

**University of West-Hungary  
Faculty of Economics**

**ATTITUDES AND COMPETENCIES AMONG HIGH SCHOOL  
STUDENTS REGARDED AS POTENTIAL BANKING CLIENTS**

Theses of PhD Dissertation

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## **Table of Contents**

<b>1. INTRODUCTION.....</b>	<b>4</b>
<b>1.1. Significance of the Theme.....</b>	<b>4</b>
<b>1.2. Aims of the Research.....</b>	<b>5</b>
<b>1.3. Hypotheses of the Research.....</b>	<b>6</b>
<b>2. METHOD OF THE RESEARCH.....</b>	<b>7</b>
<b>3. RESULTS OF THE RESEARCH.....</b>	<b>9</b>
<b>3.1. New Scientific Results.....</b>	<b>13</b>
<b>4. CONCLUSIONS AND SUGGESTIONS.....</b>	<b>13</b>
<b>4.1. Theoretical Relevance of the Research.....</b>	<b>16</b>
<b>4.2. Potential Practical Use of the Research.....</b>	<b>16</b>
<b>4.3. Suggestions for Future Research.....</b>	<b>16</b>
<b>5. PUBLICATIONS OF THE AUTHOR IN THE THEME OF THE DISSERTATION....</b>	<b>18</b>

## 1. INTRODUCTION

### 1.1. Significance of the Theme

Financial literacy as the phenomenon influencing the Hungarian economy had a significant impact on social relations already from the outset. However, the strengthening of its role could only be seen from the 1980's. The financial crisis in Hungary proved that the financial literacy of the population is in close connection with their own economic decisions. Not only does the improvement of financial literacy serve the well-being of an individual but also that of the society i.e. it also has a positive impact on the economic development of a country.

Due to the low level of parents' financial literacy in a significant proportion of families, children lose the chance to acquire the basic financial knowledge and to try it in practice. It is highly dangerous because financial illiteracy will then be inherited from one generation to the next, and the next generations will not be capable of making conscious economic decisions, either.

Young people do not understand a significant part of financial concepts and definitions at all, or they understand others, but cannot identify with them. Due to their age, they have a particular frame of mind. It is inevitable to get to know and to understand their special mental disposition to develop their financial literacy.

Nonetheless, financial literacy does not only mean the acquisition of financial knowledge. It also encompasses the acquisition of skills and abilities that “ help individuals to interpret the basic financial information and to make conscious decisions, assessing the possible future consequences of their decisions”. (MNB 2006). Therefore the factors which help to change financial knowledge and attitudes of young people into financial competence must be identified. It is not an easy task since not only does financial literacy have measurable elements, it has less quantifiable and yet significant factors as well.

Besides the difficulties in defining the concept, a particular attention must be drawn to the typical characteristics of the young age group. Their behaviour can not be characterized by the rational model elaborated by theoretical economists because in addition to rationalism and understanding, psychological factors appear in their decisions and are given much more emphasis. The views of behavioural finance focusing on the phenomena of non-rational behaviour in the different markets can be much better used for describing the decisions of the high school age group. They make their decisions with the help of the heuristics – simplified decision-making processes – which are well-known from the works of Kahneman and Twersky. They generally use the first

system of their brains, and they rarely need to use the more thorough and careful second part of their brains.

Although they possess numerous similar characteristics due to their age and way of living, they can not be treated as a uniform and homogenous market segment. The difference in their financial literacy can be clearly seen. Financial institutions are not in an easy situation because they have to attract and turn this diverse age group into new banking clients. However, first and foremost, they have to collect substantial information about the factors forming the financial behaviour of the young generation for effective and efficient use of the various bank marketing tools.

All in all, the impact factors influencing the financial literacy of the high school age group, the special characteristics arising from their age and the potential decision mistakes based on heuristics must be examined in their complexity in order to confront them with their own behavioural problems, and that the thorough knowledge of their behaviour should contribute to their effective life-determining financial decisions later in their lives, according to the author.

## **1.2. Aims of the Research**

The author in her dissertation tries to outline the effective process of attracting and turning high school students into banking clients by identifying the elements of financial literacy. The dissertation focuses on the necessity for financial literacy measurability as well as the appearance of the various elements of behavioural finance in the financial decisions of the young age group.

On the way to the targeted objectives, the dissertation

- **outlines the relationships among** bank marketing, financial competence, attitude and financial literacy
- **presents** the age characteristics of high school students and the special features of their lifestyles. It concentrates on the causes of huge student credit card debts among West-European young people, pointing out both the role of banks and the role of low financial knowledge.
- **proves** that although high school students have numerous common characteristics, they can not be treated as a homogenous segment. The dissertation determines the factors that can provide a basis for effective bank segmentation.
- **proves** the role of demographical factors in the financial knowledge of the young generation.

- **analyses** the situation and the role of the Hungarian financial education in the development of financial literacy, and also points out the necessity of introducing compulsory economic education.
- **presents** the need for listing financial competence among key competencies, and outlines the importance of attitude to money among high school students with strong materialist approach.
- **proves** the necessity of measuring financial literacy, and introduces the latest trends and results of international financial literacy research.
- **studies** the appearance of anomalies deviating from the rational in the decisions of high school students and the heuristics characteristic of young people.
- **tries to find the answer to the question** as to how much the type and geographical location of the different high schools determine students' financial literacy. The dissertation is aimed at showing the joint influence of sense, rationalism and emotions in the decision-making situations of high school students.
- **summarizes** her results in a model which can assist young people, financial institutions and educational institutions with their conscious financial decision-making.

### **1.3. Hypotheses of the Research**

On the basis of the results of the desk research, the author specifies the hypotheses as follows:

**H1.: The difference between supposed and realistic financial knowledge of high school students is higher than zero i.e. the heuristics of cognitive illusions – independently from high school type – is detectable in this age group.**

**H2.: Financial education decreases the differences arising from family background in the field of financial literacy.**

**H3.: There is a strong link between high school students' financial literacy and the type and geographical location of the high school they go to.**

**H4.: The risks of huge credit card debts and student loan debts typical of young people in societies with financial literacy level higher than in our country become avoidable in Hungary by introducing financial education.**

**H5.: In terms of financial decisions, a more conscious financial behaviour is typical of students with deeper financial knowledge.**

**H6.: Sense, rationalism and emotions appear jointly in young people's economic decisions.**

**H7.: Categorization on the basis of the financial attitudes of the high school age group opens the door to a more precise segmentation for financial institutions.**

## **2. METHOD OF THE RESEARCH**

The objective of the author's research was to assess the general economic knowledge and financial habits of high school students and their attitudes towards financial institutions. The author carried out the field research in the manner of a series of steps in numerous secondary educational institutions in Budapest, Eastern Hungary (Miskolc, Debrecen and Nyíradony) and Western Hungary (Sopron and Szombathely) from spring 2012 to summer 2013. Students from secondary grammar schools, economic high schools and other types of high schools were selected in the sample. Sampling in the circle of the age group 15-19 was random.

Questionnaires were used as survey methodology. On the basis of this methodology, data are quantifiable and therefore they are perfectly suitable for carrying out different statistical analyses. The author sent the questionnaires on paper to the students. 573 pieces out of the 600 pieces were returned, but 21 pieces were not suitable for evaluation therefore 552 questionnaires were processed.

“The finances-related questionnaire” is divided into five parts as follows:

**I. Financial knowledge assessment:** supposed and realistic knowledge of concepts and financial institutions

**II. Assessment of attitude towards money and finances:** attitudes towards savings, money spending, financial education, borrowing and lending

**III. Examination of the elements determining financial behaviour:** creating a household budget, bank borrowing later in their lives and conscious financial management

**IV. Assessment of bank-related factors:** knowledge of banking products, use of student loans and factors of bank selection

**V. Basic data:** demographical characteristics

The author sought to ensure the collection of the most complete range of information with the help of the diversity of the questions in the questionnaire. On the one hand, a part of the quiz questions as open-ended questions enabled students to feel free to give any response, and on the other hand, in terms of the rest of the questions, they had to choose from the given answers. The questions in connection with students' behavior and attitudes were mostly rating questions. The interviewees' preferences of bank selection were measured by a 5-point Likert scale, while the attitude towards financial products and financial institutions were measured by a ranking scale.

Microsoft Excel and Statistical Package for Social Sciences (SPSS) 17.0 were used for data analyses. The author started the result analysis with univariate analyses because these provide primary and basic information about the sample population, and also promote the application of the various methods of multivariate analysis such as cross tabulation, factor analysis and cluster analysis. Cross tabulation analyses the relationship between two or more variables and their combined frequency distribution. Before the application of the method, it must be examined whether there is a significant relationship between the two analysed variables (with the help of Pearson's chi-squared test), then the strength of the relationship must be shown (with the help of Cramér's V and contingency coefficient).

The objective of factor analysis is to determine unobserved latent variables called factors on the basis of the correlation between variables. (Hungarian Dictionary of Biostatistics, 2009). The author first examined whether the data were suitable for factor analysis with the help of Kaiser-Meyer-Olkin (KMO) (measure of sampling adequacy tests) and Bartlett's Test of Sphericity. Bartlett's test is used to test whether the variables in the population are uncorrelated (called the null hypothesis). The null hypothesis of Bartlett's test can be rejected if the significance value is less than 0.05 i.e. the variables are suitable for factor analysis (p. 257. Sajtos-Mitev, 2006) Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy criteria was used to analyse how much the variables were suitable for factor analysis.

The author finished her field research with cluster analysis where she tried to group the students filling out the questionnaires into homogenous groups called clusters. The elements belonging to the same clusters had similar characteristics and showed significant differences compared to the rest of the clusters.



### 3. RESULTS OF THE RESEARCH

**H1.: The difference between supposed and realistic financial knowledge of high school students is higher than zero i.e. the heuristics of cognitive illusions – independently from high school type – is detectable in this age group.**

As is apparent from table 1, the students both in economic high schools and secondary grammar schools evaluate their knowledge higher than the actual i.e. the phenomenon of cognitive illusions was observable in their case. The only group where this phenomenon was not identifiable was the third one although they did not manage to assess their own knowledge realistically, either, because the rate of their factually good answers (62,57%) exceeded the forecast result (60,8%).

**Table 1: Appearance of cognitive illusions among high school students in different school types** Source: based on the results of the author’s primary research in 2014

Type of school	Thought financial knowledge	Real financial knowledge	Illusion of knowledge
<b>Economic high school</b>	88,80 %	82,29%	✓
<b>Secondary grammar school</b>	83,80%	79,42%	✓
<b>Other secondary school</b>	60,80%	62,57%	✗

The author could not demonstrate that the phenomenon of cognitive illusions known from behavioural finance - i.e. that the individual overestimates his own knowledge of the given topic – would be relevant **for the whole of** the high school age group. The appearance of the phenomenon depends on the type of the high school the students go to i.e. it is not applicable to the whole of the age group between 14 and 19, therefore *this hypothesis was rejected*.

**H2.: Financial education decreases the differences arising from family background in the field of financial literacy.**

The author stated during her research that students in economic high schools had more thorough financial knowledge than those going to the other two types of high school since they gave correct answers to the questions at a rate higher than the latter. The role of economic education was not only shown in terms of knowledge transfer but also in terms of forming financial approach as the students studying professional subjects reached higher results related to their financial behaviour than the rest of the students. 61% of girls in economic high schools, 52% of boys in the economic high schools, while 43% of girls in secondary grammar schools and 49% of boys in secondary grammar schools, 28% of girls in other types of high schools and 32% of boys in other types of high schools reached high behavioural scores i.e. they gave at least 6 positive answers in terms of their financial behaviour.

On the basis of research results, the author *accepted this hypothesis, as well.*

**H3.: There is a strong relationship between high school students' financial literacy and the type and geographical location of the high school they go to.**

Both the geographical location and the type of high school are markedly influencing factors as students in different regions of the country showed significant differences in terms of their financial attitudes and behaviour. During their bank selection they expressed preferences for various factors; while interest rate conditions was the most important factor of bank selection in the Budapest sample, students in the countryside mainly listened to their parents. Besides family members' suggestions, the widespread ATM network across the country also played an important role for young people living in the countryside, and interest rate conditions turned up as the third most important selection factor.

The author experienced significant differences in students' financial literacy both in terms of different high school types and different locations of the country therefore *this hypothesis is accepted by the author.*

**H4.: The risks of huge credit card debts and student loan debts typical of young people in societies with financial literacy level higher than in our country become avoidable in Hungary by introducing financial education.**

As is apparent from the research data collected in the dissertation, heuristics of hyperbolic discounting among high school students is observable because students rather have an inclination

towards to loan borrowing than saving later in their lives. 63% of the student respondents mention later borrowing imaginable and only 29% managed to save a certain amount of money over the past year.

It would be beneficial if young people were given the chance to gain substantial financial knowledge even before a critical situation arises. Due to the permanently present level and risk of indebtedness, debts are not completely preventable as such but can be decreased by introducing financial education. *Therefore the hypothesis was rejected.*

**H5.: In terms of financial decisions, a more conscious financial behaviour is typical of students with background financial knowledge.**

After analysing the individual elements of financial literacy one by one, the author examined what characterizes in common the students going to different school types. Table 2 shows the percentage distribution of the students who reached high cognitive, high behavioural and high attitudinal scores according to school types.

**Table 2: Components of students' financial literacy according to distribution of school types** Source: based on the results of the author's primary research in 2014

Type of school	Accurate knowledge - score	Accurate behaviour - score	Accurate attitude - score
<b>Economic high school</b>	58,00 %	56,50 %	62,67 %
<b>Secondary grammar school</b>	55,50 %	46,00 %	52,67 %
<b>Other secondary school</b>	40,00 %	30,00 %	37,33 %

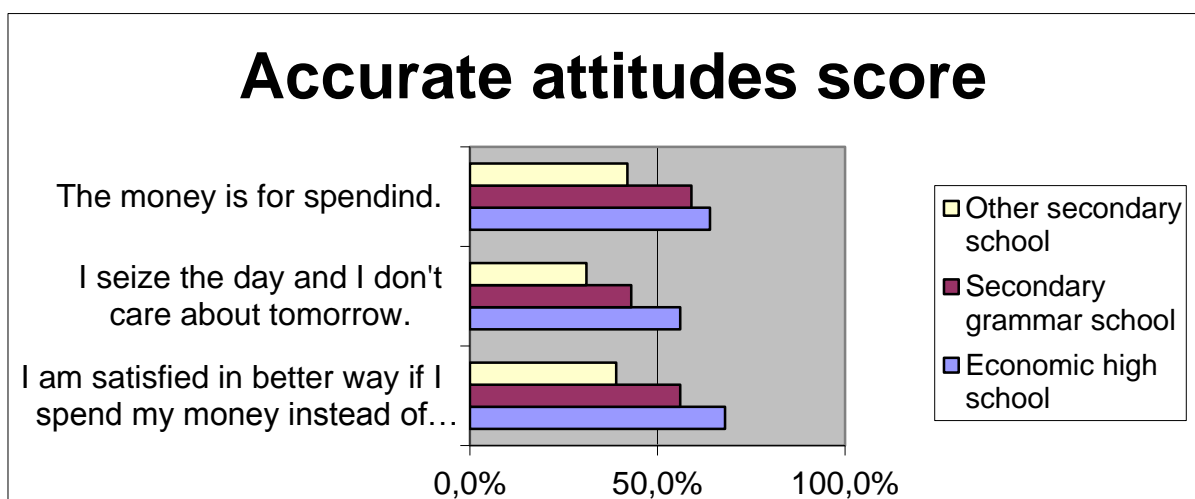
As shown in the results, there is a positive relationship between depth of knowledge and behaviour in each school type. Respondents with higher level of financial knowledge also conducted in a more conscious manner in finances. A similarly significant relationship is observable between behavioural and attitudinal scores as students considering long-term care important showed a more positive conduct than those with short-term preferences. *On the basis of the research, this hypothesis was accepted.*

**H6.: Sense, rationalism and emotions appear jointly in young people’s economic decisions.**

The phenomenon of emotional heuristics remarkably appears in young people’s financial decisions. Similarly to desk research information, the author also concluded that the high school age group rather live for today on the basis of the principle “things will work out somehow or other tomorrow”. A significant part of them do not consider purchase in advance, they rather make decisions on the basis of momentary emotions. Due to the lack of experience and background financial knowledge, they mostly rely on their parents while making financial decisions. Due to the above-mentioned, *this hypothesis was also accepted.*

**H7.: Categorization on the basis of the financial attitudes of the high school age group opens the door to a more precise segmentation for financial institutions.**

On the basis of the high attitudinal scores worked out by the author, it is observable that there is a significant difference in the financial attitude of students in different high school types. The differences are observable in chart No. 1. Students from economic high schools reached the highest scores because they agreed the least on the attitudinal statements. They strive to manage their finances in a more conscious manner and have a different approach to finances compared to the rest of the students.



**Figure 1: High attitudinal results of high school students**

Source: based on the results of the author’s primary research in 2014

The author created four homogenous segments from the sample population with the help of cluster analysis. The segments showed significant differences in terms of financial knowledge, behaviour and attitudes therefore financial institutions must use different strategies aiming at their banking and finance management. There are segments that can not be attracted and turned into banking customers on the basis of rational reasoning but rather emotions, while others need a way more care and attention in the field of financial services.

*This hypothesis is also accepted by the author on the basis of her research.*

### **3.1. New Scientific Results**

With regard to the objectives outlined in the introductory part of the dissertation, a couple of new and novel scientific results were achieved as follows:

- The relationship between financial attitudes, competence and bank marketing has been proven, reaching as far as financial literacy.
- The necessity of measuring and developing financial literacy in the interest of improving the efficiency of economic education has been established.
- The heuristics characteristic of young people - which could be built in public education and thereby the number of decision mistakes made by students could be reduced - have been presented.
- 4 new consumer groups which showed significant differences in their financial literacy and therefore might mean the basis of segmentation strategies of bank marketing have been successfully identified.

## **4. CONCLUSIONS AND SUGGESTIONS**

1. In addition to skills in Mathematics, reading and science, students' financial competences should also be examined in the surveys of the OECD Programme for International Student Assessment (PISA) and that of the Hungarian Ministry of Education and Culture (OKM) because the existence of financial competences is also inevitable for effective social integration. Besides rational factors, emotional elements should also be considered when determining financial competences.

2. The author also regards control of financial information flow as important; it can not be taken for granted that the huge amount of information available for high school students could be effective. Dan Ariely's interactive information system can be effectively applied with the younger generation because students can determine necessary the scope of information on the basis of their own preferences, however, it must be connected to the characteristics of emotional heuristics, as well, because different pieces of information are necessary when someone is in a positive or a negative state of mind.

3. There are significant differences nation by nation in terms of attitude towards savings; while the American dream takes shape in the huge variety of credit cards, the same means savings in China. The importance of savings should already be taught to young people at a very early age to make it an essential part of their financial conduct. Nevertheless, the heuristics of hyperbolic discounting can only be avoided in Hungary if savings become a part of national identity and the tool of integration into the desired social group. However, to achieve all of these, state-level support and education as well as a thorough elaboration of savings programmes are all necessary.

4. Chart 2 shows the *SEGMENTATION MODEL OF BEHAVIOURAL FINANCE* worked out by the author. The author connects young people's financial literacy to the factor that during financial decision-making process an individual typically uses his thinking system No. 1 or No. 2. The various characteristics and the heuristics of the consumer groups called "**the emotional spenders**", "**the optimistic but uncertain**", "**the spontaneously self-confident**" and "**the rationally conscious**" are presented in the model.

Everything should be done to face young people with their own behavioural mistakes in order to enable them to withstand the effort to influence from service providers, and that the in-depth knowledge of their behaviour would promote their effective financial choice. However, it is not an easy task. On the basis of behavioural characteristics, the young generation can not be treated as a homogenous segment because the rates of rational and emotional factors of their decisions are differently and unevenly distributed. By expanding Philip Kotler's Black Box Theory, it is visible that the members of the same age group will make different financial decisions under the influence of the same market and marketing impressions due to the differences in the "black box". It would be highly beneficial if young people were well aware of the mechanism in their brains before they make each of their decisions.

	<i>1. use of thinking system</i>	<i>2. use of thinking system</i>
<i>Low financial literacy (knowledge, attitude, competence)</i>	<p><b>”EMOTIONAL SPENDERS”</b></p> <ul style="list-style-type: none"> <li>▪ They are not interested in finances</li> <li>▪ They make decisions spontaneously, on emotional basis</li> <li>▪ They enjoy spending money</li> <li>▪ They are not capable to keep their finances under control</li> <li>▪ They are impulsive decision makers</li> </ul> <p><u>Too much self-esteem, herd mentality, emotional heuristics</u></p>	<p><b>”THE OPTIMISTIC BUT UNCERTAIN”</b></p> <ul style="list-style-type: none"> <li>▪ Fear and anxiety characterize their attitude towards money</li> <li>▪ Prudent types who analyse</li> <li>▪ The role of savings is significant in their lives</li> <li>▪ Extra information is important for them</li> <li>▪ They need help during their decision-making process</li> </ul> <p><u>Hyperbolic Discounting (comparison of amounts of money available at different times)</u></p> <p><u>herd mentality</u></p>
<i>High financial literacy (knowledge, attitude, competence)</i>	<p><b>„SPONTANEOUSLY SELF-CONFIDENT”</b></p> <ul style="list-style-type: none"> <li>▪ They quickly make decisions on the basis of earlier experience</li> <li>▪ They are impulsive decision makers</li> <li>▪ They are capable to manage their finances effectively</li> <li>▪ Personal experiences are important for them</li> <li>▪ They are not worriers</li> </ul> <p><u>Anchoring impact, emotional heuristics</u></p>	<p><b>„CONSCIOUSLY RATIONAL”</b></p> <ul style="list-style-type: none"> <li>▪ They manage their finances effectively</li> <li>▪ They make rational decisions</li> <li>▪ They do not cope with financial problems</li> <li>▪ Savings are important for them</li> </ul> <p><u>Hyperbolic Discounting</u></p>

**Figure 2: Segmentation Model of Behavioural Finance**

Source: based on the results of the author’s primary research in 2014

#### **4.1. Theoretical Relevance of the Research**

The dissertation covers a noticeably wide topic ranging from the field of finance and service marketing to the different fields of education by trying to connect the various areas with each other. The novelty of the dissertation lies in the fact that it takes a closer look at the validity of the views of behavioural finance among high school students. The decision-making exclusively based on rationalism must be extended by emotions at all events because psychological factors are particularly important for the young generation.

Service marketing is enriched with a new set of tools by the extension of the segmentation viewpoints of financial institutions, which finally results in an increase in their profitability.

#### **4.2. Potential Practical Use of the Research**

By changing economic education i.e. integrating the elements of financial behaviour into public education, young people can be taught to recognise their own behavioural errors. If they acknowledge them even before their financial decisions, they could avoid making exclusively emotion-based decisions without considering potential risks in their system No.1. They must be brought up as financially conscious citizens to enable them to buy only the products from service providers what **they really need** and not the products what **they think** they could not live without.

The new model elaborated by the author can be effectively used by financial institutions because their segmentation strategy could become more effective by applying the elements of financial literacy, and they would have a different approach to young clients with different financial attitudes and competences. They would also gain access to field information about the lifestyle and demands of high school students by keeping close contact with educational institutions.

#### **4.3. Suggestions for Future Research**

<b>1. Examination of the different views of behavioural finance among the age group 18-30</b>
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The elements of behavioural finance has a significant impact on the individuals' financial decisions, however, these decisions also depend on the individual's age and lifestyle. The erroneous decisions typical of a 23-year-old university student are different from a similarly-aged father with 2 children.



## **2. Strengths, weaknesses, opportunities and threats of compulsory introduction of financial education**

An important factor is that everybody should get access to the financial knowledge appropriate for age and education, which can be realized by introducing the subject of Finance into compulsory public education. However, the suitable material reception conditions, facilities and equipment must be provided. The advantages and disadvantages of introduction can be determined with the help of SWOT analysis.

## **3. Relationship between morality and marketing in the activities of the financial institutions**

The corporate policy of financial institutions is nothing but to strike a dynamic balance between current and respective profitability, solvency and safety as well as to maintain a consistent level of growth taking background risk-taking ability into consideration. The question arises whether the appearance of morality in the national economic mentality and in the profit-driven management of financial institutions is justified.

However, the use of banking services requires the existence of trust, which has been undermined recently, at all events. Financial institutions can try to regain their clients' trust with the help of ethical conduct.

## **4. Appearance of elements of behavioural finance in consumer protection**

The elements of behavioural finance also have an impact on consumer protection because the results exploring decision-making errors created and gave way to new consumer protection tendencies. The focus of consumer protection keeps shifting from the direction of authorities' regulation to influencing consumer decisions. There is a high demand for that in the service sector since in this case no-one can speak about practical and tangible products which can be tested and tried out before use.

## 5. PUBLICATIONS OF THE AUTHOR IN THE THEME OF THE DISSERTATION

### Conference Lectures

*Hornyák Andrea: The Connection Between the Financial Culture of the Youth and Bankmarketing „Shifting Environment – Innovative Strategies”* International Scientific Conference, Sopron University of West Hungary-Faculty of Economics, Sopron, 2 November 2011. ISBN: 978-963-9883-87-1 (CD Conference Publication)

*Hornyák Andrea: The youth, as potencial banking clients*  
XII. RODOSZ Conference, Kolozsvár, 2-4 December 2011., ISBN: 978-606-8259-39-0 pp. 337-356. (CD Conference Publication)

*Hornyák Andrea: The ethical aspects of bankmarketing*  
„The conference about „New results in economics and business” University of Debrecen - Faculty of Economics, Debrecen, 27 – 28. aprilis 2012., ISBN 978-963-473-600-4 (CD Conference Publication)

*Hornyák Andrea: Financial culture can be taught or you can't start it early enough*  
VII. KHEOPS Scientific Conference, Mór, 16 majus 2012.  
ISBN: 978-963-87553-9-1 (CD Conference Publication)

*Hornyák Andrea: Does fair bank exist?*  
„Scientifical conference about alternativ financial strategies I.” University of Kaposvár -Faculty of Economics, Sopron,3 oktober 2012., ISBN 978-963-89173-5-5 (CD Conference Publication)

*Hornyák Andrea: Essentialism of introduction of finnacial education*  
„Solidarity and comunicacion between the generation”, „XVI. Apáczai – Days” International Scientific Conference, University of West Hungary-Faculty of Economics, Győr, 26 oktober 2012. (abstract)

*Hornyák Andrea: The young: they are similar but individual or how bankmarketing can segment them*

XIII. RODOSZ Conference, Kolozsvár, 9–11 november 2012. (abstract)

*Hornyák Andrea: Opportunities to develop financial culture among the youth*

International Scientific Conference, University of Szent István - Faculty of Economics, Gödöllő, 22 november 2012. ISBN 978-963-269-326-2, (CD Conference Publication)

*Hornyák Andrea: „I know, I understand and I use it” or the youth’s everyday financial decisions*

International Scientific Conference of PEME, Budapest, 12 marcius 2013.

ISBN 978-963-88433-8-8 ([www.peme.hu](http://www.peme.hu) and internet book)

*Hornyák Andrea: „Can financial culture be taught or how can the youth’s economical knowledge be improved*

Challenges for companies and institutions in 21 st century - Best of KHEOPS II. (2006-2012) pp. 325-336. , ISBN 978-963-89779-1-5

### **Other Foreign Language Publications (CD Conference Publication)**

*Andrea Hornyák: Finanzielle Schulpflicht – Argumente und Gegenargumente*

„Driving Forces of the Economic Development, (Innovation- Efficiency-Job Creation)”

International Scientific Conference, Sopron University of West Hungary-Faculty of Economics, Sopron, 12. November 2012.

ISBN 978-963-9883-99-4 (CD Conference Publication)

*Andrea Hornyák: Bewirtschafte klug, oder Erziehung auf finanzielle Bewusstheit in dem öffentlichen Unterricht’*

VIII. KHEOPS Scientific Conference , Mór, 26 aprilis 2013.

ISBN 978-963-89779-0-8 (CD Conference Publication)

## **Hungarian Publications in Supervised Scientific Journals and Volumes**

*Hornyák Andrea: Financial culture and economical studies – is it the right way?*

EDUCATIO Quarterly Review of Social Sciences Focused on Education, 22. /1., 2013, pp. 89-95., ISSN:1216-3384

*Hornyák Andrea: The segmentation of the youth on the basis of their financial attitude*

Forum Economic, RMTK, Economists' Forum, XVI., 112., 2013/3., pp. 53-71. ISSN 1582-1986, CNCSIS 755-2010

<http://www.rmkt.ro/uploads/media/EconomistsForumVOLXVINr.112.pdf>

*Hornyák Andrea: New segmentation aspects among the youth, as potencial banking clients*

The Hungarian Journal of Marketing and Management, XLVII. 2. /2013, University of Pécs pp. 14-24., ISSN 1219-03-49

*Hornyák Andrea: Money, money, money or the youth's financial culture*

Training and Practice Journal of Educational Sciences, 2013/1-4.sz. online, ISSN 2064-4027

## **Foreign Language Publications in Supervised Scientific Journals and Volumes**

*Andrea Hornyák: "Moral Organisation: Dream or Reality"*

Acta Universitatis Sapientiae, Economics and Business, Volume 1, 2013, pp.69-84, ISSN 2343-8894 (printed version), ISSN-L 2343-8894