VERIFICATION OF INCOME, AGE AND EDUCATION AS DETERMINANTS FOR ALTERNATIVE INVESTMENTS AMONG POLISH HOUSEHOLDS

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Abstract

The article concerns alternative investments implemented by households in Poland. On the basis of the study, two hypotheses concerning income and age and education as determinants influencing decision about alternative investments were verified. The following non-parametric tests were used: the Pearson chi-square test of independence, the H Kruskal-Wallis test and the Mann-Whitney U test. The hypothesis was confirmed that: "High income is a key factor in taking advantage of alternative investments." The hypothesis stating that "Age and education of the high-income decision maker influences the propensity to take risks." has not been confirmed. Directions of further research have been proposed to broaden the knowledge of households investing alternatively.

Keywords: *households, alternative investments, income, age and education, determinants, research*

1. INTRODUCTION

The household is one of the three key economic entities. Household finances play an important role in achieving the goals of households, including processes related to collecting, dividing, spending money and making financial decisions. There is an information gap in the scientific discussion regarding the analysis of households' attitudes in the alternative investment market. While the saving behaviors of Poles are the subject of numerous empirical analyzes and cyclical research panels, and the mechanisms of alternative investments functioning are well recognized - the attitudes of households towards alternative investments with the indication of specific social, demographic and financial and economic characteristics determining these behaviors - are not the subject of many studies. The aim is to verify income, age and education as determinants of alternative investment of households in Poland.

2. MATERIALS AND METHODS

2.1. Materials

Due to the research entity (households), the subject scope (investment behavior) and the nature of the problem studied (identification of features), a questionnaire survey was used. The survey consisted of five sections: A - households' attitudes towards savings, B - attitudes towards traditional investments, C - attitudes towards alternative investments, D - investment attitudes, E - identification questions. The survey questionnaire contained a total of 51 questions, of which 75% were substantive questions (38 questions) regarding households' attitudes towards savings and investments, and 25% (13 questions) concerned socio-demographic, financial and economic characteristics of the surveyed entities.

Only questions concerning the income, age and education of the respondents and selected aspects related to alternative investments were selected for this article. Traditional investments are understood as the following forms of traditional investments: a 'vista current bank account, an interest-bearing savings account, bank deposits, ordinary investment funds, shares and bonds, company shares, vouchers, pension accounts, insurance policies, currencies. The term alternative investments are understood as all investments that do not include the traditional investments indicated.

2.2. Methods

The study was conducted in the period February-April 2018 among households residing in Poland according to the purpose and quota selection (voivodship, number of people in the household, place of residence). In January 2018, a pilot study was conducted using the CATI (Computer Assisted Telephone Interview) method on a sample of N = 25 entities. As a result of the pilot study, several corrections were made (redaction and reduction of questions). A decision was made to conduct the appropriate research using the CAWI (Computer Assisted Web Interview) method, which was dictated by the sensitivity of the collected data.

The size of the research sample was determined on the basis of the number of households in Poland from the Central Statistical Office (2016) - 13,567,999. Taking into account the parameters allowing for the determination of the minimum, statistically representative research sample, i.e. confidence level: 95%, fraction size: 50%, maximum error: 5%, it was found that for the survey, empirical material should be obtained from a minimum of 380 entities. The research questionnaire was placed on the webankieta.pl platform, which enables the introduction of multidimensional filters and control of received responses. The questionnaire was displayed to 4,534 entities, of which 1,042 were qualified as meeting the target selection criterion. Then, 450 questionnaires meeting the quota selection criterion were separated.

The primary data obtained from households was analyzed with the use of the IMB SPSS Statistics 24 program, on the basis of which the research hypotheses were statistically verified. Conclusions resulting from the analysis of the primary material were presented using the descriptive, comparative and graphic analysis methods (tabular, drawing and charting techniques). A questionnaire survey is a commonly empirically proven method of social research that allows both to obtain primary quantitative and qualitative data that are not quantifiable (Krok, 2015). Surveys are also a fundamental research method for assessing the behavior of households used by both the main and regional statistical offices in the framework of such surveys as: BZGD - Household Resources Survey, BGD - Household Budget, KGD - Household Condition (Central Statistical Office, 2020), organizations researching the attitudes and opinions of households (TNS Polska, Kronenberg Foundation, Social Diagnosis), and representatives of science. Therefore, the use of the method and the research questionnaire as a research tool to analyze and evaluate the attitudes of Polish households towards investments is justified.

In order to identify the significance of the influence of socio-demographic and financial-economic characteristics of households on their investment attitudes, and to verify research hypotheses, an important role was played by the method of mathematical and statistical analysis in the form of non-parametric tests: the Pearson chi-square test, the H Kruskal-Wallis test and the Mann-Whitney U test. The legitimacy of their use results from the attributes of empirical material. Non-parametric tests do not depend on the shape of the distribution and can be used where restrictive criteria for the applicability of parametric tests are not met (the variables must be measurable and have a normal distribution) (Malska, 2017) (Trzęsiok, 2013). Moreover, the above-mentioned non-parametric methods are commonly used in the literature on the subject to study savings and investment attitudes of households.

2.2.1. General characteristics of alternative investments

The largest share in the investment portfolio is held by real estate with invested capital held by nearly six out of ten farms. Various types of emotional investments also play an important role in the portfolio of households in Poland. Every fourth households (24%) have savings in collectors' items, works of art, alcohol and luxury goods, every fifth entity invests savings in the development of its own business (19%), and every eleventh farm (9%) invests its capital in jewelery, precious ores and metals. Households in Poland invest also in raw materials (5%), hedge funds (3%) and high-risk PE/VE funds (1%), as well as in crowdfunding (1%). Among other assets classified as alternative investments, respondents indicate: cryptocurrencies, which are owned by 3% of the surveyed farms (Fig. 1.).

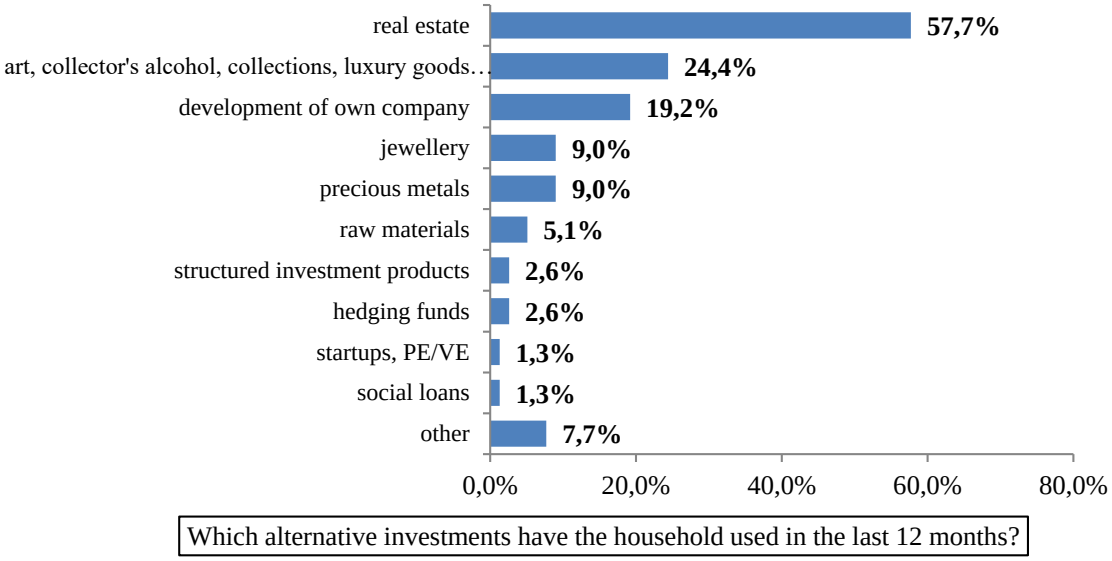

Fig. 1. Forms of alternative investments among households

Source: own study based on the results of quantitative research, N = 78.

The most important reason why hauseholds decide to choose alternative investments is the security and the possibility of protecting the capital from the investment. This motive is indicated by every third entity (Fig. 2.).

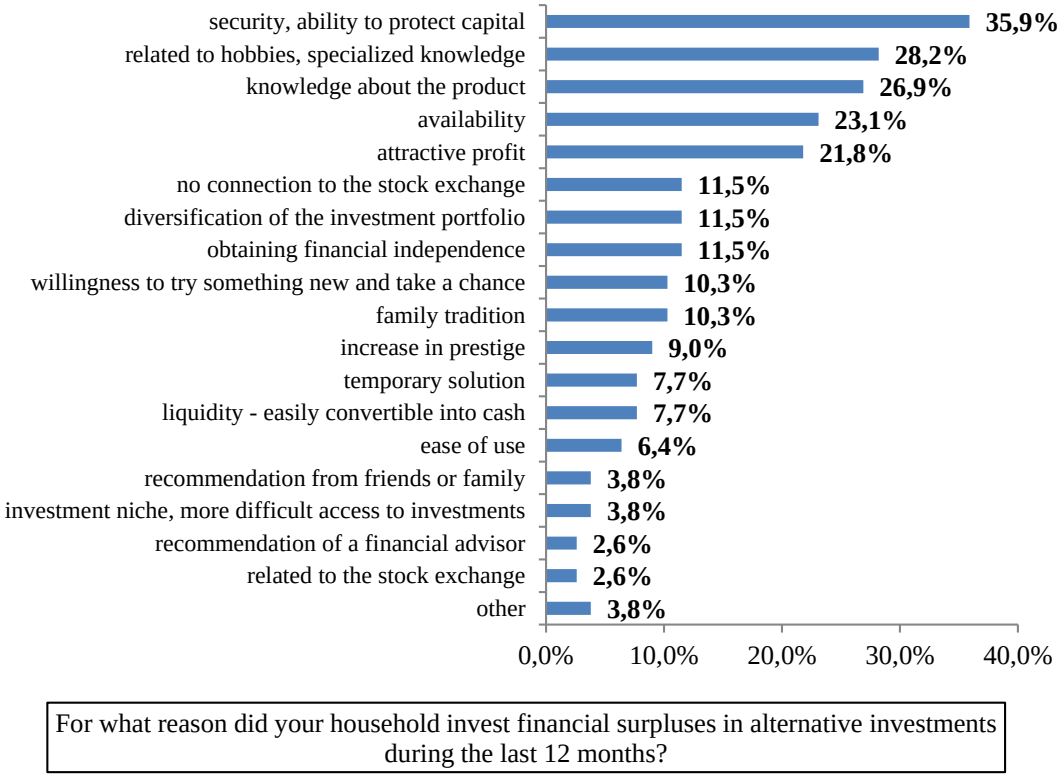

Fig. 2. Reasons for alternative household investment

Source: own study based on the results of quantitative research, N = 78.

The most important reasons for investing in alternative investment assets result from hobbies (28%), knowledge about the product (27%), availability (23%) and an attractive rate of return (22%). For every eighth household, an important reason for investing is the lack of a link between the product and the stock exchange, portfolio diversification and the fact that an instrument is part of the target investment profile, which enables financial autonomy. Every tenth entity declares a family tradition as the reason for investing funds in alternative investments and the willingness to try (risk) allocating a new product. Increasing the prestige of having an alternative investment is declared by every eleventh household, and every fourteenth indicates the liquidity and temporary nature of the investment.

Respondents were also asked about the reasons for the lack of interest (not using) in various forms of alternative investments. The answers show that the most important reason for the lack of investment in alternative assets is insufficient savings, indicated by nearly one in four households (Fig. 3.).

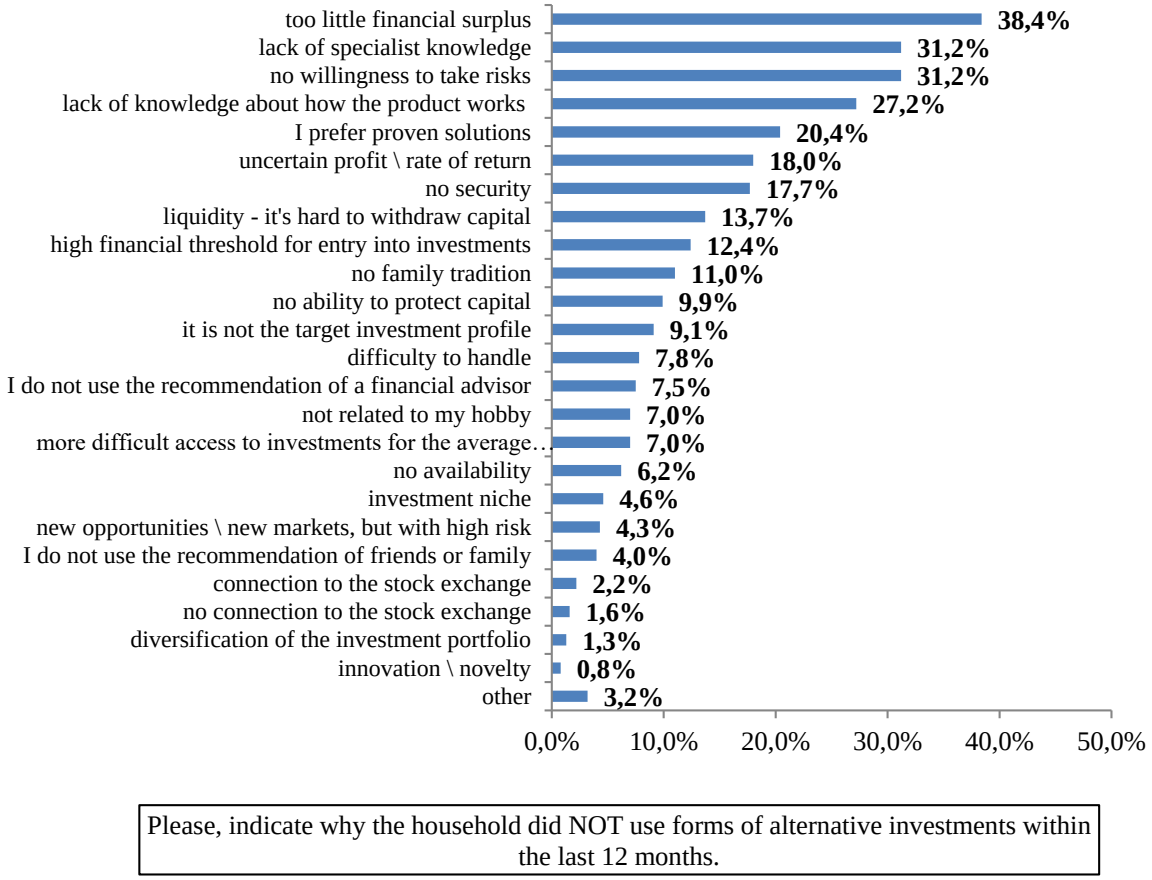

Fig. 3. Reasons for not using alternative investments by households

Source: own study based on the results of quantitative research, N = 450.

Every third household indicates risk aversion and lack of specialist knowledge, and nearly every fourth entity does not make alternative investments due to lack of knowledge at all. Every fifth farm prefers proven investment solutions, and nearly every sixth indicates a lack of security and an uncertain rate of return. Relatively low liquidity as the reason for not using alternative investments is declared by every seventh Polish household, and for every eighth such a premise is a high financial threshold for entering the market of alternative investments. Every ninth entity does not invest due to the lack of such tradition among family. From 5 to 10% of households declare: no possibility of capital protection, difficulty in handling, no connection to a hobby or investment niche. The least important

reasons for not investing are the innovativeness (novelty) of the asset, the lack of connection with the stock exchange and the dependence of the alternative investment on the stock market.

2.2.2. Income

In the study, the H1 hypothesis was formulated as follows: "High income is a key factor in taking advantage of alternative investments." For its verification, a questionnaire presenting specific forms of alternative investments was used. Figure 4 presents the cafeteria of responses of households declaring they have alternative investments versus their declared average monthly net income per one household member (in polish zloty).

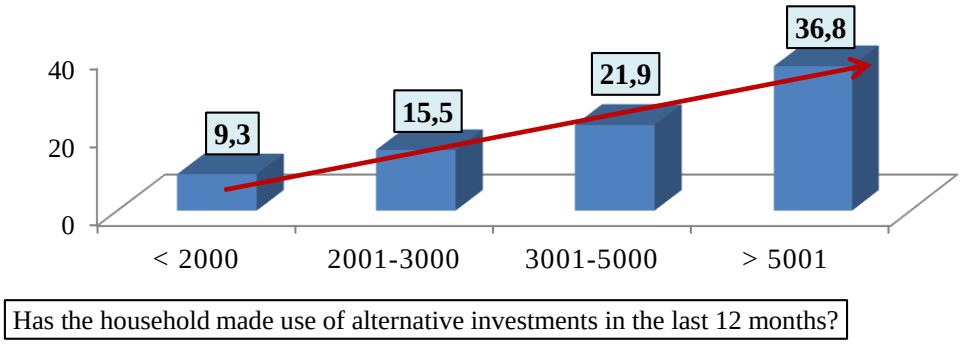

Fig. 4. Propensity of households to make alternative investments by income level * (%)

* average monthly net income per 1 household member (PLN).

Source: own study based on the results of quantitative research, N = 78.

The distribution of responses indicates a positive correlation between income and the use of alternative investments. Households with higher incomes have more alternative investments than entities with lower incomes. The data shows that the percentage of high-earned households (incomes above PLN 5001) with alternative assets was 1.7 times greater than that of households with incomes between PLN 3001-500, and 2.4 times greater than that of households with income at the level of PLN 2001-3000 and also 4 times higher than in households with income below PLN 2000. The amount of income significantly differentiates the propensity of households to use alternative assets.

Determining whether the income statistically significantly differentiates the use of alternative investments, the Pearson chi-square test of independence was performed (Table 1.)

Explanatory variables [income]*	χ^2	**Degree of freedom (df)**	$\chi^2_{df,\alpha}$**	**Significance *** (p-value)**	**Decision ********
Has the household made use of alternative investments in the last 12 months?	20,564	6	12,591	**0,002**	**Rejection of H_0**

** monthly net income per capita.

**the critical value of chi-square $\chi^2_{df,\alpha}$ was determined on the basis of the Statistica distribution table.

*** The chi-square statistic is significant at the level of α = 0,05.

**** if $p \leq \alpha \Rightarrow$ reject H_0 assuming H_1; if $p > \alpha \Rightarrow$ there are no grounds for rejecting H_0.

Table 1. Results of the chi-square independence test between income and use from alternative investments

Source: own study.

On the basis of the chi-square test, a statistically significant relationship between income and the use of various forms of alternative investments can be found ($\chi 2 = 20.564 > \chi 2df$, $\alpha = 12.591$, for df = 6 and $p \leq 0.05$). A statistically significant relationship ($p \leq 0.05$) between the monthly net income per one household member and the possession of alternative investments was also confirmed by the Kruskal-Wallis test. (Table 2.).

Grouping variable [income]*	Statistics H	Degree of freedom (df)	Significance ** (p-value)	Decision ***
Which alternative investments have the household used in the last 12 months?	31,143	3	**0,000**	**Rejection of H_0**

* monthly net income *per capita*

** Statistics are significant at the level $\alpha = 0,05$

*** if $p \leq \alpha \Rightarrow$ reject H_0 assuming H_1; if $p > \alpha \Rightarrow$ there are no grounds for rejecting H_0.

Table 2. Kruskal-Wallis test results between household income and investing financial surpluses in alternative investments

Source: own study.

After showing that income is a statistically significant influencing predictor for the use of alternative investments by households, the U Mann-Whitney test was carried out to determine in which income levels there are statistically significant differences in the ownership of alternative investment. The results of the U Mann-Whitney test in the case of allocating surpluses to specific types of alternative investments confirmed that the decisive factor in taking advantage of these forms of surplus allocation by the household is high income (Table 3.).

Income categories in polish zloty	Statistics U	Statistics Z	Significance ** (p-value)	Decision ***
Which alternative investments have the household used in the last 12 months?				
[below 2000 zł] - [2001-3000 zł]	6367,50	-1,720	0,086	Adoption of H_0
[below 2000 zł] - [3001-5000 zł]	6463,50	-2,855	**0,004**	**Rejection of H_0**
[below 2000 zł] - [above 5001 zł]	3139,00	-5,122	**0,000**	**Rejection of H_0**
[2001-3000 zł] - [3 001-5000 zł]	7720,50	-1,217	0,224	Adoption of H_0
[2001-3000 zł] - [above 5001 zł]	3781,00	-3,872	**0,000**	**Rejection of H_0**
[3001-5000 zł] - [above 5001 zł]	4349,00	-2,947	**0,003**	**Rejection of H_0**

* monthly net income *per capita*.

** Statistics are significant at the level $\alpha = 0,05$.

*** if $p \leq \alpha \Rightarrow$ reject H_0 assuming H_1; if $p > \alpha \Rightarrow$ there are no grounds for rejecting H_0

Table 3. U Mann-Whitney test results between household income and investing financial surpluses in alternative investments

Source: own study.

The U Mann-Whitney test showed that, based on the adopted existence level alpha = 0.05, high income (over PLN 5001) differentiates the investment behavior of households in the case of investing surpluses in alternative investments. The differences are that:

- households with an income above PLN 5001 indicate significantly more alternative investments than households with an income below PLN 2,000 (U = 3,139.00, for Z = -5.122 and $p \leq 0.05$),
- households with an income above PLN 5001 indicate significantly more alternative investments than households with an income of PLN 2001-3000 (U = 3,781.00, for Z = -3.872 and $p \leq 0.05$),
- households with an income above PLN 5001 indicate significantly more alternative investments than households with an income of PLN 3001-5000 (U = 4349.00, for Z = -2.947 and $p \leq 0.05$).

The test results also show that households with net income per capita of PLN 3001-5000 indicate significantly more alternative investments than households with income below PLN 2000 (U = 6463.50, for Z = -2.855 and $p \leq 0.05$) .

Summing up, the results of statistical analysis based on Pearson chi-square, Kruskal-Wallis and U Mann-Whitney tests can show that high household income turned out to be a statistically significant predictor of having alternative investments, *ergo* the H1 auxiliary hypothesis was confirmed.

2.2.3. Age and education

Hypothesis H2 was formulated as: "Age and education of the high-income decision maker influences the propensity to take risks." To verify the H2 hypothesis, a questionnaire presenting the possession of specific forms of alternative investments and a question presenting the attitude of households to risk were used. Figure 5. shows the cafeteria of household responses by age declaring they have alternative investments.

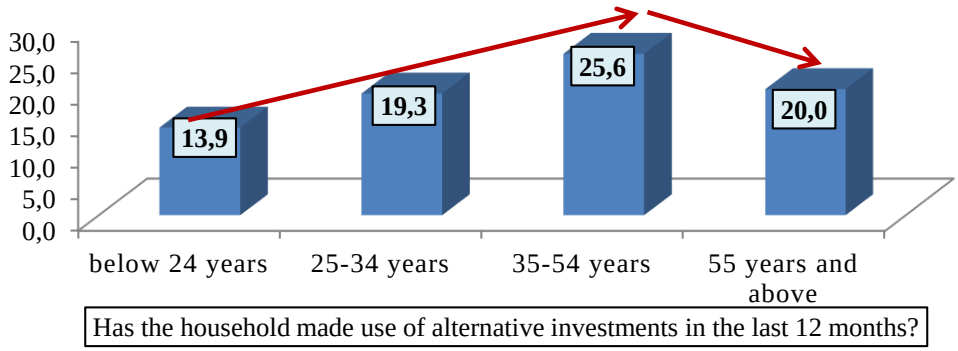

Fig. 5. Propensity of households to make alternative investments by age (%)

Source: own study based on the results of quantitative research, N = 78.

The distribution of responses indicates that age is also a variable that differentiates the propensity to allocate savings to alternative investments. Households in age groups up to 54 years, show a positive and one-way correlation between age and having alternative investments. The propensity to invest increases with age. On the other hand, in the households from the oldest age group (55+), a negative correlation was observed, i.e. the propensity to use alternative investments decreases with age (Fig. 5).

The analysis of the research questionnaire data shows that also education is an element that differentiates the investment attitudes of households. Households with higher education use alternative investments more than entities without higher education (Fig. 6.).

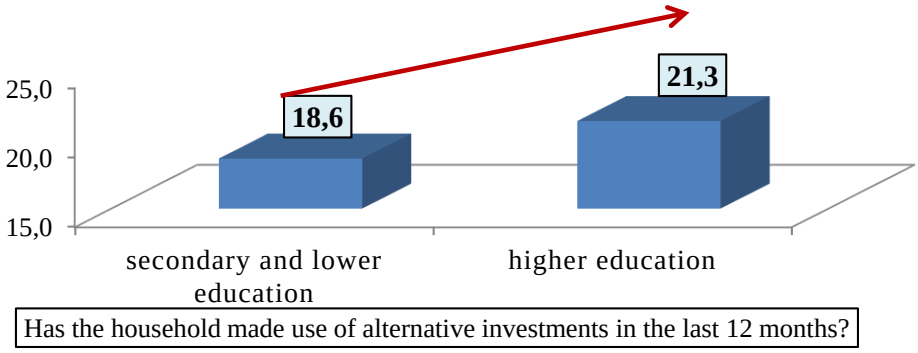

Fig. 6. Propensity of households to make alternative investments by education (%)

Source: own study based on the results of quantitative research, N = 78.

Then, the results of statistical analyzes between age and education and propensity to investment risk were presented, preceded by an analysis of the distribution of survey responses. Fig. 7. shows the distribution of responses regarding households' attitudes towards investment risk, broken down by age ranges.

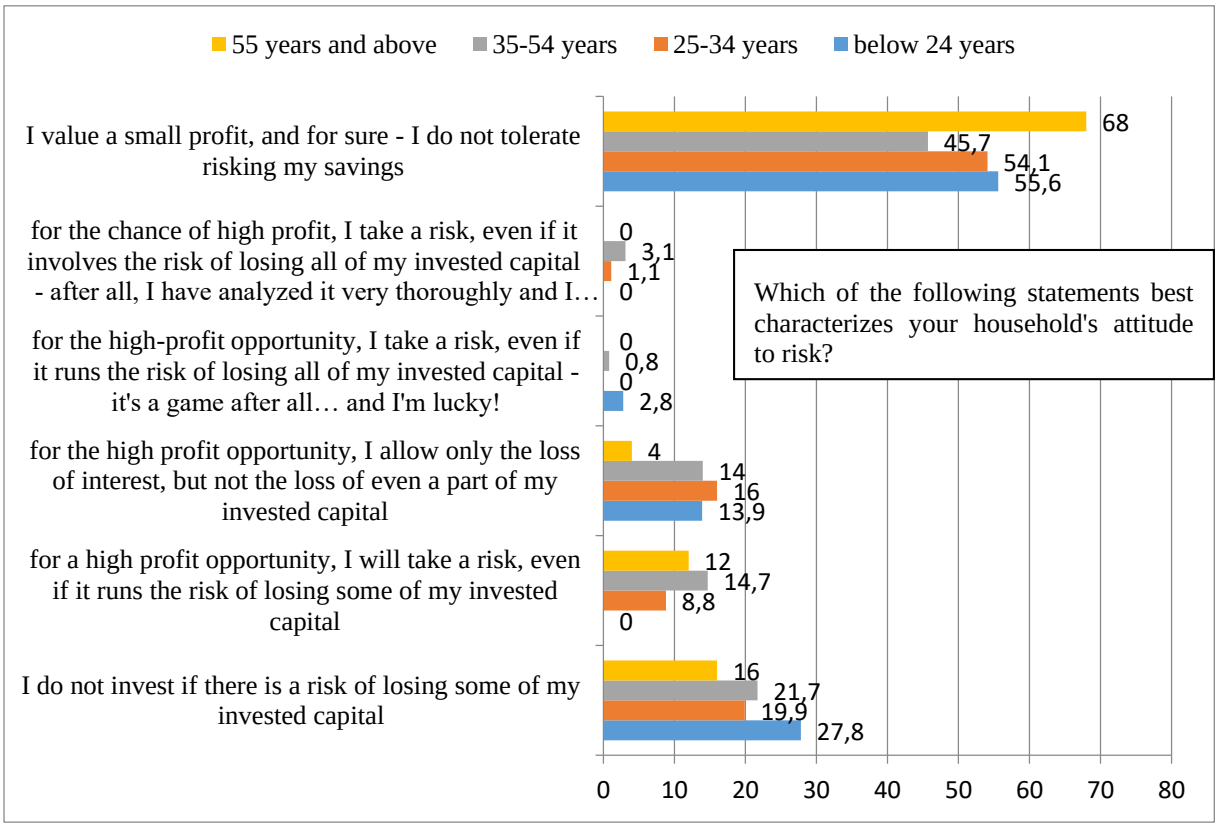

Fig. 7. Households' attitudes towards risk by age (in %)

Source: own study based on the results of quantitative research, N = 371.

The distribution of responses regarding attitudes towards risk by age indicates that the younger (under 34) and the oldest (55+) people are characterized by investment conservatism consisting in safe investment of their savings and aversion to risky behaviors. The highest propensity to investment risk

was observed in the age group of 35-54, in which, in order to obtain a high profit, it is allowed to lose some or even all of the capital.

In the case of education, the distribution of responses indicates that education differentiates investment attitudes of households (Fig. 8.).

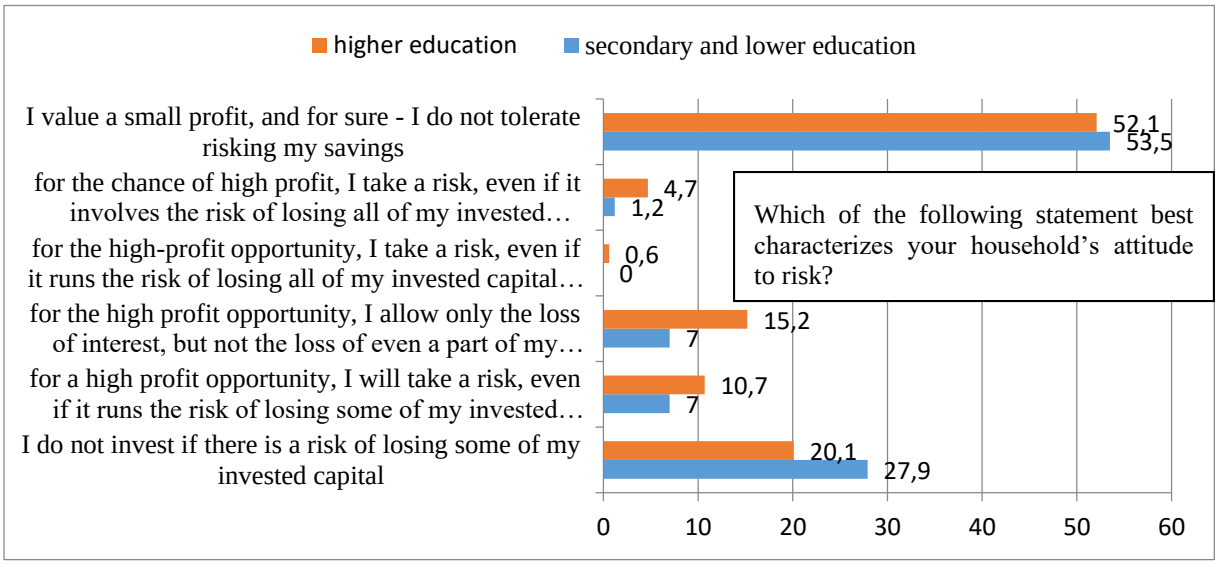

Fig. 8. Households' attitudes towards risk by education (in %)

Source: own study based on the results of quantitative research, N = 371.

The presented data show that the higher education of the decision maker corresponds to a higher propensity to take investment risk than it is in the case of households with secondary and lower education. Entities run by people without higher education are more conservative and are not prone to risk losing their invested savings. Based on the above distributions of responses, the Pearson chi-square test of independence was carried out, in which age and education were the explanatory variables, and the dependent variable was the propensity to invest risk. The results of the independence test show no statistically significant relationship between the propensity to risk and age (χ^2 = 20,171 < $\chi^2_{df,\alpha}$ = 24,995, for df = 15 and p > 0,05) and education (χ^2 = 6,465 < $\chi^2_{df,\alpha}$ = 11,070, for df = 5 and p > 0,05) (Table 4.).

Variables explanatory	χ^2	Degree of freedom (df)	$\chi^2_{df,\alpha}$*	Significance ** (p-value)	Decision***
Which of the sentences best characterizes the attitude to risk in your household over the last 12 months?					
age	20,171	15	24,995	0,165	Adoption of H_0
education	6,465	5	11,070	0,264	Adoption of H_0

* chi-squared critical value $\chi^2_{df,\alpha}$ based on the Statistica distribution table.

** The chi-square statistic is significant on the level α = 0,05.

*** if p ≤ α ⇒ reject H0 assuming H1; if p > α ⇒ there are no grounds for rejecting H0.

Table 4. Chi-square test of independence between age and education and attitude to risk

Source: own study.

In conclusion, the results of the statistical analysis performed showed that age and education - although they differentiate the possession of alternative assets and attitudes towards risk - are not statistically significant variables neither the possession of alternative assets nor the propensity to take investment risk. Therefore, the hypothesis H2 was not confirmed.

3. DISCUSSION

The scientific contribution consists in verifying income, age and education as determinants influencing the undertaking of alternative investments. The additional value is obtaining, through research, detailed data allowing to determine the impact of such socio-economic characteristics as income, age and education on households' decisions regarding alternative investments. Further research should focus on verifying subsequent determinants in order to create a catalog of features influencing household decisions regarding alternative investments. It is also worth repeating the research in order to monitor changes taking place in the process of making investment decisions by households.

4. CONCLUSIONS

The adopted research methodology aims to satisfy the needs of the statistical representativeness of the sample with the assumed parameters. Commonly used non-parametric tests allowed to verify the hypotheses. The results of statistical analysis based on Pearson, Kruskal-Wallis and U Mann-Whitney chi-square tests can show that high household income turned out to be a statistically significant predictor of having alternative investments. On the other hand, age and education - although they differentiate the possession of alternative assets and attitudes towards risk - are not statistically significant variables neither the possession of alternative assets nor the propensity to take investment risk. Subsequent research may be aimed at verifying the impact of, for example: investment experiences, attitude to risk, socio-professional status or other socio-economic and financial characteristics on decisions regarding alternative investments. This will create a more complete picture of the characteristics of households investing in alternatives.

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APPENDIX

Research questionnaire (only selected items related to the article)

"Household Savings in Poland"

Ladies and gentlemen,

My name is Ewelina Idziak. I am currently conducting a research on the issue of savings and investment of households in Poland. The answers provided will help me to determine the current state, dependencies and trends regarding this issue, and will contribute to the development of science in this area. It is a poorly diagnosed area so far. Information provided by you will allow for a significant deepening of knowledge. The survey is anonymous and covers the period of the last 12 months. I kindly ask you to diligently fill in the following questionnaire to the best of your knowledge and beliefs. The survey is for research purposes only.

Thank you very much.

Section A. Household savings

1. Do you run a household or are you a person creating a household *? (1 reply)

☐ Yes, I run a one-person household

☐ Yes, I am part of a household of 2 or more people

☐ No.

* A household is understood as "a group of related or unrelated people who live together and support themselves together (multi-person household) or a person who supports themselves, regardless of whether they live alone or with other people (single-person household) .

2. Has your household had any savings in the last 12 months?

☐Yes

☐ No.

…

4. What has the household invested its financial surplus in during the last 12 months?

☐ current bank account of a'vista

☐ interest-bearing savings account, deposits

☐ investment funds

☐ actions

☐ shares

☐ bonds

☐ vouchers

☐ retirement accounts

☐ life policies / insurance policies

☐ currency

☐ hedge funds

☐ social loans

 real estate (land, flats, buildings, etc.)

 investment ores (gold, silver, precious stones - NOT in the form of jewelry)

 emotional investments (e.g. antiques, works of art, investment alcohol, stamps, pens, toys, CDs, autographs, mementos of famous people, photographs, postcards, old books, comics, posters, clocks and watches, porcelain, musical instruments, truffles , cigars, horses etc.)

 jewelry

 into our own company

 start'ups, Private Equity / Venture Capital

 raw materials

 structured investment products

 derivatives / derivatives - transactions of a speculative nature

 in the proverbial "sock" / at home

 other (what?) …… ..

 not applicable

5. For what reason did your household invest financial surpluses during the last 12 months?

 willingness to have free funds in the form of cash

 protection against unforeseen expenses (for safety)

 future purchases of specific goods and services

 receiving return on investment, for future income, for passive income

 protection for old age

 the need for financial independence

 improving the current status

 ensuring the future for children, family and loved ones

 other (what?): ……

 not applicable

…

7. Which of the following statements best characterizes the attitude to risk in your household over the last 12 months?

 I do not invest if there is a risk of losing some of my invested capital

 for a high profit opportunity, I take a risk, even if I risk losing some of my invested capital

 for the chance of high profit, I only allow the loss of interest, but I do not allow the loss of even a part of my invested capital

 for a high-profit opportunity, I take a risk, even if I risk losing all of my invested capital - after all, it's a game ... and I'm lucky!

 for the chance of a high profit, I take a risk, even if it involves the risk of losing all of my invested capital - after all, I have analyzed it very thoroughly and I am convinced that I am right ...

 I appreciate a small profit, and confident - I do not tolerate risking my savings…

Section B. Traditional investments

…

Section C. Alternative Investments

18. Has your household used the following alternative investments in the last 12 months?:

□ hedge funds - □ yes, □ no

□ social loans - □ yes, □ no

□ real estate (land, flats, buildings, etc.) - □ yes, □ no

□ investment ores (e.g. gold, silver, precious stones - NOT in the form of jewelry) - □ yes, □ no

□ emotional investments (e.g. antiques, works of art, investment alcohol, stamps, pens, toys, CDs, autographs, mementos of famous people, photographs, postcards, old books, comics, posters, clocks and watches, porcelain, musical instruments, truffles , cigars, horses etc.) - □ yes, □ no

□ jewelry - □ yes, □ no

□ own business - □ yes, □ no

□ startups, Private Equity / Venture Capital - □ yes, □ no

□ raw materials - □ yes, □ no

□ structured investment products - □ yes, □ no

□ derivatives / derivatives - transactions of a speculative nature

□ other: (what?) …… .. - □ yes, □ no

□ not applicable

19. If your household has used the above-mentioned forms of alternative investments in the last 12 months, please indicate the reasons for such a choice of investment:

□ security, ability to protect capital

□ availability

□ attractive profit / rate of return

□ liquidity - easily convertible into cash

□ investment niche, more difficult access to investments for the average investor

□ ease of use

□ knowing how this financial product or type of investment works

□ temporary solution, before other management of the financial surplus in the future

□ target investment profile to achieve financial independence

□ tradition - we have always used these forms of investing in my household

□ innovation / novelty, new opportunities / new markets, willingness to try something new, curiosity, willingness to take a risk

□ diversification of the investment portfolio

□ no connection to the stock exchange

□ connection with the stock exchange

□ increase in prestige

□ recommendation of a financial advisor

☐ recommendation from friends or family

☐ because it is related to my hobby / I have specialist knowledge about it

☐ other (what?) ……

☐ not applicable

20. If your household has NOT used the above-mentioned forms of alternative investments in the last 12 months, please indicate for what reasons:

☐ no security

☐ not available

☐ uncertain profit / uncertain rate of return

☐ liquidity - it is difficult to withdraw capital

☐ investment niche

☐ high financial threshold (amount) for entering the investment

☐ I have too little financial surplus to invest

☐ more difficult access to investments for the average investor

☐ difficulty to handle

☐ not knowing how this financial product works

☐ because it is not my target investment profile

☐ no tradition - we have never used these forms of investing in my household

☐ innovation / novelty

☐ new opportunities / new markets, but associated with high uncertainty and risk

☐ diversification of the investment portfolio other than alternative investments

☐ no connection to the stock exchange

☐ connection with the stock exchange

☐ I prefer proven solutions

☐ no capital protection possible

☐ I don't want to risk it

☐ I do not use the recommendation of a financial advisor

☐ I do not use the recommendation of friends or family

☐ because it is not related to my hobby

☐ because I have no specialist knowledge on this subject

☐ other (what?) ……

…

25. Which of the indicated alternative investments were chosen by your household most often in the last 12 months?

☐ hedge funds

☐ social loans

☐ real estate (land, flats, buildings, etc.)

□ investment ores (e.g. gold, silver, precious stones - NOT in the form of jewelry)

□ emotional investments (e.g. antiques, works of art, investment alcohol, stamps, pens, toys, CDs, autographs, mementos of famous people, photographs, postcards, old books, comics, posters, clocks and watches, porcelain, musical instruments, truffles , cigars, horses etc.)

□ jewelry

□ into our own company

□ start'ups, Private Equity / Venture Capital

□ raw materials

□ structured investment products

□ derivatives / derivatives - transactions of a speculative nature

□ other: (what?) …… ..

□ not applicable

…

30. What level of profitability (estimated) did your household assume from making alternative investments in the last 12 months?

□ 0-5% □ 6-10%

□ 11-20% □ 21-40%

□ 41-60% □ 61-80%

□ 81-100% □ over 100% of the capital employed

□ not applicable

…

33. In what forms of alternative investments is your household planning to invest in the future?

□ hedge funds - □ yes, □ no

□ social loans - □ yes, □ no

□ real estate (land, flats, buildings, etc.) - □ yes, □ no

□ ores (gold, silver, precious stones - NOT in the form of jewelry) - □ yes, □ no

□ emotional investments (antiques, works of art, investment alcohol, stamps, pens, toys, CDs, autographs, souvenirs of famous people, photos, postcards, old books, comics, posters, clocks and watches, porcelain, musical instruments, truffles, cigars , horses etc.) - □ yes, □ no

□ jewelry - □ yes, □ no

□ own company - □ yes, □ no

□ start-ups, Private Equity / Venture Capital - □ yes, □ no

□ raw materials - □ yes, □ no

□ structured investment products - □ yes, □ no

□ derivatives / derivatives - transactions of a speculative nature

□ other: (what?) …… .. - □ yes, □ no

□ none

…

Section D. Additional information about investments

…

Section E. Personal details

39. Your gender:

☐ woman ☐ man

40. Your age:

☐ 15-19 years ☐ 20-24 years

☐ 25-34 years old ☐ 35-54 years old

☐ 55-64 years old. ☐ 65 and more years old

41. Your education:

☐ basic ☐ vocational

☐ medium ☐ higher

42. Your place of residence:

☐ city ☐ village

43. Average monthly net income ("on hand") per 1 member of your household (estimated):

(calculated as the sum of all net income of all household members divided by the number of household members)

☐ PLN 0-1,000 ☐ PLN 1,000-2,000

☐ PLN 2,001-3,000 ☐ PLN 3,001-4,000

☐ PLN 4,001-5,000 ☐ PLN 5,001-6,000

☐ 6,001-7,000 PLN ☐ 7,001-8,000 PLN

☐ 8,001-9,000 PLN ☐ 9,001-10,000 PLN

☐ over PLN 10,000

44. Does your household obtain additional income from sources other than work, e.g. apartment rental, copyrights, licenses, copyrights etc .:

☐ yes (for what title?)… ☐ no

45. Your socio-economic group:

☐ worker ☐ farmer

☐ self-employed / self-employed

☐ pensioner ☐ student / student

46. Your household type:

☐ single ☐ double ☐ multiplayer

47. Do you have children in your household?

☐ yes ☐ no (go to question 49)

48. Number of children in your household:

☐ 1 ☐ 2

☐ 3 ☐ 4

☐ 5+

49. Number of people in your household:

☐ 1 ☐ 2

☐ 3 ☐ 4

☐ 5+

50. Your Occupation (please enter):

☐ ……

51. Voivodeship in which your household is located:

☐ Dolnośląskie ☐ Kujawsko - Pomorskie

☐ Lubelskie ☐ Lubuskie

☐ Łódzkie ☐ Małopolskie

☐ Mazowieckie ☐ Opolskie

☐ Podkarpackie ☐ Podlaskie

☐ Pomorskie ☐ Śląskie

☐ Świętokrzyskie ☐ Warmińsko-Mazurskie

☐ Greater Poland