotheses, the direct research was carried out on test groups of consumers from Germany, Poland, Slovakia, Ukraine and the United Kingdom. The study of financial literacy in selected countries was organized in 2016 on test groups of 600 people each. The average questionnaire content equaled 47%, but after verification of the material, 41.6% of questionnaires were approved for further analysis. The choice of the countries was deliberate and comprised Germany, and the United Kingdom as the "old" members of the EU. In the group, Germany represent bank-oriented financial system, while the United Kingdom – stock exchange system, and does not use the euro currency. Poland and Slovakia were selected as "new" members of the EU, however, Poland was the only country which had grown during the financial crisis and Slovakia had already the euro currency. Ukraine, in turn, was chosen as a country outside the EU.

In the course of the study, a decision was made to standardize the research, as well as to ensure equivalence of data collection procedure (survey questionnaire) and that of the test group (based on a quota selection method according to age and education). The research was done on the basis of a questionnaire modified from the one used by Al-Tamimi [2006, p. 185] and by the Monetary Authority of Singapore [2005, p. 64]. It was designed to assess or measure the financial literacy and factors determining financial decisions. It should be underlined that objective measures were used to assess the financial literacy level, while subjective measures were used to assess the effect of different factors on the financial decision. The questionnaire was divided into three parts. The first part was devoted to financial literacy level and contained exam-type

true-or-false questions. The second part identified factors affecting customer financial decisions by means of a five-point Likert scale. The third part covered demographic and socio-economic variables of gender, age, education level, employment status, workplace activity, and a financial situation. After elaboration of questionnaires, the measurements were evaluated in terms of their wording and consistency by three experts, including marketing specialists and professors of statistics.

### 3. Data analysis and results

The measures of financial literacy used in the studies that cover financial literacy are often basic. Many of the studies used self-assessment questions or 5–10 exam-type questions. For example, Byrne [2007] relies on only four questions to measure investment knowledge, Alexander et al. [1997] depend on nine questions related to mutual funds, Volpe et al. [2002] rely on ten questions, and the same OECD [2005] studies use a self-assessment survey. These limitations have made the validity and reliability of those surveys questionable. The current study overcomes this problem by using a comprehensive exam-type questionnaire of financial literacy that covers the main aspects of financial decisions.

Table 1 presents the overall participants' scores on the financial literacy test. The results demonstrate that on average, participants answered 40.55% of questions correctly, suggesting that the investor's knowledge about finance is inadequate.

Table 1. Overall financial literacy level in European countries

| Central tendency | Percentage |        |         |          |        |
|------------------|------------|--------|---------|----------|--------|
|                  | Germany    | Poland | Ukraine | Slovakia | the UK |
| Mean             | 42.37      | 41.73  | 38.23   | 40.59    | 41.84  |
| Median           | 40.59      | 39.95  | 37.47   | 38.82    | 41.07  |
| Minimum          | 0.00       | 0.00   | 0.00    | 0.00     | 0.00   |
| Maximum          | 88.61      | 90.92  | 88.47   | 88.76    | 87.08  |

Source: Author's own study.

Considering the questions as fundamental, answering less than half of them correctly has indicated a low financial literacy level in participants. The median percentage of the correct score is 38.78%. The results confirm H1, namely that European customers' knowledge is far from the necessary level.

One of the objectives of this study is to determine if there is a significant difference in financial literacy level among different groups of respondents according to gender, age, education level employment status, work activity, and financial situation, and in order to test H2 through H7, a one-way ANOVA was conducted. Table 2 indicates that there is no significant difference in financial literacy among different groups of respondents according to their age, employment status and financial situation.

Table 2. One-way ANOVA test – financial literacy and demographic variables

| Variables           | Sum of square | df | Mean square | F     | Sig.  |
|---------------------|---------------|----|-------------|-------|-------|
| Gender              | 1.187         | 1  | 1.187       | 5.102 | 0.024 |
| Age                 | 1.804         | 3  | 0.601       | 1.798 | 0.142 |
| Education level     | 1.093         | 4  | 0.273       | 3.904 | 0.006 |
| Employment          | 2.996         | 1  | 2.996       | 1.531 | 0.315 |
| Work activity       | 1.517         | 6  | 0.252       | 6.728 | 0.000 |
| Financial situation | 3.115         | 3  | 1.038       | 0.983 | 0.397 |

Source: Author's own study.

Thus, H3, H4 and H5 are not confirmed. On the other hand, the results reveal significant difference in financial literacy level based on gender, work activity, and education level. Therefore, H2, H6 and H7 are confirmed.

Table 3 presents the mean and standard deviation of each of the five categories. The results illustrate that the most influencing group is the firm image.

Table 3. Mean and standard deviation of the five categories

| Category                 | Mean  | Standard deviation |
|--------------------------|-------|--------------------|
| Firm image coincidence   | 3.879 | 0.679              |
| Neutral information      | 3.643 | 0.624              |
| Accounting information   | 3.490 | 0.582              |
| Personal financial needs | 3.417 | 0.609              |
| Advocate information     | 3.188 | 0.561              |

Source: Author's own study.

In order to test the last hypothesis, a regression model was used. In this model, the sum of the financial factors is considered as the dependent variable and the overall score of the financial literacy as the independent variable. The results presented show that there is a negative significant effect of financial literacy on the total financial factors. However, only 2.9% of the variation in the total financial factors can be explained by the financial literacy level. Accordingly, H8 is rejected.

## Conclusions

From the academic point of view, the research examines some relevant issues in the field of the considered knowledge, particularly the theory of consumption and consumer behavior. These issues concern, among others, the level and diversity of financial literacy level of European customers. It is possible to summarize the research findings by stating that financial literacy is far from the required level. The financial literacy level has been found to be affected by financial situation, education level, and workplace activity of customers. A significant difference in the level of financial literacy has been also observed with respect to respondents' gender, education level and work

activity. Financial literacy has significantly affected financial decisions of individual customers. Specifically, financial literacy has had a negative effect on each of the five factor categories with the exception of the accounting information category. The effect of financial literacy on the accounting information category has been positive, but statistically insignificant. The lowest level of financial literacy was observed in countries where the financial crisis had the strongest influence on economy.

From the managerial perspective, the present study brings several contributions to marketing professionals. The findings of this study indicate that the level of financial literacy is low, which is demonstrated in their limited knowledge of financial services and relevant legal regulations, as well as in consumer irrational behavior such as: conclusion of contracts without knowledge of their contents or lack of habit of recognizing the market situation. Financial literacy is also revealed in the choice of types of information sources taken into consideration by consumers in the process of financial decision-making. Wanting to raise effectiveness of their promotional activities, financial institutions must first and foremost focus on developing consumers' financial knowledge through elaboration of appropriate market education programs.

Nonetheless, it should be remembered that this research has some limitations, which, however, can be turned into opportunities for future research. The key limitation of this study refers only to the choice of financial services to describe the phenomenon of financial literacy. Financial services are characterized by the highest level of customers' retention and the greatest involvement on the part of consumers. It should be kept in mind that financial literacy could be also analyzed according to the process of purchasing all kind of goods and services. Apart from that, the author has taken into consideration a limited number of determinants of financial literacy. Moreover, financial illiteracy may include other aspects than those considered in this research.

Undoubtedly, future research should be more intensely focused on investigating what should constitute viable financial literacy in the context of globalization of financial market. Similarly, it may be necessary to consider and embark on research into the most effective campaigns for financial literacy. Ultimately, it is the research that is likely to inform policymakers and financial institutions on the most sensible strategies to be implemented. Invariably, this calls for further research in different countries. In addition, it would be proper to commence with a more comprehensive study of consumers' perception of how they earn, manage and spend their money.

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### Customers' Financial Literacy – European Perspective

The main finding which derives from the research is that financial literacy of customers on European market is far from the required level. The financial literacy level has been found to be affected by financial situation, education level, and workplace activity of customers. A significant difference in the level of financial literacy has been also observed with respect to respondents' gender, education level and work activity. Financial literacy has significantly affected rationality of financial decisions of customers. It necessary to underline that the lowest level of financial literacy is observed in countries where the financial crisis had the strongest influence on economy.

### Wiedza finansowa konsumentów – perspektywa europejska

Podstawowym wnioskiem z badań jest to, że wiedza finansowa europejskich konsumentów jest znacznie niższa niż jej pożądany poziom. Okazało się, że na poziom wiedzy finansowej miały wpływ: sytuacja finansowa, poziom edukacji, wykonywany zawód i różne aktywności konsumentów. Znacząca różnica w poziomie wiedzy finansowej została również zaobserwowana w odniesieniu do płci konsumentów, wykształcenia i charakteru ich pracy. Wiedza finansowa znacząco wpływa także na racjonalność decyzji finansowych klientów. Należy podkreślić, że najniższy poziom wiedzy finansowej konsumentów zaobserwowano w krajach, gdzie kryzys finansowy miał najsilniejszy wpływ na gospodarkę.